

# AAPG Imperial Barrel Award Program



## 2011: Rules, Regulations and Operations

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American Association of Petroleum Geologists





## AAPG Imperial Barrel Award Program

NOTE: Rules, regulations, and operations of the AAPG IBA program and competition are at the oversight and direction of the AAPG IBA Committee.

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### ***Forward: The Premise***

“The Students of an IBA team are to act as a New Ventures Group of an operating oil and gas company. In a selected area, a business opportunity has arisen as the current Operator is prepared to offer an equity stake in the acreage to your company – a process referred to as a farm-out opportunity. In most instances the Operator opens up “a data room” where prospective farm-inees can view the data usually for a few days only.

Companies farm-out their acreage for a number of reasons. They may be prepared to dilute equity or even relinquish the acreage because they consider it has limited hydrocarbon potential. Other times, the Operator may genuinely need a partner to finance the drilling campaign. Either way, new business ventures like this can offer significant rewards to the farm-inee, who can identify additional upside potential especially in new plays and concepts not recognised by the company farming out.

The student team has been assigned the task of making a detailed assessment of the petroleum potential within the given area. They are expected to “think outside the box” and look at new exploration models based on the most recent published research and their given education.

The Student team will be able to consult their company’s Exploration Manager; (Faculty Advisor) plus a number of key personnel in its global New Business Development team – an internal consultancy providing expertise (Outside Consultants).”

Dr. Howard Johnson giving instructions to his IBA students at Imperial College, 2006.

The AAPG Imperial Barrel Award Committee (IBA) was formed to organize, operate, and regulate the global Imperial Barrel Award program at the AAPG Annual Convention and Exhibit (ACE). It will work with the specific governing committees and councils to organize, operate, and regulate the competition at Section and Region levels. The AAPG IBA Committee will coordinate the sponsorship necessary to operate all planned programs.

### **Section 1: PARTICIPATION**

1. Any academic institution with a Geoscience degree program may enroll their school in the AAPG IBA program.
2. Teams are selected on a first come, first enrolled basis.
3. Only an accredited faculty member of the school may register a school for participation in the AAPG IBA program. Such enrolment must be confirmed as approved by the Dean or Chair of the effected department of the institution.
4. A school may signup for the program and upon review, decide not to participate without penalty at any time prior to receiving the IBA dataset. Withdrawal from the program beyond this date without the written agreement of the President of the Region or Section within which the school is located, will result in the school not receiving financial support from the AAPG for Region, Section, and/or the Finals competitions for the AAPG IBA program for the next year of the team's participation.
5. Institutions that enroll in the AAPG IBA program are encouraged to review all materials posted on the IBA website ([www.aapg.org/iba/](http://www.aapg.org/iba/)), including the timeline for the upcoming event, before they register for the program.
6. The school is responsible for insuring that all students hold a valid and current passport to participate in: 1) Region and/or Section events that may require a visa to attend that specific event, 2) the Finals program at the AAPG Annual Convention in the United States of America, should they qualify for that event. Region and Section IBA Coordinators will assist schools in their areas on the efforts for visa clearances (with the assistance of AAPG Region offices where available). The visa effort for those teams qualifying for the Finals will be coordinated by the AAPG Student Affairs Coordinator ([students@AAPG.org](mailto:students@AAPG.org)).
7. The AAPG, AAPG Regions and AAPG Sections will provide the following for an institution's team (a maximum of five students and one Faculty Advisor) when that team is confirmed as enrolled in the AAPG IBA program: 1) Travel to and from the competition (if such travel is required), 2) Transfers to and from the hotel and/or competition venue of the program (if and as required), and 3) Rooms at hotels (if and as required). Each AAPG Region and Section is responsible for the operation and costs associated with its program (See Section 10: Sponsorship).
8. A school that cannot create an IBA team from their current student enrolment, may, with IBA Committee approval, combine their students with those from another school within its Section or Region, to create an IBA team. One school will serve as the host school and be the "office" for the exploration team. The host school must have a minimum of three students on the created team and all technical interpretation and preparation of the dataset must be done at the host school using its facilities and supervision. This host school

will supply the team advisor. Transportation to and from the Region, Section, or Finals program will originate from and terminate at the host school's city. Team designation and prize money will be divided between the participating schools and said division must be declared to the IBA Committee prior to the combined team participating in the IBA competition. Interested schools must complete the "Multi-School IBA" application instead of the regular team sign-up sheet (available at [www.aapg.org/iba/](http://www.aapg.org/iba/)) A combined team must follow all rules and regulations as for a single school entry.

