



2021-2022 Edition 6

www.mbgs.org

March 2022



## MBGS MARCH MEETING – SPRING BREAK

There will be no March meeting. See you in April! Below are links to recordings of the past (2) MBGS meetings.

Topic: Lake Michigan Shorelines, Catastrophic Failure or Stable, That is the Question, Start Time: Jan 12, 2022 05:27 PM Meeting Recording: https://us06web.zoom.us/rec/share/zIdmSAsEBnSNfPmM4xUZB9MXmSe-

vkdMBs1pGfbaD\_spjuHkbn4S3mEjabyMS5qf.UaHFLIQSNDH9PYOM

Topic: Grand Canyon MBGS Field Excursions, Date: Feb 9, 2022 05:47 PM Eastern Time (US and Canada) Meeting Recording: https://us06web.zoom.us/rec/share/558wgVB1jieqoeTojCd65yFVaAiURk0AW3IBQN6ZuSCWAGyGcT6oBiSsXXsVHZp.EVahQmvIUluXI2Dv

### **MBGS SEEKS EXECUTIVE COMMITTEE CANDIDATES FOR 2022-2023**

Are you interested in becoming more involved with the Michigan Basin Geological Society? This summer we will hold elections for the position of Vice President, Treasurer, and Secretary for the 2022-2023 business year. Please contact any of our current executive committee members or visit our website to get information.

### CORE DISPLAY EDUCATIONAL TOOL AVAILABLE TO MEMBERS

MBGS has a core display available for use that visually demonstrates permeability/porosity. There are educational posters available for use with the core display. Contact any of the officers to reserve this great educational tool.



### LED FIELD LENS AND MBGS LANYARD AVAILABLE

The Michigan Basin Geological Society is offering to its members and non- members this geological field hand lens and lanyard (photo attached). The field hand lens is a large 21mm lens with a 20X magnification. A pair of white LEDs provides illumination for all those darkened close-up viewing of rocks, minerals and fossils. A case is provided for the field lens with a key to remove the batteries. Batteries are included. The green lanyard has MICHIGAN BASIN GEOLOGICAL SOCIETY printed on one side of the unfussy 1" wide webbing. This lanyard is designed with a breakaway buckle clip and detachable keychain for versatile use and comfortable wearing. MBGS is offering



the Lanyard/LED Hand Lens and Case combo for \$15 each and the Lanyard alone for \$5 each if picked up at a meeting or field trip. If you request to have your purchase mailed, standard costs for mailing container and postage will apply. Please contact Mark Wollensak at wollensak@att.net to order.

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

## On the Calendar

April 7-8th, 2022: 2022 GSA Joint North-Central & Southeastern Section Meeting, Cincinnati, OH, Home - Joint

North-Central & Southeastern Section Meeting - 2022 (geosociety.org)

April 13th, 2022: MBGS Monthly Meeting

May 10-11<sup>th</sup>, 2022: 68<sup>th</sup> Annual Institute on Lake Superior Geology Annual Meeting, Sudbury, ON, <u>ILSG -</u>

Terrace Bay 2019 (lakesuperiorgeology.org)

June 14-15<sup>th</sup>, 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

### www.mbgs.org

# **ONLINE RESOURCES**

- Central Michigan University, Clarke Historical Library, Michigan Geology: <a href="https://www.cmich.edu/library/clarke/ResearchResources/Michigan Material Statewide/Michigan Oi">https://www.cmich.edu/library/clarke/ResearchResources/Michigan Material Statewide/Michigan Oi</a> <a href="https://www.cmich.edu/library/clarke/ResearchResources/Michigan Material Statewide/Michigan Oi</a> <a href="https://www.cmich.edu/library/library/clarke/ResearchResources/Michigan-Geology.aspx">https://www.cmich.edu/library/clarke/ResearchResources/Michigan Gas/Pages/Michigan-Geology.aspx</a>
- Digital Geology Library Overview: <u>https://www.michigan.gov/documents/deq/GIMDL-Catalog-2010-</u> 01-20 307979 7.pdf
- Digital Geology Library Mining Overview: <u>https://www.michigan.gov/documents/deq/GIMDL-Catalog-</u> 2013 06 22 mining 425595 7.pdf
- GeoWebFace: <u>https://www.michigan.gov/deq/0,4561,7-135-3311\_60700---,00.html</u>
- Michigan Department of Natural Resource Calendar: Michigan.gov/DNRCalendar
- Michigan Geological Survey: <a href="https://wmich.edu/geologysurvey">https://wmich.edu/geologysurvey</a>
- Michigan Geology Maps Available: <a href="https://www.michigan.gov/deq/0,4561,7-135-3304-116670---">https://www.michigan.gov/deq/0,4561,7-135-3304-116670---</a>

