WEST TEXAS GEOLOGICAL SOCIETY

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From the 2024-20245 2nd Vice President ~ William Rittase

Greetings WTGS Members,

As 2024 has officially rolled into the books, I hope each and every one of you were able to take a step back to enjoy the Holidays with family, friends and cherished loved ones, and that you are now personally rejuvenated and ready to dive into the New Year ahead! For me, I was lucky enough to spend three fantastic days at Mohahans Sand Dunes State Park and Fort Davis State Park, marveling at our splendid scenery "just down the road" and thinking about the geologic and climatic forces shaping our little corner of the World.

As your 2nd VP of WTGS, one of my main responsibilities is to help attract and coordinate interesting monthly luncheon talks. I want to share with you all that our goal for 2025 is to broaden the net and try to pull in a wide range of interesting Industry, Academia and Government, Historical, etc. speakers that will fill up the meeting room each time. Our mission is to humbly serve the WTGS community and give you a compelling reason to skip whatever else you had planned for lunch that second Tuesday of each month. We are excited to kick the year off strong in February with an entertaining and informative talk by Dr. Gene Rankey of the University of Kansas on modern carbonate deposition patterns along the Yucatán Peninsula, Mexico, with potential analogues to the Permian. In that vein, I have a request for you - if you have a suggestion or a personal connection that you'd like us to pursue, please feel free to reach out directly to the board and let's make it happen if it aligns with the WTGS mission.

I'll end this note with a grateful nod to the tremendous work (and personal time) that every WTGS committee and volunteer (and prior board) put in last year. We hope to see you at the monthly luncheons and social outings.

Best Wishes for 2025!

Willy Rittase



My African Safari Adventure

by David J. Entzminger

Let me take you on an adventure to Africa. In November I spent ten amazing days on an African safari in Botswana & Zimbabwe. Before deciding to go on this trip I knew very little about the geology and geography of southern Africa. Did you know there is an active rift system there? This East African rift system is approximately 4,000 miles in total length beginning in the southern Turkish Hatay Province of Asia, running through the Red Sea into Mozambique then to Southeast Africa. The East African Rift Valley is a developing divergent plate boundary in East Africa. Here the eastern portion of Africa, the Somalian plate, is pulling away from the rest of the continent comprising the Nubian plate, Figure 1.

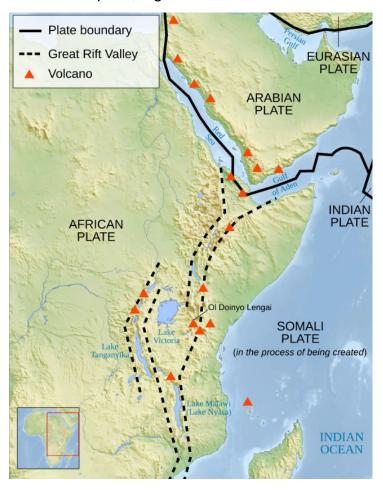


Figure 1. The Great Rift is a series of contiguous geographic depressions running from southern Asia to Southeast Africa. (https://en.wikipedia.org/wiki/Great_Rift_Valley)

To the southwest of the Great Rift Valley is the Okavango Rift Zone located in northwest Botswana. Major faults include the Kunyere Fault and Thamalakane Fault, both trending northeast-southwest and considered part of the southern extension of the East African Rift System. Other notable faults include the Linyanti Fault and Chobe Fault which also run in a northeast direction. The Gumare Fault on the northwest side of the Okavango Delta and the Kunyere Fault and Thamalakane Fault on the southeastern side of the Okavango Delta, produce a depression with northern and southern hinge points creating this vast delta oasis, Figure 2.



