

Geosciences Program NEWSLETTER

For students, alumni and friends of the
Geosciences program | Spring 2024



CMU Geosciences field trip participants at the uranium Sunday Mine.

Uranium Is Back! The Sunday Mine Complex Tour - Andres Aslan

With prices hovering between \$90-100 per pound, interest in uranium and the historic Uravan Mineral Belt of western Colorado and eastern Utah is growing once again! To learn more about the growing resurgence in uranium interest in our region, the CMU Geosciences' 2024 Adam Trumbo memorial field trip featured a visit to the Sunday Mine Complex in Big Gypsum valley, which is located ~35 miles west of Naturita.

On April 13th, 34 field trip participants visited the Sunday Mine, which was generously hosted by **Western Uranium and Vanadium (WUV)**. WUV has been operating the Sunday Mine Complex, which includes 5 individual mines, for the past 2 years. The field trip was made possible because CMU Geosciences alumnus **Pedro Terres Illescas ('21)** currently works as a geologist for WUV at the Sunday Mine, and along with WUV colleagues Grant Glaiser, Steve, Bruce, Wendy, and Chad, led the mine tour. A distinct and fun aspect of this particular field trip was the diversity of the

trip participants. In addition to CMU students and faculty, several GJGS members and CMU Geosciences alumni (**Caden Anderson ('21)**, **Roan Hall ('21)**, **Brandi John ('22)**, **Nolan McDonald ('16)**, **Sherri Randall ('22)**, **Ian Shafer ('17)**, and **Katie Worrell ('18)**) also attended.

This diverse group collectively brought a lot of expertise on uranium geology to the trip with a special nod to GJGS member **Doug Underhill's** experience in the uranium industry. The tour of the mine itself was fabulous! We spent several hours looking at the surface geology of the area including the Big Gypsum salt valley anticline, but the highlight of the trip was the underground portion of the tour. We spent ~2-hours underground observing firsthand the geology and operations of the mine. To facilitate the tour, we donned our personal protection equipment and rode in WUV "buggies" underground.

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From left to right: Field trip leader Pedro Terres Illescas, Andrew Christiansen, and alumni Faith Urbin, Roan Hall, and Caden Anderson. Grinning and bearded alumnus Nolan McDonald is in the background on the right side of the photo.



Geology students KennaLee Rowley, Mackina Chamberlain, and Maddie Bishop.



Underground learning about uranium mining. Left to right: alumna Brandi John, Sherri Randall, and current students Adam Tuck, Dillon Davis, and Emma Schoenstein.



"Buggies" carrying us into the mine via the Sunday portal.

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We entered the mine workings at the Sunday portal and traveled several miles underground within the labyrinth of tunnels (drifts) before popping out at the West Sunday portal more than a mile from where we started. The Sunday Mine Complex has existed since the 1950s so there are literally miles of mine tunnels present. The mine was developed originally by Union Carbide and in fact, one of our former CMU Geology professors, Tony Kovscek worked at the Sunday Mine in the 1970s and 1980s.

The mine conditions were very cool (literally) and the tunnels were extremely well ventilated. At each stop underground we observed different examples of mineralization. Although uranium ore is the primary target of mines in the Uravan Mineral Belt, the term “Uravan” exists because vanadium ore is also present. In fact, vanadium ore is more abundant - vanadium to uranium ratios range from 3:1 to 6:1 in the general region. In the Sunday Mine and elsewhere, the uranium and vanadium are present in sandstone of the Salt Wash Member of the Jurassic Morrison Formation. Here, the Salt Wash Member is much thicker (~200-400') than in the Grand Junction area, and Salt Wash sandstones form distinct benches separated by mudrock. Miners historically referred to the primary ore-bearing bench of Salt Wash sandstone as the “3rd rim.” This is because the drillers would hit the top of the Entrada Sandstone that underlies the Salt Wash and count the number of benches or “rims” of sandstone above the Entrada to identify the “3rd rim” ore-bearing sandstone, which also forms the top of the Salt Wash. While mineralization does occur in other Salt Wash sandstone units, mineralization in the Sunday Mine is primarily in the ~60-foot-thick “3rd rim.”

