

BULLETIN
Corpus Christi
Geological Society



and

Coastal Bend
Geophysical Society



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2026
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2025-2026

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2025-2026

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**Visit the geological
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CCGS/CBGS JOINT MEETING SCHEDULE 2025-2026

September 2025							October 2025							November 2025						
S	M	T	W	Th	F	S	S	M	T	W	Th	F	S	S	M	T	W	Th	F	S
	1	2	3	4	5	6			1	2	3	4							1	
7	8	9	10	11	12	13	5	6	7	8	9	10	11	2	3	4	5	6	7	8
14	15	16	17	18	19	20	12	13	14	15	16	17	18	9	10	11	12	13	14	15
21	22	23	24	25	26	27	19	20	21	22	23	24	25	16	17	18	19	20	21	22
28	29	30					26	27	28	29	30	31		23	24	25	26	27	28	29

2025-2026 Membership Kickoff Nueces Brewing Co. Downtown, 5 p.m.

Meeting at Joe's Crab Shack Downtown. 11:00 Bar, 11:45 lunch, 12:00 speaker. David Desenberg, "3-D Technology for Exploration."

Meeting at Joe's Crab Shack Downtown. 11:00 Bar, 11:45 lunch, 12:00 speaker. Iris Montero Petrophysicist & Petroleum Engineer. "Chase Group Formation Evaluation: Hugoton Field, Kansas, Using Machine Learning."

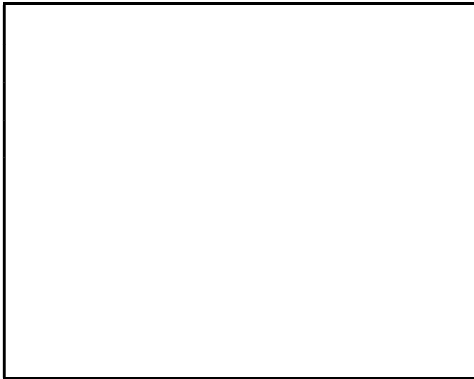
December 2025							January 2026							February 2026						
S	M	T	W	Th	F	S	S	M	T	W	Th	F	S	S	M	T	W	Th	F	S
	1	2	3	4	5	6				1	2	3								
7	8	9	10	11	12	13	4	5	6	7	8	9	10	1	2	3	4	5	6	7
14	15	16	17	18	19	20	11	12	13	14	15	16	17	8	9	10	11	12	13	14
21	22	23	24	25	26	27	18	19	20	21	22	23	24	15	16	17	18	19	20	21
28	29	30	31				25	26	27	28	29	30	31	22	23	24	25	26	27	28

Meeting at Joe's Crab Shack Downtown. 11:00 Bar, 11:45 lunch, 12:00 speaker: Dr. Veronica Sanchez Associate Professor Geology Texas A&M Kingsville. "Overview of Texas A&M Univ. Kingsville Geology Field Camp."

Meeting at Joe's Crab Shack Downtown. 11:00 Bar, 11:45 lunch, 12:00 speaker: Christopher Smith (PhD) Senior Chemist Advanced Hydrocarbon Stratigraphy. "Evaluating Volatiles Entrained in Legacy Unpreserved Cuttings from the Gulf of Mexico & Trinidad to understand the subsurface Movement of Oil Gas, Compartments/Seals/Baffles, and Neighboring Prospects."

CCGS/CBGS Joint Meeting Schedule 2025-2026

March 2026							April 2026							May 2026						
S	M	T	W	Th	F	S	S	M	T	W	Th	F	S	S	M	T	W	Th	F	S
1	2	3	4	5	6	7				1	2	3	4						1	2
8	9	10	11	12	13	14	5	6	7	8	9	10	11	3	4	5	6	7	8	9
15	16	17	18	19	20	21	12	13	14	15	16	17	18	10	11	12	13	14	15	16
22	23	24	25	26	27	28	19	20	21	22	23	24	25	17	18	19	20	21	22	23
29	30	31					26	27	28	29	30			24	25	26	27	28	29	30



Meeting at Joe's Crab Shack
Downtown. 11:00 Bar, 11:45
lunch, 12:00 speaker: T. Grant
Johnson, President of Lone
Star Production Company.