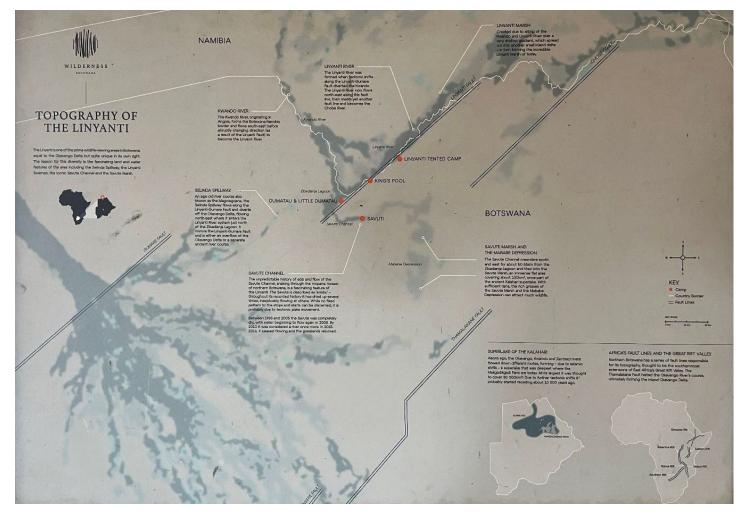


Figure 2. The Okavango Delta is a large alluvial fan in a graben structure that's part of the East African Rift system. It was formed approximately 60,000 years ago when tectonic plate warping in the south-east of the country stopped the flow of the Proto-Limpopo River, now called the Okavango. (Wilderness Destinations map)

Amazingly, the Okavango Delta is an UNESCO World Heritage Site being one of the few interior delta systems that do not flow into a sea or ocean, with a wetland system that is largely intact. All the water reaching the delta is ultimately evaporated. The source of the Okavango Delta lies in the highlands in Angola, 684 miles away. The delta is an endorheic delta, meaning it has no outlet to the sea and instead drains into the Kalahari Basin. This vast, inland-river delta in northern Botswana covers 6,178 sq. miles. It's known for its sprawling grassy plains, which flood seasonally, becoming a lush animal habitat. The Moremi Game Reserve occupies the east and central areas of the region. Here mokoros, dugout canoes, are used to navigate past hippos, elephants and crocodiles. On dry land, wildlife includes lions, leopards, giraffes and cape buffalo (more on these animals to come). This delta provides a vast oasis for these African animals in the Kalahari Desert. The Kalahari Desert is a large semi-arid sandy savanna in southern Africa extending 350,000 sq mi. and much of it covers Botswana, Figure 3.



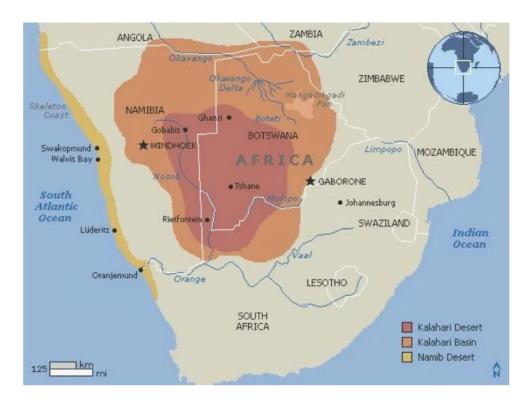


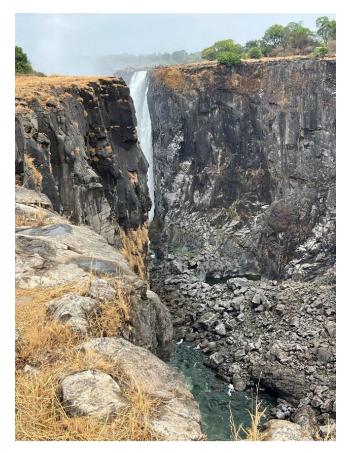
Figure 3. Kalahari Desert, large basin-like plain of the interior plateau of Southern Africa. It occupies almost all of Botswana, the eastern third of Namibia, and the northernmost part of Northern Cape province in South Africa. (https://www.beautifulworld.com/africa/botswana/kalahari-desert/)

