What is an Oil and Gas Appraisal?
And, Do I Need One?

Simply stated, an Appraisal is an Estimate of the Value of a Specific Property as of a Certain Date for a Particular Purpose, conducted by a Person or Persons Qualified to do so.

Estimate - Any appraised value can only be an estimate of value; actual value is established by transaction.

Value - Except in very rare circumstances, Value refers to "Fair Market Value", a legal concept that has been defined and redefined by courts, government agencies, and textbooks for centuries. A common definition is as follows: "*...the highest price estimated in terms of money which the land would bring if exposed for sale in the open market, with reasonable time allowed in which to find a purchaser, buying with knowledge of all of the uses and purposes to which it was adapted and for which it was capable of being used...the highest sum which the property is worth to persons generally...*" [Sacramento Southern R.R. Co. v. Heilbron 156 Cal. 408, 104 p. 979 (1909)]

or, another version

In City of Austin vs. Cannizzo, a Texas court defined market value as A*...the price which the property would bring when it is offered for sale by one who desires, but is not obliged to sell, and is bought by one who is under no necessity of buying it, taking into consideration all of the uses to which it is reasonably adaptable and for which it either is or in all reasonable probability will become available within the reasonable future.*@ [153 Tex 324, 267 S.W. 2d 808 (1954)]

Virtually all definitions are comprised of the same elements. The only real difference is that some definitions refer to the "highest price" whereas other definitions refer to the likely price. The definition that should be used is the one applicable to the purpose of the appraisal and the jurisdiction in which it is applied.

Specific Property - An appraisal is an estimate of value for a specific property. In our case, the property is the royalty interest (i. e. 12.5%) owned by Mr. Jones in the oil and gas rights underlying a certain number of acres of surface land described by meets and bounds, property tax parcel ID number, or other method. The property description is included in the appraisal report.

Certain or As Of or Effective Date - The Effective Date of the appraisal may be determined by an event (date of death for estate tax) or by agreement. If there is no specific reason for a particular date the first of the month usually works. The Effective Date is important because it often influences the data available for the appraisal.

Particular Purpose - The form and content of the appraisal may vary depending on the purpose of the appraisal. While all appraisals of oil and gas royalty interests should contain the same basic elements, an appraisal done for estate or gift tax in Pennsylvania might differ from an appraisal done for eminent domain in Los Angeles County or for property tax assessment in Tarrant County, Texas. The differences would exist because of local rules that dictate the form and content of the appraisal or require that the value be estimated using certain criteria. (Note: these local differences do cause variation of the value from fair market value.)

Qualified Person - Not all evaluations of oil and gas rights are appraisals and not all evaluators are qualified appraisers. The person or persons conducting the appraisal should have demonstrated expertise in the appraisal of oil and gas properties. He or she should have extensive experience in the physical and economic aspects of oil and gas property appraisal; have identifiable training and education in the field; and be certified to appraise oil and gas properties by a recognized authority. In 2013 only one organization certifies appraisers of oil and gas properties.

The American Society of Appraisers (ASA) qualifies oil and gas appraisers and grants a certificate of *Accredited Senior Appraiser* in Oil and Gas. Qualification requires a review of training and experience along with demonstration of appraisal ability; the qualification must be renewed every five years. Not all ASA designations are the same. It is important to note that ASA grants certification in a number of specific fields such as Business Valuation, Fine Arts, and Mines and Quarries. These certifications apply only to those fields. An ASA in Fine Arts is not considered qualified to appraise oil and gas properties. Thoroughly investigate the qualifications of anyone offering to appraise your property.

How is an Oil and Gas Property Appraisal Done?

Oil and gas properties are real estate and the appraisal rules and conventions follow the general rules of real estate appraisal; with differences.

There are three recognized methods of real estate appraisal. These are the Cost Approach, the Comparable (or Comparative) Sales Approach, and the Income Approach. Of these, the Income Approach is used almost exclusively for oil and gas properties.