Shrimp Boil at Doc's

Calendar Of Meetings and Events

- Corpus Christi Geological/Geophysical Society..... Third Wed.—11:30a.m.
- SIPES Corpus Christi Luncheons..... Last Tues.—11:30a.m.
- South Texas Geological Society Luncheons..... Second Wed—noon San Antonio
- San Antonio Geophysical Society Meetings..... Fourth Tuesday
- Austin Geological Society..... First Monday
- Houston Geological Society Luncheons..... Last Wednesday
- Central Texas Section of Society of Mining, Metallurgy & Exp..... 2nd Tues every other month in
San Antonio

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1/8 page 2.2" x 3.6" \$150	
1/2 page 7.2" x 4.3" \$300	
Full page 7.2" x 8.6" \$500	Inside Front or Back Cover \$650

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PRESIDENT'S LETTER

Spring's Greetings!

This the last newsletter of our "bulletin year," which is truly hard to believe. Usually, I write these newsletters with a single topical theme. But to wrap up the year, I would like to highlight several important developments that you may...or may not...be aware of.

If you didn't already know, our very own Dawn Bissell was recognized by the Gulf Coast Association of Geological Societies (GCAGS) by being awarded the Honorary Membership Award. This is one of the most prestigious awards presented by the GCAGS. Dawn will receive the award in-person in late March during GEOGULF (in Baton Rouge). Most of you know Dawn, and I'm sure you will agree that she is truly deserving of this recognition.

Last fall, the CCGS decided to partner with the Harte Research Institute (TAMU-CC) to produce a 3-D physical model of the Baffin Bay watershed. The model will depict the 1.5 million-acre Baffin Bay watershed to scale...depicting topography, creeks, major roads, towns, and county lines. This model is transportable, and ideally suited for educational outreach initiatives. The model will have the CCGS logo emblazoned on it, giving our organization instant recognition. This model is in fabrication now, and should be unveiled in the weeks ahead.

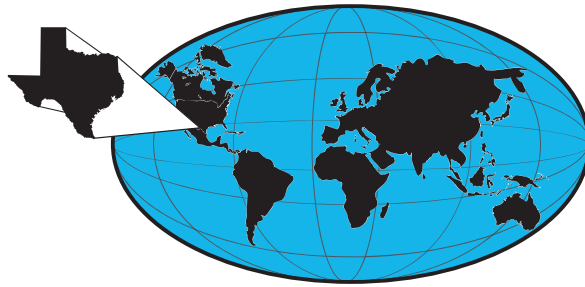
More recently, the CCGS decided to partner with the University of Texas Marine Science Institute (UTMSI) for this fall's 2026 Southern Geobiology Symposium (SGS). SGS is intended to connect researchers in geobiology and related fields such as biogeochemistry, environmental microbiology, geochemistry, sedimentology, oceanography, paleoclimatology, ecology, soil science, astrobiology, and paleontology. Participation by early career researchers is particularly encouraged. The CCGS will sponsor a student presentation award. We'll hear more about the symposium as we move closer to summer, but this is an exciting opportunity for our organization!

Our next upcoming professional luncheon will be on Wednesday, April 15th, at Joe's Crab Shack. This will be a "joint luncheon" with the Corpus Christi Chapter of the Landmen Society. By partnering with another local society, we will increase professional networking opportunities...while having another cadre of talented professionals join us. Also at this luncheon, we will recognize CCGS scholarship award winners. This is definitely a luncheon you don't want to miss!

Our final meeting of the season is on May 20th. That evening, we will have our annual Shrimp Boil down at Doc's Seafood on Padre Island. This is also a joint event, between the CCGS/CBGS and the local SIPES chapter. This is purely a social event (no guest speaker). Please make plans to join us. We'll enjoy some comradery as the Sun slowly sinks over the beautiful Laguna Madre.

