

- Welcome to the Webinar
- All participants are on mute for duration of webinar
- Webinar will be posted on the NETL RWFI website <u>www.netl.doe.gov/rwfi</u>
 - Any questions? <u>Netl.rwfi@netl.doe.gov</u>
- Introductions & Webinar Instructions
 - NETL Regional Workforce Initiative and NETL Research Background- Anthony Armaly- NETL RWFI Federal Coordinator
 - Energy 101- Sensors and Controls- Richard Hammack- NETL Research Group Leader
 - Conclusion and upcoming events





NETL Regional Workforce Initiative (NETL RWFI)

A Focus on Appalachia and the future of Energy and Advanced Manufacturing Regional Workforce Readiness and Economic Development



NETL RWFI Mission Statement



NETL RWFI is a platform for engagement and collaboration with key stakeholders who are critical for the deployment of U.S. DOE and NETL Energy and Advanced Manufacturing technological research.

Supporting Regional Economic and Workforce Development opportunities.



Collaboration, Coordination, and Communication In the Energy and Advanced Manufacturing workforce

Collaboration with stakeholders and partners around workforce readiness and economic opportunities

Coordinating across economic development and workforce development initiatives

Communicating activities, research, and funding opportunities to stakeholders







Responsive to Administration Priorities

NATIONAL ENERGY TECHNOLOGY LABORATORY

RWFI aligns with the Administration's efforts to connect R&D investment to economic growth, job growth, and development of a skilled technical workforce.

- Establishing the President's Council for the American Worker
- Establishing Apprenticeships in America
- Strengthening the Cybersecurity of Federal Networks and Critical Infrastructure





Key NETL RWFI Metrics



400 +

individual regional and national stakeholders



institutions and organizations represented



subscribed to the NETL RWFI e-Note Monthly Newsletter

registrants to the NETL RWFI Webinar Series



Appalachia at a Glance

NATIONAL ENERGY TECHNOLOGY LABORATORY

The Appalachian region is:

- a historically critical region for U.S. energy production, and will continue to be so
- a strategically important area for related technologies in advanced manufacturing and supercomputing
- expected to enjoy a manufacturing renaissance
- an area that has been adversely affected by changes in energy extraction and related manufacturing activity







Key Outcomes to Date



Establishment of a new network of regional stakeholders
Consistent engagement with key regional partners
Integration of Workforce Workplan
Increased communication of NETL mission
Increased growth for potential collaborative opportunities



Core Competencies & Technology Thrusts







You Tube



For More Information, Contact Anthony Armaly anthony.armaly@netl.doe.gov +1-412-386-6040 www.netl.doe.gov





Airborne Electromagnetic Surveys



January 22, 2020



Superfund Site – Plume Mapping

ElectroMagnetics (EM)







U.S. DEPARTMENT OF







Hazard Evaluation of Coal Waste Impoundments



ElectroMagnetics (EM)









Oil and Gas – Produced Water Disposal



ElectroMagnetics (EM)







Methods for Locating Conductive Flowlines



Drone Electromagnetic Survey





Methods for Locating Conductive Pipelines



ElectroMagnetics (EM)





Airborne Magnetic Surveys



February 22, 2019



NOLOGY Helicopter Magnetic Surveys of Salt Creek Oilfield and Naval Petroleum Reserve No. 3 55079 55060 55046 55038 55033 55029 55026 55021 55021 55015 55009

Salt Creek Oilfield

U.S. DEPARTMENT OF ENERGY NPR No. 3

Helicopter Well Location in Wyoming Oilfields (2005-2007)

Aeromagnetic Detection of Deeply Buried Wells









Aeromagnetic Detection of Pipelines

Susquehannock State Forest, Potter County, PA







Micro Fabricated Atomic Magnetometer (MFAM)













Geometrics MagArrow Prototype



Demonstration Survey for Ohio DNR



Demonstration Survey for Ohio DNR



Demonstration Survey for Ohio DNR



Drone Magnetic Detection of Pipelines









Drone Magnetic Detection of Pipelines







Drone LiDAR Surveys



February 22, 2019



Locating Wells without Steel Casing?

Oil Creek State Park, Venango County, PA







Wells Missed by Magnetic Surveys



Wells Missed by Magnetic Surveys





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