ON THE ROCKS

A Newsletter of the Michigan Basin Geological Society

2020-2021 Edition 2 *www.mbgs.org* *November 2021*

ANNOUNCEMENTS

MBGS Membership Meeting, November 10th, 2021, 7:00PM: Laurel Woodruff, United States Geological Survey will present "The remarkable Midcontinent Rift System – almost an ocean and certainly not a failure ".

Join Zoom Meeting
https://us06web.zoom.us/j/82682557674?pwd=VGlYaXVRRHpqSG4xdzlWL2dlQkVmdz09
Meeting ID: 826 8255 7674 **Passcode:** YQ4ZtD
Call In:
+13017158592, 82682557674# *528414# US (Washington DC)
+13126266799, 82682557674# *528414# US (Chicago)

Opportunity for Presenters: MBGS is seeking presenters for Michigan Basin geologically-related topics for our 2021-2022 membership meetings. Our intent is to host virtual monthly one-hour meetings October 2021 through May 2022. If interested, please contact our current Vice President, Adedoyin Adeyilola, at adeyi1a@cmich.edu.

OTHER NEWS

ACCEPTING APPLICATIONS FOR THE 2021 MBGS E.Z. MANOS MEMORIAL SCHOLARSHIP

Michigan Basin Geological Society will award two scholarships up to $500 each to students conducting graduate or undergraduate research in geology related to Michigan. The scholarships will be awarded at an upcoming MBGS meeting and the winner(s) will be notified In December. We hope recipients can attend a spring MBGS meeting to present their research topic.

Candidates should complete and submit the MBGS scholarship application form by ***November 27, 2021*** to John A. Yellich, MBGS Secretary, at john.a.yellich@wmich.edu with subject Line: MBGS Scholarship 2021. Applications and more information can be found on MBGS's website: www.mbgs.org

MBGS MEMBERSHIP DUES

MBGS continues to strive to provide a platform for geologist and environmental professionals to connect and offer learning and field trip opportunities. For 2021-2022, our annual dues are $35. *Student Membership is free*. We now offer the option to renew via PayPal. Please refer to the renewal notices that are included in the newsletter.

NEW - Student Membership is free, see website for registration details

November 2021 MBGS Virtual Membership Meeting

Presentation: The remarkable Midcontinent Rift System – almost an ocean and certainly not a failure
Presenter: Laurel Woodruff, United States Geological Survey will present
When: November 10th, 7:00 PM, 2021
Join Zoom Meeting: https://us06web.zoom.us/j/82682557674?pwd=VGlYaXVRRHpqSG4xdzlWL2dlQkVmdz09
Meeting ID: 826 8255 7674
Passcode: YQ4ZtD

Abstract: The Midcontinent Rift System (MRS) is an approximately 2,200 km curvilinear Mesoproterozoic rift that stretches from Kansas northeast to the Lake Superior region where it turns southeast and extends through lower Michigan. Although rocks of the MRS are largely buried beneath younger rocks except around the margins and on islands of Lake Superior, the full extent of the MRS is highlighted by large positive aeromagnetic and gravity anomalies created by the huge volume of mafic volcanic and intrusive rocks that comprise the rift system. Rift volcanism lasted more than 20 million years, from about 1112 Ma to about 1090 Ma, with minor eruptions extending to about 1083 Ma. As magmatism waned, the rift transitioned to a sedimentary regime, with clastic sedimentation attributed to post-rifting thermal subsidence. Seismic reflection profiles across the Lake Superior basin show that during rifting the Archean/Paleoproterozoic crust was thinned to less than half of its pre-rift thickness of ~50 km, replaced by more than 20 to 25 km of rift-related basaltic lava flows and intrusions, overlain by up to 5 to 7 km of clastic sedimentary rock. Faulting within a compressional regime heralded by the Grenville orogeny created the geometry of the rift still preserved today. Despite its extended tectonic history and extensive magmatism, complete separation of the continental crust was never completed, leading to an unfortunate mislabeling of the MRS as a 'failed rift'.