  <u>,00.html</u>
- USGS Michigan Geological Map Data: <u>https://mrdata.usgs.gov/geology/state/state.php?state=MI</u>
- USGS Publications: <u>U.S. Geological Survey Publications Warehouse (usgs.gov)</u>



# MICHIGAN BASIN GEOLOGICAL SOCIETY OFFICERS 2021-2022

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#### ELECTRONIC PUBLICATIONS: Please contact an officer for information

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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.

# AIPG 2022 National Annual Conference, Marquette, Michigan

#### Call for Abstracts and Student Poster Contest, Submit by May 9, 2022

AIPG is currently accepting abstracts for oral presentations and poster presentations for the 59th American Institute of Professional Geologists' National Conference that will be held in Marquette, Michigan, on the beautiful shores of the world's largest freshwater lake.



Geology: The Cornerstone of our Future August 6-9 | Marquette, MI

This year's meeting theme is "Geology: The Cornerstone of our Future". Geology plays a significant role in today's society and will become ever more important in the years to come. Our reliance on basic resources and building materials such as sand and gravel for roads, limestone for concrete, iron for structural purposes, and other base metals for electronics and other applications will not diminish; rather, it will become a greater concern as existing deposits are depleted or rendered inaccessible.

The ever-increasing number of applications of rare earth elements has created a greater demand on extraction and several of these elements will be needed in ever greater quantities to assist in the transition to a reduced carbon emission future. Geologists will be needed to identify, quantify, and yes, help with extraction of these mineral deposits.

A reliable source of clean freshwater is a basic necessity for life, and the onset of climate change is impacting these resources. Changing climate patterns mean that widespread areas may become stricken with drought. This will mean that significant depletion of groundwater aquifers and surface water reservoirs will occur in these areas as withdrawals exceed natural replenishment. This is already affecting agricultural practices and driving migration of human populations to areas where this precious resource may be found, resulting in conflict and/or political unrest. In addition, anthropogenic activities have contaminated some water resources and have made these resources locally unusable or require expensive treatment.

The national conference provides opportunities to present and learn from experts in various geology and geoscience fields, with networking opportunities throughout the conference. Earn CEUs too!

To have your abstract considered for an oral presentation or poster presentation, please complete the Abstract Submittal Form by the deadline of May 9, 2022. Abstracts must be in Word format, single-spaced, 12 point Times New Roman or Arial, and should not exceed one page. No tables or pictures will be accepted. You will be notified by May 23, 2022, if your abstract has been accepted. Technical presentations will be scheduled for Monday, August 8th. Posters will also be presented on Monday, August 8th. Authors who wish to publish a paper in AIPG's *The Professional Geologist* (TPG) can contact AIPG for additional information at <u>aipg@aipg.org</u>.

AIPG will review, edit, and publish a digital pdf of the conference abstracts on their website and in the conference app. A printed program will also contain all accepted abstracts.

An author who submits an abstract must have the intention of attending, registering, and presenting at the conference once the submission is accepted for either an oral presentation or poster presentation. Repeated or consecutive last-minute cancellations by presenters may result in future submissions being denied.

### **AIPG Student Poster Contest**

Students can submit an abstract for a poster presentation and enter the poster contest to win cash prizes! The two categories for the student poster contest are:

Undergraduate Cash Prize - 1st Place: \$500, 2nd Place: \$200, 3rd Place: \$100 Graduate Cash Prize -1st Place: \$600, 2nd Place: \$250, 3rd Place: \$100

• To be entered into the student poster competition you must be a student member of AIPG. Go to <u>www.aipg.org</u> to join for free.