Best wishes to you and your loved ones for a safe, relaxing summer.
The past few months have been fast-paced, but full of opportunity for the CCGS!

Charles "Chuck" Benson --CCGS President



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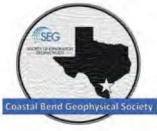
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CBGS President's Letter

CBGS Board 2025-2026

President- Dr. Subbarao Yelisetti

Vice President- vacant

Secretary/ Treasurer-Charles Benson

CBGS Scholarships

The Coastal Bend Geophysical Society has awarded four scholarships in Fall 2025. The next round of scholarships will be awarded in Fall 2026. Scholarships will be awarded based on merit and need. The award amounts may vary with the minimum award being \$500. The application deadline is September 1, 2026.

Scholarship Requirements

Criteria for awarding the Scholarship from Coastal Bend Geophysical Society of Corpus Christi, Texas:

1. Scholarships are open to undergraduate or graduate students.
2. Must have declared major in Geophysics, or Geology with a concentration in Geophysics or Petrophysics.
3. Preference is given to students attending Coastal Bend schools (TAMU-K, TAMU-CC and Del Mar College), then to Coastal Bend natives attending other universities.
4. Must have a GPA of at least 3.0 and be in good standing with the school.
5. Must make effort to attend a Coastal Bend Geophysical Society Meeting in Corpus Christi Texas after being awarded a scholarship to be recognized by the society.

News

- At the time of writing this report, Brent crude futures are hovering at \$87.58 a barrel, up by 30% this month, and US West Texas Intermediate crude futures are hovering at \$84.99 a barrel.
- According to the U.S. Energy Information Administration (EIA) forecasts, Brent oil prices are set to trade above \$95 a barrel over the next two months due to ongoing conflicts around the world, before falling to around \$70 by the end of the year.
- According to U.S. EIA forecasts, crude oil production will average 13.61 million b/d in 2026, up from its previous forecast of 13.6 million bpd. In comparison, oil output averaged 13.23 million bpd in the previous year. In 2027, the output is expected to increase to 13.83 million bpd, up from its previous forecast of 13.32 million bpd.

CBGS Business

CBGS currently has 28 active members, 2 honorary members, and 40 student members. Raised \$1,450 towards student scholarships through membership revenue this past year. **CBGS**

workshops/talks

CBGS organized the November 2025 joint luncheon meeting with CCGS. CBGS is looking forward to offer more workshops/talks in the future. Topic/speaker suggestions are welcome. Email your suggestions to Subbarao.Yelisetti@tamuk.edu

New Degree Tracks at TAMUK and Graduate Scholarships

- Texas A&M University-Kingsville (TAMUK) started its first cohort of MS Petrophysics program in Fall 2018. If you are interested in joining this program in 2026, please contact the

graduate coordinator for MS in Petrophysics, Dr. Subbarao Yelisetti at Subbarao.Yelisetti@tamuk.edu.

- The Department of Physics and Geosciences at TAMUK is offering competitive scholarships for MS Petrophysics students. For additional details about the program and scholarships, please visit the website: <https://www.tamuk.edu/artsci/departments/phge/phys/academics/gp.html>

Education/Events

-SEG

SEG 2026 annual meeting (IMAGE) will be held in Houston, TX from August 17-20. See <https://seg.org/Events/Upcoming-SEG-Annual-Meetings> for additional details.

See <https://seg.org/Education/Lectures/Distinguished-Lectures> for information about upcoming SEG distinguished lecture in Houston and other locations.

See <https://seg.org/Education/Lectures/Honorary-Lectures> for SEG honorary lecture locations in Texas.

-AGU

2026 Fall AGU annual meeting will be held in San Francisco, CA from December 7-11th, 2026. <https://www.agu.org/Fall-Meeting>

Monthly Saving

"Conservative estimates project a price of \$80 a barrel, even if peace is restored to the Persian Gulf....." Quote from National Geographic 1981 on the projected oil price for 1985.