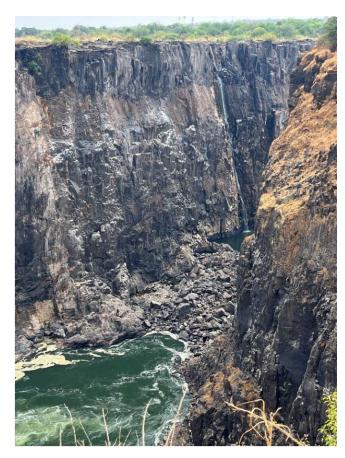
Before we ventured into the Africa bush, we spent two amazing days at Victoria Falls, Figure 4. It is twice the height of North America's Niagara Falls, and is only rivalled by Iguazu Falls in South America. David Livingston, the great British explorer and missionary, immortalized Victoria Falls in his diary after he crept through the dense spray of the falls and peered down the gorge for the first time in 1855. Victoria Falls is known as the greatest curtain of falling water. At the height of the rainy season, over 17 billion cubic feet of water per minute plummet over the edge along a width of over a mile into a gorge 300 feet below. The Batoka Basalt is a formation of flood basalt that stretches across the area around Victoria Falls, where the Zambezi River cascades over this rock to create the waterfall, Figures 5a and 5b.



Figure 4. Victoria Falls is neither the widest nor highest waterfall in the world, but it's the world's largest sheet of falling water, which solidifies this classification. (https://www.zambiatourism.com/destinations/waterfalls/victoria-falls/)







Figures 5a- Devil's Cataract at the western edge of Victoria Falls and 5b- the Eastern Cataract on the eastern edge of Victoria Falls. These columns of basalt are exposed during parts of the dry season (which was when I visited the area in November).

After our time at Victoria Falls, we hopped on bush planes or a helicopter to three Wilderness Destination Safari Camps, Savuti Camp along the Savuti channel in the Linyanti area and then the Little Vumbura and Mombo Camps in the Okavango Delta. Each camp provided a unique African experience. To say we were roughing it is far from the truth. See Figures 6a and 6b.





Figure 6a and 6b. Mombo camp room and guest lounge with open bar.



The Savuti Camp was along a mostly dry channel system with occasional water holes. Interestingly, the channel only floods when the Linyanti (Chobe) River backflows into Kwando River. The last time the water spread out in the Savuti Marsh was in 2010 after being dry for 30 years, however some water started flowing into the channel again from the Linyanti River in 2008. The scattered water holes throughout the Savuti channel, sometimes only puddles, are critical to this vast terrain especially during the dry season from May-October. Animals are not in great numbers in the Savuti area, but the diversity is astonishing. Each day there was a morning and evening three-to-five-hour game-drive in a souped-up Toyota Land Cruisers, Figure 7. These rugged vehicles could barrel their way through the sand of the Kalahari and through the waters of the Okavango Delta or over small trees and brush. At each camp we had at least one very exciting event on our game drives.



Figure 7. Land Cruiser, safari vehicle. David Entzminger and Rich Phillips traveling companions as our wives chose not to make the 30-hour trip to South Africa.

During the first game drive of our safari, after visiting and photographing a herd of Zebras, a herd of cape buffaloes came charging toward us. To our surprise, our guide immediately took off in the direction of the charging cape buffaloes. Within a quarter mile we witnessed a lioness taking down a cape buffalo. For over 30 minutes we watched this lioness, and eventually her sister, try to kill the buffalo, Figure 8. When we got back to camp and told others about our experience, we learned it is a rare treat to witness a kill. As this seems like a gruesome experience, it is part of the "circle of life" in the African bush. What an exhilarating way to start our safari adventure. We went back to the kill sight in the morning and then in the evening the next day. By the next evening only a few bones and some of the hide was remaining. Between the lionesses and the vultures, the carcass was picked clean. If there were hyenas in the area, even the bones would have disappeared.





Figure 8. Lioness with a recent cape buffalo kill.

Vumbura camp was an island retreat that we could only access by boat. This provided a unique setting where we had to be back to camp before nightfall because boat travel at night with the abundance of hippos in the water was dangerous. The water didn't stop the abundance of animals from visiting us. Our hut was under a fruit tree where the ripe fruit dropped like rain all the time onto our canvas roof. Birds, antelope, and elephants enjoyed gorging on the delicacy of this fruit which made us a little nervous as the week before an elephant got its tusk caught in the canvas wall of a room and pulled half the hut down. Lucky for us, the elephants only used their trunks to vacuum up the fruit from the top of our hut, back porch and walk-ways. Returning from the first game drive at the Savuti Camp, our guide took a hard left and bolted out into the bush at a very fast pace. We overheard them talking in their native tongue, and thought we heard the word "Rhino". A few minutes later we came out into a clearing to see a male and female Rhino, Figure 9. This wouldn't be a rare event but in Botswana, rhinoceros are being heavily guarded at special sanctuaries to protect them from poachers. These two escaped a sanctuary over 19 miles away, and the sanctuary staff had helicopters out looking for them. Within hours after we admired these creatures, they were taken back to the sanctuary. With only the leopard remaining of the "Big Five", our African adventure was fulfilling our dreams. As we got a glimpse of a leopard and her cubs coming down from a tree here, it wasn't until days later at Mombo camp that we shared significant time with leopards.