• Poster contest categories (undergraduate and graduate) will be based on the student's enrollment at the time the abstract is submitted.

# Playing the Knox Unconformity: Reconnaissance and High Grading Prospects in Knox County, Ohio by Integrating Geological, Petrophysical and 2D/3D Geophysical Interpretations

### A one-day workshop led by GVERSE-GeoGraphix offered by the Ohio Geological Society and sponsored by the Ohio Oil and Gas Association in conjunction with the Ohio Oil and Gas Association 2022 Winter Meeting

Instructors: Fred Poland and Hamid Ali Shahid, GVERSE - GeoGraphix, LMK Resources Inc.

When: Wednesday, March 2nd, 2022 from 10:00a.m. to 4:00p.m. with one hour for lunch.

Where: Hilton at Easton, 3900 Chagrin Dr, Columbus, OH 43219, (614) 414-5000

What: Representatives from GeoGraphix software will review the fundamentals of the Geographix software package and instruct attendees through multi-data visualization exercises using conventional exploration targets from Knox County, Ohio and the U.S. There will be a limit of 15 Geographix temporary licenses (Paperspace) for those with laptops. This workshop will also accommodate a limited number of those wishing to observe without a laptop. CEUs will be offered.

Who should attend: Entry level to experienced geo-scientists interested in an introduction or refresher course in exploration using the GeoGraphix digital data visualization tools.

Cost : <u>Professional registration rate is \$99</u> and includes a temporary PaperSpace license, but requires you to supply your own laptop computer; <u>Student registration rate is \$79</u> and includes a temporary Paperspace license, but requires you to supply your own laptop computer (student rate limited to 3 total individuals). <u>Professional and student observers rate is \$59</u> and does not require a laptop.

Registration: For online registration and additional course information go to the Ohio Geological Society website at; https://www.ohiogeosoc.org/events/geographix-workshop/?

Overview: This course covers surface substitution, mapping anisotropic data, mapping unconformities, faulting, integrating well and seismic data, and, if time allows, volumetrics. An overview lecture introduces each topic, followed by in-depth exercises using Ohio data designed to reinforce the practical points of the lesson. Geological, petrophysical, and 2D/3D geophysical data has been compiled for portions of Knox County, Ohio and will be integrated into the exercises.

OGS will offer a certificate for CEUs (0.5) or PDHs (5.0) to those that mark the CEU/PDH checkbox found in the online-registration process.

IMPORTANT: Registrants designated to use the PaperSpace software license provided must bring a laptop to the workshop to participate in the exercises.

## **JOB OPENINGS**

# Environmental Geologist, Gosling Czubak Engineering Sciences, Inc. Traverse City, MI

#### Your Responsibilities

- Field sampling and investigation of environmental media
- Oversight of drilling activities (soil borings, monitor well installation, soil and rock logging)
- Perform environmental site assessments for property transactions
- Interpreting geologic, hydrogeologic, and other site information
- Preparing technical reports, work plans, and client correspondence
- Assisting with preparing proposals and business development activities
- Interacting with environmental regulators and clients

#### Geologist 12 - Senior Hydrogeologist, State of Michigan Lansing, MI

#### Job Description

Serve as the recognized resource hydrogeologist for the evaluation of source water resources. This position will serve as the lead hydrogeologist responsible for analyzing, critiquing, and developing hydrogeological assessments for water withdrawal applications, source water protection plans, and water well construction specifications for the most controversial and complex projects. The assessments and plans often contain complex groundwater modeling applications that require review for use of appropriate parameters and verification of model outputs. Suitability of the model for the application is another critical part of the review. 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 other agencies routinely rely on advice on various aspects of rules and regulations, water withdrawals, construction of wells and groundwater contaminant investigations in relation to development of the groundwater resource. The employee serves as a point of contact for the more complex requests and collaborations relative to quantitative and qualitative assessments of surface water and groundwater resource impacts. The employee also responds to requests and initiates discussions with public water supplies on requirements in construction of wells and applying the rules to complex site-specific problems.