Monthly Summary

Texas Oil and Gas Info	Current Month	Last Month	Difference	
Texas Production	MMBO/BCF	MMBO/BCF	MMBO/BCF	
Oil	159.7	167.1	-7.4	November
Condensate	25.0	27.1	-2.1	November
Gas	1078.9	1112.9	-34	November
	Current Month	Yr to date - 2026	Yr to date - 2025	
Texas Drilling Permits	579	1306	7424	February
Oil wells	121	199	1279	February
Gas wells	40	87	524	February
Oil and Gas wells	377	944	5179	February
Other	20	22	121	February
Total Completions	1137	2645	19741	February
Oil Completions	841	1975	15232	February
Gas Completions	296	670	4509	February
New Field Discoveries	2	3	12	February
Other	391	958	8396	February

Subbarao Yelisetti
 President, CBGS
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- Receive critical updates and information about the energy industry.
- Enhance communication and leadership skills.
- Make friends for life!

For more information about the Desk & Derrick Club of Corpus Christi and to learn about member eligibility, go to www.addc.org or contact Jena Nelson at 361-844-6726 or email at jena@amshore.com

The Desk & Derrick Club of Corpus Christi is a proud affiliate of the Association of Desk And Derrick Clubs, www.addc.org

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**CORPUS CHRISTI GEOLOGICAL SOCIETY
COASTAL BEND GEOPHYSICAL SOCIETY**



LUNCHEON MEETING ANNOUNCEMENT

April 15th, 2026

- Location:** Joe's Crab Shack, 444 North Shoreline Dr.,
Corpus Christi, TX 78401
- Student Sponsors:** Viper Exploration, Imagine Resources,
Advent Geoscience Consulting,
Wiedmann Oil & Gas. We Thank You!
- Time:** 11:30 AM Social, Lunch follows at 11:45 AM,
Speaker at 12:00 PM
- Cost:** \$35.00 (additional \$10.00 surcharge without
reservation: NO SHOW will be billed.)
- Reservations:** Please RSVP by 11:00 AM on Monday, April 13th
before the meeting!
- Email: arrangements@ccgeo.org

Please note that luncheon RSVPs are a commitment to Joe's Crab Shack (Shoreline Drive) and must be paid even if you can't attend the luncheon.

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SPEAKER FOR APRIL

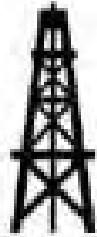


T. Grant Johnson, President of Lone Star Production Company. In 1981, Grant received a BBA in Petroleum Land Management from The University of Texas. He began his career as a contract field Landman where he gained experience in courthouse records and oil and gas leasing. From 1983 to 1991 Grant served as Land Manager for Alcorn Exploration, Inc. He was responsible for all land related duties associated with the generation and marketing of exploration prospects in numerous trends in Texas. During his association with Alcorn Exploration Inc. Grant formed Lone Star Production Company which participated in projects generated by Alcorn. In 1991, he joined Texon Corporation while continuing to manage the assets of Lone Star Production Company. While at Texon, Grant gained experience in the wholesale energy marketing segment of the industry. His duties included crude oil marketing and natural gas processing. In 1995, Grant left Texon to pursue Permian exploration and development opportunities. Grant currently serves Chairman of the Texas Independent Producers and Royalty Owners Association (TIPRO) and is an active member of the American Association of Professional Landmen (AAPL landman.org), Houston Association of Professional Landmen (hapl.org), West Houston Association of Professional Landmen, Houston Producer's Forum, IPAA, ADAM Permian and ADAM Houston. He is a licensed Texas Real Estate Broker. Grant has held several offices for WHAPL including President in 1987-88. Grant served as President of HAPL from 2008-2009. In 2009, Grant was named HAPL's "Outstanding Landman of the Year" and Permian Landman of the Year" in 2024. For AAPL, the national Landmen association, Grant is past chairmen of AAPL's NAPE Operators Committee, Forms Committee and Annual Meeting Committee. Grant received the "AAPL Committeeman of the Year" in 2014 and received AAPL "Lifetime Achievement" award in 2023.