## **Section 2: STUDENTS**

1. Students may only participate in the AAPG IBA program once in their education careers. There is no exception to this rule.
2. Students shall all be required to participate equally in a twenty-five (25) minute PowerPoint presentation of their exploration project. Students may prepare a one-page executive summary (two-sided allowed) to give to each judge. Students may augment their presentation in any form, so long as they are within the twenty-five minute time allotment.
3. Students will at all times, adhere to a professional level of behaviour in dress, conduct, language and decorum. Violation of this rule may result in the student(s) involved being suspended from the competition.
4. The judges will interview teams immediately after their presentation for a time period of up to fifteen (15) minutes. Teams should be prepared to answer the questions of the judges. Questions shall be limited to the scope of the preparation and presentation of the project.
5. Students are allowed, during the judges' interview, to consult briefly amongst themselves to answer the judges' questions, but cannot consult any outside source during this time period.
6. Students may respond to questions in their native language provided that an interpreter is in attendance. The de-facto language of the program and presentations in the Region, Section, and Finals program shall be English. The Region or Section may provide for translation services in a Region or Section program, as they deem necessary. AAPG is not responsible for supplying or paying for an interpreter for any competition.
7. Students will be judged on all aspects of the presentation, including but not limited to factual information, organization, coordination, timing, creativity, and presentation. (See Judges Score Sheet at: [www.aapg.org/iba/](http://www.aapg.org/iba/)).
8. Section/Region coordinators can select a date for their Section/Region competitions that is 6 to 2 weeks before the global competition.
9. Teams are required, if placing first at their Region or Section event, to submit a final copy of their presentation for the Finals program to the AAPG Student Office at the AAPG headquarters in Tulsa, no later than one week after the Section or Region competition. If the team presentation is not received at the Tulsa office on or before midnight CST at the end of this one-week period (and pending any extraordinary circumstance as determined by the IBA Committee), the team will receive a penalty at the Finals program. That

penalty shall be a deduction of ten points from their Finals score for each day the presentation is late arriving at the AAPG headquarters in Tulsa.

10. Teams should be composed of Master level students. No team may have more than two PhD students on their team. No team member should have more than three years of graduate school experience. (Third-year PhD students who have completed a Master's degree are ineligible to participate.) No team may have undergraduate students unless circumstances dictate that an exception to this rule is warranted (example: student status in the Middle East Region). If such a situation does occur, Region and Section Coordinator(s) are to notify the IBA Committee Chair to secure IBA Committee permission of the undergraduate(s) to participate. In principal, the IBA Committee does not allow undergraduates to participate unless there are exceptional circumstances, as determined by the IBA Committee.
11. Students must have full-time enrolment status of the institution participating in the AAPG IBA program. Students may have no more than one year of cumulative experience in professional petroleum exploration.
12. Students with more than one-year's cumulative petroleum exploration experience are asked to declare such experience and may petition to be included in the program through the Region or Section leadership committee. That leadership committee may recommend to the IBA Committee to deny or accept the student participation in the Region or Section program and should forward such a recommendation to that effect to the IBA Committee. The IBA Committee has the final approval if a student is to or is not to participate in the program. Any student with more than one-year cumulative petroleum exploration experience who participates without the Region or Section governance recommendation and/or IBA Committee approval, shall be removed from the competition and that team shall void any awards as a result of the student's participation.
13. Substitution of a participating student on an IBA team once the competition begins at the Region or Section event is not allowed, except under extraordinary circumstances as approved by the IBA Committee.

### **Section 3: DATASETS**

1. Datasets are actual subsurface data and are not artificially created. However they may be altered by the IBA Technical Sub-Committee to better meet the purpose of the program.
2. Petroleum industry companies will normally have donated the IBA datasets for educational purposes. The AAPG does not own the datasets and must restrict their use to the program. **Therefore:** No use, presentation, publication, alteration, or representation of the dataset is allowed outside of the AAPG IBA program unless it is specified and approved by the IBA Committee in written form (consult the IBA Committee Chair if more information is required on this matter).
3. Datasets ideally will be comprised of a regional-scale grid of 3D seismic data (approx. 100 sq km<sup>2</sup>), regional 2D seismic lines and selected well data. The latter should have approximately 4-8 wells from within the seismic grid with wire-line logs, core and core analysis data, well test results, fluid pressures, mud logs and final well reports as available. Incomplete or variable quality

subsurface data is common and acceptable as a normal aspect of industry life; pristine datasets are not to be expected. However, every dataset is different in content and scope and the IBA Technical Sub-Committee is charged with altering the datasets to insure as fair a representation as possible. If a specific item from the above list is missing, it is either not available for this dataset or removed to insure a compatible content to the other datasets.

