AMERICAN INSTITUTE OF MINERALS APPRAISERS

N E W S L E T T E R

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THE TIME HAS COME

John B. Gustavson, President

After six years in office it is time for me to yield the leadership of the AIMA to other qualified members. On the subsequent pages of our *Newsletter* you will find the Nominating Committee's proposals for the officers of the AIMA for the near future. I, myself, have agreed to continue as Secretary for continuity.

Our Institute was chartered in 1991 as a Colorado non-profit corporation. One of the primary purposes back then was to stem the encroachment into the oil and minerals appraisal profession by government-driven real estate appraisers. We were suffering under the backlash from the savings and loan scandals of the late 80s and our legislators and regulators in Washington tightened the grip and increased the standards of the real estate appraisal profession.

While that undoubtedly was a much needed improvement albeit in form of closing the barn doors too late, that move nevertheless went to far and even decreed that oil and minerals appraisals had to be signed off by registered real estate appraisers! Clearly, real estate appraisers have a totally different educational and experience basis for appraisal from that required for example for undeveloped, depletable mineral resources.

Yet, we must be thankful to the real estate profession for its thousands of years of appraisal approaches as compared to the only hundreds of years in the mineral industry and more or less a century in the oil and gas area. Thus, when founding the AIMA in 1991, we paid great attention to the need for the use of terminology and concepts, which had already been immured in

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RELATIONSHIP FOR AIMA WITH ASFMRA

Trevor R. Ellis, CPG, CMA

I advised our board in January that I would try to follow up on our initiative of January a year ago, to form a synergistic relationship with the American Society of Farm Managers and Rural Appraisers. I met at their Denver office on February 10th with Gary Enright, Executive Vice President, and Nancy Hardiman, Education Director. John Ross who was their Executive VP when we attended last year's meeting, has now taken the equivalent position with The Appraisal Institute.

I explained to Mr. Enright and Ms. Hardiman, that due to the tiny membership of our institute (now down to about 20 members), we have difficulty operating in a viable manner. Because of its small size, we cannot offer much in the way of services or benefits to our members. Even with intensive marketing to potential members, I told them that I thought we could only hope for 60 to 100 members, because there are only a small number of appraisers working in appraisal of natural resources.

I suggested that we affiliate our Institute with their society in either of two possible ways. One is to form an affiliation, with their providing some of their membership services to us at a fee. The second, which I recommended as my preferred approach, is to have our Institute become a part of the ASFMRA, with our members having full ASFMRA privileges, while retaining our Institute's unique membership and operating identity. Mr. Enright and Ms. Hardiman told me that both approaches seem quite possible on first blush to them. Mr. Enright is keen for us to keep pursuing these concepts.

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The Time Has Come (cont'd from p. 1)

the courts and in our society. Definitions of *Fair Market Value* application of *Highest and Best Use* and *Reconciliation* concepts slowly gained in-roads also in our oil and mineral appraisals.

The AIMA was successful in the 90s in getting our certification recognized both in the courtroom as well as among federal and state agencies. For example, when the US National Park Service solicited appraisal assistance the minimal requirements included certification by an appraisal society. I do not know if the AIMA was rated higher or lower than for example, the *American Society of Appraisers* or *The Appraisal Institute*; however, for mineral appraisals the AIMA certification was an acceptable prerequisite for providing consultation and expert testimony to the federal government.

Thus, the AIMA has served its purpose in at least two areas namely representation and certification. We have also valiantly tried to provide assistance to our members in form of referrals when our Institute on occasional basis would receive inquiries about members specializing in various commodities or with certain geographical or market background and experience.

On the educational front, our *Newsletter,* while published infrequently, has served to present the sometimes divergent opinions of our members. There are many gray areas which beset a profession involved in predictions of future prices, operating costs, quantities, capital investments and discount rates. That, of course only applies to *producing* properties and those that are reasonably near in time and space to production. When *prospects* are to be appraised we have the age-old controversies about comparable sales versus discounted cash flow approaches to the appraisal. We have several times aired these opinions in our *Newsletter.*

I was fortunate in the late 80s to meet Paul Fly, our Founding Secretary, now also departing after six years of faithful service. Paul has both a petroleum engineering and a legal background. He worked at that time as the Review Appraiser for the US Bureau of Reclamation in Texas, while my firm worked for the Bureau on a number of mineral appraisals in takings cases. Paul and I became concerned both about the over regulation from Washington as well as the frequent lack of true appraisal expertise when in engineers and geologists testified as "experts".

