

Geologic Carbon Storage Archived Projects

Title	Performer	Last Update
Geosequestration Experiments	NETL	NA
Remediation of Field Abandoned Iron Ore Mine Subsidence	Rockaway Township	9/30/1997
Experimental Evaluation of Chemical Sequestration of CO ₂ in Deep Saline Formations	Battelle Memorial Institute	7/15/1998
E2S - Environmental Product Support	Energy & Environmental Solutions, LLC / Energetics, Inc.	7/15/1999
Underground Placement of Coal Waste and Combustion By-Products Based Paste Backfill for Mining	Southern Illinois University - Dept. of Mining Eng.	8/13/1999
GEO-SEQ Project/LBNL	Lawrence Berkeley National Laboratory	5/1/2000
Geologic Sequestration of CO₂ in Deep, Unmineable Coalbeds	Advanced Resources International	9/30/2000
Sequestration of Carbon Dioxide Gas in Coal Seams	CONSOL Energy Inc.	9/21/2001
Effects of Temperature and Gas Mixing in Underground Coalbeds	Oak Ridge National Laboratory	3/15/2002
Physics and Chemistry of Coal-Seam CO₂ Sequestration & Coalbed Methane Production	Pennsylvania State University / University of Pittsburgh / University of Oklahoma / University of Southern Illinois	8/1/2002
Advanced CO₂ Cycle Power Generation	Foster Wheeler Development Corporation	9/25/2002
Simultaneous Mechanical and Heat Activation: A New Route to Enhance Serpentine Carbonation Reactivity and Lower CO ₂ Mineral Sequestration Process Cost	Arizona State University	9/30/2002
Sequestration of Carbon Dioxide Emissions in Geologic Formations	NETL	10/2002
Big Sky Regional Carbon Sequestration Partnership	Montana State University	9/26/2003
Upgrading Methane Streams With Ultra-Fast TSA	Velocys, Inc.	9/26/2003
Midcontinent Interactive Digital Carbon Atlas and Relational DataBase (MIDCARB)	University of Kansas Research Center	10/1/2003
A Decision Tool for Watershed-Based Effluent Trading	University of North Dakota Energy and Environmental Research Center	3/24/2004
Applied Terrestrial Carbon Sequestration	LANL	4/1/2004
Measurement of Hydrocarbon Evolution from Coal and Petroleum Reservoirs Under Carbon Dioxide Floods	University of North Dakota Energy and Environmental Research Center	4/1/2004
Maximizing Storage Rate and Capacity and Insuring the Environmental Integrity of Carbon Dioxide	Texas Tech University	8/1/2004
Zero Emission Technology Research: Fundamental Investigations of CO ₂ Storage in Sedimentary Basins	Lawrence Berkeley National Laboratory	10/1/2004
Multiple-Input Data Acquisition Systems (MIDAS) for Measuring the Carbon Content in Soil Using Inelastic Neutron Scattering	X-Ray Instrumentation Associates	3/30/2005
An Investigation of Gas/Water/Rock Interactions & Chemistry	NETL	6/27/2005
Ocean Sequestration	NETL	6/27/2005
Geochemical Analyses of Surface and Shallow Gas Flux and Composition Over a Proposed Carbon Sequestration Site in Eastern Kentucky	University of Kentucky Research Foundation	7/15/2005

