

Department of Energy, National Energy and Technology Laboratory

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Utica Shale Energy and Environmental Laboratory

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DUNS: 832127323

The Ohio State University  
1960 Kenny Road  
Columbus, OH 43210-1016

Project Period: 08/01/2015 – 07/31/2019

Quarterly Reporting Period: 07/01/2015-09/30/2015

A handwritten signature in blue ink that reads "Jared Port". The signature is written in a cursive style with a large initial "J" and "P".

# Ohio State Quarterly RPPR

## 2. Accomplishments

a.) Major Project Goals. Project milestones are summarized in Table 1.

Milestone Title	Planned Completion Date	Actual Completion Date	Milestone Verification Method	Comments
Completion of the PMP	10/09/2015	-	Review and approval by NETL	- In process - expect completion on schedule
Operator and Drill Site Finalized	07/29/2016	-	Operator agreement approved by Primary Advisory Board (PAB)	- Selection process now includes non-MWCD sites
Initial Geologic Structure Database Complete	07/29/2016	-	Subsurface model reviewed by technical experts	- System planning completed - Graduate Assistant assigned
Vertical Drilling Start	10/03/2016	-	Drill vertical borehole Core Acquisition	
Baseline Environmental Report	10/03/2016	-	Approval by PAB	
Horizontal Drilling Start	11/14/2016	-	Microseismic monitoring Drill fluids and gas sampling Cuttings, mud and fluids analysis Engineering testing and monitoring	
Borehole Geophysics Report	07/31/2017	-	Approved by Science Coordination Board (SCB)	
Preliminary Horizontal Environmental Monitoring Report	10/02/2017	-	Approved by PAB	
Preliminary Horizontal Geologic Report	07/31/2018	-	Approved by SCB	
Engineering Environmental Monitoring Report	10/02/2018	-	Approved by PAB	
Final Engineering Report	04/30/2019	-	Approved by SCB	
Final Environmental Monitoring Report	07/31/2019	-	Approved by PAB	

Table 1. Milestone status report

## Ohio State Quarterly RPPR

b.) Accomplishments. Major activities for this reporting period consisted of project management, field operations planning, website development and quality assurance/quality control document preparation. The OSU-MWCD Memorandum of Agreement (MOU) has been approved and signed by the OSU Sponsored Programs Officer. It has been approved by the MWCD and is awaiting signature.

The Project Management Plan (PMP), the first required deliverable, is being reviewed prior to submission in early October. The Access Guidelines Report, the first optional deliverable, is being prepared.

Drafts of all Quality Assurance/Quality Control plans have been prepared. Sampling locations have been tentatively identified. The USGS-MWCD surface water program will be integrated into the plan for USEEL surface water monitoring. Equipment and supplies for surface water, sediment, and groundwater sampling have been procured and are on hand.

c.) Opportunities for training and professional development. Five Graduate Research Assistants have been hired. Weekly meetings have been used to familiarize students with the USEEL project, policies, and field operations procedures. Students have been assigned tasks to work on with faculty advisors. Each student will make a 45 minute presentation on their specific research approach for the USEEL subtasks they have been assigned.

Preparations for the first OSU Extension Educator training session (SOPO Task 3.3) are on-going. The daylong training session will be held on October 27, 2015.

d.) Dissemination of results to communities of interest. Nothing to report.

e.) Plans to accomplish goals/milestones during next reporting period. The Project Management Plan and Access Guidelines Report will be completed and submitted during the next reporting period following the schedule in Table 1. Quality Assurance and Quality Control procedures for baseline environmental sampling will also be completed. This will enable the first baseline samples to be collected during the next reporting period.

### 3. Products

a.) Publications, conferences papers, and presentations. Student presentations describing their research approach to specific USEEL subtasks.

b.) Website(s) or other Internet site(s). The beta USEEL website was released and may be found at <http://useel.osu.edu/>

c.) Technologies or techniques. Nothing to report.

d.) Inventions, patent applications, and/or licenses. Nothing to report.

# Ohio State Quarterly RPPR

e.) Other products. Initial sampling plans and site maps with sampling locations have been prepared. Quality assurance / Quality Control plans have been drafted for air, surface water, sediment, groundwater, soil and biologic parameters sampling.

## 4. Participants & Other Collaborating Organizations

### a.) Individuals who have worked on the project.

Name: Dr. Jeffrey Daniels

Project Role: Director

Nearest person month worked: 2 (cost share)

Contribution to project: Dr. Daniels has been involved in overall project management, planning, and administration.

Foreign collaboration: No

Name: Mr. Jeffrey Melaragno

Project Role: Project Manager

Nearest person month worked: 3

Contribution to project: Mr. Melaragno has been involved in overall project management, planning, and administration.

Foreign collaboration: No

Name: Dr. Gerald Allen

Project Role: Science Operations Manager

Nearest person month worked: 3

Contribution to the project: Dr. Allen has been involved in project management, planning, and administration; and collection and compilation of GIS data for site-specific and regional study area delineation and evaluation.

Foreign collaboration: No

Name: Ms. Sarah Mielke

Project Role: Graduate Research Assistant

Nearest person month worked: 1

Contribution to the project: Ms. Mielke is working on the Rapid Land Use Change Study (subtask 4.1.6).

Foreign collaboration: No

Name: Ms. Paige Hagley

Project Role: Graduate Research Assistant

Nearest person month worked: 1

Contribution to the project: Ms. Hagley is working on the Rapid Land Use Change Study (subtask 4.1.6).

Foreign collaboration: No

## Ohio State Quarterly RPPR

Name: Mr. Benjamin Grove

Project Role: Graduate Research Assistant

Nearest person month worked: 1

Contribution to the project: Mr. Grove is working on the groundwater monitoring plan (subtask 4.2).

Foreign collaboration: No

Name: Mr. Kauchik Rangharajan

Project Role: Graduate Research Assistant

Nearest person month worked: 1

Contribution to the project: Mr. Rangharajan is working on the fluids sampling plan (subtask 6.6).

Foreign collaboration: No

Name: Mr. Nicholas Bailes

Project Role: Graduate Research Assistant

Nearest person month worked: 1

Contribution to the project: Mr. Bailes is working on the surface water sampling plan (subtask 4.1.3).

Foreign collaboration: No

Name: Dr. Roman Lanno

Project Role: Environmental Monitoring Lead

Nearest person month worked: 1 (cost share)

Contribution to the project: Dr. Lanno has been involved in planning and preparations for air, soil, surface water, groundwater and biologic parameters sampling (task 4.0).

Foreign collaboration: No

Name: Dr. Michael Bisesi

Project Role: Air Monitoring Lead

Nearest person month worked: 1 (cost share)

Contribution to the project: Dr. Bisesi has been involved in discussions with WVU and vendors to determine the best approach for air monitoring (subtask 4.1.2).

Foreign collaboration: No

Name: Dr. Jeffrey Bielicki

Project Role: Community Outreach Lead

Nearest person month worked: 1 (cost share)

Contribution to the project: Dr. Bielicki has been involved in planning the USEEL community outreach program (Task 3.0).

Foreign collaboration: No

Name: Dr. Kenneth Martin

Project Role: OSU Extension Education Lead

Nearest person month worked: 1 (cost share)