While many had excellent technical and scientific backgrounds, there was very little understanding of the drastic discounting which the market applied to speculative income in the far future. Also, the advent of geo-statistics, risk analysis and other numerical methods had received extraordinary attention due to the computer crunching which could be applied, sometimes with impressive albeit not necessarily correct answers. The market seemed to have been forgotten.

Paul and I got together with Don Warnken, then Appraiser for the US Army Corps of Engineers, another contact from many years of appraisal work involving land acquisitions by the federal government. The rest is history because in 1991 we chartered the AIMA with the support of many of our present members and our Institute has made its mark as mentioned above.

What is the present status and where do we go from here? The S&L scandals are long behind us, the oil and gas drilling funds from the 80s have been in and out of court and the oil and mineral industries have drastically changed from mostly domestic to global ventures.

Undoubtedly, the global orientation of the oil and mineral business will continue. It is therefore of interest to our members that several of your officers over the last couple of years have gathered information and developed a network with appraisal societies or governing bodies in other countries. AIMA member L. T. Gregg in Georgia asks "Why don't we have any Canadian members? Or is there a comparable organization in Canada?" An organization is in formation and your Treasurer (newly nominated Vice President) Trevor Ellis has been in contact and will report in the next issue.

This work will continue and alliances will be forged wherever possible. It is clear that development of reciprocity and comity will be important so that we may practice across international boundaries. Hopefully, our Institute may also assist us in brokering market data so that we may pursue comparable sales and learn how these may be adjusted across country borders.

In the meantime, the need for Certified Minerals Appraisers is as great as ever in the domestic arena. The US Government is still withdrawing lands for purposes of wilderness and national monuments. Appraisals of the underlying minerals are a necessity for both sides of these sometimes adversary proceedings. Likewise, urban development encroaches on the sites and resources of many of our industrial minerals with valuations becoming necessary.

Also, many of our members will continue to work for the IRS or against the taxman as long as there is profit to make in the oil and minerals business. I therefore foresee a long future for the AIMA even though one of our original purposes, *peer review* versus *government regulation* has moved to the background, at least for awhile. Let us help each other in our Institute keeping it that way.

Thanks for letting me be of service to our profession. *JBG*

Critique of Three Case Histories of Mineral Valuation

Trevor R. Ellis, CPG, CMA

I want to complement Mr. Gregg for his courage and effort in providing us with the three case histories in the last two Newsletter's to chew on. Hopefully these cases have caused all of our members to think through the details of the methodology with which they would have approached these appraisals. I found them educational and challenging. Maybe some other members will be game enough to submit more case histories for discussion.

In Mr. Gregg's Case History #1, a non-mining firm held mineral rights to "sizable reserves" of an industrial mineral in the middle of a "belt" of mines producing the mineral. The lease to a very experienced mining company had been terminated after extensive drilling. Mr. Gregg indicates that the mineral rights holder could not reasonably mine the minerals itself, nor sell the minerals in the ground for a one-time up front cash payment. The remaining viable alternative was to lease the mineral rights to a mining company for an annual production royalty. Mr. Gregg's valuation was based on determination of the present value of the resultant, hypothetical, production royalty stream. My impression is that Mr. Gregg's methodology will have substantially overstated the value of the mineral rights.

In valuing undeveloped resources and reserves, all minerals appraisers are skating on thin ice. My opinion is that valuing an operating mine is an easier and safer task, since it generates a proven cash flow stream to discount to a present value. For undeveloped mineral deposits, it is often the case that we should be grateful if we can at best place the value within the correct order of magnitude. The essential problems with using the NPV method for valuing undeveloped mineral deposits not attached to an existing mine, can be stated as:

1. What is the probability that the deposit will ever be mined? – generally low.
2. If it may be mined, how far in the future is that likely to occur? – probably at least a decade or two, and maybe much more.
3. What will be the scale of cash flow streams if the deposit is mined?