The success of the MRS is exemplified but its recognition as the most prolifically and diversely mineralized large igneous province known on Earth. MRS rocks in the Lake Superior region host a varied suite of magmatic and hydrothermal mineral deposits, many of which are significant past, present, and likely future providers of critical mineral. Historically, hydrothermal deposits, such as Michigan's native copper deposits and the White Pine sediment-hosted stratiform copper deposit, were major MRS metal producers. On-going exploration for and potential development of copper-nickel sulfide deposits hosted by the Duluth Complex of Minnesota and the opening of the Eagle nickel mine in Michigan indicate an expanding interest in MRS magmatic deposits.

Biography: Laurel Woodruff (a native of Michigan) is a research geologist with the U.S. Geological Survey. She joined the Survey in 1983 in Reston, Virginia and relocated to Minnesota in 1991. Laurel received a B.S. from the University of Michigan, an M.S. from Michigan Technological University, and a Ph.D. from the University of Chicago. All three degrees were in geology. Over the last nearly 4 decades she has worked on a multiplicity of projects for the USGS, from soil geochemistry to titanium resources to the fate of mercury during wildfires. Until last year, Laurel was the head of a 5-year USGS project synthesizing the geology, geophysics, and metallogeny of the Midcontinent Rift System in the Lake Superior region. She currently is the Central Region co-leader for the USGS Earth Mapping Resources Initiative (Earth MRI) critical minerals effort.

EVENTS

Many organizations have switched to virtual platforms or have cancelled events. We are providing links for your reference. Please visit these sites to learn more about specific events and happenings.
If you have an event to share, let us know!

American Institute of Professional Geologist – Michigan Section – http://mi.aipg.org/newsletters.htm
Central Michigan Lapidary and Mineral Society - http://www.michrocks.org/
Eastern Section AAPG - https://www.esaapg.org/
EGLE Calendar of Events - https://www.michigan.gov/egle/0,9429,7-135-3308_3333---,00.html
Flint Rock and Gem - https://flintrockandgem.org/events
Michigan Association of Environmental Professionals - https://www.maep.org/
Michigan Basin Geological Society – www.mbgs.org
Michigan Clean Water Corps - https://micorps.net/about/
Michigan Mineralogical Society - https://www.michmin.org/
Mid-Michigan Rock Club - http://www.midmichrockclub.com/?Page=1
Midwest Mineralogical and Lapidary Society - http://www.mmls.us/
Society of Petroleum Engineers - https://www.spe.org/events/calendar/

On the Calendar

November 8, 2021: AIPG Virtual Book Club: Getting Green Done by Auden Schendler. Community Calendar - American Institute of Professional Geologists (aipg.org)

November 10th, 2021: MBGS Monthly Meeting (virtual)

November 27, 2021: MBGS Scholarship Applications Due. Applications are available on the website at www.mbgs.org

December 2, 2021: Groundwater Modeling for Non-Modelers. Community Calendar - American Institute of Professional Geologists (aipg.org)

December 8th, 2021: MBGS Monthly Meeting

December 9th, 2021*:* MAEP Annual Meeting, Ann Arbor, Michigan Association of Environmental Professionals - 2021 MAEP Annual Meeting

June 14-15th, 2022: Environmental Risk Management Workshop at the Ralph A. MacMullan Conference Center, Roscommon, Michigan

