

Valuation of a Coal Property

– Applying Standards to Determine Market Value versus Investment Value

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What is Investment Value?

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What is Market Value?

What is Investment Value?

- Commonly termed *Worth*.
- “The value of property to a particular investor, or class of investors, for identified investment objectives.” (International Valuation Standards 2005).
- For us – NPV of project cash flows at the hurdle DCFROR required for investment approval.

What is Market Value?

- “The estimated amount for which a property should exchange on the date of valuation between a willing buyer and a willing seller in an arm’s-length transaction after proper marketing wherein the parties had each acted knowledgeably, prudently, and without compulsion.”
- “....reflects the collective perceptions and actions of a market
- “...objective valuation of identified ownership rights ...” (IVS 2005).

The Common Appraisal Practice of Mining Industry Practitioners

1. Calculate an NPV for the coal or mineral property
2. Call the NPV *Market Value*
3. Wrap a property description around it
4. Label the report an *Appraisal*
5. Kick it out the door

The Issues

- The value estimate is not derived from market measurement
- It is an Investment Value or a Use Value
- Ignores the US national appraisal standards
 - Uniform Standards of Professional Appraisal Practice (USPAP)
- Result – real property and business appraisers get the mining property appraisal work

**Appraisal
Standards
Board**

USPAP

*Uniform Standards
of Professional
Appraisal Practice
and Advisory Opinions*

2005 Edition

Effective January 1, 2005



THE APPRAISAL FOUNDATION
*Authorized by Congress as the Source of Appraisal
Standards and Appraiser Qualifications*



INTERAGENCY LAND ACQUISITION CONFERENCE

Uniform Appraisal Standards for Federal Land Acquisitions

WASHINGTON, D.C. 2000



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the U.S. Department of Justice



International Valuation Standards Seventh Edition 2005



International
Valuation Standards
Committee

International Financial Reporting Standards (IFRSs™)

including International Accounting Standards (IASs™)
and Interpretations as at 31 March 2004

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Bahamas Bahrain Barbados
Bangladesh Belgium Bermuda Bolivia
Bosnia and Herzegovina **TRANSPARENCY**
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International
Accounting Standards
Board®

International Valuation Standards – 2003 Structure

International Valuation Standards Committee
Structure of Standards, Applications, Guidance Notes, and Commentary

FUNDAMENTALS

HISTORY, INTRODUCTION, CONSTITUTION, ORGANIZATION AND FORMAT OF STANDARDS
GENERAL VALUATION CONCEPTS AND PRINCIPLES

CODE OF CONDUCT

PROPERTY TYPES

REAL PROPERTY

PERSONAL PROPERTY

BUSINESSES

FINANCIAL INTERESTS

VALUE TYPES

MARKET VALUE

OTHER THAN MARKET VALUE

STANDARDS

STANDARD 1
MARKET VALUE VALUATIONS

STANDARD 2
NON-MARKET VALUE VALUATIONS

SEE NON-MARKET VALUE CHART

APPLICATIONS

VALUATION APPLICATION FOR FINANCIAL REPORTING

VALUATION APPLICATION FOR LENDING PURPOSES

GUIDANCE NOTES

REAL PROPERTY VALUATION

VALUATION OF LEASE INTERESTS

VALUATION OF PLANT AND EQUIPMENT

INTANGIBLE ASSETS

GOING-CONCERN (CONCEPT OF) VALUATION

BUSINESS VALUATION

CONSIDERATION OF HAZARDOUS AND TOXIC SUBSTANCES (IN VALUATION)

DEPRECIATED REPLACEMENT COST (DRC)

SPECIALIZED TRADING PROPERTIES **

COMMENTARY

INVESTMENT PROPERTIES

ADDENDA

GLOSSARY OF TERMS



**Note: These three Guidance Notes all reference specialized trading properties

- Fundamentals
- Code of Conduct
- Property Types
- Value Types
- Standards
- Applications
- Guidance Notes
- Commentary
- Addenda

Market Value of a Mine as a Business

1. Determine using business value parameters drawn from the market indicators
2. Sum the market value contribution of the component property types:
 1. Real Property Interest – coal reserves-resources, land surface, buildings, other surface improvements
 2. Personal Property – mobile equipment
 3. Intangible/financial property – cash, bonds, debt

Market Value Appraisal Reporting for the Real Property

- Intended Use and Intended User
- Identify the property interest appraised
- Effective Date of Appraisal and the Report Date
- Exposure Time to Market
- Scope of Work
 - Level of research
 - Appraised as is, or conducted drilling, testing, market study

Market Value Appraisal Reporting for the Real Property

- Highest and Best Use
 - Legally Permissible
 - Physically Possible
 - Financially Feasible
 - Maximally Productive

Market Value Appraisal Reporting for the Real Property

- Sales and other transaction analysis
 - Leases, royalty payments, joint ventures
- Reserve-Resource Classification Adjustment
 - SEC Industry Guide 7
 - CRIRSCO
 - United Nations Framework Classification
 - USGS

Market Value Appraisal Reporting for the Real Property

Three Approaches to Value

- If one not used, state why not
- Sales Comparison Approach
 - Principle of Substitution
 - Does not mean *Comparable Sales*
 - Can adjust to Subject from very different property

Market Value Appraisal Reporting for the Real Property

Cost Approach

- Principle of Contribution to Value
- Based on sales analysis
- Methods:
 - Depreciated Replacement Cost
 - Multiples of Exploration Expenditure
 - Kilburn Matrix
 - Rural Appraisal Contribution Method

Market Value Appraisal Reporting for the Real Property

Income Approach

- Principle of Anticipation
- Extract financial parameters from sales analysis and other market sources
- Methods:
 - NPV of before income tax cash flows
 - NPV of after income tax cash flows (disliked)
 - NPV of royalty income from leasing
 - Income capitalization ratios
- All methods should give similar results
- Use probability factors/analysis

Market Value Appraisal Reporting for the Real Property

Reconciliation of all value estimates

- Don't pick result from preferred method
- Explain the differences, weaknesses, strengths
- Reconcile to determine the conclusion as to Market Value

Trevor's Observations

- Minerals appraisers who provide high value estimates generally get the most work.
- The common practice of lenders of allowing their client to choose and pay the minerals appraiser, encourages very high appraised values.
- The minerals appraiser who provides a well developed estimate of market value after another consultant has provided an astronomical value to the same client, will generally not get his last invoice paid.