Besides the presence of sandstone, the other key factor influencing mineralization are reducing conditions. The rocks in which mineralization is concentrated are invariably reduced as shown by the presence of light gray sandstone and dark gray or green mudstones. The mineralization itself is largely represented by dark gray uraninite, the reduced form of uranium, as well as by greenish colors associated with vanadium-bearing clay minerals, and purple-black V-rich corvusite.



Uranium mineralization (dark colored zones) associated with a small roll front in the Salt Wash Member of the Morrison Formation.

Some yellow carnotite was present locally, but it is a relatively minor occurrence compared to the reduced minerals we observed. We also saw that there is a significant correlation between areas of mineralization and the presence of organic debris. Mineralization often occurred where organic debris was present or organic-matter coated clay beds that typically occur along scour surfaces within the complex fluvial bedding of the Salt Wash sandstone. The association between mineralization and organic debris was shown to us in a spectacular way when we saw a cross section of a fossil tree that had a diameter of ~6 feet, which was associated with ore!

Why is there so much uranium and vanadium ore in the Salt Wash sandstones of this region? There is ongoing debate about this question, but one scenario is that the uranium was derived from leaching of volcanic ash that was deposited in the Brushy Basin Member of the Morrison Formation, which directly overlies the Salt Wash Member. Chemical leaching of uranium-bearing ash could have supplied uranium-bearing solutions to the underlying porous and permeable Salt Wash sands, which would have been major aquifers in Jurassic time. Subsequent precipitation was facilitated by the presence of organic debris in the uppermost (3rd rim) Salt Wash sandstone.

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Underground drilling operations in the Sunday Mine Complex.

We also found out that each blasting operation at the terminus of an exploratory drift only expands the mine 6 feet. It is amazing to think that the miles of underground workings have been created a mere 6 feet at a time! WUV is using a combination of exploratory underground drilling and historic drilling records to develop the Sunday Mine Complex, and they estimate that they have several years of mining ahead of them without even having to conduct any new exploratory surface drilling. This points to the fact that the Sunday Mine Complex is a uranium bonanza relative to most other mines in the Uravan Mineral Belt.

Other amazing observations from our underground tour included a fault that juxtaposed Salt Wash sandstone and Brushy Basin mudrock as well as spectacular examples of mineral fluorescence in several (but not all) mineralized zones. Besides green fluorescent colors we saw blood-red fluorescent hues that were spectacular and mysterious since nobody seemed to know what mineral would produce such striking fluorescence.

I'm including a few comments from the students on the trip:

"The Sunday Mine trip was a great opportunity to see how geology is used in the workforce, and why it is so useful in so many industries."

"Overall, I thought that the Sunday Mine trip was a really cool and unique experience. It showed me a potential field I could work in the future. It also showed unique geology that can't always be seen above ground, and the general process that is used to extract valuable and profitable uranium ore

found in this particular area."

"Some highlights of the mine tour included the mysterious near-cylindrical outcrops, mineralized trees, and exposures of particularly thick seams of ore. Throughout portions of the mine minerals fluoresce green and red under a blacklight."

"Thanks for a memorable day!"

In summary, we had an amazing real-world geologic experience during our tour of the Sunday Mine Complex and want to extend our thanks again, to our host, Western Uranium and Vanadium, and our fearless leader **Pedro Terres Illescas ('21)**

Coordinator's Corner – Andres Aslan

Program and Faculty News

Following the retirement of **Dr. Rick Livaccari** last spring, there has been some shuffling of teaching duties among the Geosciences faculty. **Dr. Marlon Jean** joined the faculty in the fall on a 1-year appointment, and he is currently teaching Petrology as well as several lower-division courses. In Rick's absence, Structural Geology was taught by **Dr. Greg Baker** and Mineralogy was taught by **Dr. Cassie Fenton** last fall. Next Fall, **Mr. Wade Aubin** will join the Geosciences faculty at CMU. Wade is finishing his Ph.D. in the Jackson School of Geosciences at UT-Austin, and will bring much-needed expertise in volcanology to CMU. Welcome Wade!!