Grant and his wife, Tamara are members of First Presbyterian Church in Houston and active in the Houston & Southeast Texas chapter of the Alzheimer's Association. Grant has been a volunteer for the Houston Livestock Show and Rodeo since 1983. They are blessed to have two wonderful daughters Chanel Johnson and Jennifer Beasley, a great son-in-law, Ben Beasley and two precious grandchildren, Brooklyn and Dillon.

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**CORPUS CHRISTI GEOLOGICAL SOCIETY
COASTAL BEND GEOPHYSICAL SOCIETY
SOCIETY OF INDEPENDENT PROFESSIONAL EARTH SCIENTISTS
JOINT MEETING ANNOUNCEMENT**

May 20th, 2026

Location: Doc's Seafood and Steaks, 13309 S. Padre Island Drive, Corpus Christi, TX 78418

Student Sponsors: Viper Exploration, Imagine Resources, Advent Geoscience Consulting, Wiedmann Oil & Gas. We Thank You!

Time: 5:30 PM Social, Shrimp Boil follows at 6 p.m. Cash bar available. (This is a social event, so no guest speaker!)

Cost: \$40 at the door (estimated cost, additional \$10.00 surcharge without reservation: NO SHOW may be billed.)

Reservations: Please RSVP by 11:00 AM on Wednesday, May 13th before the meeting!

Email: arrangements@ccgeo.org (CCGS/CGBS)

Email: elizabeth.auroraresources@gmail.com (SIPES)

Please note that RSVPs are a commitment to Doc's Seafood and must be paid even if you can't attend the luncheon.

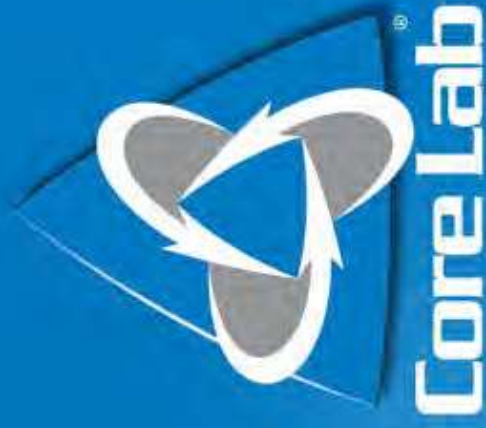
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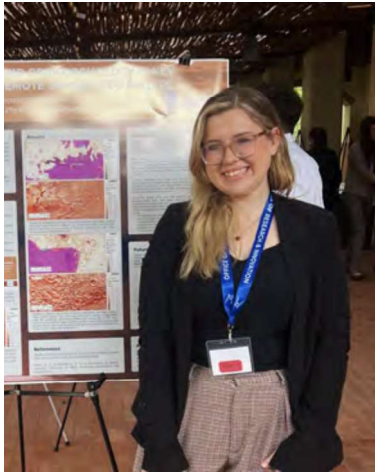
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ABOUT THE AUTHOR

Emma Mroz is a senior Geology major pursuing a minor in Computer Science at Texas A&M University - Kingsville. She transferred to the TAMU-K Geology program after receiving her Associate of Science degree at Lone Star College in December 2023. She is an undergraduate teaching assistant for the Department of Physics and Geoscience for the introductory Earth Science and Astronomy classes, along with taking part in the department planning committee. She has a lifelong passion for astronomy research that started with participating in several research projects in early high school; determining the composition of exoplanets, conducting research on the spectroscopy and transit photometry of Tabby's Star, and researching active galactic nuclei feedback. At TAMU-K, she participated in NASA's NCAS program, studied changes in dune morphology in the South Texas Sand Sheet, and her most recent project involves analyzing mineralogy and geomorphology on Mars using remote sensing techniques. She remains heavily involved in her community outside of her love of academics as the New Member Educator in Theta Phi Alpha Women's Fraternity, Vice-President of the TAMUK Association of Geosciences, and President of the Society of Physics Students with Sigma Pi Sigma, the Physics Honor Society.

