

INTERNATIONAL INSTITUTE OF MINERALS APPRAISERS

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NEWSLETTER

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2021 IIMA/SME IS GOING VIRTUAL

SME has announced that the annual conference and expo from March 1-5, 2021 in Denver, Colorado, will move to a virtual online format including all technical sessions. What this means for IIMA is that all events coinciding with the annual SME conference will shift to an online forum. Details of the specific conference platform, timing of sessions, and any changes to the overall program are in the works. Stay tuned!

2021 IIMA/SME CONFERENCE ABSTRACTS

Utilizing oil and gas appraisal methods in legal disputes; translating theory into practice

Josh Hickman; Hickman Geological Consulting
Canonsburg, PA

The utilization of oil and gas appraisals are both passive and active. In the passive use, an appraisal is used in tax, estate planning, or establishing pricing for the sale of a property. In the active sense, the appraisal is used in a legal dispute and the author is often called on to be an expert witness. In this

function, the author must both present an argument for the appraisal method and value while providing counsel with a rebuttal report against the opposing appraisal. This presentation will discuss how to develop an appraisal that is defensible, highlight common traps to avoid, and how to unlock deficiencies in the opposing report. Some time will also be given to appropriate appraisal strategies for different situations, verbiage to avoid, and survival advice for the expert witness stand.

Asset Appraisal vs. Company Valuations-Part 2 Amy Jacobsen, Dr. Robert Cameron; Behre Dolbear Aurora, CO

When determining the quantum of damages in legal arbitration cases, there are a number of schools of thought regarding the best approaches and methodologies used in reaching a "Fair Market Value." In such cases, the line sometimes becomes blurred between valuing the asset for damages and valuing the damage to a company's share value. This paper further dives into the differences between asset value and share value and how those valuation methodologies were applied in a few recent case studies. This paper also briefly looks at how the concept of ex-ante and ex-post analysis might change the quantum of damage.

How to Search for Sales Comparison Candidates

John Gustavson; Mineral Appraiser, LLC
Boulder, CO

Check if the property was subject to Prior Sales - an important guide to value. Examine the parts (the whole 100%, a fraction, another “stick of the bundle”)? Adjust for time of sale, from one “stick” to another, etc. Cast a wide net for sales of properties of same Highest & Best Use. Call it a lateral search, NOT a vertical! The latter is adjusting the value from sale of an undeveloped reserve to a fully producing property! No way! When searching sales, don’t worry about geographical nearness, but about comparable markets. The time of the candidate sale may be allowably long ago (5-10 years), IF you show a quiet market and commodity price.

Evaluating the HBU “Financially Feasible” Component for the Undeveloped Mineral Interest

James M. Beck, PE

The highest and best use (HBU) determination for undeveloped mineral-bearing properties is often made on the basis of a non-supportable and speculative "demonstration" of financial feasibility. The mere presence of a mineral deposit does not equate to a viable mining venture. Yet, to some appraisers, it is axiomatic that virtually all mineral deposits, irrespective of deposit definition, marketability, or pragmatic development potential, be "demonstrated" as financially feasible to develop, leading to an inherently-biased determination of "mining" as the HBU. Numerous pitfalls are encountered along the road to defining, justifying, and developing a mineral property into a viable mining venture. While USPAP does not formally define "financially feasible", there is other industry-accepted guidance that should be relied upon. Non-recognition of industry-accepted guidance often leads to incorrect identification of the subject of the appraisal (i.e., project value instead of value of the mineral-in-place), which in turn may be indicative of a need for the appraiser to objectively revisit the "physically possible" component of HBU, in order to enhance the reliability of the report.

What Appraisal Method(s) Should be used to Value the Trans-Alaska Pipeline System?

Dr. Mark Cronshaw; Resource Economics LLC
Boulder, CO

The Trans-Alaska Pipeline System (TAPS) consists of an 800 mile long 48 inch diameter oil pipeline from the North Slope of Alaska to the south coast of Alaska and a marine terminal for tanker loading at Valdez. TAPS is used to ship oil from the Prudhoe Bay oil field and other oil fields on the North Slope. TAPS began operation in 1977 and reached a maximum throughput of about 2.1 million barrels per day in 1988. Property tax is assessed annually on TAPS. The valuation of TAPS for the purpose of property tax has been very contentious. It has been litigated before the Alaska Superior Court and the Alaska Supreme Court. One of the key issues in the valuation was to determine which appraisal method(s) should be used for valuation: comparable sales, income method, and/or replacement cost. This talk explains the positions of the stakeholders (pipeline owners, state of Alaska, and municipalities) and describes the finding of the Courts.