With these great uncertainties, the vast majority of undeveloped mineral deposits have values an order of magnitude or more lower than the mineral rights holders think they should have. If the property is not already in production, one must first ask why it is not.

Although not precisely stated by Mr. Gregg, my impression from the description of his methodology is that he has assumed that the reserve will be immediately leased to one of the companies mining the mineral in the mineral belt, followed immediately by pre-production permitting and development, with production beginning four years later. For that schedule to happen, there would have to be a severe shortage of production of that mineral commodity, and the mineral deposit would have to be an exceptionally good deposit in both location and geology. The unusual gold market of the past 15 or 20 years distorted some of our perceptions of reality in this regard for the mining industry.

A very important question is, why was the lease terminated with the "very experienced mining company which drilled several hundred holes?" Did it drop the lease, or did the mineral rights owner force termination? This would immediately throw some light on whether the geology is really so good, and the market for the mineral so good, that a company should immediately begin development of a mine. If the property is highly desirable, why is that mining company not fighting to retain the lease, either by legal means or by cash offers?

I gained the impression that other mining companies aren't beating down the doors to obtain this property. Mr. Gregg says that it would not be possible to receive a one-time up front cash payment of the mineral rights. This suggests that any company leasing the mineral rights would be considering mining the property later rather than sooner. If one of the companies that is already mining on that mineral belt were to lease the deposit, it would likely take this reserve onto the end of its existing, long range mining plan, unless the deposit is truly exceptional. To get a better feel for when this reserve might be mined, one needs to compare this reserve to competing reserves, with a somewhat skeptical eye.

Therefore, in using the NPV valuation method, I suggest that Mr. Gregg should have considered delaying his cash flow stream until such time that competing reserves of similar or better quality owned or readily accessible to the neighboring mining companies would be nearing depletion. He should then have multiplied the NPV by a fair estimate of the probability that the reserve will ever be mined. This may have resulted in an order of magnitude lower value for the deposit than what he estimated.

It would be desirable to have some even poorly comparable sales of other deposits to use in developing a floor and a cap to the value of this deposit. However, we all know that even poorly comparable sales are scarce, and generally expensive and time-consuming to obtain. In this case, Mr. Gregg has put some effort into obtaining comparables, but without much success. Possibly one of the poorly comparable sales could have formed a basis from which to estimate a cap on the value of this deposit. Some guidelines or "Rules of Thumb" derived from surveying those responsible for reserve acquisition within that minerals industry sector could be used to develop a box around the value. I would like to hear how other AIMA members obtain comparables in similar situations, particularly when the research budget available is very modest, as is typical for appraisals of undeveloped deposits.

In Mr. Gregg's Case History #2, an industrial mineral producer's operation was appraised by developing two appraisals. One appraisal was developed for the minerals, and a second for the property, plant and equipment. I contend that a salvage value for the property, plant and equipment, less reclamation, is useful for placing a floor on

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Critique of Three Case Histories (cont'd from p. 3)

value of the operation, but for little else (i.e., for discussion of highest and best use). The value of the operation is almost exclusively derived from what a buyer is willing to pay for the stream of cash flows generated by the on-going operation. This is the NPV which Mr. Gregg worked on calculating for the Case.

For Case History #3, my concerns are similar to those which I expressed for Case History #1. What is the probability that these "reserves" will ever be developed, and if so, how far from now will it be? I suggest that a survey of competing reserves and resources should have been conducted to see where this property falls in comparison of quality of location and geology. Economics dictates that the best properties will generally be mined first. Derivation of an appropriate discount rate is a contentious issue, as could be seen from my review article, *Valuation Methodologies for Mines and Mineral Tenements*, in the December 1995 issue of the Newsletter. However, I must disagree with the use of a Weighted Average Cost of Capital (WACC), as used by Mr. Gregg for his discount rate in Cases #1 and #2.