Dr. Javier Tellez is teaching an upper-division course in Energy Resources for the first time this semester as he works towards helping and advising students interested in the energy and energy transition sectors. **Dr. Kerry Riley** continues to teach courses in Geomorphology and the Hydrology of Rivers, which are important components of the Environmental Geology curriculum. Kerry is also spearheading a summer raft trip for Women in Geosciences entitled "Inspiring Women to Rock!". **Dr. Verner Johnson** is continuing his research on magnetic anomalies of the Uncompahgre Plateau, and he has a team of students working on various aspects of this research (see article in this newsletter). **Drs. Bill Hood and Rex Cole** (emeritus faculty) continue their research collaboration on studies of the mineralogy, geochemistry and sedimentology of the Goodenough interval beneath Grand Mesa basalt flows.

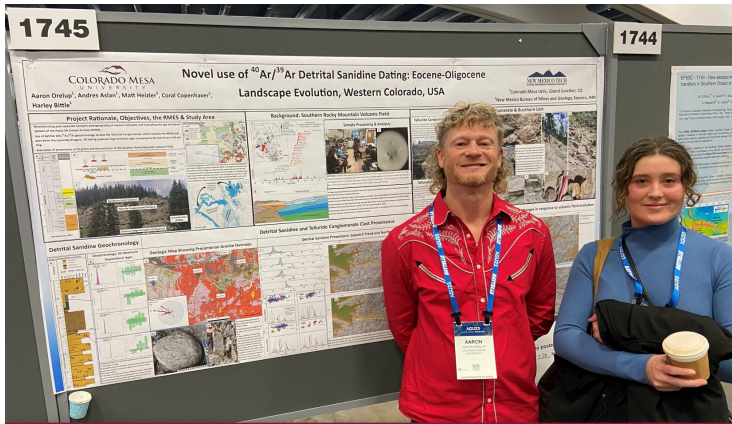
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Dr. Andres Aslan will be on sabbatical beginning in the Fall of 2024 during which time he will continue working on $^{40}\text{Ar}/^{39}\text{Ar}$ detrital sanidine dating of units including the Goodenough unit (in collaboration with **Prof. Rex Cole**) and the Telluride Conglomerate as well as developing introductory geology courses at the CMU-Montrose campus. He will also squeeze in a month-long visit to Iceland! **Dr. Cassie Fenton** will be the new Coordinator of the Geosciences Program moving forward.

Student News

Aaron Orelup and **Coral Copenhaver** (both of whom will graduate in 2024) presented results of their research at the Dec. 2023 AGU meeting in San Francisco



Aaron Orelup and Coral Copenhaver presenting their detrital sanidine research on the Telluride Conglomerate at the national AGU meeting in San Francisco in Dec. of 2023.

This Spring our senior Geology students will present their work at the CMU **Student Showcase on April 26th** as well as at the **May 8th Grand Junction Geological Society meeting**. The following is a list of current students and their senior thesis topics.

Ben Chamberlain (graduating Aug. 2024) – Formation of a paleosol at the K/Pg boundary, Shale Ridge area near DeBeque, Colorado.

Mackina Chamberlain (graduating Aug. 2024) – Origins of fluorite deposits in the Ryan's Park area of the Uncompahgre Plateau.

Coral Copenhaver (graduating Aug. 2024) – Oligocene fluvial gravels at the base of the West Elk Breccia, Blue Mesa Reservoir: implications for paleogeography at the time of the Rocky Mt Erosion Surface.

Addison Early (graduating Aug. 2024) – Structural geology of the Ryan's Park area of the Uncompahgre Plateau.

Ethan Freeburger (graduating in Aug. 2024) – Inventory of landslides along the southern bluffs of the Colorado River in the Grand Valley.

Liam Posovich (graduating in May 2024 with Honors) – Characterization of the permeability structure of a Burro Canyon Formation point bar, Bridgeport area, Mesa County, Colorado.

Hunter Stewart (graduating Aug. 2024) – An evaluation of critical minerals including copper and tin.

Emilio Topete (graduating May 2024) – Magnetic survey of the Ryan's Park area of the Uncompahgre Plateau.

