

Oil & Natural Gas Technology

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Quarterly Research Performance Progress Report (Period ending 8/31/2013)

Methane Hydrate Field Program

Project Period (October 1, 2012 - December 31, 2013)

Submitted by:

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Signature

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Office of Fossil Energy

ACCOMPLISHMENTS:

The primary objective of the project is to conduct scientific planning that will help enable future scientific ocean drilling, coring, logging, testing and analytical activities to assess the geologic occurrence, regional context, and characteristics of methane hydrate deposits along the continental margins of the U.S. with an emphasis on the Gulf of Mexico and the Atlantic margin.

What are the major goals of the project?

The goals that must be reached to obtain the objective are to assemble the Methane Hydrate Science Team led by a community liaison. Engage the hydrate community through a community workshop and to develop an implementable “Methane Hydrate Research Science Plan” for a future methane hydrate field sampling program.

What was accomplished under these goals?

The major activities and accomplishments of this reporting period were to:

- The methane workshop report has been finalized, circulated to workshop attendees for comment and posted on the project website.
- The Methane Hydrate Science Team met in Washington, DC on July 24-26, 2013 to begin writing the Methane Hydrate Research Science Plan. As a result of the meeting, a solid first draft of the Methane Hydrate Research Science Plan was created.
- The draft Methane Hydrate Research Science Plan was continually edited and refined through the end of the reporting period by the Methane Hydrate Science Team and a near final version now exists.

A list of the milestones and associated completion dates are listed in the chart below.

Milestone Status Report				
Milestone Title/Description	Planned Completion Date	Actual Completion Date	Verification Method	Comments (Progress towards achieving milestone, explanation of deviation from plan, etc.)
Secure Lead Community Liaison	5-Oct-12	5-Oct-12	Email notification to DOE	Completed. Tim Collett will serve at LCL
Attend the project kickoff meeting	15-Oct-12	15-Oct-12	Participate in online Meeting	Completed. Team attended online meeting
Finalize Hydrate Science Team	9-Nov-12	31-Dec-12	Email list to DOE	Completed. Team finalized
Complete review of historical projects	4-Jan-13	31-Mar-13	Email report to DOE	Completed. Compiled report, circulated for hydrate team review, finalized draft and sent to DOE. Now preparing for website distribution
Create workshop plan and send invitations	4-Jan-13	5-Feb-13	Email plan and invitation to DOE	Completed. Generated the draft workshop plan and invitee list. COL sent out invitations
Hold workshop and complete Workshop Report	21-Jun-13	13-Aug-13	Execute workshop plan	The workshop was successfully completed on June 4-6, 2013. The final workshop report was circulated in early Q4
Complete Methane Hydrate Science Plan writing meeting	5-Jul-13	26-Jul-13	Hold science plan writing meeting	Completed. Draft science plan created and being edited
Circulate the Methane Hydrate Science Plan draft for review	16-Sep-13		Email draft plan to DOE	The draft science plan will be provided to DOE in the first quarter of FY 2014
Finalize and submit Methane Hydrate Science Plan to DOE	30-Sep-13		Email science plan to DOE	When complete, the hydrate science plan will be disseminated by mail, email and web

The milestones have been established to support the creation of the primary project deliverables listed below.

- **Historical Methane Hydrate Project Review and Synthesis**
This brief report includes a systematic review of goals and accomplishments of the Ocean Drilling Program (ODP), Integrated Ocean Drilling Program (IODP) and other industry sponsored historical methane hydrate research drilling expeditions to date. This effort identifies the most critical unknowns (challenges) relative to our understanding of the geologic controls on the occurrence of methane hydrate in nature and how these factors may impact the energy resource potential of methane hydrates. This review includes the analysis of both technical concerns that are related to the universal occurrence of methane hydrates and specific regional concerns that may be unique to a given region or hydrate accumulation. This “living document” is being used to construct the agenda for the “U.S. Hydrate Community Drilling Workshop”.
- **Workshop Report**
The Workshop Report will include a complete synthesis of the results of the U.S. Hydrate Community Drilling Workshop, which will be incorporated into the final version of this historical review and will be used as the genesis of the Methane Hydrate Project Science Plan. This report has been circulated to the Methane Hydrate Science Team and DOE staff and posted on the project website.
- **Methane Hydrate Research Science Plan**
Methane Hydrate Research Science Plan document represents the primary deliverable of this proposed project. The Methane Hydrate Research Science Plan is intended to set the goals for a future hydrate drilling expedition and sampling program. The Methane Hydrate Research Science Plan, as prepared by the Methane Hydrate Science Team, will build upon the foundation of the “Historical Methane Hydrate Project Review and Synthesis” and the “Workshop Report”. The science plan will include specific recommendations for location of drilling leg(s) and drill sites specifically selected to address the methane hydrate research goals identified in this study. Various technical concerns will also be addressed, including recommendations regarding the type and amount of conventional and pressure cores that should be acquired, the type of core analysis that should be performed, the acquisition of the wireline and/or logging-while-drilling log data, and possible allocations for formation testing. It is envisioned that the Methane Hydrate Research Science Plan will be similar to a less detailed version of an IODP Expedition Prospectus that are produced as part of the normal IODP planning process.