#### Mid-Level Environmental Professional, Wood, Traverse City, MI

#### **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
- Prepares Part 213 site investigation reports, remedial/corrective action plans, remedial designs, and related documents
- Prepare work plans, health and safety plans, and quality control plans under the supervision of senior staff
- Direct multi-media sampling, including soil, groundwater, vapor, and indoor air
- Demonstrates and maintains competency in a diverse set of local, state, and federal environmental regulations

• The position may entail approximately 90% office work and 10% field work on a variety of projects, primarily for industrial and commercial client

#### Environmental Compliance Scientist/Engineer, Tetra Tech Ann Arbor, MI

#### Your Role

- Interact with commercial/industrial clients to identify needs, collect data, develop and process solutions for task completion
- Perform data analysis utilizing software, spreadsheets, databases, or other novel solutions to assist with resolving client problems
- Engage in diverse client projects that may involve multi-media knowledge including Air, Water, Waste, Hazardous Material Management, or Emergency Response/Prevention
- Develop and deliver proficient technical documents, presentations, and/or training sessions on regulatory compliance concepts, industry trends, and emerging issues
- Review and monitor changes in environmental regulations working with Sr. staff to develop client solutions
- Support client project teams and internal business development initiatives
- Apply knowledge gained in previous assignments

#### Field Geologist, Atlas Humboldt, MI

#### **Responsibilities Include But Are Not Limited To**

- Conduct soil and groundwater drilling and sampling activities
- Groundwater monitoring (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

#### Geologist, Planet Forward Detroit, MI

#### **Preferred Qualifications**

- Ability to demonstrate a primary technical role in multiple site characterization, subsurface investigation and remediation projects at various client sites.
- Collect and evaluate environmental data in field and office settings.
- Ability to lead site conceptual modelling work under supervision of Project Manager.
- Possess technical report writing skills; prepare and/or lead preparation of investigation reports.
- Independent field work and leadership of field teams.
- Conduct and/or supervise field work, including:
- Driving to project sites.
- Subcontractor oversight.
- Utility clearance.
- Soil and bedrock drilling, characterization, and sampling.
- Monitoring well (groundwater and soil vapor) installation and test pit excavation.

#### Environmental Engineer – Midwest, Jacobs Bingham Farms, MI

#### Here's What You'll Need

- Bachelor's degree in Environmental, Civil, or Geotechnical Engineering or other closely related engineering field
- Engineer in Training (EIT) or Professional Engineer (PE) license
- Professional on-the-job experience related to planning, design, construction, and operation of environmental remedial systems
- Knowledge and experience with various media (e.g., soil, soil vapor, groundwater, surface water and sediment) investigations, data assessments/evaluations, and remediation technologies
- 40-hr HAZWOPER certification or the ability to attain this certificatio

#### Principal Environmental Consultant (Mid-Senior Level), ERM: Environmental Resources Management Novi

#### Responsibilities

- Oversee, manage and provide technical expertise on site investigation and remediation projects for a variety of clients with complex technical/regulatory issues in the chemical, manufacturing, and other industrial sectors.
- Design and negotiate remedial solutions for contaminated soil, groundwater, vapor, and sediment, using innovative and emerging remedial treatment technologies as well as traditional systems.
- Oversee multiple projects within client's scope/budget/schedule expectations and ensure quality standards on project deliverables across ERM's LPMR service lines [e.g., Brownfields redevelopment, site investigation and remediation, liability evaluation and cost estimation, risk assessment, and site closure].
- Assist clients in developing and implementing contaminated site management strategies.
- Evaluate various remedial technologies for applicability at specific sites (e.g. feasibility screening).
- Perform remediation design tasks including evaluating field data, performing calculations, estimating quantities and costs, and preparing design reports
- Appropriately delegate project assignments to project teams and mentor junior staff.
- Develop and expand client relationships that generate repeat business to grow the LPMR area in the Midwest and across the chemical and manufacturing sectors.
- Prepare technical proposals and participate in business development with existing clients and identified leads.
- Build strong collaborative relationships with other ERM employee

# Environmental Engineer 9-P11 (Kalamazoo District Office-Water Quality Unit), State of Michigan Kalamazoo, MI

This position has engineering responsibilities to assure that the laws and regulations pertaining to water pollution control in the State of Michigan and the programs of the Water Resources Division (WRD) are effectively and uniformly applied to municipal wastewater discharges in an assigned area of the state in order to protect public health and prevent unlawful pollution of waters of the state.