KennaLee Worster (graduating Aug. 2024) – Hydrogeology of basaltic alluvium near the Cheney Reservoir disposal site, Mesa County, Colorado.

2024 STUDENT AWARDS

The following students received special recognition for their academic accomplishments in Spring 2024:

RMAG Neal J. Harr Award (awarded to the top senior in the program):
Liam Posovich

William C. Hood Student Research Award: **KennaLee Worster**

Verner C. Johnson Geology/GIS Award: **Emilio Topete**

Association for Women Geoscientists: **Mackina Chamberlain, Coral Copenhaver**

Forrest Nelson Fund Scholarships: **Grant Barnes, Braden Bensley, Maddy Bishop, Caitlyn Boyle, Cole Beyer, Ben Chamberlain, Mackina Chamberlain, Owen Crowns, Addison Early, Graceanne Hanson, Jacob Kitchens, Michael Longworth, Reuben Magner, Ava Marso, Damaris Mendes, Brittny O'Dell, Keith Pierce, Alexandria Rukcic, Emma Schoenstein, Morgan Sholes, Zach Shomers, Steffen Teutsch, Kate Thiltgen, Adam Tuck, Colton Zinke.**

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Geosciences Tuition Scholarships: Graceanne Hanson, Ava Marso

Richard Dayvault Memorial Scholarship –2023 awardee was KennaLee Worster; 2024 awardees were Graceanne Hanson and Morgan Sholes

Mark Garman Field Camp Scholarship: Coral Copenhaver, Hunter Stewart

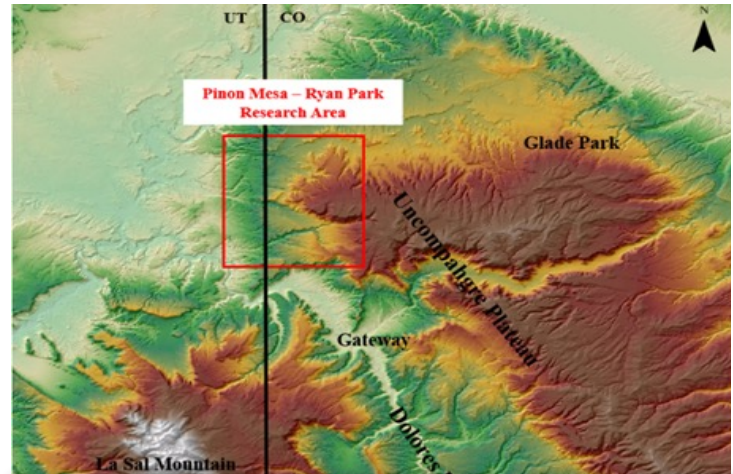
RMAG Robinson Field Camp Scholarship: Ethan Freeburger

Grand Junction Gem & Mineral Club Scholarship awardees: Coral Copenhaver, Mackina Chamberlain, KennaLee Worster

Grand Jct Geological Society Field Camp Scholarship: Coral Copenhaver, Brittlyn O'Dell, Morgan Sholes, KennaLee Worster, Mackina Chamberlain.

Magnetic Anomalies And Mineralization In The Pinon Mesa-Ryan Park Region Of The Uncompahgre Plateau -Dr. Verner Johnson & Caden Anderson

For the past 45 years CMU geology students and faculty members have spent well over 1000 hours conducting geological and geophysical research in the Pinon Mesa, Glade Park, Devils Canyon, and Unaweep Canyon areas of the northwestern Uncompahgre Plateau. Because of the pervasive faulting and jointing, intense silicification of sandstones, and abundant metalliferous mineralization present in the Ryan Park area just south of Pinon Mesa, **Caden Anderson ('21)** and I decided to conduct a geological and geophysical investigation of the tectonic and structural evolution of the area to determine both the timing and sources of the hydrothermal activities of the area. In early 2023, both of us prepared a grant proposal requesting \$54,000 from the CMU Unconventional Energy Fund to continue research of the Pinon Mesa-Ryan Park area in the northwestern part of the Uncompahgre Plateau. The grant was approved in the spring of 2023, and we have been working in the area since then.



