October 17, 2012

International Valuation Standards Council
41 Moorgate
LONDON EC2R 6PP
United Kingdom

Dear Members of the IVSC Standards Board:

We are pleased to be able to respond to the Valuations in the Extractive Industries - Discussion Paper. American Appraisal's responses and comments to the questions posed in the discussion paper are noted herein.

**Question 1.1**

Should IVSC produce combined standards and guidance for Extractive Industries or produce separate pronouncements for mining and for oil and gas? If you believe the latter please indicate the reasons why you consider separate guidance is appropriate.

Because the valuation approaches are similar we favor combined guidance for Extractive Industries as opposed to separate pronouncements for mining and oil and gas. That said, it may be appropriate to also discuss or highlight any issues unique to mining and oil & gas.

**Question 1.2**

a) Should the project focus just on the valuation of reserves and resources or should it extend to other assets employed in the industry and to entire businesses in the sector? Please provide reasons for your answer.

The project should cover all assets that are typical to extractive businesses, with primary focus on the core tangible asset group, the depletion asset.

b) How often do you assess or use (if it is readily ascertainable) the value of an extractive business as a starting point for the valuation of reserves and resources?

The value of the entire business enterprise is generally the starting point when considering the value of an extraction business’ underlying assets, including its reserves and or resources. The business enterprise value determines the economic envelope for the value of all underlying assets within a business. In addition, it is
common for the value of resources to be the residual balance after valuing the business, and subtracting the value of its working capital, tangible and intangible assets, and reserves [albeit, this is not common practice with US GAAP, where direct valuation methods are applied to each asset grouping, leaving goodwill to be the sole element of any residual calculation]. Finally, it is also typical for the value of resources to be cross checked with observable market prices, if available.

Question 1.3:

Do you agree with the Board’s preliminary view as to the type of pronouncements that IVSC should be making in relation to valuations in the Extractive Industries? If not please explain what alternative or additional material you believe would be useful.

Within the broad framework of guidance intended for users of valuations and professional valuers, non-mandatory TIPs are preferable to mandatory procedures that would undermine the valuer’s choice of methods and procedures that should be based on the facts and circumstances associated with a particular valuation assignment.

Question 2:

a) Are you familiar with the former GN14?

We are generally aware of GN14.

b) Is GN 14 used in the valuations that you provide or receive?

GN 14 has been used as a general reference

c) What elements of GN 14 do you find useful in either reporting or interpreting valuations?

As points of reference, sections 3.0; 5.1; and 5.3.8 provide helpful definitions, property types and factors that should be taken into consideration in a valuation.
Question 3

a) Which classification code or codes are most commonly used in your industry / sector?
Inasmuch as American Appraisal operates from a significant global footprint there is some geographic diversity concerning the classification codes that are used in valuations.

b) Which code do you normally use or rely on?
Similar to the above response, the code normally used in valuation assignments is primarily a function of the region of the world in which the valuation is conducted. We tend to follow the local marketplace and adopt the codes most prevalent there.

c) Are you aware of differences across your industry sector on the classification codes used? If so please indicate whether these differences cause problems in undertaking or understanding valuations.
Again, the code normally used in valuation assignments is primarily a function of the region of the world in which the valuation is being conducted. More important than the code itself is the need for valuers and users of valuation reports to understand the codes referenced in any source materials and ultimately in the valuation report.

Question 4

a) Please identify the valuation methods that you most commonly use or encounter for valuing:
- Producing reserves
- Reserves undergoing development
- Reserves or resources subject to exploration

If you are a valuation provider, please indicate why you prefer these methods. If you are a valuation user, please indicate if you are confident in the result obtained by these methods.

American Appraisal is a valuation provider. The valuation methods most commonly used for the following are:
Producing Reserves
We use the income approach - a discounted cash flow method, often with a multi-period excess earnings model, and sometimes corroborated with a
market approach, if appropriate and when data is available. We feel this provides the best indication of value and it is the approach most often used by market participants.

**Reserves undergoing development**

We use the income approach, and if data is available we may also consider a market approach. Again, we feel this provides the best indication of value and is also used by market participants.

**Reserves or resources subject to exploration**

We generally prefer the market approach. However, relevant and comparable data is generally difficult to find or is not readily available. A probability weighted discounted cash flow method may be applied if relevant data exists for the development of a model that would lead to a credible indication of value.

**Question 5**

a) n.a.

b) If you have experience of using the market approach to value assets, please indicate the sectors and asset types where this is used.

In addition to its use for corroborating values developed with an income approach, a market approach is useful when developing opinions of value for mining and oil & gas depletion assets, some early exploration properties, tradable licenses, mining equipment and mobile plant assets.

c) Please identify the three most important factors for which you frequently need to adjust price data when applying this approach.

The market approach generally requires adjustments for the following three factors - time, location, and the quality of the asset being valued.
Question 6.1

a) Production forecast – do you use internal production forecasts developed by the entity’s own geological and engineering specialists, external forecasts, or a combination of both?