August 6-9th, 2022: 58th Annual AIPG Meeting to be held in Marquette, Michigan

ONLINE RESOURCES

- **Central Michigan University, Clarke Historical Library, Michigan Geology:** https://www.cmich.edu/library/clarke/ResearchResources/Michigan_Material_Statewide/Michigan_Oil_and_Gas_Industry/History_of_Michigan_Oil_and_Gas/Pages/Michigan-Geology.aspx
- **Digital Geology Library Overview:** https://www.michigan.gov/documents/deq/GIMDL-Catalog-2010-01-20_307979_7.pdf
- **Digital Geology Library Mining Overview:** https://www.michigan.gov/documents/deq/GIMDL-Catalog-2013_06_22_mining_425595_7.pdf
- **GeoWebFace:** https://www.michigan.gov/deq/0,4561,7-135-3311_60700---,00.html
- **Michigan Department of Natural Resource Calendar:** Michigan.gov/DNRCalendar
- **Michigan Geological Survey:** https://wmich.edu/geologysurvey
- **Michigan Geology Maps Available:** https://www.michigan.gov/deq/0,4561,7-135-3304-116670--,00.html
- **USGS Michigan Geological Map Data**: https://mrdata.usgs.gov/geology/state/state.php?state=MI
- **USGS Publications:** U.S. Geological Survey Publications Warehouse (usgs.gov)

OTHER NEWS

The National Academies of Sciences, Engineering, and Medicine have released the proceedings of the workshop *America's Geoheritage II: Identifying, Developing, and Preserving America's Natural Legacy*. The publication, released on September 22, is now freely available on the National Academies Press website (https://nap.edu/26316).

Additionally, it is linked on the workshop webpage, https://www.nationalacademies.org/our-work/americas-geoheritage-ii-a-workshop.

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MBGS PUBLICATIONS

http://www.mbgs.org/publications.html

Historical publications now available on USB Flash Drives". Each USB Flash Drive is 8GB

Prices include postage, handling and any applicable sales tax.
Orders for publications should be prepaid in U.S. Funds and addressed to:
MBGS — Publications
P.O. Box 14044
Lansing, MI 48901-4044

Historical CD #1: Nine out-of-print publications from 1949 through 1965 and 1998, 2000, $15

- The Stratigraphy of Manitoulin Island, Ontario, Canada, June 19-20, 1954
- The Devonian and Silurian Rocks of Parts of Ontario, Canada and Western New York, June 22-23, 1951
- The Traverse Group of the Northern Part of the Southern Peninsula of Michigan, June 16-17, 1949
- The Devonian Strata of the London-Sarnia Area, Southwestern Ontario, Compiled by Erwin C. Stumm, Lewis B. Kellum and Jean Davies Wright, June 9-10, 1956
- The Ordovician Rocks of the Escanaba-Stonington Area, Led by R. C. Hussey, June 2-3, 1950
- The Niagara Escarpment of Peninsular Ontario, Canada, June 18-19, 1955
- Lower Paleozoic and Pleistocene Stratigraphy Across Central Wisconsin, Compiled by C. E. Prouty, Led by L. M. Cline, J. L. Hough and R. F. Black, 1960
- Classic Silurian Reefs of the Chicago Area, by Donald G. Mikulic and Joanne Kluessendorf, June 27, 1998
- Geology of Central Ontario, Canada, 1965

Historical CD #2: Four out-of-print publications from 1947, 1959, 1983 and 1991, 2001, $15

- Copper Country Field Trip, Michigan, June 20-22, 1947
- Geology of Mackinac Island and Lower and Middle Devonian, South of the Straits of Mackinac, June 12-14, 1959
- Tectonics, Structure and Karst in Northern Lower Michigan, August 1983
- Geology of the Pictured Rocks, Upper Peninsula, Michigan, July 11-13, 1991

Historical CD #3: Six out-of-print publications from 1948, 1952, 1990 - 1995, 2001, $15

- Pleistocene and Early Paleozoic of the Eastern Part of the Northern Peninsula of Michigan, June 18-21, 1948
- Stratigraphy and Structure of the Devonian Rocks in Southeastern MI and Northwestern OH, June 20-21, 1952
- Lower Ordovician and Upper Cambrian of Wisconsin, May 10-12, 1990
- Guidebook to the Precambrian Geology and Metallogeny of the Central Upper Peninsula of Michigan September 12-13, 1991