Map of western Colorado and eastern Utah showing locations of Verner Johnson's student research team's Pinon Mesa-Ryan Park study area.



Student researcher Emilio Topete conducting a magnetometer survey in the Ryan Park area.

The Pinon Mesa area has been studied by our group since the mid-1980s. Work has included multiple small-scale magnetometer surveys, rare earth elements (REE) analysis of copper-oxide mineralization, and structural studies of the silicified faults in the area. We found that there are some very interesting magnetic anomalies associated with mining workings and hydrothermal features present in this area. One area that we refer to as “cataclastic ridge,” consists of silicified dikes that cut through the Wingate, Kayenta,

and Entrada Formations and represent major conduits for hydrothermal fluids. Our rock sampling program also indicate that the REE present in and around this silicified ridge correspond to what we would expect from a hydrothermally altered system. Recently, after many field trips with Caden to this area, we decided to expand our study area to include both Ryan Park and Pinon Mesa.

Ryan Park is an interesting geologic and geographic area. Although mostly in Utah, it is bound to the north by the Colorado River and to the south by the Dolores River, making it only accessible from Colorado.

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Whereas Pinon Mesa contains mineralization in the form of copper oxides like malachite and azurite that are associated with silicified fractures and faults that have little to no offset, most of the mineralization seen in Ryan Park are sulphides, namely galena, chalcopyrite, and sphalerite, which are associated with banded fluorite and barite. The fluorite and metalliferous sulphides form the matrix between surrounding fault breccia clasts within silicified faults, and as thick veins in both Precambrian metasedimentary formations and younger intrusive bodies. Although these two areas have slight difference in mineralization and structure types, we believe that they are very closely related and should be combined into one whole study area.

For us to continue the investigation of this unique area, three current Geology students were hired in the summer of 2023 to work with us on our research. **Emilio Topete (May '24)**, our geophysicist, has been walking all around the study area collecting magnetic sample points with our GEM magnetometer to look for magnetic anomalies that could help lead us to both the intrusive bodies that caused the hydrothermal activity, and the subsurface hydrothermal mineral deposits, which formed later. **Mackina Chamberlain (Aug. '24)**, our geochemist, has been collecting samples of the ample fluorite and barite mineralization around the Ryan Park area, along with metalliferous minerals like galena, sphalerite, chalcopyrite, and malachite that are present in fault breccias and veins, to send off to geochemical labs and make thin sections of. **Addison Early (Aug. '24)**, our structural geologist, has been gathering lots of structural data around the fault that bounds the northern edge of Ryan Creek, including the strike and dip of joints and faults, the rake of slickensides, and the orientation of mineralized veins at the surface and in adits to get an estimate of the stress field orientation during the hydrothermal activity. Additional assistance has been graciously given by two CMU geo-faculty members: **Dr. Greg Baker**, who gathered high quality drone data of the silicified faults and has assisted in the interpretation of our structural and geophysical data, and **Dr. Cassandra Fenton**, who has assisted in the interpretation of our geochemical and petrographic data. Our thanks also go out to **Roan Hall ('22)** who created a geologic map of the Pinon Mesa-Ryan Park area by combining several published maps into one map using ArcGIS Pro, and **Liam Posovich (May '24)** who digitized the roads, property boundaries, and structures present in the study area in ArcGIS Pro.

So far, we have some interesting preliminary findings. In our magnetometer data we see two strong magnetic highs in the center of Pinon Mesa and Ryan Park, both of which are proximal to anomalous faults and joints, silicification, and metalliferous mineralization, which we see in those areas. Our geochemical analysis of the REE present in the fluorite and barite

veins has shown that although there have been multiple phases of fluorite-barite mineralization throughout the area, all phases may have come from the same intrusion. The structural analysis of the fault that bounds the northern edge of Ryan Creek has led to multiple conclusions: there has been oblique movement (right-lateral and extensional) along the fault, the silicification of the Wingate, Kayenta, and Entrada sandstones in the study area occurred both before and during the formation of major structures in the study area, and that these structures created fault breccias with ample open space for additional minerals, namely fluorite, barite, calcite, and galena, to form a matrix for clasts of the fault breccia.