Typically, we consider internal forecasts developed by those that control the producing group of assets. These internal forecasts may typically embed external consultants’ opinions about ultimate recovery, geologic risk, and other technical matters of geologic or process industry science and related risk analysis. External forecasts may also be directly considered. Whether internal or external, information from geologic or petroleum consulting firms is particularly useful and important to build confidence about input worthiness.

b) Do you adjust the production forecasts for risk by reserve category?

The forecasts used are generally those as provided by management. However, the risking of oil and gas reserves may occur with the assistance of experts, both third-party and/or internal staff, who are knowledgeable about recovery and down-hole sciences.

c) Do you make an explicit cash flow forecast through the term of expected production, even though it might be a very long period of time, or do you use a “remainder period” for long lived reserves? If you use a remainder period, typically over what period is your explicit forecast?

We utilize the cash flow forecast that spans the expected life of the reserves.

d) Do you use an internal management estimate for future pricing, eg the NYMEX, investment bank analysts’ estimates, industry sources, or a combination thereof to estimate future prices? If using the NYMEX strip pricing, what are the typical assumptions you make for prices beyond the NYMEX strip (e.g., flat, inflationary growth, etc.) Do you consider the impact of any hedging of future prices that might be in place in estimating the future revenue stream?

For pricing, we typically consider a collection of published estimates or observable market prices in comparison to our client’s forecasts. It is important to consider published forecast data from sources that market participants would typically consider as worthy, with definitive understanding of such forecasts being stated in nominal or real monetary terms. We commonly use a 5-year strip with inflation based forecasts thereafter. Whereas hedging economics may be used for valuing the overall business enterprise it is not used in the valuation of the depletion assets.
e) Do you apply differentials to the future price estimates? If so, what is your source for estimated differentials?

Yes. We normally gauge differentials related to subject v price marker for subject quality and transportation influences by observing subject historic sales prices per standard quantity (such prices not affected by past favorable nor unfavorable long-term sales contracts), v price marker for the standard quantity over the same period. One must then consider whether such historical differences are relevant to the future economics of the producing asset being valued.

f) Do you reflect currency exchange risks to future income and operating cost projections in the cash flow or in the discount rate?

Yes, currency risk is generally considered when developing the discount rate.

g) Do you include corporate overheads when estimating the value of mining, oil and gas reserves, or just the selling, general and administrative costs associated with operating and producing the reserves?

Yes, we consider the inclusion of corporate overheads in valuing producing reserves, and the magnitude of such burden is facts and circumstances driven.

h) How often do you use the DCF method to value probable or possible reserves?

The DCF method is the preferred approach whenever a credible forecast is available. Possible reserves can also be valued if appropriately adjusted for risking and with the application of an appropriate discount rate.

Question 6.2

a) What methods do you use or are familiar with for determining the discount rate used for valuations of reserves and resources?

CAPM and WACC

b) Do you separately consider and evaluate market (systemic) risk and asset specific risk?

Yes. Generally, market risk is captured in the discount rate and asset specific risk is typically accounted for in the cash flows of the business.
c) Please indicate the factors that you normally consider and reflect in the discount rate and any source you use to determine the appropriate rate adjustment.

The primary risk is that of achieving the projections. If management’s growth and profitability projections versus historical achievements differ significantly, and such forecast is used for the DCF, then risk adjustments need to be considered. Generally stated, if projections are inconsistent with the expectations of market participants, risk adjustments may be appropriate. Similarly, the lifecycle stage of the asset is an important consideration. Also, the country, currency, and size premium risks must be considered, and as well the overall relative attractiveness of the asset being sold to the pool of likely buyers of such asset.

d) Do you use multiple discount rates to reflect the changing risk profile as an extractive process moves through its life cycle?

No, we do not use variable discount rates. Such are extremely difficult to support. As referenced above, the lifecycle stage of the asset should be considered when developing the discount rate.

Question 7

a) Please indicate what methods you use or are familiar with that fall under the Cost Approach and that are used in valuing assets in the Extractive Industries.

The cost approach is best used for valuing tangible assets. If appropriate cost information is available, a trended depreciated replacement cost method can be used for tangible assets. In concluding a value indication for tangible assets consideration of physical, functional, and economic obsolescence is also appropriate.

b) If you use or are familiar with the Cost Approach, please indicate in your experience how the cost of an equivalent asset is determined.

We utilize the cost approach only for tangible assets as explained in the above response.

c) If you use or are familiar with the Cost Approach, please indicate the three most common adjustments that are made in your experience to reflect physical, functional or economic obsolescence, and what metrics are used to determine these adjustments.
For physical depreciation we primarily consider age and wear and tear, with consideration of curable factors.

Functional obsolescence is typically assessed based on consideration of excess capital and operating costs.

Economic obsolescence is based on facts and circumstances that are typically external to the assets themselves.

