Memo

To: Shale Gas & LNG - Spring 2015

From: Prof. Sakmar

Date: Jan. 22, 2015

Re: 2nd Research Assignment - Disclosure of Chemicals Used in Hydraulic Fracturing Fluids

& EPA Study --- PART 1 of 2

Due Date: 2nd class session - Feb. 27/28

For this assignment, the GAO reports and the EPA study will be very helpful and should provide most of the answers.

- I. Disclosure of Chemicals Used in Hydraulic Fracturing Fluids
 - A. Does US Federal law require disclosure of chemicals used in hydraulic fracturing?
 - B. Have there been any Congressional actions seeking disclosure?
 - C. What are the rules if diesel is used?
 - D. What are the disclosure requirements for the following states/countries?

Texas, Pennsylvania, Canada

Be sure to address the following questions: Does the state/country require disclosure of the chemicals used in hydraulic fracturing? Are the rules proposed, pending or enacted and if enacted, when? If there are no rules, is anyone discussing the issue? What needs to be disclosed? How is disclosure made? Have there been any legal challenges to the disclosure rules?

- II. EPA Hydraulic Fracturing Study ------ Please skim the EPA Study be generally aware about the issues raised in the Study. These questions should be answered very briefly you do not need to spend a lot of time on the Study Plan (unless it's of interest to you).
 - A. What are the fundamental research questions addressed in the study?
 - B. What is the water lifecycle for hydraulic fracturing?
 - C. What is the role of case studies and how many are there?
 - D. What is the status of the study?