This position has engineering responsibilities for the Surface Water Quality Program with regard to Part 31, Water Resources Protection; and Part 41, Sewerage Systems, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), for the Kalamazoo District Office. This position also provides engineering assistance to the other WRD programs in the Kalamazoo District.

This position also performs district compliance and enforcement duties in the WRD's Kalamazoo District Office for the National Pollutant Discharge Elimination System (NPDES) Program and the Groundwater Discharge Permits Program in an assigned area of the state to protect public health and prevent pollution of waters of the state.

#### Natural Resources Manager 12 (Assistant Hatchery Manager), State of Michigan Marquette, MI

#### Job Description

Oversee all aspects of fish culture including the hatchery budget, egg and fish needs based on rearing assignments, and development and training for cultural staff. Organize and coordinate statewide domestic egg takes and tactical aspects of cold-water production at the facility. Assign and supervise daily work of Fisheries Technicians, Fisheries Assistants, and State Workers. Evaluate fish cultural methods, diets, water quality, disease, and fish quality parameters in relation to cultural and operational procedures. Coordinate all aspects of fish distribution activities for the hatchery. Develop and maintain best management practices and operations manual for the hatchery. Research and develop new rearing methods to facilitate efficient production. Maintain fish production and stocking records, analyze rearing data by lot, and write both year end and lot summaries. This position serves as second in charge at the facility and acts in the capacity of the hatchery manager during their absence and represents the Fish Production Section on Division and external committees. This position is required to participate in the on-call rotation.

#### Instructor - Part Time (Geology Applicant Pool), Schoolcraft College Livonia, MI

#### Environmental Scientist/Engineer, TRC Companies, Inc. Ann Arbor, MI

#### **Our Environmental Compliance Scientists/Environmental Engineers**

- Demonstrate excellence and efficiency in writing, communication, and professional judgment.
- Participate in a variety of environmental-focused project work in the compliance fields across a variety of industries.
- Manage scope, schedule, and budget for assigned projects.
- Have a strong sense of responsibility and work ethic.
- Demonstrate strong quality assurance/quality control skills to perform technical, style, and consistency reviews.
- Manage time effectively and balance multiple fast-paced project assignments.
- Understand standards, regulations, and guidance that apply to environmental due diligence and/or compliance projects and perform regulatory program file reviews.
- Prioritize safety and have working knowledge of industry health and safety practices.
- Work with client service managers and account leads in securing and growing new and repeat business.
- S. or B.A. in environmental science, health and safety management, engineering, or related field of study.
- Minimum 3 years of environmental compliance consulting experience, including technical proficiency in preparation and management of Phase I Environmental Site Assessments (ESAs) at industrial facilities.
- The preferred candidate will possess excellent communication and writing skills, with an ability to work in a fast-paced environment managing multiple deadlines for multiple clients and project managers.
- Candidate is expected to be detail-oriented and possess solid technical and problem-solving skills.
- Fluency with Microsoft Office software

#### Petrogas - Senior Environmental Specialist, Washington Gas Ferndale, MI

#### You Will

• Provide overall environmental compliance operational support to the AltaGas Midstream Ferndale and Griffith facilities. This can include evaluating, training, performance management, and developing processes and procedures to ensure the achievement of Midstream goals.

- Determine environmental compliance requirements and best management practices in assigned program responsibility areas that may include participation in waste, water, construction, hazardous materials, and air programs.
- Develop relationships and meet with various permitting and environmental agencies that are responsible for approving Altagas infrastructure projects. Cultivate and leverage these relationships to discuss project details prior to construction to best ensure the projects move forward as scheduled.
- Develop and implement training to improve employee knowledge and operating procedures regarding environmental requirements and best management practices across various Program responsibility areas.
- Obtain and maintain permits, develop technical documentation, file government reports and maintain compliance records.
- Research and evaluate environmental regulations and standards, industry best practices and implements process improvements in compliance programs and tools as appropriate.
- Participate in assessments/audits, field studies, monitoring the progress of environmental projects, and oversee contractors in the field.
- Develop and maintain project metrics for project tracking and analysis and prepares and delivers reports to all levels of management, clients and sponsors to measure and explain environmental performance results.
- Write RFPs, evaluate bids, and manages work of contractors as needed.
- Assists with maintaining Environmental Team records, performing research tasks, data mining, and statistical analysis. Develops and maintains databases using MS Excel, SharePoint or Power BI. Assist in manual and electronic filing, and in the development of the internal Midstream OMS Environmental Program