4. The IBA Committee encourages institutions to solicit additional datasets through their oil industry contacts for use in future IBA programs. These contacts should be referred to the IBA Committee (Technical Sub-Committee Chairman).
5. Each institution will be loaned a dataset from the AAPG for its use in the program. Institutions will be given access to the IBA datasets by the latest technical methods available to insure quality deliverability of the dataset.
6. Datasets and software that are not used in competition, in the case of a school dropping from the program prior to the Region or Section competition, are expected and required to be removed from the school's computer systems and not to be used in any form or manner for further instruction without the express written consent of the AAPG IBA Committee Chair and through the IBA Committee, the owner of the dataset and software in question. Violation of this rule will result in a school being ineligible for the IBA program for the next two years.
7. Schools that complete a competition on the Region and Section level may keep their dataset for instructional purposes and not delete them if they request to do so and receive a written consent from the AAPG IBA Committee Chair and through them, the owner of the dataset. Institutions are expected to delete the datasets from their computer systems if they do not wish to obtain permission to keep them.
8. No institution shall obtain additional data (well, seismic, log, and published reports) within the dataset study area, with the exception of geological publications in the public domain that deal with the regional setting of the area of the dataset. For example: schools may not include a well or seismic line that is inside the dataset area, in their interpretation of the dataset given to them if it was not in the original dataset. Inside the geographic area of the dataset (maps of which will be provided with the dataset), teams must deal only with the data given to them. Violation of this rule will result in point deductions from the judges at the Region, Section, and Finals program.
9. Experience indicates that the datasets themselves rarely influence selection of the winning team. Individual institutions are given their datasets by random selection and historical use.
10. The ethos of the Imperial Barrel Award is to focus on exploration, rather than on appraisal/development, and datasets are selected with this in mind. No institution will receive a dataset that is local to their geographic location unless an alternative dataset is unavailable. If that should happen, the IBA Committee will notify teams in that Section or Region of that situation.

11. Production/Development Geology projects are not permissible.
12. Datasets will be delivered (if and as possible) to teams eight weeks prior to their Section or Region event.
13. All participants are to obey and abide by the ethics principals of the AAPG. For a definition and complete ethics statement please see: <http://www.aapg.org/business/codethic.cfm>. Failure to comply will result in a dismissal of the individual from the competition by the IBA Committee.

#### **Section 4: PROJECT DATA ANALYSIS**

1. Seismic and well datasets will normally be interpreted using industry standard hardware and software systems. Schools must inform the IBA Technical Sub-Committee which interpretation software they will use prior to dataset distribution.
2. Seismic and well data interpretation systems may be either PC- or Unix-based.
3. Regional understanding of each basin is a priority and will require extensive review and synthesis of public domain data.
4. Teams should place their basins in its plate tectonic context.
5. Computer modelling systems should be widely used but users will be expected to demonstrate sound understanding of the underlying scientific concepts, software limitations and key uncertainties.
6. The analysis should reflect modern petroleum exploration workflows, including a quantitative analysis of resource assessment at both play and prospect levels.
7. The list of topics to be covered is:
  - a. Geodynamics, plate tectonic setting & tectonic evolution
  - b. Sedimentary basins: classification & tectonic setting
  - c. Regional paleogeography
  - d. Seismic interpretation
  - e. Well log interpretation & correlation
  - f. Regional stratigraphy/depositional environments/Sequence Stratigraphic framework.
  - g. Source presence and quality evaluation
  - h. Subsidence history & source rock maturation/migration (including 1D basin modelling)
  - i. Seal presence and quality evaluation
  - j. Trap (Structural and Stratigraphic) analysis
  - k. Formation evaluation
  - l. Reservoir presence and quality evaluation
  - m. Subsurface fluids & pressure regimes
  - n. Prospect evaluation
  - o. Risk Assessment and volumetric analysis
  - p. Final recommendation for business action

8. Any uncertainties in data analysis should be referred to the AAPG IBA Coordinator in the AAPG Region or Section in which the school is located.

### **Section 5: FACULTY ADVISORS**

Faculty Advisors must commit to the program and be responsible for the team's preparation and participation. They must be willing to act as custodians to ensure that the spirit and ethos of the exercise is honoured and maintained.

1. The team results should be largely the result of independent student team analysis.
2. Faculty involvement should be at the advisory level.
3. Faculty Advisors are not allowed to be in the competition room prior to or during the presentation of their team's project. Third parties, who have also worked with or are associated with the team in preparing for their presentation, are not allowed in competition room prior to or during that team's presentation.
4. Faculty Advisors may observe the team presentations after their own team has been judged.
5. Experience indicates that supervision by the Faculty Advisor of approximately to 30-60 minutes per team per week is appropriate.
6. Faculty Advisors are encouraged to have teams of no more than five students work the dataset within their institution. When used in a class, the Faculty Advisor should create multiple five-person teams to work the dataset, rather than a single large group of students collectively working the dataset. Internal school competitions are encouraged when more than one team is created.
7. Faculty should advise, and insist on, 'dry runs' by the team to their local industry panels before the final presentations. (See Section 6 on Consultants below.)
8. Faculty Advisors are encouraged at all times to view the program as a learning experience and encourage team dynamics and participation.