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An Assessment of Geological Carbon Sequestration Options in the Illinois Basin - Phase II and III	Illinois State Geological Survey / Southern Illinois University / Brigham Young University / Kentucky Geological Survey / Indiana University / Archer Daniels Midland Corporation / Schlumberger Consulting Services / Trimeric Corporation	9/30/2005
Enhanced Microbial Pathways for Methane Production from Oil Shale	Western Research Institute	10/1/2005
Carbon Sequestration for Existing Power Plants Feasibility Study	ALSTOM	12/2005
Application of Cutting-Edge 3-D Seismic Attribute Technology to the Assessment of Geological Reservoirs for CO₂ Sequestration	University of Houston	12/19/2005
An Evaluation of the Feasibility of Combining CO₂ Flooding with Microbially Enhanced Oil Recovery Technologies in Order to Sequester CO₂	Mississippi State University	2/14/2006
Analysis of Devonian Black Shale in Kentucky for Potential Carbon Dioxide Sequestration and Enhanced Natural Gas Production	University of Kentucky Research Foundation	3/1/2006
Carbon Capture and Water Emissions Treatment System (CCWESTRS) at Fossil-Fueled Electric Generating Plants	Tennessee Valley Authority Electric Power Research Institute	3/1/2006
Carbon Sequestration on Surface Mine Lands	University of Kentucky	3/1/2006
Conceptual Design of Optimized Fossil Energy Systems with Capture and Sequestration of CO₂	University of California - Davis	3/1/2006
Enhanced Practical Photosynthetic CO₂ Mitigation	Ohio University	3/1/2006
Enhancement of Terrestrial Carbon Sinks Through Reclamation of Abandoned Mine Lands in the Appalachians	Arthur Temple College of Forestry, Stephen F. Austin State University	3/1/2006
Full-Scale Bioreactor Landfill	Yolo County Planning and Public Works Department	3/1/2006
Geologic Screening Criteria for Sequestration of CO₂ in Coal: Quantifying Potential of the Black Warrior Coalbed Methane Fairway, Alabama	Geologic Survey of Alabama	3/1/2006
Recovery and Sequestration of CO₂ from Stationary Combustion Systems by Photosynthesis of Microalgae	Physical Sciences, Inc.	3/1/2006
Restoring Sustainable Forests on Appalachian Mined Lands for Wood Products, Renewable Energy, Carbon Sequestration, and Other Ecosystem Services	Virginia Polytechnical Institute	3/1/2006
Unminable Coalbeds and Enhancing Methane Production Sequestering Carbon Dioxide	Oklahoma State University	3/1/2006
Development of Science-Based Permitting Guidance for Geologic Sequestration of CO₂ in Deep Saline Aquifers Based on Modeling and Risk Assessment	University of Texas - Austin	6/30/2006
Regional Modeling of Large-Scale Hydrologic Impact of CO ₂ Storage	Lawrence Berkeley National Laboratory	10/1/2006
Sequestration of Carbon Dioxide Emissions in the Ocean	Massachusetts Institute of Technology	10/2006
CO ₂ SINK (German) Collaboration	Lawrence Berkeley National Laboratory	3/2/2007
Landfill Gas Sequestration in Kansas	Kansas Geological Survey	3/31/2007
A Novel Approach to Mineral Carbonation: Enhancing Carbonation While Avoiding Mineral Pretreatment Process Cost	Arizona State University	6/21/2007
Gas/Water Interactions Project and the NETL Water Tunnel Facility and Hydrate Laboratory	NETL	6/29/2007
CO₂ Sequestration Potential of Texas Low-Rank Coals	Texas Engineering Experiment Station	6/30/2007

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International Collaboration on CO₂ Sequestration	Massachusetts Institute of Technology	6/30/2007
Study of the Use of Saline Formations for Combined Thermoelectric Power Plant Water Needs and Carbon Sequestration at a Regional-Scale	Sandia National Laboratories	7/15/2007
Neutralizing Carbonic Acid in Deep Carbonate Strata Below the North Atlantic Ocean	Harvard University	1/14/2008
Feasibility of Large-Scale CO₂ Ocean Sequestration	Monterey Bay Aquarium Research Institute	3/31/2008
Laboratory Investigations in Support of Carbon Dioxide-Limestone Sequestration in the Ocean	University of Massachusetts - Lowell	3/31/2008
Strategies for Controlling Coal Permeability in CO₂-Enhanced Coalbed Methane Recovery	Oak Ridge National Laboratory	3/31/2008
Carbon Sequestration Support to Collaborative Efforts in China	Lawrence Livermore National Laboratory	4/1/2008
Terrestrial Sequestration Program: Capture and Storage of Carbon in Terrestrial Ecosystems	NETL	4/2008
Enhancing Carbon Sequestration & Reclamation of Degraded Lands with Fossil Fuel Combustion Byproducts	Pacific Northwest National Laboratory (PNNL)	4/1/2008
Geologic CO ₂ Sequestration with Methane Farming	University of North Dakota Energy and Environmental Research Center	5/1/2008
Optimal Geological Environments for Carbon Dioxide Storage in Saline Formations	University of Texas at Austin	5/30/2008
Storage of CO₂ in Geologic Formations in the Ohio River Valley Region	Battelle Memorial Institute	5/31/2008
Subtask 2.8 - Development of Storage Capacity Coefficients for Carbon Dioxide Storage in Deep Saline Aquifers and Oil and Gas Reservoirs	University of North Dakota Energy and Environmental Research Center	8/25/2008
A Novel Approach to Experimental Studies of Mineral Dissolution Kinetics	Indiana University	8/31/2008
Oxy-Fuel Combustion	NETL	8/31/2008
CO ₂ -Water-Rock Interactions and the Integrity of Hydrodynamic Fields	Los Alamos National Laboratory	9/30/2008
Geological Sequestration of CO₂: GEO-SEQ / ORNL	Oak Ridge National Laboratory	9/30/2008
Geological Sequestration of CO₂: GEO-SEQ/LLNL	Lawrence Livermore National Laboratory	9/30/2008
PNNL: CO₂ Sequestration in Basalt Formations	Pacific Northwest National Laboratory	9/30/2008
The Coal-Seq Consortium: Advancing the Science of Carbon Dioxide Sequestration in Deep, Unmineable Coal Seams	Advanced Resources International	9/30/2008
Basic Science of Retention Issues, Risk Assessment & Measurement, Monitoring, & Verification for Geologic CO₂ Sequestration	Montana State University	4/30/2009
CO₂ Geological Storage: Coupled Hydro-Chemo-Thermo-Mechanical Phenomena - "From Pore-Scale Processes to Macroscale Implications	Georgia Institute of Technology	5/31/2009
Basin-Scale Leakage Risks from Geologic Carbon Sequestration: Impact on CCS Energy Market Competitiveness	Princeton University	8/31/2009
Advanced Capture and Co-Sequestration	Pacific Northwest National Laboratory	9/1/2009
Capture and Sequestration Systems Support	Pacific Northwest National Laboratory	10/1/2009
CO ₂ Saline Storage Demonstration in Colorado Sedimentary Basins: Applied Studies in Reservoir Assessment and Dynamic Processes Affecting Industrial Operations	Colorado School of Mines	10/1/2009
Consolidated Sequestration Research Project	Lawrence Berkeley National Laboratory	10/1/2009