Since it's now spring and the study area is still inaccessible until the weather warms, we are currently working to finalize our interpretations of the data we gathered from the field last summer and early fall. Emilio, Mackina, and Addison are analyzing their findings and will present their results at the CMU Student Showcase on April 26th, and the Grand Junction Geological Society meeting on May 8th. From these three individual projects, we hope to be able to put together a preliminary framework for the tectonic and surficial evolution of this area, along with building a better understanding of the relationship between intrusive activity, the migration of hydrothermal fluids, and the final mineral assemblages seen today. Over this coming summer we hope to continue our research by both expanding and filling in the current gaps in our magnetometer survey, conducting a gravity survey around the eastern portion of the study area, gathering additional rock samples of fluorite, barite, and other metalliferous minerals, and conducting additional structural analyses of silicified faults that are proximal to the mineralization. Finally, we hope to finish our current projects in time to present our findings at a Grand Junction Geological Society monthly meeting during the fall 2024 semester, and the annual GSA meeting in Anaheim, California, in late September 2024.

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Mav Rocks Geology Club

**President: Liam Posovich; Vice President: Emilio Topete; Treasurer:
Ava Marso; CAB Representative: KennaLee Worster**



MavRocks geology students at Game Night. Left to right: Charlie Caselles, Graceanne Hanson, Ava Marso, Max Marso, Hunter Stewart, Liam Posovich, and Emilio Topete.

Although our name has changed (MavRocks), we are still an official student chapter of AAPG. Last August, club members participated in the GJGS Chenoweth Field Trip to the Piceance Basin. This event involved visits to multiple locations within the Piceance Basin. A group of students, faculty, and GJGS members embarked on a guided trip led by Dr. Rex Cole, Jerry Daub, and Steve Cumella. The trip traveled across the entire Piceance Basin beginning in DeBeque Canyon (west end of the basin), following the Grand Hogback north of Rifle (east end), and ended in the heart of the Piceance Basin ~20 miles northwest of Rifle. A diverse group of topics was discussed on the trip, including oil shale development within the basin, natrolite production techniques, and a thought experiment presented by Dr. Bill Hood on the amount of carbon captured by the Green River Formation.

In October, the club organized a geosciences-themed trivia night at The Point (lounge at CMU). The event attracted 10 participants, including students and faculty. The trivia questions covered various aspects of geology, paleontology, geophysics, and other related disciplines. Prizes were awarded to the winning teams, with a mix of previously produced club merchandise and donated mineral samples from the area.

Also in October, in conjunction with the structural geology class, the club hosted Jim McCalpin, a well known consultant and paleoseismologist who is investigating Quaternary faults on the Uncompahgre Plateau near Montrose, CO. He gave a talk on "50 years of Paleoseimology" that ~25 people attended.

In November, the chapter organized a scholarship-applications and resume building workshop for students ranging from freshmen to seniors. This activity included search-and-apply activities, guidance, and demonstrations to submit applications to grants and registration for AAPG conferences, as well as faculty who helped critique student resumes and advise on ways to frame previous work experience. The activity received positive feedback from students and every student who attended said that they had learned something new from the workshop.

Also in November, the chapter jointly hosted Dr. Francis Rengers of the U.S. Geological Survey-Denver, along with the geomorphology and environmental geology classes. Dr. Rengers discussed post-wildfire debris flow related to the Grizzly Creek Fires in 2021 and 2022.

The chapter also recognizes the importance of spreading geosciences knowledge beyond the academic sphere. To achieve this, the student chapter is working with District 51 in Grand Junction to schedule outreach initiatives to engage with the community and promote geoscience awareness among high school students.

Most recently the club hosted a game night, which was very fun!

WUBBEN HALL MINERAL DISPLAYS – DR. VERNER JOHNSON



Lee Cassin (left) and Ray Guillmette (right) next to the new gypsum mineral display that they generously created on the first floor of Wubben Science.