A Baseline Market Analysis of the New England Aggregate Industry

Darwin Werthessen;
Bridgewater, MA

A relevant and reliable market analysis is the basis for appropriately valuing any property interest. The northeastern United States has experienced accelerated levels of construction over the past several years, and there are many projects partially completed or within the development pipeline as of Q3 2020. The aggregate industry supplies most of the raw materials used in concrete construction for major development projects as well as road and highway construction. This presentation will provide an overview of producing aggregate mines within New England, production volumes, and the construction markets they primarily serve. Primary focus will be placed on the three largest core market areas New England as measured by population: Boston (630,000), Providence (180,000), and Worcester (180,000). This information will then be

contrasted with the demand figures developed through study of the construction projects in progress, permitted and approved, and other relevant construction figures such as highway construction and residential construction (new housing starts). The culmination of this presentation will be an assessment and forecast of the vitality for the New England aggregate industry.

How Two Credible Experts Could Differ Greatly on an Oil and Gas Company Valuation?

Greg Scheig, CPA CFA; Vantage Point Advisors, Inc
Dallas, TX

This presentation goes through an analysis of an E&P company that declared bankruptcy after alleged “bad acts” of the defendant. Plaintiff’s attorneys retained Harry Highval, ASA, who concluded a value of \$80M for the company. Defense attorney retained Larry Lowball, PE, who concluded \$20M for the same entity as of the same date. This presentation goes through each of their analyses and highlights key assumptions made and their impact on the resulting asset and company values. Topics to be covered – Value Standards, hyperbolic decline curves, market costs of capital, assigning risk, and real option analysis.

Engineering-based Mine Infrastructure Cost Estimates

Scott Stebbins; Aventurine Engineering, Inc
Elk, WA

Methods relied upon to estimate the costs of the widely varying levels of infrastructure associated with mineral development projects are not as refined as the methods used to estimate other project costs. And while there are several procedures used to determine these costs, the results are not consistent from one technique to the next. In addition, the engineering parameters that underpin the results are not apparent. Estimators are left to wonder about the extent of the required workforce, consumables, and equipment fleet.

Methodologies detailed herein provide consistent, representative, reproducible estimates of the costs associated with: haul, site, and access roads, airstrips,

construction and production camps, power transmission lines, water supply systems, loadout facilities, impoundments, overland conveyers, railways, power generation plants, water treatment facilities, buildings, port facilities, and several other infrastructure needs of lesser magnitude. In addition to detailing new techniques to estimate these costs, results are gauged against those from other methods to measure their reliability and to quantify their impact on project economics.

Update to Trends in Gold Property Transaction Values 2012 – 2020

Grant Malensek, SLR
Lakewood, CO

RPA has updated its study on market transactions globally from 2012 to 2020 on gold properties containing mineral resources and mineral reserves. The property values derived from the transactions have been normalized in terms of \$/oz contained gold or gold equivalent where gold is the dominant component. Trends in \$/oz values are examined since 2012 for producing and non-producing properties and updated to include 2020 which continues to see a large spike in gold prices. This presentation will provide potential causes of variances in \$/oz values, such as political jurisdiction, location and infrastructure, size and grade of deposit, and classification of resource/reserve.

ASA Coronavirus/COVID-19 Guidance for Real Property Appraisers

In the age of COVID-19, we are reminded that appraisers have a duty to consider the current market landscape in light of recent events. Even when the effects of current events are unknown, our research into market participant perspectives and attitudes can assist with providing well-rounded support for a value conclusion.

The following is excerpted from the American Society of Appraisers (ASA) COVID-19 guidance. The full text is available at www.appraisers.org

Market Analysis

A warning statement such as discussed in the preceding section does not absolve the appraiser of making every effort to gain an understanding of current and forecasted market conditions.