Historical CD #4: Six out-of-print publications from 1957, 1958, 1961, 1967, 1968 and 1970, 2004, $15

- Silurian Rocks of the Northern Peninsula of Michigan, 1957
- Cambrian Geology of Parts of Dickinson and Iron Counties, Michigan, June 1958
- Geologic Features of Parts of Houghton, Keweenaw, Baraga and Ontonagon Counties, Michigan, May 19-21, 1961
- Correlation Problems of the Cambrian and Ordovician Outcrops Areas, Northern Peninsula of Michigan 1967
- The Geology of Manitoulin Island, June 1968
- Devonian Strata of Alpena and Presque Isle Counties, Michigan 1970

Historical CD #5: Five out-of-print publications from 1971, 1989, 2001, and Oil & Gas Fields Vol. 1 & 2, 1969 & 1992, 2006, $50

- Oil & Gas Fields Symposium, Volume 1, April 1969, 200 pp., maps, illus., second printing with updates
- Oil & Gas Fields Manual of the Michigan Basin, Volume 2, 1992, 520 pp., maps, illus.
- Glacial Geology of Southwestern Michigan, 1989, 53 pp. by A. Kehew, L. J. Schmaltz, and W. T. Straw
- Geology of the Lake Erie Islands and Adjacent Shores, 1971, 65pp., maps, illus. by Jane L. Forsyth
- Glacial Geology of Southwestern Michigan, Landforms of the Lake Michigan Lobe, Southwestern Michigan, 2001, AAPG Eastern Section Meeting Field Trip, 32 pp., maps, illus. by A Kehew and A. Kozlowski

Historical CD #6: Six out-of-print publications from 1946, 1953, 1963, 1966, 1978 & 1987 plus the Richfield Challenge, 1952 & Tom Knapp's MS Thesis, 2007 $15.

- Guidebook for Ordovician Stratigraphy of the Cincinnati, Ohio and Richmond, Indiana Areas, June 12, 13, 1953 by W. H. Shideler and B. T. Sandefur
- Guidebook for Ontario Geological Excursion to Kettle Point – Owen Sound- Waubaushene, June 21, 22, 23 1946 by W. A. Roliff, C.S. Evans and J.F. Caley
- Guidebook for the Stratigraphy of the Silurian Rocks in Western Ohio, May 31- June 2, 1963 by C. H. Summerson, Jane L. Forsyth, Karl V. Hoover and J. R. Ulteig
- Guidebook for Cambrian Stratigraphy in Western Wisconsin, May 21, 22, 1966 by Merideth E. Ostrom
- Geology of the Manitoulin Area, Special Papers #3, September 29, 30 and October 1, 1978 by J. T. Sanford
- and R. E. Mosher
- Middle Devonian Cratonic Carbonates and Shales in Southwestern Ontario, November 14, 1987 by Bruce Wilkinson
- The Richfield Challenge, A Review of the Richfield Developments in Michigan, 1952 by Gordon H. Hautan
- A Theory of Rogers City and Dundee Relationships in Central Michigan, Masters Thesis, 1947 by Tom Knapp

Historical CD #7: Field Guidebooks from 1962, 1969, 1977, 1980, 1985 & 1988, $15

- Silurian Rocks of the Southern Lake Michigan Area, 1962, James H. Fisher, Chairman, MBGS Annual Field Conference
- Studies of the Precambrian of the Michigan Basin, by Harold B. Stonehouse, 1969
- The Geology of the Marquette District: a Field Guide By F. W. Cambray, 1977
- Ordovician and Silurian Geology of the N. Peninsula of Michigan, 1980, R.B. Votaw, 40 pp., illus., maps
- Special Paper #4: Ordovician and Silurian Rocks of the Michigan Basin and its Margins, 1985 K.R. Cercone and J.M. Budai (eds.), 96 pp., illus.
- Upper Keweenawan Rift-Fill Sequence, Mid-Continent Rift System, Michigan, 1988, P.A. Daniels and R.D. Elmore, M.S. Wollensak, ed., 150 pp., illus., maps