What opportunities for training and professional development has the project provided?

Nothing to report

How have the results been disseminated to communities of interest?

A website was established in the first quarter, and located at www.oceanleadership.org/methane. This has been used for disseminating workshop information, meetings reports and other pertinent documents to the communities of interest. The next document to distribute will be the completed Methane Hydrate Research Science Plan drafted during the fourth quarter of fiscal year 2013.

What do you plan to do during the next reporting period to accomplish the goals?

Using the solid draft of the Methane Hydrate Research Science Plan, the Methane Hydrate Science Team will continue to edit and refine the document. Once complete, the document will be packaged for broad dissemination on the website and published in hardcopy form for limited distribution.

PRODUCTS:

What has the project produced?

A working draft of the Historical Methane Hydrate Project Review and Synthesis document was reviewed and finalized by the Methane Hydrate Science Team and sent to DOE during a previous reporting period. This document has been posted on the project website located at www.oceanleadership.org/methane. The project has also conducted a community workshop that has energized the community and effectively solicited information needed to write the Methane Hydrate Research Science Plan.

During the reporting period, a solid draft of the Methane Hydrate Research Science Plan document was completed and circulated to the Methane Hydrate Science Team for continued editing. The document will be finalized and circulated to the broader community in the first quarter of fiscal year 2014.

PARTICIPANTS & OTHER COLLABORATING ORGANIZATIONS:

Who has been involved?

What individuals have worked on the project?

Greg Myers-COL

PI

Nearest Person Month Worked:	0.25
Contributions to the project:	Led the project
Funding Support:	N/A
Collaborated with individual in foreign country:	Yes
Countries of foreign collaborators:	Korea, Norway
If traveled to foreign country(ies), duration of stay:	0

David Divins-COL

PI

Nearest Person Month Worked:	0
Contributions to the project:	Led the project
Funding Support:	N/A
Collaborated with individual in foreign country:	Yes
Countries of foreign collaborators:	Korea, Norway
If traveled to foreign country(ies), duration of stay:	0

Tim Collett-USGS

Lead Community Liaison

Nearest Person Month Worked:	0.5
Contributions to the project:	helped lead the workshop and science team
Funding Support:	N/A
Collaborated with individual in foreign country:	Yes
Countries of foreign collaborators:	Korea, Norway
If traveled to foreign country(ies), duration of stay:	0

What other organizations have been involved as partners?

Nothing to report

Have other collaborators or contacts been involved?

We continue to utilize the Methane Hydrate Science Team to discuss project issues and deliverables.

IMPACT:

By engaging academic and industry experts in the field of marine methane hydrates, the Methane Hydrate Science Team heightened the awareness of work being initiated by DOE-NETL. Through the community workshop, the methane hydrate community has been energized and the project now has the information need to create an impactful Methane Hydrate Research Science Plan. The Methane Hydrate Research Science Plan will be the driving document needed to select, plan and execute the next offshore methane hydrate field sampling project.

CHANGES/PROBLEMS:

A no-cost extension was applied for and approved during the reporting period. The extension was requested to ensure that the Methane Hydrate Research Science Plan was properly reviewed and edited prior to final submission.

SPECIAL REPORTING REQUIREMENTS

Nothing to report

BUDGETARY INFORMATION:

See SF-425 under separate cover

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