Market Analysis under Current Conditions

- There may be limited comparable sales or rental data to confirm trends. Under current conditions, care should be taken with using comparable data prior to the economic change and any adjustments applied to the data.
- Under current conditions, it may be necessary to rely on information such as:
 - Broker Interviews: are brokers noticing that buyers/sellers, landlords/tenants backing out of, revising, or note entering into transactions?
 - Lenders: Lender attitudes and activities
 - Financial Market: what are possible effects of changes in liquidity, cost of money, etc.?
 - Owners/Managers: is the crisis affecting operations?
 - Property Sectors: How are different market sectors being affected specifically?
 - Market rationality/Irrationality, Short Term/Long Term: Market participants don't often act rationally in the short term; appraisers and the appraisal process presume rationality.

Highest and Best Use Considerations

The comment under Standards Rule 1-3 (Market Analysis and Highest and Best Use) further notes: "An appraiser must avoid making an unsupported assumption or premise about **market area trends** (*emphasis added*), effective age and remaining life." This would apply to adjustments made in the approaches, particularly the sales comparison approach and forecasts made in the income capitalization approach.

Extraordinary Assumptions or Hypothetical Conditions

The disaster disclaimer is not a hypothetical condition or extraordinary assumption. Using a hypothetical condition in the current situation, does not meet

USPAP development or reporting requirements for the use of a hypothetical condition. Using a hypothetical condition would be misleading, unless specifically needed for analysis purposes, i.e., appraise the property as if the pandemic did not exist.

Likewise, using an extraordinary assumption, which assumes an uncertainty to be certain, might be utilized if needed for an assignment-specific purpose, but also would not be appropriate under the present circumstances.

For example, making an assumption that market conditions are or will be "normal" requires defining what "normal" is.

Appraisers may utilize an extraordinary assumption with respect to the lack of a complete inspection. However, it is critical that any assumption elements be specifically clear and unambiguous. Use of subjective terms such as "normal," "typical," or average should generally be avoided.

New Certified Members

Congratulations to IIMA's newest Certified Members! The CMA designation communicates to others in our industry about an appraiser's commitment to valuing complex mineral-related property while upholding the highest ethical standards. Thank you for representing IIMA in the appraisal industry.

Greg Scheig, CFA CPA
Mark Sonderby, ARA

Mentoring Committee Request

It is the continuing objective of the mentoring committee to assemble three case studies as ice-breaker assignments for new mentees. If anyone, particularly mentors, have used similar assignments in the past as educational material, please forward what details you can to dwerthessen@gmail.com. Thank you in advance.

Appraiser Education Opportunities

by Zack Smith

I am consistently amazed at what we can learn from each other in the IIMA. This top-notch, hyperlinked list of educational offerings relevant to minerals appraisers was compiled by our very own, Zack Smith and includes an abundance of offerings to help us stay at the top of our game. Thank you, Zack!

Regulatory Education

USPAP Resources

McKissock offers the 15-hour and 7-hour refresher in online format <https://www.mckissock.com/appraisal/uspap/15-hour-online/>

The Appraisal Institute offers the 15-hour and 7-hour refresher in online format as well as many classroom-based options <https://ai.appraisalinstitute.org/eweb/DynamicPage.aspx?webcode=AICourseDetail&cecKey=2020B455-1810-4CEB-B921-8C973A4E5596&courseType=online>

The American Society of Appraisers offers the 15-hour and 7-hour refresher in online format as well as many classroom-based options <https://www.appraisers.org/Education/National-ASA-Courses?CategoryID=13>

Yellow book (UASFLA) Resources

McKissock offers an online option for the 14-hour UASFLA class [https://www.mckissock.com/appraisal/continuing-](https://www.mckissock.com/appraisal/continuing-education/uniform-appraisal-standards-for-federal-land-acquisitions-(yellow-book)-course/)

[education/uniform-appraisal-standards-for-federal-land-acquisitions-\(yellow-book\)-course/](https://www.mckissock.com/appraisal/continuing-education/uniform-appraisal-standards-for-federal-land-acquisitions-(yellow-book)-course/)

The Appraisal Institute offers a 4-hour online class as well as the 14-16-hour classroom-based option <https://ai.appraisalinstitute.org/eweb/DynamicPage.aspx?webcode=AICourseDetail&cecKey=C4545621-9E19-40C9-9275-90475CBB1D63&courseType=online>