OTHER SPECIAL OFFERS

- **Historical CD Set - # 1 – 7 (detailed above) for a special purchase price of $95**

- **NE Lower Peninsula Geological Field Conf.,** 2004, T. Black, M. Wollensak, On CD $10

- **Stratigraphic Lexicon for Michigan,** 2001, prepared by MBGS and published by DEQ, $4

- **Robert E. Mosher Geological Studies** A lifetime of geological research on Silurian Rocks with John T. Sanford. The disks are organized chronologically and include field work in North America and Europe. 2007, 2 CDs $35.

JOB OPENINGS

Instructor for the lecture and the laboratory of Igneous and Metamorphic Petrology, Eastern Michigan University

Principal Duties and Responsibilities

Teaching may include a number of particular obligations which employees are expected to fulfill, including but not limited to: prepare and instruct assigned course to meet overall course objectives and program goals; preparing syllabi and course materials; assessing student work and performance; establish and maintain an environment conducive to student learning; and assigning and submitting grades in accordance with established Eastern Michigan University policies and procedures.

Additional details: https://www.schooljobs.com/careers/emichedu/jobs/3271383/part-time-lecturer-igneous-and-metamorphic-petrology?keywords=igneous&pagetype=jobOpportunitiesJobs

Field Geologist, Atlas, Grand Rapids

Responsibilities Include But Are Not Limited To

- Conduct soil and groundwater drilling and sampling activities
- Groundwater Monitoring & Sampling (various)
- Technical report production for the Petroleum / Remediation service line
- Conduct construction materials testing (soil, concrete, asphalt)
- Support Phase I and Phase II Environmental Site assessments for the Due Diligence Group.
- Conduct Asbestos/Lead inspections and sampling
- Abide by Atlas's Health and Safety policies and procedures

Staff Geologist, Golder, Farmington Hills

Responsibilities Will Include

- Subsurface site investigations involving drilling, soil classification, rock coring and logging, and well installation;
- Groundwater, surface water, soil and air sampling;
- Operation, maintenance and monitoring of remedial systems;
- Investigation-derived data tabulation and evaluation;
- Regulatory report writing; and
- Phase I environmental site assessments.
- This position will involve a mix of office and field work. The position requires overnight travel and fieldwork as dictated by project demands.

Mid-level Geologist/Hydrogeologist, Wood, Traverse City

Key Responsibilities

- Manages the development of work scope, schedule, and budget definition for proposals
- Directs the execution of work, including subcontractor procurement
- Assists the Project Manager and team in ensuring effective client and regulatory agency communication and relations
- Prepare reports, work plans, health and safety plans, and quality control plans under the supervision of senior staff
- Performs data quality assurance review of field and laboratory work product to determine whether data quality objectives have been met
- Direct multi-media sampling, including soil, groundwater, vapor, indoor air, asbestos, and other regulated materials
- Assists the Project Manager on technical assignments and management of specific elements of the project in the field as well as in the office (i.e., task management)

- Evaluates compliance of subcontractor work against technical specifications and scopes of work
- Demonstrates competency in a combination of areas including field supervision, technical knowledge and task management
- Conducts moderately complex scientific assessment and analysis
- Prepares or assists in preparing remedial investigation reports, remedial/corrective action plans, remedial designs, due diligence reports, and related documents; Includes work summaries, data summaries, data synthesis (e.g., conceptual site models), engineering calculations, summary tables, figures, engineering drawings and specifications, and report text
- Assists Project Manager with cost and schedule control
- Reviews payment applications, requests for information, change order requests and other subcontractor submittals
- Demonstrates and maintains competency in a diverse set of local, state, and federal environmental regulations
- Motivates, trains, and mentors subordinate staff assigned to his/her tasks or projects
- The position may entail approximately 90% office work and 10% field work on a variety of projects, primarily for industrial and commercial clients

Environmental Engineer Licensed 12-Grand Rapids District Office, State of Michigan Grand Rapids, MI

Experience

Three years of professional environmental engineering experience in the protection and improvement of land and water resources, occupational health or air quality equivalent to an Environmental Engineer, including one year equivalent to an Environmental Engineer P11.