A REMOTE SENSING-BASED ANALYSIS OF MINEROLOGY AND GEOMORPHOLOGY IN KEY MARTIAN REGIONS

Emma Mroz and Veronica Sanchez

Department of Physics & Geosciences, Texas A&M University-Kingsville, Kingsville, TX, USA

INTRODUCTION

Mars has a complex geological history, particularly in the regions of Nili Fossae, Valles Marineris, and Sinus Meridiani, that provides critical insights into the past. The surface geomorphology of Mars primarily comes from lava flows and impact craters that stretch across the planet. These lava flows are primarily basaltic, originating from the abundance of volcanoes in various places across the planet. This study focuses on creating a geodatabase to analyze the geomorphology of various regions across the surface of Mars, alongside the spatial distribution of key minerals, including olivine, hematite, plagioclase, and pyroxene in these regions for petrogenetic analysis. These specific mafic to ultramafic minerals are key indicators for volcanic activity and lava flows on Earth sourced from the mantle, thus providing the pressure and temperature at which they form. For Mars, results from this study may provide insight on the dichotomy of crustal thickness based on surface abundance of these minerals (e.g. Wieczorek et al., 2022). Preliminary results show correspondence of abundance in the thicker southern hemisphere, where thickness ranges from 65-115 km, compared to the lack of mafic minerals in the northern hemisphere, where the crust is thinner, ranging from 5-65 km thick.

METHODS

We constructed a geodatabase using Mars Orbiter Laser Altimeter (MOLA) DEMs, Thermal Emission Spectrometer (TES) global mineral abundance maps (e.g. Bandfield et al., 2002), and spectral data from the Mars Global Surveyor (MGS). With both of those spacecrafts, raw data is open-access from the Planetary Data System (PDS) data release library. ArcGIS Pro and JMars were used to map spectral variations using high-resolution visible and near-infrared spectral imagery. The coordinate systems for the mineral abundance and MOLA DEMs were recalibrated and reprojected to match for processing purposes. In ArcGIS Pro, both the D8 algorithm (D8) and D-Infinity (DINF) flow direction tools were used to process the DEMs to evaluate the direction of deposition and flow. DINF maps were used for surface feature analysis, and the D8 maps were used for the slope processing. With the lack of a z-coordinate in the MOLA rasters, we used JMars to create topographic profiles and account for elevation changes and corroborate data accuracy. The results were incorporated into the geodatabase for further analysis.

RESULTS

Preliminary results of Nili Fossae suggest outflows containing olivine compose the abundant surface material. This region has olivine, high-Ca pyroxene, and a low quantity of hematite. The abundance of olivine is detected primarily within the graben of a prominent fault zone. The local

relief for the bounded faults with the horst is $\sim 2,500$ m in the area of olivine exposure. Valles Marineris shows both hematite and olivine in the eastern part of the canyon and hematite exposures in the west of the region. In the surrounding Tharsis Montes, several volcanoes within the region do not have olivine, hematite, pyroxene, or plagioclase exposed due to surface dust coverage. **Figure 1** displays the DINF flow map that indicates an outpouring of volcanic material into the Valles Marineris region and Solis Planum with a slope map that highlights the regions of abundant mineralogy. **Figure 1A** is the slope map with superimposed mineralogy that shows the change in slope steepness in degrees relative to the surface. The mineral abundance is shown by the polygons based on abundant mineralogy within the bounds of the canyon walls. **Figure 1B** indicates the direction of flow in azimuth, relative to a flat surface to indicate possible deposition trends. Sinus Meridiani is a relatively flat region without much relief between the hills and impact craters. The largest outcrop of hematite and olivine on the planet is detected in this region. The detection of these minerals on the surface of Mars is linked to hematite concretions found by the Endeavor rover (e.g. Misra et al., 2018).