International Valuation Standards (IVS)

The Appraisal Institute offers a 7-hour online option as well as classroom-based options <https://ai.appraisalinstitute.org/eweb/DynamicPage.aspx?webcode=AICourseDetail&cecKey=C9EF35E4-7775-4CA4-82D0-718726DA95A0&courseType=online>

The International Institute of Business Valuers offers an online 7-hour IVS & Ethics course

<https://iibv.org/iibv-201-standards-course/iibv-201-ivsc-registration/>

Ethics

Online ethics course offered by the CCIM

➤ <https://education.ccim.com/online-ethics-course/>

The Appraisal Institute offers an ethics course in both online and classroom formats

➤ <https://ai.appraisalinstitute.org/eweb/DynamicPage.aspx?webcode=AICourseDetail&cecKey=42094C28-BF36-4458-B074-A62F9645B287&courseType=online>

Early Career Appraisers & State Licensing

If you are in a position where licensure as a Certified General Appraiser is desirable, here is a resource that will provide you with the requirements for every state: Select your state from the dropdown menu, then on the state page click on the “licensing requirements” tab on the right.

- <https://www.mckissock.com/appraisal/licensing/>

Another reference is *The Appraisal Institute – How to Become an Appraiser*:

- <https://www.appraisalinstitute.org/education/our-career/>

McKissock Qualifying Education Subscription: This is the least expensive option I’m aware of at \$1299/year with unlimited qualifying education (QE). Must verify from the “licensing requirements” page what your state’s requirements are and whether online learning is accepted. Ordinarily, QE will cost \$3500-\$5000. If you can complete the package online in 12 months, it is a substantial savings over buying courses individually.

- <https://www.mckissock.com/appraisal/subscription/>

The Appraisal Institute Qualifying Education Packages: Another resource to purchase groups of courses that will result in a substantial discount relative to purchasing individually.

- https://ai.appraisalinstitute.org/eweb/dynamicPage.aspx?webcode=AIOnlinePackages&site=ai&_ga=2.268907569.1152006852.1589989962-408999544.1589989962

Review Appraisal & Litigation Resources

If you perform a substantial number of review appraisals and/or work in litigation specialties, there are a number of review and litigation certifications and resources available that may be useful.

The American Society of Appraisers, the Appraisal Institute, and American Society of Farm Managers and Rural Appraisers offer review designations which can be viewed at the links below:

- *ASA – ARM – Appraisal Review & Management* - <https://www.appraisers.org/credentials/am-asa/accreditation-guides-forms>
- *ASFMRA – Real Property Review Appraiser* - <https://www.asfmra.org/accreditations/real-property-review-appraiser>
- *Appraisal Institute – AI-GRS* - <https://www.appraisalinstitute.org/our-designations/#AIGRS>

Additionally, the Appraisal Institute offers a “Professional Development Program” on litigation appraisal which can be viewed here:

- <https://www.appraisalinstitute.org/education/our-career/professional-development-programs/#Litigation>

All of these organizations provide substantial continuing education on review appraisal and/or litigation.

Business Valuation – General

There are numerous business valuation course and credential options, but here I provide only a sample from the ASA.

- *Intro to BV – Market Approach* <https://www.appraisers.org/Education/View-Course?CourseID=469>
- *Intro to BV – Income Approach* <https://www.appraisers.org/Education/View-Course?CourseID=470>

- Intro to BV - Asset Approach, Discounts and Premiums

<https://www.appraisers.org/Education/View-Course?CourseID=471>

- Advanced Topics in BV

<https://www.appraisers.org/Education/View-Course?CourseID=396>

Machinery & Equipment Valuation

The American Society of Appraisers offers M & E certifications, including with specialties in Mines & Quarries, Oil & Gas, and Public Utilities (may be applicable to pipelines). View this website for detailed credentialing standards:

- <https://www.appraisers.org/credentials/ama/asa/accreditation-guides-forms>

Several courses specific to mineral appraisal are enumerated below:

- ME214-OOO - Identification and Appraisal of Mining and Mineral Processing Equipment

<https://www.appraisers.org/Education/View-Course?CourseID=392>

- ME217-OOA - Advanced Mining

<https://www.appraisers.org/Education/View-Course?CourseID=540>

Mineral Appraisal-Specific Resources

- *American Society of Farm Managers and Rural Appraisers*: Minerals Appraisal (8 hours)