Figure 9. Elephant, Rhinoceros, Leopard, Cape Buffalo and Lion, Africa's Big Five animals.

The birds of Botswana are diverse and amazing. We likely saw 200-300 different species, of which I may have captured half in my pictures. Below are three of my favorites, Figure 10.







Figure 10. Lilac-Breasted Roller, Malachite Kingfisher, and Guineafowl

Mombo Camp lived up to all the hype we had read and heard about from our travel agent and photographer friend that had been to many of the Wilderness Destination camps. Mombo is the elite of African camping from the rooms, to the dining and the very special staff that cater to your every need, Figures 6a and 6b. Leopards, hyenas and wild dogs were on our list to see at this final camp, Figures 9 and 11, and our guide found these animals and more. Mombo was the only camp that a helicopter took us from our previous camp, 14 miles away.







Figure 11. Wild dogs pack and hyenas in the Mombo area.

There were so many different wild animals all enjoying their piece of this unique landscape with each providing a key ingredient to the African stage. The predators keep the prey numbers in balance. African animal life is a hard and brutal. Truly, only the strong survive. I wish I could share all my 1,500 plus pictures but you might get bored. I will leave you with a few more pictures of the amazing wildlife we were blessed to enjoy, Figures 12 and 13.







Figure 12. Hippopotamus, Zebras, Giraffes







Figure 13. Sable, Ostrich and Baboons

Like all good geological field trips, we too celebrated at the end of the day with what was called a "Sundowner", Figure 14. I would like to raise a toast to the West Texas Geological Society and all its wonderful professionals. I hope someday you too will enjoy an African Safari.







Figure 14. Sundowners in the African Bush





CALENDAR

Sun	Mon	Tue	Wed	Thu	Fri	Sat		
			1 HAPPY NEW YEAR!	2	3	4	WTGS Luncheon Bush Convention Center	
5	6	7	8	9	10	11	11:30 am, \$25.00/50.00	
12	13	14	15	16	17	18	PBS-SEPM Bush Convention Center 11:30 am	
19	20	21	22	23	24	25	SIPES Midland Country Club	
26	27	28	29	30	31		Midland Country Club 11:15 am	
							SPWLA Permian Basin Bush Convention Center 11:30 am	

- WTGS Luncheon -NO LUNCHEON IN JANUARY
- SIPES Midland Chapter January 15, 2025 TBA
- PBS-SEPM Luncheon January 21, 2025
- SPWLA Permian Basin Chapter January 28, 2025 No Talk Scheduled







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OF EVENTS

WTGS Luncheon	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Bush Convention Center 11:30 am, \$25.00/50.00							1
PBS-SEPM Bush Convention Center 11:30 am	2	3	4	5	6	7	8
	9	10	11 wtgs Luncheon	12	13	14 HAPPY VALENTINE'S DAY!	15
Midland Country Club 11:15 am	16	17	18	19	20	21	22
SPWLA Permian Basin Bush Convention Center 11:30 am	23	24	25	26	27	28	

- WTGS Luncheon Tuesday February 11, 2025 Gene Rankey - University of Kansas - Deposits and Dynamics of Carbonate Shorefaces around the Modern Yucatan Shelf, Mexico"
- ♦ SIPES Midland Chapter -February 19, 2025 TBA
- ◆ PBS-SEPM Luncheon February 18, 2025 TBA
- ♦ SPWLA Permian Basin Chapter February 25, 2024 No Talk Scheduled





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February 11, 2025 WTGS Luncheon

Bush Convention Center

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Deposits and Dynamics of Carbonate Shorefaces around the Modern Yucatan Shelf, Mexico