### **Section 6: OUTSIDE CONSULTANTS**

Teams may invite industry professionals as consultants to review and advise them on their presentations.

1. Such consultants must be advised by the Faculty Advisor as to the purpose and goal of the program prior to participating as a consultant.
2. Consultants may instruct students on how to perform a task, advise as to presentation content, or encourage students to consider alternative ways in approaching the task required by the program.
3. In no form, manner, or method may the Consultant actually perform the work required in the program. Violation of this rule will result in the immediate

dismissal of the team by the IBA Committee from the IBA program for that or upcoming year, depending upon the date of the infraction.

### **SECTION 7: JUDGING**

1. Judges may participate in the program at a Region, Section or Final competitions. However, Judges may only participate once within a contiguous three-year period. Judges at a Region/Section event are ineligible to serve as a judge at the Finals during that three-year period. Likewise, judges at the Finals may not serve as a judge at a Region/Section event during that three-year period.
2. Judges will be given a maximum of fifteen (15) minutes after each team presentation to ask questions of the team. Questions shall be limited to the scope of the preparation and presentation of the project.
3. Judges will act as instructed by the Region, Section, and Finals judging coordinators for their specific event.
4. Judges at the Region, Section, and Finals program must meet the minimum standards to judge the event (as described by the IBA Judges Committee).
5. Judging panels shall be comprised of a minimum of three (3) judges.
6. Only one judging panel shall be used throughout the Finals competition.

### **SECTION 8: VENUES**

1. Region and Section programs shall be at neutral locations. Holding the competition at participating schools shall not be allowed unless the Region or Section governing committee and the IBA Committee grant an exception.
2. Venues must be able to accommodate a five-member team PowerPoint presentation to a seated panel of judges, in a professional atmosphere and setting.

### **SECTION 9: AWARDS**

1. Regions and Sections may provide their own prizes and awards for their Region/Section competition.
2. Region and Section awards must not, in currency value, be more than 50% of the awards given at the Finals program.
3. The winning team from each Region and Section Competition will be invited to attend the Finals at the Annual Convention of the AAPG. That team will then compete against other Region and Section winners by making their presentations at the AAPG Annual Convention. The top three teams will be selected by an independent panel of industry experts serving as judges.

4. The Awards at the Finals program shall be:
    - A. Each participating team who does not place in the top three teams shall be awarded a \$1,000 scholarship donation to their institution.
    - B. The institutions of the top three teams will receive the following prizes as scholarship donations to their institutions:
      - 1<sup>st</sup>: The Imperial Barrel Award (plus \$20,000)
      - 2<sup>nd</sup>: The Selley Cup (plus \$10,000)\*
      - 3<sup>rd</sup>: The Stoneley Medal (plus \$5,000) \*\*
- \* Professor Richard C. Selley, Professor of Applied Sedimentology at Imperial College was the founder of the Barrel Award in 1976.
- \*\* Professor Robert Stoneley, past Professor of Petroleum Geology at Imperial College was the MSc Petroleum Geology Course Director from 1978 to 1995.

## **SECTION 10: SPONSORSHIP**

1. Sections and Regions are expected to raise the funds necessary to cover the expenses and costs associated with operating and presenting their respective programs.
2. The IBA Committee is expected to raise the funds necessary to cover the expenses and costs associated with the Finals program at the AAPG Annual Convention each year. The IBA Committee is to use said funds, in excess of the costs of the Finals for a specific year, to aide the Region and Section programs.
3. In an effort to coordinate such an effort, as much as possible, the IBA Committee has designated only those companies that are part of the AAPG Corporate Advisory Board (CAB) as exclusive to the IBA Committee efforts for the annual Finals program for a set period of time each year before they may be approached by the Region and Section sponsorship committees or representatives. Those CAB companies that elect to contribute to the IBA program through the IBA Committee are to be excluded from Region and Section sponsorship efforts (as any funds contributed to the IBA in this manner beyond the Finals cost will be distributed to support of the Region and Section programs).
4. All committee members raising funds for any Section, Region, or the Finals program are required to use the official IBA Sponsorship form (available from the webpage at [www.aapg.org/iba/](http://www.aapg.org/iba/)) and submit a completed form as directed.
5. All Sponsors for the Region, Section, and Finals program will be noted and thanked at the annual Finals program.
6. Sections and Regions may decide what they will offer each sponsor of their individual program. No sponsorship offering from a Section or Region can affect or be tied to the sponsorship offering for the annual Finals program (with the exception as noted in Item 3 above) without the expressed written consent of the IBA Committee.