<https://www.asfmra.org/education/education-offerings/courses-seminars/minerals-appraisal>

- *McKissock*: Marcellus Shale: Effects of Energy Resource Operations on Residential Property Value (3 hours)

<https://www.mckissock.com/appraisal/continuing-education/pennsylvania/marcellus-shale:-effects-of-energy-resource-operations-on-residential-property-value/>

- *Gustavson Associates*: Various trainings offered on an ad hoc basis
<https://www.gustavson.com/courses-training/>

- *Edumine*: Offers a variety of mining-related programs including on economics and valuation. Note that they are Canada-based and courses frequently reference standards not applicable to US-based projects.

<https://learn.edumine.com/store?commit=&page=2&st=economics&utf8=%E2%9C%93>

While these are not valuation/appraisal focused programs, the material can be useful as a scientific/engineering foundation.

- *American Association of Petroleum Geologists*: The AAPG offers programs for certification as a petroleum geologist, coal geologist, or petroleum geophysicist and offers a number of courses and certificates on mining-related issues. A link to some of these is below:

<https://www.aapg.org/career/training/online/certificate-programs>

- *Society for Mining, Metallurgy, and Exploration (SME)*: The SME offers short courses, webinars, etc., which again are not valuation-centric, but which may be useful for technical knowledge.

<https://www.smenet.org/students/short-courses>

IIMA Continuing Education Requirements

Bylaws - 2.5.3 Continuing Education Requirement. By vote dated 31 May 2011 the Certified Membership established that the continuing education requirement shall be 10 hours per year over a 3-year average, commencing in calendar year 2011 with allowance for inclusion in the 2011-2013 period of any claimed 2010 CE Credits.

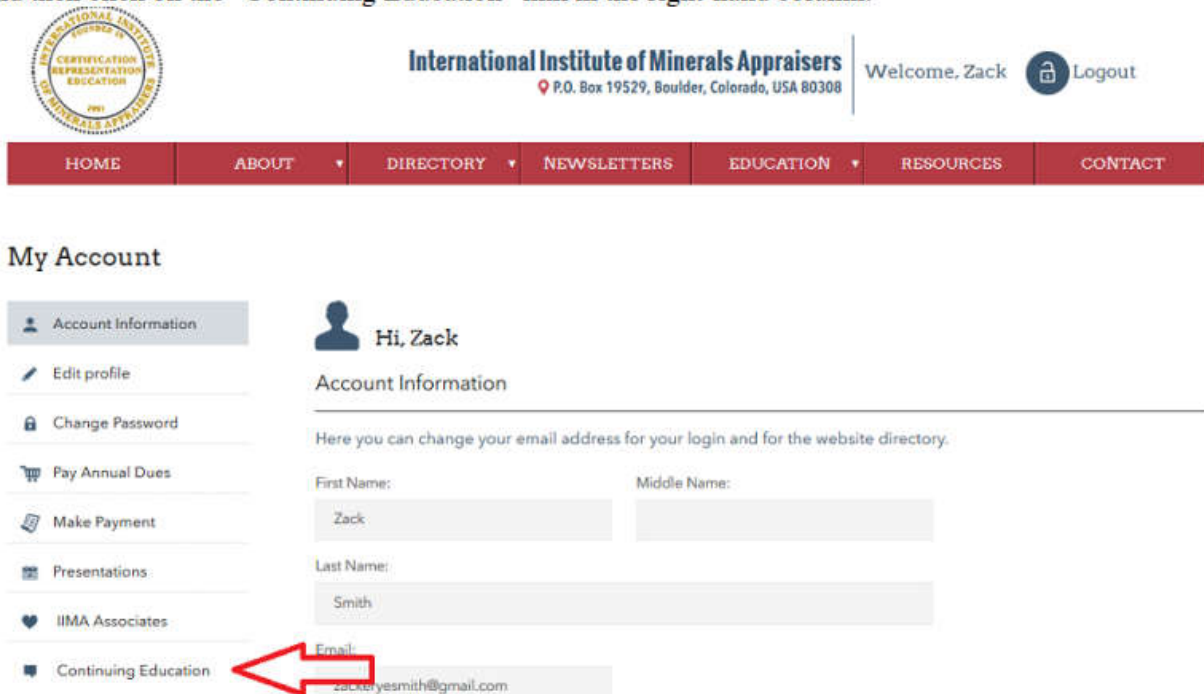
Logging Continuing Education in IIMA Member Portal

The IIMA website has a section to log your continuing education. While logging your CE is not required, it is encouraged. Note that the educational resources enumerated below are not exhaustive and you may register credits for programs you believe are relevant to the field.

