Meeting Objectives

October 19, 2015
General Session

• Group discussion of the value proposition
• Group discussion to describe the ideal data set and reasons why industry should allow access to the data by academia
• Brief Summary of Faculty Proposals
  • Geoscience,
  • Reservoir Modeling,
  • Hydraulic Fracturing and
  • Nano-Molecular Studies
Breakout Sessions

• In each breakout group
  • academia will present short proposals that the faculty has sent in on the basis of the project proposal that illustrate the capabilities of the faculty
  • industry should tell academia what they see as the main issues and problems that academia should be working on
  • industry should help frame the deliverables that would be of interest to their companies

• From this meeting, Crisman and Berg-Hughes will develop a 2016 research plan to present to industry sponsors for approval
Value Proposition for Industry
Cost to Industry in Not all the much

• The cost of $90,000 per year is a bargain when considering you will have 20+ professors and many more graduate students working to develop technology to help your company produce more oil and gas.

• To get $90,000 worth of value, and assuming the price of oil is $60 in 2016, we need to provide you with enough knowledge to increase your company wide production by 4.1 bopd during the calendar year.

• Almost all money goes to pay graduate students
Value to Industry

• You will be able to meet regularly with the professors and graduate students working on projects of particular interest to your company.
• You will be able to help direct the research effort and set goals and deliverables that would be of benefit to your company.
• You will get to see which students would fit within your company when the graduate or put more frankly, you could get the ‘pick’ of the best.
• You will help us educate the ‘next generation’ geoscientists and engineers that can be of benefit to your company for decades.
Ideal Data Set
Data for all to use to improve results

• We currently have faculty working on good problems, but each research group is using a different data set

• At the end of the day, the results do not correlate or lead to a consistent picture of how to develop shale reservoirs

• If we have 1 or 2 ‘complete’ data sets that all researchers can use, we believe our results will lead to better understanding of shale reservoirs and let us build ‘predictive’ models based on fundamental science and engineering principles

• We would like data sets in the Eagle Ford and the Permian
The ideal data set would be

• All geologic maps in the study area to include structure, gross and net pay isopach maps, and other maps with useful information.
• Seismic (including micro-seismic) data to include both processed data and analyses of the data.
• Drilling data to include all morning reports, mud logs, drilling mud reports, and information on the trajectory and wellbore length for all wells in the study area.
• All core analyses records. We would also like to have any core that is still available that we can analyze.
• All open-hole logs for all wells in the study area. We would prefer both paper copies and digital copies of the logs. We would also like to have any analyses of the logs and copies of the processed logs showing both measured data and values calculated from those measurements.

• All completion reports to include details of casing and cementing, and any cased-hole logs for all wells in the study area.

• All fracture treatment records for all wells in the study area to include details of the perforation and diverting methods, fluids, proppants, and pumping records.

• All microseismic data to include raw signals as well as the processed results.

• All flowback data after the fracture treatments to include oil, gas and water flow rates as well as flowing pressures.
• All production data from the wells in the study area and other wells in the vicinity that can be used to determine regional reservoir quality.
• All reservoir fluid property analyses, as well as analyses of produced surface fluids from wells in the study area. To include samples of production fluids over time.
• All well tests that are used for production allocation and all pressure transient tests.
• Information concerning gathering systems, midstream processing and line pressures if such information is necessary to analyze the production data.
Donation of Data

“What’s in it for me”
Status of the Data

• You have already paid for the data so it costs you very little to donate it to the university
• The Texas A&M Foundation will give you a receipt for your donation of data and you can get a tax deduction for the value of the data, but your company must decide what value to place on the donation
• You have most likely completed your analyses of the data and have applied the ‘knowledge’ gained from studying the data to your operations
• The data are probably stored on a computer with few persons really using the data
Proprietary Issues

• We will agree to not publish the raw data
• We will execute a NDA with companies to protect the data
• We will be allowed to publish our analyses of the data
• We will allow the Crisman-BHC companies to view results early in the analyses cycle before publishing
• We will provide the Crisman-BHC companies with any algorithms and/or computer code developed to solve the algorithms
We will have a world-class team of researchers look at the data – more like with many different approaches and many different ideas.

Our analyses will most likely add to the ‘understanding and technology’ that can come from having dozens of new eyes and brains look at and analyze the data.

We will provide new ideas and insights that should benefit your bottom line, and finally

Helping the university produce better graduates is the right thing to do.