Gene Rankey¹, Rodrigo Garza-Perez, Michel Matysik, Tom Neal, Jennifer Lowery, Christian Appendini ¹ Kansas Interdisciplinary Consortium on Earth, Energy, and Environment, University of Kansas

Carbonate ramps and associated shorefaces are ubiquitous in the stratigraphic record, including many important examples in the Permian Basin. Although numerous ancient examples have been characterized, there is a relative paucity of studies of modern ramp to provide analogs and insights into their dynamics. The purposes of this presentation are to describe the nature of variability in the nearshore parts of the Modern carbonate ramp around the Yucatan Peninsula, Mexico and to explore the physical, chemical, and biological controls on this variability; these results provide the basis for understanding controls on heterogeneous ancient ramp systems.

The Yucatan Peninsula and the flanking of the Yucatan Shelf extends northward, flanked to the east by the Caribbean Sea and to the north and west by the Gulf of Mexico. The eastern margin includes a narrow shelf, widest just north of Cancun. Here, the northward-flowing Yucatan Current impinges on the shelf and generates a strong, persistent current to the north. On the broader shelf between Cancun and Isla Mujeres, this current generates ubiquitous subaqueous bars and dunes that contain ooids. The oolitic shoreface includes evidence for longshore transport, but not marked progradation. In contrast, the north flank of the peninsula is shaped by the easterly trade winds and occasional *Nortes*, or cold fronts, which bring waves from the north. The easterly winds generate a weak west-flowing current that occasionally carries cool and nutrient-rich water along the shoreface, and favors a transitional heterozoan-photozoan association; ooids are absent. This northern shelf includes skeletal-rich sand with ubiquitous subaqueous dunes and evidence for prograding shorefaces with abundant longshore transport. The northwestern shoreface includes foreshore consisting largely of molluscan coquina, and upper shoreface deposits that include common subaqueous dunes to the northwest and abundant *Halimeda* meadows to the west of the peninsula. The western shoreface includes the most abundant biosilicious fraction, with diatoms sponge spicules, and radiolaria constituting up to 20% of the sediment, and a relative paucity of bedforms.

The results illustrate along-strike changes in energy level, sea-surface temperature, nutrient-rich upwelled waters, their impact on the geomorphology, biota, and sedimentology of the nearshore parts of this Holocene ramp system around the peninsula. They provide conceptual models for enhanced interpretation and understanding of ancient nearshore oolitic, skeletal-rich, or cherty analogs, including reservoirs and repositories.

BIO:

Gene Rankey is a professor of Geology at the University of Kansas. His research program focuses on unravelling surface processes and quantifying the nature and controls on sedimentologic variability and geomorphic forms in modern tropical marine and nearshore sedimentary systems. Recent efforts have examined blue carbon and sediment dynamics of Pacific atolls and their islands in the face of climate shifts, and he was co-author of the book "A Global Atlas of Atolls" (2023) that describes all of the world's atolls. His research has direct application to understanding geologic analogs via development of quantitative and conceptual models for the nature and origin of facies and stratigraphic heterogeneity of ancient carbonate reef, shoal, ramp, and platform successions, and efforts have integrated seismic, log, petrophysical, and core data. Rankey serves as co-PI of the Kansas Interdisciplinary Consortium of Earth, Energy, and Environment (KICE³), an academic-industry consortium dedicated to research, training, and education for understanding pressing challenges of the energy transition, with a focus on carbonate systems.













TALK HONORING STEVE SHAW



Please RSVP if you plan attend! Reply to this email or write me at joseph.satterfield@angelo.edu

Date and time: Thursday, January 30, 5:30 pm

Location: **ASU LeGrand Alumni and Visitors Center Ballroom,** 1620 University Ave, San Angelo, TX 76904. Abundant parking available adjacent to building.

Guest speaker: Mr. Jeffrey D.R. Bryden (Past WTGS President), Independent Geologist / Contract Exploration Geologist, Western Underground Exploration, LLC, Midland

Presentation Title: The successful failures of a 25-year geologist: How my biggest failures led to my greatest accomplishments

Summary: My journey from Wyoming, where my grandfather encouraged me not to become a geologist, to starting my career during layoffs in the late 1990s, to finding my biggest discovery after my costliest dry hole. Later, after getting into the high-stakes private equity game, I was forced to shift tactics again, creating Western Underground Exploration, LLC. Today, my largest client heard me speak about my costliest dry hole and hired me once I went out on my own. Every step of the way, my biggest failures have led to my greatest accomplishments.