DISCUSSION

In the region of Nili Fossae, impact craters intersect multiple faults within the primary fault zone, suggesting impact after the faulting event occurred. Prior to the period of heavy bombardment, the flow direction of the olivine-lava indicates an outpouring of volcanic material bounded by the prominent fault zone. When comparing crustal thickness maps and the flow direction of mineral occurrences for Valles Marineris, we suggest volcanic activity might have been deeply sourced further connecting to the dichotomy of crustal thickness. The mineral exposures of hematite and olivine remain within the canyon, while the flow directional map indicates the path of deposition being connected to the steeper slopes. Across the southern hemisphere of Mars, the abundance of high-Ca pyroxene and plagioclase is also correlated to crustal dichotomy. This might suggest a deeper source for such mineralogy. Using the geodatabase to assess the geomorphology with the distribution of mineralogy is expected to further support ideas on the paragenesis of minerals on Mars.

CONCLUSION

Through our multipurpose geodatabase we hope to assess the key minerals and connect petrogenetic processes to geomorphology of key regions across Mars. More significantly, the Valles Marineris region and the connection to Tharsis Montes provides insight to provenance for these regional features and the mineral occurrences. Future studies are planned to refine the current geodatabase and to include the mineral abundance maps for sheet silicates and high-silicon glass, sulfates, and carbonates. Future mapping and analysis of Lunae Planum and Tharsis are planned to potentially further support the idea of connecting the mineralogy to depth source.