The **Cost Approach** assumes that the value of a property can be estimated by estimating the cost to replace or replicate the property. Oil and gas properties are each unique and cannot readily be replicated.

The **Comparable Sales Approach** is very rarely used for oil and gas properties for two reasons. First, there is no reliable data base of property transactions from which to draw comparables. Second, there is not sufficient data about either the properties or the transactions to allow adjustments to be made between the comparable property and the subject property.

The **Income Approach** relies on the projection of future production, sales, and income from the property to estimate value. The value is usually estimated using a discounted cash flow calculation which reduces the anticipated future income stream to a present value as of the effective date of the appraisal. This method is driven by and is dependent on the information available at the time of the appraisal.

Royalty statements provide a substantial amount of data for properties that are in production including sales volumes, prices, and any deductions from revenue for treating, etc. This data can be used to estimate future production and income. The accuracy of the estimate improves as more data is accumulated. Data obtained from Marcellus production can be compared to data from other, older shale gas areas (such as the Barnett Shale) to aid in making projections. Data reporting in Pennsylvania is improving and many wells now have 2-3 years of production so that the development of local "type-production" is possible. The completion of the infrastructure build-out and stabilization of natural gas prices will speed that process.

Modifications to the Income Approach are often necessary when the property has not been developed and there is no production. When an appraisal is needed for a property that is leased but there has been no production the terms of the lease can be used to estimate a value. This approach uses the amount of the bonus payment and/or the present value of the delay rental payments to estimate value.

What Should I Look for in an Oil and Gas Appraisal?

The Appraiser Should be Qualified to do the Appraisal - See above.

Suitable for Intended Purpose - The appraisal report should clearly state the purpose of the appraisal and how the appraisal was conducted to accomplish that purpose. This should include a discussion of any applicable rules or conventions that influence the appraisal, a definition of any unique or specifically applicable terms or condition, and an explanation of any deviations from established or standard methods.

USPAP - The appraisal should, and in most jurisdictions must, conform to the prevailing version of the Uniform Standards of Professional Appraisal Practice. Conformance to USPAP is required by IRS and most taxing authorities. The appraisal report should clearly state that the appraised value was derived in conformance to USPAP and the appraisal report itself must meet USPAP requirements.

Speculation - Speculation is a fancy word for "guess" and has no place in an appraisal. Speculation occurs when a prediction is made without the necessary information to support the prediction. When allowed to creep into an appraisal speculation can lead to estimates of "value" that have no foundation or basis in reality. As an example, if someone tells you that your 200 acre farm, which, while leased, has not been unitized or drilled, will or could be developed by so many wells per acre; and that development will occur over a certain time period; and that gas production will be so many MCF per month; and that the gas sales price over the life of production will be X $ per MCF; and therefor the value of your oil and gas rights is $$$, that is speculation. It is not an appraisal. USPAP does not condone speculation in appraisal work.

Known or Knowable - A condition to keep in mind when reviewing an appraisal is; What was "known or knowable" on or about the effective date? The appraiser should use all the information that was known about the property or which could be learned about the property in making an estimate of value, AND no more. See Speculation above. The appraiser might **know** that the property has had gas production for six months and might determine that the neighboring property or one down the road has been producing for two years. **If** he can obtain the production data from the other property and determines that the wells on the two properties are similar, he could use the production data from the two-year well or property to aid in making a prediction for the subject property. The word "if" is highlighted because in Pennsylvania obtaining off-set property data is difficult and often relies on the kindness of neighbors.

Do I Need an Appraisal?

Your need for an appraisal depends on the circumstances of your property and the advice you receive. We have often found that appraisals for estate tax are requested but may not be necessary because the property is a small part of the estate. In many cases in Pennsylvania and elsewhere the income from the property does not justify the cost of an appraisal. For small royalty interests with minimal income, the IRS will accept a value based on a multiple (usually 3 to 5 times) of prior annual income.