Bio: Masters in Geology from the University of Wyoming. Brought to Midland through an internship with Burlington Resources. Career includes stops at Nadel and Gussman, J. Cleo Thompson, Fasken O&R, and ExL Petroleum. Currently, I own my own consulting company, Western Underground Exploration. I have over 25 years of oil and gas exploration in the Permian Basin, San Juan Basin, Williston Basin, Powder River Basin, and the EagleFord shale.

Barbeque: A buffet catered by Bodacious Barbeque will be served at 5:30, before the talk begins. \$10/plate suggested donation. Free for students.

Mr. Shaw's family will attend. There will be time for discussions and sharing stories about Mr. Shaw after the talk. This will be a special event! I am looking forward to seeing you there!





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About Us

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Call for Financial Support West Texas Geological Society 100 Year Anniversary: A Core Workshop of Early Permian Basin Field Discoveries

Robert F. Lindsay & Robert C. Trentham

In January 2026 the West Texas Geological Society will celebrate its 100th Anniversary. It has been over a century since the earliest field discoveries were made in the Permian Basin. With the support of the West Texas Geological Society, a Core Workshop is planned to revisit early field discoveries.

In identifying early cored wells, several cores were found to require additional work. As an example, core from Westbrook Field (1st discovery of commercial oil in the Permian Basin) and Artesia Field (3rd discovery) have not been slabbed. These cores require funding for core slabbing, boxing, photography, etc. for inclusion in the core workshop. We anticipate a few additional cores may need similar preparation. All cores will require a minimum of core photography and thin section preparation to adequately describe the core for inclusion in the core workshop. Donations of core analysis, drilling history, etc. would also be of great value to the core workshop.

We estimate the cost of core preparation to be a minimum of \$25,000. Funding will be managed by the West Texas Geological Society. Below are 23 key fields that have been identified. These field discoveries opened the Permian Basin to additional exploration and development, and established it as a Super Basin:

Westbrook (1920) UCLFK Big Lake (1923) GRBG Big Lake (1929) ELLN Artesia (1924) GRBG-SADR McElroy (1925) GRBG * McCamey (1925) GRBG-SADR * Wheat (1925) BCYN * Penwell (1925) SADR Empire (1926) YTES Maljamar (1926) GRBG Hendricks (1926) YTES Yates (1926) SADR Waddell (1927) GRBG-SADR Shipley (1928) ? Kermit (1928) ? Pecos Valley (1928) YTES * Vacuum (1929) GRBG-SADR Keystone (1929) YTES Eunice Monument (1929) GRBG * North Ward-Estes (1929) YTES/OUEN * Sand Hills (1931) TUBS Sand Hills (1935) MCKT SIMP Goldsmith (1935) SADR * *Fields with cores identified and available



The Core Workshop will be published as a pdf volume. If you have information on any of these fields, please consider contributing a write-up to the publication.

If you would like to contribute a core to the WTGS Core Workshop, the core will be temporarily housed at the University of Texas at the Permian Basin (UTPB) for description by the core workshop organizers, UTPB graduate students, or core contributors themselves. Upon completion of the WTGS Core Workshop donated cores will be returned to the core contributors. If the core contributor would like, cores can be housed permanently at UTPB at no expense. We envision creating a core inventory where these cores, thin sections, etc. would be available for study by any company, university, or individual.

Please contact us with any questions you may have about financial support. Please earmark your contribution for the WTGS 100-Year Core Workshop, and send to it to the attention of Shellie Crossland at the **West Texas Geology Foundation**, PO Box 1595, Midland, TX 79702.

Robert F. Lindsay Lindsay Consulting LLC lindsayconsulting2016@gmail.com (432) 889-0156

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PaleoScenes No. 19

Winter in Wyoming Submitted by Jeff Smith

In December 2002 Exxon asked me if I could go to Wyoming for a very critical job. I had been consulting for them in the Permian Basin for two years at a number of fields. I started out at Gomez as an on-site geosteering geologist. Horizontal drilling was all the rage and I was involved with Exxon drilling at Coyanosa Block 16, Pegasus, Parks, and my favorite, Brown Basset.