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We are very proud to announce that Lee Cassin donated valuable and fascinating mineral specimens (gypsum and calcite) to CMU for hall displays in Wubben Hall. She inherited these minerals from her geologist parents (Nancy and Richard Cassin). Lee explained that her parents have two passions: everything that is geology and the importance of education, which is why she made the donation of minerals to CMU. Ray Guillemette also helped set up the mineral displays, which are both upstairs (calcite) and downstairs (gypsum) in Wubben Hall. Ray made a magnificent display including arranging the specimens, making the individual labels, providing supplies, and providing all the educational information in the displays. Thank you very much to both of you! Our students and faculty are deeply appreciative of your generosity.

Maverick Alumni

Several Geology alumni helped us this Spring by returning to campus and/or speaking via Zoom to our current geology seniors in Seminar (GEOL 490). This year's alumni guest speakers included: **MJ Winey ('23)** – MJ is currently at Daub and Associates in Grand Junction and spoke about her immersion into the economic geology of the Green River Formation in the Piceance Basin and the upcoming drilling season related to sodium bicarbonate solution mining; **Rachael Lohse ('18)** – Rachael is a MWD specialist working for Total Directional based here in Grand Junction, and she spoke about her career in the energy services industry; **Caden Anderson ('21)** – Caden works in the mineral exploration sector for Ivanhoe Electric, and spoke about geologic and geophysical exploration experiences as well as his upcoming matriculation at Idaho State U. to pursue a M.S. degree in Geology; **Marshall Thurmon ('18)** – Marshall is the Quality Control Manager at Field GeoServices, and he spoke to the group about career paths involving mudlogging and the energy sector; **Marisa Connors ('14)** – Marisa continues to work at Yeh and Associates here in Grand Junction (as well as teaching several courses at CMU part-time), and Marisa spoke both about her graduate school experience at CSU where she received a M.S. degree as well as career paths in geotechnical investigations; **Mickey Guziak ('16)** – Mickey works for the DOE contractor RSI here in Grand Junction, and oversees the management of multiple disposal cell units in Wyoming. Mickey spoke to the group about career paths in the environmental sector and the utility of receiving a P.G. certification; **Jordan Walker ('20)** – Jordan is a Ph.D. student at Baylor University studying the geochemistry and paleoclimatology of anoxic events in the Western Interior Seaway; Jordan provided excellent suggestions and tips on applying to graduate school. Alumni who presented in GEOL 490- thank you for all

your help on behalf of our current students! If any other alumni would like to give a presentation of career opportunities to our graduating seniors next year, please let me know!

Leyna Weller ('22) is a GIS specialist working for a contractor to the U.S. Census Bureau in the Baltimore area. She mentioned that learning ArcGIS-Pro at CMU has greatly helped in her new job, and thanked Verner for “pushing” the transition to ArcGIS-Pro. **Alejandro (Alex) Jaquez-Caro ('19)** stopped by in March and said “hi” and let us know that after a year of teaching in Korea and working in the education sector in Boulder, Alex is now an Admissions Officer for Colorado Mt. College based in Glenwood Springs. **Pedro Terres Illescas ('21)** is a geologist for Western Uranium and Vanadium at the Sunday Mine in Big Gypsum Valley near Naturita. We'd love to hear more details from each of you so please email me (aaflan@coloradomesa.edu) with your latest news so we can include it in the next newsletter!

Jeff Glass ('84 – when we were Mesa State) contacted us and gave us an update. Jeff worked for Getty and Texaco after graduation and eventually started his own business (www.hydropressure.com) with which he works with groundwater professionals from around the world. Jeff still returns for functions at CMU (mostly football related), and 3 of his girls attended/ graduated from CMU. We would love to hear more updates from our Mesa State grads!!

GEOSCIENCES PROGRAM SUPPORT

If you are interested in donating to the Geosciences Program, the CMU Foundation has established a website with a list and description of our current program funds and scholarships. No more checks in the mail! To donate, simply visit:

<https://engage.supportingcmu.org/geosciences>

One of the areas of need is funding for students to attend professional meetings such as AAPG or GSA. If you are interested in contributing to this area of need, please donate to the newly established Geosciences Student Research Fund. If you are interested in learning more about establishing a named fund to support the Geosciences program at CMU, please contact Rick Adleman at 970.248.1871.