WHITMAN COLLEGE

Division of Basic Sciences
and Mathematics
Walla Walla, Washington 99362
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February 20, 2008

B.F. McGrail
Battelle Pacific Northwest Division
Richland WA 99352

Re: Wallula Sequestration Study

Dear Dr. McGrail:

We are writing to you as members of a scientific panel convened by citizens in the Walla Walla area for the purpose of reviewing the design and implementation of the carbon sequestration study to be conducted by Battelle at Wallula for the Big Sky Regional Carbon Partnership.

We have reviewed the June 2007 Field Activity Plan: Characterization Test for CO2 Sequestration in the Columbia River Basalt Group, as well as the January 2008 revision of the plan. We understand that the test follows lab experiments presented for peer review, but we do not yet have the report of those experiments or the results of that review.

We would very much like to meet with you to discuss the planned test, in order to better understand the design elements as well as the lab work, and to discuss opportunities for reviewing and monitoring the implementation of the test as it progresses.

Please let us know when it would be convenient for you and/or members of your team to meet with us. We would like to arrange this meeting at the Whitman College Science Department sometime during the next three weeks, if possible.

In the meantime, it would be very useful for us to be able to receive any available information you may be able to send regarding the topics listed on the attached sheet.

We look forward to our discussions with you regarding the proposed test, and appreciate your help in arranging a timely meeting.

Best wishes,

Robert Carson, Ph.D.
Professor of Geology
& Environmental Studies
Whitman College

Bryce Cole, Ph.D.
Assoc. Prof. of Engineering
Walla Walla University

Frank Dunnivant, Ph.D.
Assoc. Prof. of Chemistry
Whitman College

Robert Rittenhouse, Ph.D.
Adj. Prof. of Physical Chemistry
Central Washington University

Nick Bader, Ph.D.
Visiting Asst. Prof. of Geology
Whitman College

Topics of Interest:

1. Report of initial laboratory work and subsequent peer review

2. Reasons for specific revisions of Field Activity Plan, including

a. Elimination of the pilot borehole for acquiring hydrogeologic information prior to drilling the injection borehole, and for monitoring pressure and other responses during the drilling of the injection borehole and during the injection process and post-injection phase.

b. Elimination of the three shallow basalt geophysical monitoring boreholes for imaging the areal extent of the injected CO2 within the injection reservoir, also eliminating injection phase geophysical characterization from micro-seismic sensors in these planned bore holes .

c. Utilizing the injection borehole for pre-injection characterization, injection, and post-injection phases.

d. Eliminating slug or pulse interference tests, among others.

e. Eliminating reference to possible pressure response monitoring at more distant wells.

f. Eliminating reference to analysis of tracer breakthrough recovery patterns and curves (BTC) for tracking and monitoring transport and leakage of CO2.

g. Eliminating reference to installing an eddy covariance station to monitor surface levels of CO2 over the expected plume footprint.

h. Apparent downgrading of the number and frequency of monitoring of soil gas probes.

i. Elimination of cross-well seismic imaging and passive seismic monitoring, as well as the coordination and combined analysis of the cross-well seismic and borehole gravity surveys for plume tracking and estimation of its in-situ mass and saturation.

j. Elimination of reference to in-well probes to monitor pressure, temperature, and electrical conductivity continuously prior to and after injection.

k. Elimination of reference to geophysical imaging of plume growth before closing.

3. Results of seismic survey work

4. Your plan for dealing with water in the target interflow zone.