#### Brownfield Project Manager – Detroit, Tetra Tech Detroit, MI

#### This Position Will Perform The Following Tasks

- Manage and conduct Phase I ESAs to ASTM or higher standards Manage and conduct Phase II ESAs
- Manage/oversee hydrogeological investigations
- Manage/oversee hazardous materials surveys (including asbestos, lead-based paint, and methamphetamines)
- Interpret analytical data using spreadsheets and databases
- Perform tasks across multiple disciplines to bring about successful project completion
- Demonstrate full knowledge of each project's status and goals
- Develop conceptual remedial action plans and remedial cost estimates
- Respond to clients and customers
- Prepare proposals and cost estimates for various scopes of wor

#### Associate Engineer – Environmental, DTE Energy Detroit, MI

#### **Key Accountabilities**

- Performs routine engineering assignments by following defined processes, procedures, and instructions.
- Works under and/or seeks guidance of experienced professionals to recommend and implement timely solutions involving routine engineering, design, operation, maintenance of company assets and market optimization.
- Collaborates with more experienced engineers and scientists to provide follow-up and engineering assistance on defined problems within time and budget constraints.

- Uses engineering skills and techniques to develop models and analyze data in order to recommend solutions and/or improvements in processes and programs.
- May provide field engineering assistance or technical support.
- Keeps up to date on current technology and market changes.
- Ensures environmental regulatory compliance by monitoring, reporting, developing and implementing procedures.
- Performs and recommend solutions for environmental issues based on investigations, current industry practices and consultation with experienced professionals
- Assists with the review and interpretation of environmental and wildlife regulations and proposed regulatory changes to assess impact and ensure compliance
- Assists with the representation of the company on environmental and wildlife issues with regulatory agencies and industry groups
- Ability to coordinate and effectively conduct environmental trainin

#### Environmental Engineer 9-P11 / Licensed 12 - Lansing District Office, State of Michigan Lansing, MI

The district engineer is responsible for the regulatory oversight of community public water supplies as defined by the Michigan Safe Drinking Water Act (Act 399, PA 1976, as amended). The district engineer makes decisions concerning engineering concept and design, operation, and maintenance of community public water supplies, as those decisions related to public health and the administration of the Act. The district engineer serves as the compliance and information contact of the assigned community water supplies. Under the supervision of the district supervisor, the district engineer reviews permit applications, construction plans and specifications, before the senior licensed engineer or the district supervisor who is a licensed engineer issues the permit.

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

This position is responsible for administration of the Solid Waste Management Act pursuant to Part 115 of the Natural Resources and Environmental Protection Act, (NREPA) PA 451. This includes construction permit, operating license and construction quality assurance certification reviews. The position is also responsible for conducting solid waste facility construction inspections, quarterly solid waste facility compliance inspections, evaluating waste pile accumulations, and responding to complaints regarding violations of Part 115. The position provides engineering assistance to other programs coordinated through the unit, e.g., scrap tire pile surveys, dredge spoil disposal, and hazardous waste corrective action construction. The position is also responsible for performing special tasks assigned by the District Supervisor.

#### Environmental Engineer 9-P11 / Licensed 12 - Warren District Office

The district engineer is responsible for the regulatory oversight of community public water supplies as defined by the Michigan Safe Drinking Water Act (Act 399, PA 1976, as amended). This position performs review of Water Quality Data and Type 1 (Community Water Supply) Surveillance and Evaluation and Construction Plan Review. This position makes decisions concerning engineering concept and design, operation, and maintenance of community public water supplies, as those decisions relate to public health and the administration of the Act. This position also assists with disseminating information to water supply operators, the general public, consulting engineers, and local, state and federal government officials.