Exxon said they had a unique job going in Wyoming that had an incredible overthrust belt with fantastic gas wells. Some that were 25 years old that weren't even showing declines, but had a fairly high percentage of sour gas. And so they had special stainless steel pipelines shipping that gas down to the Shute Creek gas plant over east of Kemmerer-the place where J.C. Penney was founded. They would ship that gas over there and it would strip out the H_2S . They had a train that was built that came in and they'd fill boxcars up with elemental sulfur. They were getting \$40 to \$50 a metric ton, but because of all the new deep wells drilled in the Gulf Coast that were also sour gas, the bottom dropped out of the sulfur market. So they could not sell that sulfur anymore.

Due to the market collapse, they realized they had to find another way to strip the H₂S and dispose of it. They applied to the regulatory authorities and received permits to drill to a deep depth and actually dispose of the H₂S back into the ground. They wanted me to go up on the very first one and be there for several weeks of drilling to make sure we got the good looking zones. Then I'd take off for Christmas and New Year's, go back up and run the E-logs, the electric logging job on the well. The weather was fantastic. It was just consistent as can be, you know, 28 below every night and warmed up to 8 below every afternoon.

Before I headed up there, a geologist from the Houston office called and wanted to know how I was going to get there. I said that I was going to fly into Salt Lake City and rent a four-wheel drive vehicle. And he said, "Well, do you know how to drive in snow?"

I said, "Yes, I grew up in the Hudson Valley in New York."

I grew up driving in snow for over six years up there, before I came down to Texas. He asked if he could join me and I said that he was welcome to do that. So we met in Salt Lake City. He asked if I knew whether the company man up there, was he Exxon or was he Mobil? I said that I didn't know.

He said, "Well, I'm a longtime Exxon guy and I love this company, but now that there's been a merger, I find if I go to a well I enjoy it a lot more if the company men are from Mobil because they're a lot nicer-the Exxon people are pretty arrogant."

He said, "Well, I'm a longtime Exxon guy and I love this company, but now that there's been a merger, I find if I go to a well I enjoy it a lot more if the company men are from Mobil because they're a lot nicer-the Exxon people are pretty arrogant."



We had stopped on the way up and loaded up with groceries and things and when we got to the rig it was nighttime and pitch dark. I pulled up to what I was pretty sure was the company man's trailer. There was a parking area about 40 or 50 yards away, but the location, when it hadn't been freezing it had apparently gotten pretty rutted up. Now, though, it's way below zero so there's all these frozen ruts with frozen mud and ice everywhere and all that so I pull up in front of the company man's trailer. We get out and we go into a closed-in porch area and meet him. He asked which one of us was the lead guy and I said that I was.

He said, "Okay, you're staying here," then told the other guy to go to the trailer next door. Then he said, "Move your vehicle."

I said, "Well, we have a whole lot to unload."

He said, "I said, move it."

And I said, "Yes, as soon as we get unloaded." We had clothes and food for a couple of weeks to unload.

He said, "I'm telling you again, move that vehicle!"

And I said, "I will move it when it's unloaded."

So we got unloaded and I went over and parked in that area and carefully picked my way back using a flashlight. I got into the trailer and he said, "I got documents here. They sent them up from Houston." They used fax because Exxon did not believe in email-everything was faxed.

So I'm sitting on the couch reading those documents. And he said, "If you were a company man, I could have treated you a lot better."

And I said, "I wanted to be a company man, but a**hole school was all full." And he said,

"I don't think you needed it."



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Then I stood up, put my hand out and I said, "Touché, I think we're even now." I think he understood by then that I'd rather be friends than enemies, but I wasn't going to take

his crap. So we shook hands and got along fine after that, no more We were there for a while before Christmas and we had penetrated their permitted injection zones.