**Question 8**

a) **How should the unit of valuation (unit of account) be determined in the valuation of extractive activities?**

Determination of the unit of account should comport with the level for which there are sufficient details to develop a discounted cash flow, typically at the level of the mine or reserves, but possibly at the enterprise level.

b) **How is double counting of the contribution of different assets avoided?**

A contributory asset charge is applied to reserve related cash flows to account for assets used in the production process.

c) **How should economic obsolescence or impairment, if present, be allocated proportionally to all contributory assets of the mineral asset?**

Economic obsolescence is a case-by-case analysis that is specific to the facts and circumstances associated with the property. There continues to be an evolution in the application of economic obsolescence, particularly for financial reporting. The application of Business Earnings Economic Obsolescence is quite common. A simple pro-rata method of assigning EO is perhaps most common, while in some situations a weighted pro-rata method may be appropriate.

d) **What methods do you use or are familiar with to attribute value to specific contributory assets?**

The multi-period excess earnings model ("MPEEM"), the relief from royalty method, and cost approach are commonly used when valuing contributory assets.
e) Are entity specific inputs appropriate when valuing contributory assets in extractive activities? What checks can be made on the reasonableness of entity specific inputs?

Yes, entity specific inputs are appropriate when valuing contributory assets in extractive industries. In addition, we would look to observable market data to cross check the inputs.

f) Should components of goodwill other than value of assembled workforce be recognised?

No. We do not believe goodwill should be recognized, and the value of an assembled workforce is only appropriate for estimating contributory asset charges.

Question 9

a) How do you estimate the cost of future reinstatement or environmental protection obligations?

This is typically estimated by management's technical experts as a present value of the future obligations.

b) Do you discount the future cost of reinstatement obligations using a risk free rate or another rate? If another rate please identify and provide rationale for this approach.

These future costs are discounted using a risk-free rate.

Question 10

a) If you provide valuations of mineral assets, what investigations do you undertake to established the reasonableness or otherwise of estimates of the extent of reserves or resources provided by geologists?

Our investigation would include only a brief verification of the geologist’s or technical expert’s qualifications and experience.

b) If you provide valuations of mineral assets, are you routinely provided with estimates from engineers of the cost and feasibility of extraction? What enquiries do you make to satisfy yourself as to the reasonableness of these estimates?
In addition to a verification of the geologist’s or technical expert’s qualifications and experience, we may benchmark their estimates against similar properties for which we have data. A valuer’s standing to properly critique and directly consider the technical judgments of such experts is of course related to one’s demonstrated experience, training, and having appropriate credentials to do so.

c) If you are a recipient or other user of valuations of assets in the Extractive Industries, are you satisfied that the valuations properly reflect any uncertainties in the current estimates of either the extent of the reserves or the costs of recovery? What information would you expect to see in a valuation report that would improve your understanding of the sensitivity of the reported value to uncertainties in the identified reserve or the costs of recovery?

Inasmuch as we are not users of valuation I believe no response is necessary here.

Question 11

a) Please identify any intangible assets that are normally separately identified and valued;

   i. In transactions between entities in the Extractive Industries and
   ii. When accounting for the acquisition of a business in the Extractive Industries.

Beyond the primary assets of reserves and resources, intangible assets typically include supply agreements (favorable or unfavorable), mining and exploration information, and assembled workforce for calculating contributory asset charges. Licenses and permits are occasionally valued as separate intangible assets, but most often in operating extractive businesses, the value stemming from these real property related intangible rights are a part of valuing the operating/producing asset, and the related in-use tangible infrastructure that functions to support an extractive business, all to its highest and best use.

b) In your experience what, if any, value is attributed to components of goodwill, eg an assembled skilled workforce, in corporate transactions in the Extractive Industries. Please briefly indicate any valuation techniques used to establish the value of goodwill in such circumstances.

The only element of residual goodwill is the workforce, which is typically valued by using a cost approach and is generally an insignificant amount that is not separately recognized when booking an acquisition for financial reporting purposes. That said, there remains some controversy about the recognition of intangibles in this industry.
c) When considering the valuation of previously uneconomic reserves that can now be recovered using advanced technology, e.g., shale gas, deep water drilling, do you attribute an element of the overall value to the intellectual property involved? If so please explain briefly the method used to estimate this.

If the intellectual property belongs to the company, and there is credible evidence that it has value to the marketplace, it would be valued. If not owned by the company, the technology “rental” would be a charge against the value of the reserves.

Question 12

a) Please provide any examples of which you are aware of significant differences between the value of otherwise similar resources arising solely from different Governmental policies.

Tax, environmental regulations and ownership issues are key differentiators of value for otherwise similar properties. It is possible for some mineral properties or interests to be subject to government taxation that will differ from country to country, thereby significantly impacting the value of the mineral resources.

b) Please indicate how “country risk” factors are reflected in the way in which you price or value extractive assets.

Country risk premium is a common element that is considered when developing discount rates. There are various methods that valuers utilize to estimate country risk premium that are dependent on the specific countries where the business or assets are located as well as the availability of benchmarking data.

We appreciate the opportunity to provide these responses and look forward to completion and issuance of the guidance for extractive industries.

Respectfully submitted,

American Appraisal