Geologist 9-P11 (Bay City District), State of Michigan Bay City, MI

Job Description

This position utilizes established policies, procedures, rules, laws, and regulations, administer oil, gas, and mineral well activities in an assigned geographical area, which involves regulation and enforcement of Parts 201, 615, 616, and 625 of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA). Duties include, but are not limited to, the regulation of oil and gas exploration and production, underground injection for oilfield waste disposal and enhanced recovery in assigned area; protection and cleanup/remediation of surface water, ground water, and soils contaminated or impacted from oil and/or gas operations. This position handles and resolves complaints, compliance, and issues related to the Parts above. This position also assists in the implementation of division programs, work on special assignments, and maintain open lines of communication, ensuring information relating to division programs is shared through division reporting systems

Environmental Engineer 9-P11,State of Michigan Lansing, MI

Job Description

The Air Quality Division (AQD) Permit Section conducts engineering review and evaluation of Air Use Permit to Install applications to determine compliance with state and federal requirements. This position is responsible for reviewing and writing/drafting air use permit to install applications received that involve a standard review including the following factors: minimal pollutants, less equipment, lower emissions, single-step engineer calculations, subject to less regulations, and involving low public controversy. This position completes a standard engineering review/evaluation of permit applications received by the Division and drafts/writes permits for issuance by the Section Manager.

Environmental Scientist/Geologist, Parsons Corporation Breckenridge, MI

Job Description

Parsons is seeking candidates with a background in Environmental Geology and Science. In this role you will be investigating, mapping and mitigating environmental concerns such as contaminated soil; abandoned oil wells, abandoned oilfield pipeline systems, abandoned underground storage tanks (USTs), asbestos flowline, underground injection wells; coordinating wetland and floodplain management requirements and general environmental restoration program activities. You will be involved in reviewing the data and contributing to the preparation of various environmental reports that are submitted to the client and regulatory agencies. You will be actively engaged in supporting the construction teams in minimizing impact of soil contamination or construction activities (dust control, construction water disposal, etc.). The key to your success will be your ability to help our client execute mitigation strategies in a fiscally responsible manner to assure compliance with local, state and federal regulations, schedule performance, and community safety.

Geologist/Engineer/Scientist, Stantec Okemos, MI

Key Responsibilities

- Provide support for projects involving environmental site characterization, environmental remediation, and environmental compliance.
- Work with other engineering disciplines and professionals in the coordination of the project under the direction of a senior engineer/scientist.
- Perform field work as directed by a senior engineer/scientist. This may include subcontractor oversight, soil boring and well installation, soil and groundwater sampling, pilot testing, material sampling, etc.
- Assist with data management and preparation of design documents, permit packages, work plans, reports, tables, and figures.
- Assist in basic interpretation and verifying compliance with applicable environmental, health, and safety rules and regulations.
- Follow established standards, policies, procedures, and guidelines to ensure your personal safety and that of fellow employees while completing entry-level and routine assignments.
- This position is part of a larger environmental services team and will likely require support to multiple Stantec offices. Travel will be required.
- Coordinate with subcontracted laboratories and drillers (coordinate field events, schedule sample delivery/schedule, process invoices)
- Administrative tasks (file management, budget tracking, document control and distribution, etc.)

Junior Environmental Scientist/Geologist – Detroit, Tetra Tech Madison Heights, MI

Responsibilities

- Planning and oversight of operations and site health and safety.
- Work will include multi-media sampling, field audits and inspections, organizing and reviewing data, preparing reports, file reviews, collection of air monitoring data, training and exercise support, contractor oversight, and related services.
- May also include training presentations; preparation of statement of qualifications and proposals, and other consulting activities.
- Work for other government and private sector clients in these areas is also possible.