We shut everything down for the holidays, went back to Salt Lake City and flew out. I went back after New Year's to do the electrical, run the e-logs. And the program that they had out of Houston just, it baffled me. I ran a gamma ray, neutron, density, all that good stuff, sonic, ran everything. But then they wanted to do RFTs, Repeat Formation Tests and they picked zones with $1^1/2$ or 2% porosity. You never, ever do that.

On RFTs, you're looking for permeability. You really want to have zones where the curve will break over pretty quickly. It'll rise up and it'll turn over because you're at reservoir pressure.

They had zones that I said, why are we doing this? And they said it because we need to know what's there to which I replied that I knew what was there-nothing, there's nothing there. These are real easy ways to lose a well because you're not pumping mud while you're doing this. And we had zones that instead of taking two or two and a half minutes, took 25 to 28 hours to break over. And this went on and on and on.

I was there for like five weeks. Of course, the weather never changed. But then again, like I said, winter in Wyoming is everything except a couple of weeks around July 4th. But we didn't get hit with any blizzards and we hardly ever had any wind because the air was too cold. The air was frozen, so it didn't want to blow.

I did get to take off once in a while and drive up to Big Piney or someplace and go see some country and get a good hamburger. You often saw dead deer alongside the road and usually there would be a golden eagle on them to get a meal. One time there was a golden eagle on one end and a bald eagle on the other. And they're spitting and fighting, yelling at each other. When I stopped, they paid no attention to me so I reached into the console to get out my Kodak Instamatic and it wasn't there. I had left it at the damn rig and I missed out on a great photo.

That was my first job in Wyoming and then I came back to Texas, had some more jobs to do down by Brown Basset. And then the drilling rigs, which had been charging like \$9,000 a day, went up to \$12,000 a day and Exxon just thought that that was unbelievably crooked. They weren't going to be paying anybody \$12,000 a day so they shut all the rigs in the Permian Basin down. Those rigs now are \$30,000 a day.

After they shut the Permian Basin down I thought I'd be shut down, but since I knew how to drive in the snow they decided I should handle the Piceance Basin in Colorado. You had Meeker on the east side, Rangely on the west side, Rifle on the south side and Piceance Cliffs bordered on the south side...a beautiful area of northwest Colorado. It made me happy.



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The WTGS Bulletin is a bi-monthly publication: January-February; March-April; May-June; July-August; September-October; November-December

All submissions need to be received by the 10^{th} day of the month before the upcoming publication. I.e. A submission for September-October would need to be received by August 10^{th} .

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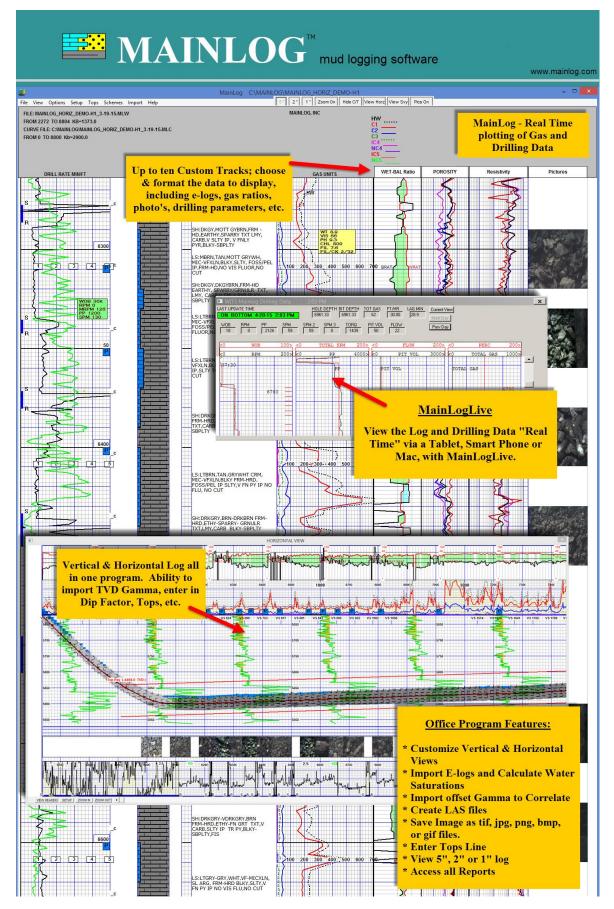
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