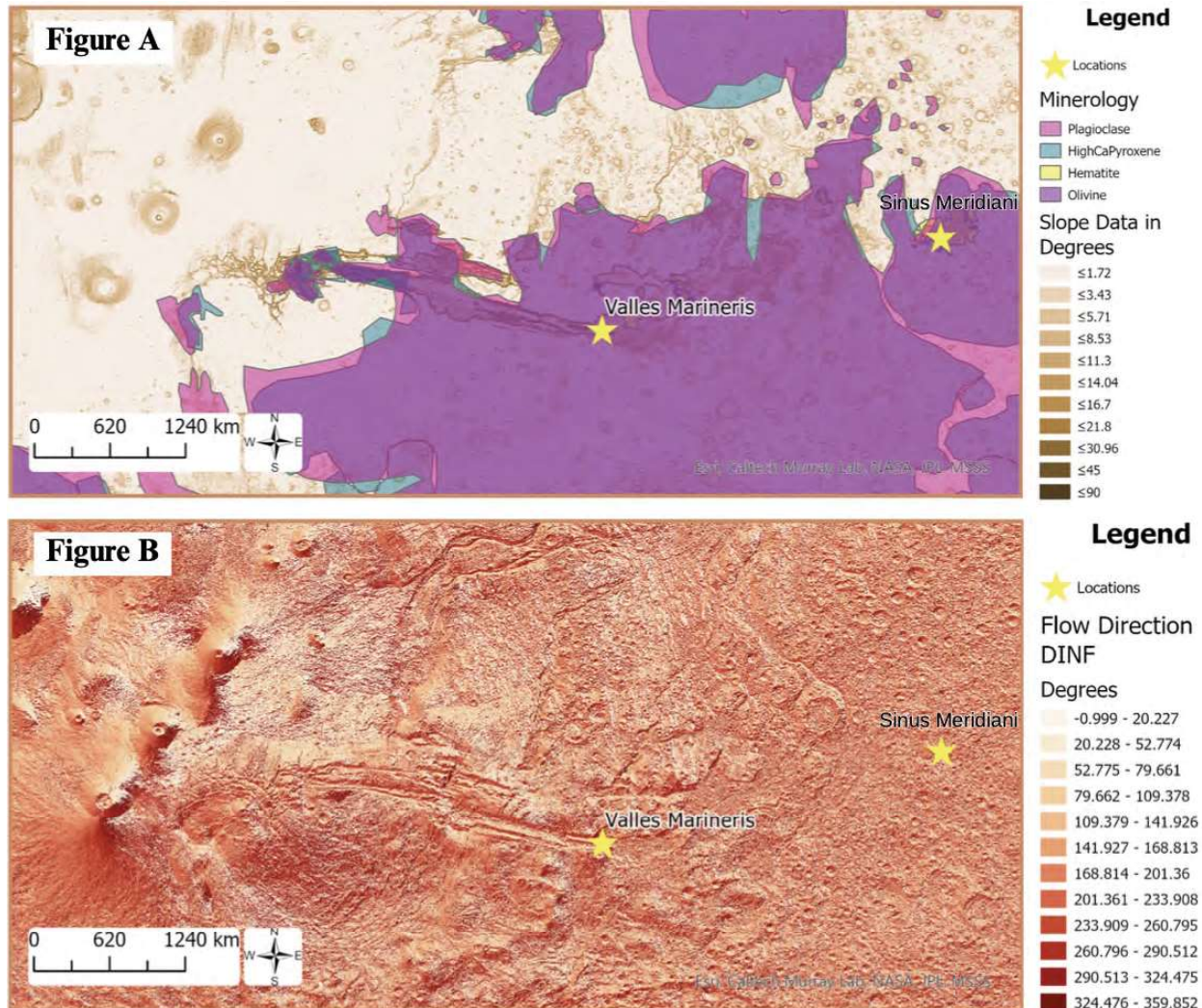


Figure 1: Mineralogy abundance (A) in comparison to DINF flow direction (B) of the Valles Marineris region from geoprocessing results.

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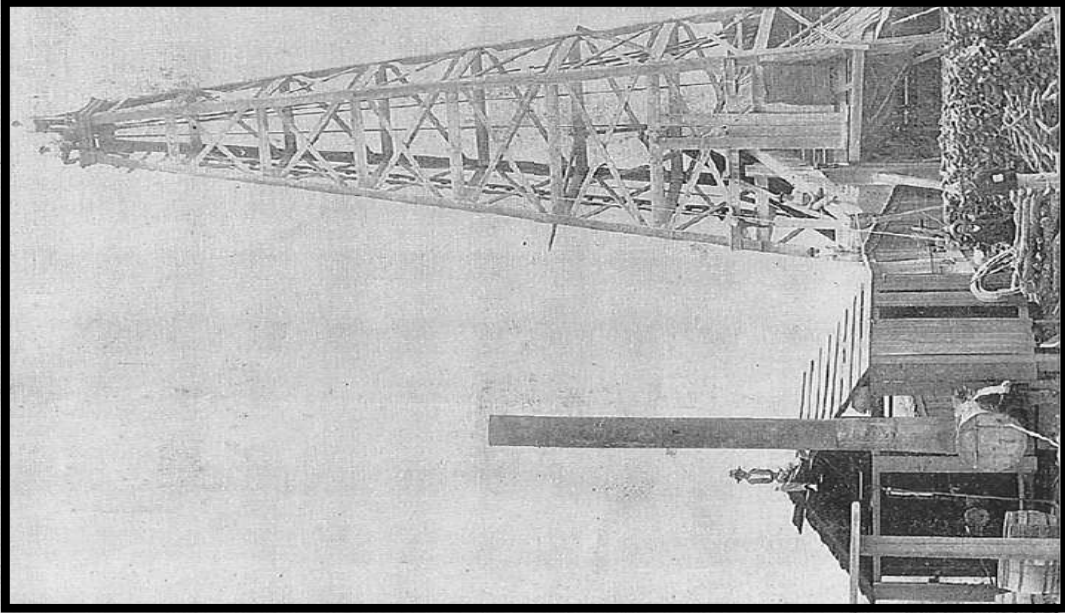
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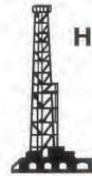
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