Accessing the continuing education section of the website can be achieved by entering your user portal:



And then click on the "Continuing Education" link in the right-hand column:



Landmark Corner

In this newsletter section we attempt to dust-off and renew those case decisions that have markedly influenced minerals appraisal. We also share opinions of our own minerals appraisers, many from IIMA archived papers and presentations.

**“I ain’t no lawyer!
This ain’t Legal Advice!”**
-Michael Cartwright

Tips for researching case history:

- Individual case opinions are generally related to some more or less specific set of facts concerning the appraisal issue.
- It seems that there are almost always contradictory opinions about apparently similar valuation issues.
- Mineral property valuation is only a small subset of overall real property appraisal
- Don’t just research “mineral related” valuation case decisions.
- Mineral property valuation issues and methods are directly analogous to more typical commercial and industrial properties.
- Remember that real estate, the dirt, is not the same thing as real property, the bundle of rights. Dirt may have value but not without the rights to use it.

miscalculated its federal corporate excise tax under the Revenue Act of 1918, ch. 18, tit. X, § 1000(a)(1), 40 Stat. 1057 (1919), because the mining company undervalued its capital stock.

Overview

The mining company was subject to an excise tax to be calculated in accordance with the act. The act did not define the "fair average value of capital stock," so the mining company took the average value of its stock during trading for the prior 12 months and multiplied that number times the number of outstanding shares. The mining company then multiplied its result by the tax in the act. The Commissioner of the Internal Revenue determined that the **fair average value of the mining company's capital stock as found by the mining company was too low because the mining company failed to take into consideration the net fair value of the mining company assets.** The Commissioner fixed the value of the capital stock higher than the company reported. On appeal, the court held that the Commissioner did not act arbitrarily or abuse his discretion in deciding that the fair value of the capital stock, considered as a whole, was not materially less than the net fair value of the assets.

Outcome

The court affirmed the judgment of the claims court affirming the government's finding of a tax deficiency.

Case Summary

**Ray Consol. Copper Co. v. United States,
268 U.S. 373**

Supreme Court of the United States

January 13, 1925, Argued ; May 25, 1925, Decided

Procedural Posture

Appellant mining company challenged an order from the United States Court of Claims, which affirmed a decision by appellee United States finding that the mining company had a tax deficiency in a tax year. The government found that the mining company

Mineral Appraisal Connection

- The capital stock of a corporation, its net assets, and its shares of stock are entirely different things . . . The value of one bears no fixed or necessary relation to the value of the other
- Useful... primarily in situations where some people insist that mining claims and/or minerals are not real property
- Establishes that the proposition that business value (shares) will likely *not* be the same as

the value of the mineral property (a physical asset)

- The business value is typically the sum of stock and debt while property value is typically the ability of a particular mine to produce income *without* consideration of debt, income taxes or form of ownership
- Leads to the proposition that mineral grade or quality is a function of the property and better quality means more value, *ceteris paribus*
- However, highly “refined”, “processed” and/or “patented” industrial mineral products

may be more a function of a process and *not* a function of the property or mineral deposit

- This separation of values has played a role in divorce, dissolution and property tax appraisals

*-Valuation Case Opinions
SME/AIMA 2010 Phoenix
Michael Cartwright*

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Special thanks to the contributions made. The strength of the IIMA organization is through the commitment, education, and contributions of its members. We are always looking for

articles to enhance our profession and welcome any material that members may provide.

All articles are contributed on a volunteer basis. The views and opinions expressed in any and all articles are those of the authors and do not necessarily reflect those of IIMA or your Newsletter Editor. If any IIMA member would like to professionally add-on to, rebut, or clarify any articles, I will feature such articles in the following newsletter. Thank you!