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Fundamental Studies of Above Ground and Geologic Mineral Sequestration Reactions	Argonne National Laboratory	10/1/2009
Geologic Sequestration Core Flow Laboratory	NETL	11/1/2009
Multi-Objective Optimization Approaches for The Design of Carbon Geological Sequestration Systems	Colorado State University	5/1/2010
Advancing the State of Geologic Sequestration Technologies towards Commercialization and Pre-Combustion Capture Goals	Los Alamos National Laboratory (LANL)	5/31/2010
Lawrence Berkeley National Laboratory - Consolidated Sequestration Research Project	Lawrence Berkeley National Laboratory	5/31/2010
Geologic Sequestration Training and Research	University of Alabama	5/31/2010
Advancing the State of Geologic Sequestration Technologies towards Commercialization	Lawrence Livermore National Laboratory (LLNL)	7/1/2010
Consolidated Sequestration Research Projects	Lawrence Livermore National Laboratory	7/1/2010
Argonne National Laboratory - Task 3 - Life Cycle Water Consumption for CCS	Argonne National Laboratory	7/31/2010
Comprehensive, Quantitative Risk Assessment of CO₂ Geologic Sequestration	Headwaters Clean Carbon Services LLC	8/31/2012
Development of a Software Framework for System Level Carbon Sequestration Risk Assessment	GoldSim Technology Group	8/31/2012
Geo-Chemo-Mechanical Studies for Permanent CO₂ Storage in Geologic Reservoirs	Columbia University	8/31/2012
Geological and Geotechnical Site Investigations for the Design of a CO₂ Rich Flue Gas Direct Injection and Storage Facility in an Underground Mine - Keweenaw Basalts of the Great Lakes Region	University of Alaska Fairbanks	8/31/2012
Geomechanical Simulation of CO₂ Leakage and Cap Rock Remediation	Missouri Univ. of Science and Technology	8/31/2012
Geoscience Perspectives in Carbon Sequestration: Educational Training and Research Through Classroom, Field, and Laboratory Investigations	University of Missouri - Rolla	8/31/2012
Modeling and Risk Assessment of CO₂ Sequestration at the Geologic-Basin Scale	Massachusetts Institute of Technology	8/31/2012
Numerical Modeling of Geomechanical Processes Related to CO₂ Injection within Generic Reservoirs	Missouri Univ. of Science and Technology	8/31/2012
The Potential Risks of Freshwater Aquifer Contamination with Geosequestration	Duke University	8/31/2012
Training Students to Analyze Spatial and Temporal Heterogeneities in Reservoir and Seal Petrology, Mineralogy, and Geochemistry: Implications for CO₂ Sequestration Prediction, Simulation, and Monitoring	Purdue University (West Lafayette)	8/31/2012
Understanding the Impact of CO₂ Injection on the Subsurface Microbial Community in an Illinois Basin CCS Reservoir: Integrated Student Training in Geoscience & Geomicrobiology	University of Illinois	8/31/2012
Simulation of Coupled Processes of Flow, Transport and Storage of CO₂ in Saline Aquifers	Colorado School of Mines	8/31/2012
The Coal-Seg III Consortium: Advancing the Science of CO₂ Sequestration in Coal Seams and Gas Shale Reservoirs	Advanced Resources International	8/31/2012
Actualistic and Geomechanical Modeling of Reservoir Rock, CO₂ and Formation Fluid Interaction, Citronelle Oil Field, Alabama	West Virginia University	8/31/2012
Carbon Dioxide Sealing Capacity: Textural or Compositional Controls?	Brooklyn College	8/31/2012
Training Students to Analyze Spatial and Temporal Heterogeneities in Reservoir and Seal Petrology, Mineralogy, and Geochemistry: Implications for CO₂ Sequestration Prediction, Simulation, and Monitoring	University of Utah	8/31/2012