The hurdle rate of return required by the minerals industry for investments is primarily determined by the rates of return which could be derived from alternative investment opportunities within that industry. The risk adjusted discount rate used by Mr. Gregg in his Case #3 will be closer to the mark. However, I prefer to obtain my discount rates from the minerals industry literature and from surveying people in planning or investment decision-making positions in the industry.

One source I like is the Arizona Department of Revenue's *Appraisal Manual for Centrally Valued Natural Resource Properties*. This manual, published annually, contains exhaustive research of minerals industry discount rates. It can be obtained by phoning (602) 542-3529. Thanks again to Mr. Gregg for providing us with these case histories for discussion. Maybe we can stimulate a critique of our critiques.

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ASFMRA… (cont'd from p. 1)

The administrative structure is already in place at their office to operate either of these approaches. The administration of the ASFMRA and its sister organization, the American Society of Agricultural Consultants, is now being transferred to a non-profit corporation formed by these two, located in the same building, and utilizing existing staff. The charter of this corporation is to do essentially all of the administrative duties for the two societies, including publications, publicity, membership drives, continuing education programs, and putting on the annual conventions. The non-profit corporation is actively seeking additional related societies throughout the USA to manage.

If we form an affiliation with the ASFMRA, we could have the non-profit corporation contract to take over our administrative duties, put out a quarterly AIMA newsletter and market for new AIMA members. They could maintain a phone line for us, and a web page if we want. As part of our contract, our members could obtain the ASFMRA publications and continuing educational courses at the ASFMRA member prices. We could hold our annual meeting as a breakout session from the ASFMRA's annual convention

If we become an institute within the ASFMRA, our members would become ASFMRA members, paying ASFMRA dues ($300/yr). Our members would need to maintain ASFMRA standards, including continuing education requirements. I expect that many of our members would benefit from mixing with ASFMRA members and taking the ASFMRA courses. We would have access to the Appraisal Foundation through ASFMRA's membership in it. The AIMA would still be run as its own unique body, but I expect that we would need to charge an additional small annual membership fee to maintain our own structure, including publishing its newsletter.

I have talked at length on the phone with Michael Cartwright and Don Warnken about the results of this meeting. Both would like to see one of these relationships happen. Michael Cartwright indicated his preference for the AIMA becoming a body within the ASFMRA. From various feedback I have received, it appears that similar relationships would not work with the other major appraisal organizations.

All three of us expect that many of our existing members will not renew at the higher membership dues required under either scenario. However, I expect that we can quickly recover from that drop with active marketing for new members. I felt that I should deliver this communication to you before getting additional membership or Board impressions.

WOW! That would surely be a major change. What do YOU think?

Election Time

As you will note on the enclosed ballot, Michael Cartwright has been nominated to the position of President for 1998. We thank the Nominating Committee for this nomination because Michael Cartwright has been very active in the Institute affairs. Michael R. Cartwright, is a well qualified independent minerals appraisal professional who has been developing his mining industry analysis and valuation skills in surface and underground mining operations for over twenty years. Prior to establishing his company, Mineral Business Appraisal, Michael began as a junior explorationist in the Western United States and grew to become Chief Geologist for two major international mining company operations. He earned a BS in Geology from the Mackay School of Mines and an MBA from the University of Nevada. Michael is a Registered Professional Geologist in AZ, CA, ID, NV, and OR and is a Certified General Real Property Appraiser in CA and NV.

The post of Vice President goes to Trevor Ellis who has served our Institute for a number of years as Treasurer. His annual report also appears in this *Newsletter*. John Gustavson has agreed to be nominated as Secretary for the purpose of keeping continuity in the Institute's affairs. If elected, he may also be induced to continue the publication of our *Newsletter* at least for awhile. Otherwise, the Institute would be very interested in hearing of offers from the membership for this particular task.

Finally, a new face has been nominated to the Board as Treasurer. That is Ed Moritz, a registered Real Estate Appraiser with a degree in geology who works at Gustavson Associates. Over the last couple of years he has specialized in quarry appraisals. We thank the Nominating Committee for this slate and urge the members to submit the enclosed ballot no later than by 15 April 1998.