Senior Geologist/Environmental Scientist, GEI Consultants, Inc. Lansing, MI

Essential Responsibilities & Duties

- Manage the technical, financial and client relationship aspects of a variety of geologic/geotechnical engineering projects throughout the Great Lakes Region.
- Prepare technical scopes of work and budgets for proposals, and prepare requests for proposals for subcontractor services.
- Plan and lead the implementation of geologic and environmental site assessments and subsurface investigations, environmental permitting, remedial system designs, review and interpretation of data and preparation of reports and work plans, project management, business development and preparation of proposals, client, subcontractor and regulatory agency interaction and development and implementation of remedial strategies, and remedial design.
- Participate actively in professional organizations and conferences; deliver presentations, and write technical papers.
- Generate new business.
- Prepare and deliver technical presentations to clients and regulators.
- This position has a field component; travel and some overnight travel are required.

Mid-Level Geologist/Environmental Scientist, AECOM Southfield, MI

Specific duties and responsibilities

- Data reduction, review, and interpretation.
- Drafting of figures using AutoCAD.
- Familiarity with Part 213 and Part 201 of Michigan's PA 451.
- Review of junior level reports and field notes to ensure compliance with Quality Management Systems.
- Development of site specific SHE Safety Plans.
- Completion of Safety, Health and Environment (SHE) paperwork and observations.
- Sampling of various media including soil, groundwater, surface water and soil gas.
- Installation of groundwater monitoring wells and vapor monitoring points.
- Oversight of subcontractors performing various tasks.
- Interaction with the public as a representative of AECOM.
- Calibration of field instrumentation and documentation.
- Completion of lithologic descriptions of soils from drilling activities.
- Field preservation of samples in preparation for laboratory analysis

Mid to Senior Geologist/Environmental Scientist, AECOM Southfield, MI

Specific duties and responsibilities

- Data reduction, review and interpretation
- Drafting of regulatory reports required under Part 201 and 213
- Development of site specific Safety Plans
- Completion of Safety, Health and Environment (SHE) paperwork and observations
- Sampling of various media including soil, groundwater, surface water and soil gas
- Installation of groundwater monitoring wells and vapor monitoring points
- Oversight of subcontractors performing various tasks
- Interaction with the public as a representative of AECOM
- Calibration of field instrumentation and documentation
- Completion of lithologic descriptions of soils from drilling activities

Environmental Engineer, Resolute Forest Products Menominee, MI

Job Responsibilities Include, But Not Limited To

- Understand the mill's Safety, Environmental, and Quality objectives and how your decisions affects the mill's ability to perform.
- Coordination of plant wide environmental programs and policies in compliance with federal, state, local laws, and corporate policies.
- Determine solutions for matters involving environmental controls, methods, and processes.
- Oversee environmental testing needed for air, water, waste, and groundwater regulations.
- Maintain and update permits (air, water, waste) including managing compliance sampling and reporting schedule.
- Oversee and lead ISO initiatives.
- Will be responsible for entering of purchase requisitions/PO's, monthly accruals, invoice management/SES creation, check requests, assisting with budget preparation and coordination of MSA efforts between legal and purchasing.
- Maintain wastewater discharge program (NPDES), complete monthly, quarterly, semiannual, and annual DMR reports.
- Maintain environmental management system (EMS) to maintain ISO 14001 certification.

Geology Specialist 13 - Hydrogeology Specialist, State of Michigan Lansing, MI

Job Description

The primary function of this position is to provide hydrogeologic expertise to the Drinking Water and Environmental Health Division (DWEHD). In this capacity, the employee critiques aquifer characterizations, geologic interpretations, hydrogeologic assessments, and the application of ground water models to site specific geologic settings. The employee is responsible for coordinating activities with the water use and water withdrawal programs in the development of public water supply sources, including water withdrawal impact assessments and large quantity water registration.