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Analytical-Numerical Sharp-Interface Model of CO₂ Sequestration & Application to Illinois Basin	New Mexico Institute of Mining and Technology	12/1/2012
High Fidelity Computational Analysis of CO₂ Sorption at Pore Scales in Coal Seams	University of Texas at El Paso	2/1/2013
A Modular Curriculum for Training University Students in Industry Standard CO₂ Sequestration and Enhanced Oil Recovery Methodologies	University of Texas of the Permian Basin	2/28/2013
Microbial and Chemical Enhancement of In-Situ Carbon Mineralization in Geologic Formation	Columbia University	2/28/2013
Monitoring and Numerical Modeling of Shallow CO₂ Injection, Greene County, Missouri	Missouri State University	2/28/2013
Rock Physics of Geologic Carbon Sequestration/Storage	Stanford University	2/28/2013
Training and Research on Probabilistic Hydro-Thermo-Mechanical Modeling of Carbon Dioxide Geological Sequestration in Fractured Porous Rocks	Colorado School of Mines	2/28/2013
Training Graduate and Undergraduate Students in Simulation and Risk Assessment for Carbon Sequestration	Colorado School of Mines	2/28/2013
Geologic Sequestration Core Flow Laboratory	NETL	2/28/2013
Assessing Reservoir Depositional Environments to Develop and Quantify Improvements in CO₂ Storage Efficiency: A Reservoir Simulation Approach	Illinois State Geological Survey	3/31/2013
Development of Improved Caprock Integrity Analysis and Risk Assessment Techniques	Geomechanics Technologies, Inc.	4/30/2013
Experimental Design Applications for Modeling and Assessing Carbon Dioxide Sequestration in Saline Aquifers	Fusion Petroleum Technologies	5/31/2013
Integrated Experimental and Modeling Studies of Mineral Carbonation as a Mechanism for Permanent Carbon Sequestration in Mafic/Ultramafic Rocks	Yale University	5/31/2013
"Carbonsheds" as a Framework for Optimizing US CCS Pipeline Transport on a Regional to National Scale	Duke University	6/1/2013
Analysis of Microbial Activity Under a Supercritical CO₂ Atmosphere	Massachusetts Institute of Technology	6/1/2013
Analysis of Potential Leakage Pathways and Mineralization in Caprocks for Geological Storage of CO₂	Utah State University	6/1/2013
Assessment of Factors Influencing Effective CO₂ Storage Capacity and Injectivity in Eastern Gas Shales	Advanced Resources International	6/1/2013
Geomechanical Simulation of Fluid-Driven Fractures	University of Minnesota	6/30/2013
Interdisciplinary Investigation of CO₂ Sequestration in Depleted Shale Gas Formation	Stanford University	6/30/2013
Molecular Simulation of Dissolved Inorganic Carbons for Underground Brine CO₂ Sequestration	California Institute of Technology	6/30/2013
Web-Based CO₂ Subsurface Modeling	San Diego State University	6/30/2013
Inexpensive Monitoring and Uncertainty Assessment of CO₂ Plume Migration	University of Texas at Austin	6/30/2013
Influence of Local Capillary Trapping on Containment System Effectiveness	University of Texas at Austin	6/30/2013
Maximization of Permanent Trapping of CO₂ and Co-Contaminants in the Highest Porosity Formations of the Rock Springs Uplift	University of Wyoming	6/30/2013
CO₂ Geologic Storage: Coupled Hydro-Chemo-Thermo-Mechanical-Phenomena-From Pore-Scale Processes to Macroscale Implications	Georgia Institute of Technology	5/31/2014
Modeling and Risk Assessment of CO₂ Sequestration at the Geologic-Basin Scale	Massachusetts Institute of Technology	5/31/2014

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