DWEHD is routinely consulted by engineering firms, water supply contractors, local health departments and other agencies on aspects of rules and regulations, water withdrawals, construction of wells and ground water contaminant investigation in relation to development of the ground water resource. The employee provides consultation relative to quantitative and qualitative assessments of surface water and ground water resource impacts. Consultation is also provided on compliance with public water supply requirements in construction of wells and the applicability of rules to site specific problems.

Environmental Engineer, Cybertech Recruiting and Staffing Grand Rapids, MI

Responsibilities

- Manages the studies and design of effective water and wastewater treatment systems
- Conducts appropriate cost-benefit analyses for assigned projects
- Collaborates with multiple project teams and acts as lead hydraulics contact in preparing asset management plans
- Creates, reviews, and critiques water and wastewater treatment system proposals
- Ensures building, water, and equipment specifications comply with applicable local, state, and federal guidelines and codes

Senior Hydrogeologist, Versar, Inc United States Remote

Primary duties and day-to-day responsibilities:

- Providing subject-matter expertise technical expertise and/or support for hydrologic investigations and testing, geologic and hydrogeologic visualization, analytical and numerical groundwater flow and solute transport modeling, contaminated sites investigations, and development of conceptual site models.
- Providing support for coastal surface water planning and evaluation.
- Technical leadership for CERCLA and RCRA program site investigations. Knowledge of federal and state environmental regulations (e.g., CERCLA, RCRA) required.
- Formulate, plan, and develop Remedial Investigations, and support Feasibility Studies and Remedial Design projects/programs at hazardous waste sites.
- Perform background research, gather information, and evaluate and interpret laboratory and field data to support technical activities and reports.
- Provide input for and develop written technical reports for delivery to clients, perform quality control review, and maintain deliverable quality to meet internal and client requirements.
- Provide task or project management, including development of workplans, technical approach, cost estimation, schedule development, identification of critical milestones, planning, and reporting.
- Provide direction, instruction, training, mentoring, and leadership to support staff.
- Attend site visits, observe, and evaluate client programs and activities.

Environmental Engineer/Scientist, GHD Farmington Hills, MI

The successful candidate will be interested in performing a wide variety of duties:

- Contributing to the preparation of proposals and bids for projects
- Planning and implementing environmental field work and reporting for investigation and remediation projects
- Conducting field tasks such as oversight of contractors, soil/soil gas sampling, supervision of monitoring well installation, groundwater monitoring, due diligence assessments, and remediation system implementation and support
- Preparing correspondence, technical reports, permit applications, standardized documents and work plans for internal and client review
- Coordinate multiple projects and interface with clients and government agencies

Staff Geologist, Partner Engineering & Science, Inc. Farmington Hills, Mi

Responsibilities

- Responsible for assisting with proposal and report preparation
- Performing laboratory testing and maintaining laboratory equipment records and calibrations
- Conducting fieldwork within the Phoenix, AZ region
- Preparing project tracking sheet for Project Management staff
- Preparing boring logs/lab data
- Assisting Geotechnical Director with administrative/managerial tasks

MICHIGAN BASIN GEOLOGICAL SOCIETY

INVOICE

P.O. Box 14044
Lansing, Michigan 48901

ACTIVE MEMBER ANNUAL DUES FEE:

INVOICE NUMBER	MBGS 2021-2022 Dues
INVOICE DATE	October 2021
OUR ORDER NO.	
YOUR ORDER NO.	
TERMS	30 Days
SALES REP	
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QUANTITY	DESCRIPTION	UNIT PRICE	AMOUNT
1	**ACTIVE MEMBER** MBGS 2021-2022 Annual Dues	$ 35.00	$ 35.00

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DIRECT ALL INQUIRIES TO:
Peter Rose
RoseP1@michigan.gov

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THANK YOU FOR YOUR CONTINUED SUPPORT!

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