



The Hammer

Newsletter of the Geological Society of Trinidad and Tobago

August 2005

P.O. Box 3524, La Romaine, Trinidad and Tobago W.I.

www.gstt.org

[GSTT Sports and Family Day 2005](#)

The 4th annual GSTT family day was held on the 23rd April 2005 at the Bonne Venture ground in Petrotrin Point-a-Pierre. This year, however, it was a “joint venture” with the SPE. Despite their very poor attendance, we still managed to have a great time! There was tasty food, good music and an exciting cricket match. There was even a bouncy castle and a face-painter for the young ones! The cricket match was the highlight of the day, and in order to make a complete SPE team, many of our geoscientists became engineers for the day! Well, at the end of the day we (geoscientists- who else!) obviously won the match!

Thanks go out to all who attended and participated in the event which was a success, and we hope to see a lot more of you next year.

Samantha Singh

[On the Calendar](#)

This column features upcoming events and sessions hosted by the GSTT locally or international events that would be of interest to the membership of GSTT.

For further information on any of the events contact the Secretariat Administrator, Nazreen Mohammed at gstt@tstt.net or call (868)679-6064.

[Upcoming events](#)

▣ [LOCAL](#)

The GSTT is expected to be hosting a myriad of different events throughout the calendar year. These would include technical sessions, field trips, as well as several social events. Members will be notified via email or you can also visit the society’s website at www.gstt.org for upcoming events.

■ [Geo’s Who Can Cook and Entertain 3!!](#)

The GSTT will be having its 3rd annual Geo’s who could cook and entertain on Saturday 3rd September, at the Tsunami Beach Club in Chaguaramas from 3pm to 10 pm. Please come out and provide a dish, sing a song, tell a joke! Bring along your family and friends for what will be a great time!! Please see the invitation below.



■ **THIRD ANNUAL RESEARCH CONFERENCE**

Hosted by
The Geological Society of Trinidad & Tobago
and The Trinidad Geological Research Centre

FIRST CIRCULAR

NEW APPROACHES FOR NEW OIL

OCTOBER 3RD – 5TH 2005

INVITATION FOR PRESENTATIONS

The Geological Society of Trinidad and Tobago has joined with the Trinidad Geological Research Centre in hosting its third Geological Research Conference, which will be held at the Cara Suites Hotel from Monday October 3rd to Wednesday October 5th 2005.

Theme of the conference will be “**New Approaches for New Oil**”

As before the focus will be on work in progress and/or work which is not yet ready or has not received approval for publication. To facilitate this and approvals for presentation, copies of presentations will NOT be made available to participants and there will be no publication of transactions.

In addition we will try to focus on presentations made on T&T geology at recent international conferences.

The format will be two and a half days of presentations, with a half-day field trip on the afternoon of the third day, to look at outcrops of source and reservoir rocks.

We are inviting via this circular (and also by direct invitation) persons wishing to make presentations to contact us with a topic. We are looking primarily for presentations, which focus on the use of new technology and or the integration of different technologies in exploring for and/or finding new oil in T&T, onshore and offshore. Case histories of exploration projects will be particularly welcome. Also we invite authors of all recent international presentations to re-present to our local audience.

Cost of conference: US\$ 350 per person

ACCOMPANYING SHORT COURSE

PETROLEUM GEOLOGY OF TRINIDAD AND TOBAGO

The conference will be followed by a two-day short course on the petroleum geology of T&T, to be run by Dr. Krishna Persad. This course will provide participants with a good overview and is aimed at geoscience professionals who wish to get quickly up on the learning curve of T&T petroleum geology. It is based on extensive work done by the presenter over several decades.

Cost of Short Course: US\$ 1,500 per person

Please contact Curtis Archie (curtis.archie@petrotrin.com) or Dr. Krishna Persad (kpamora@trinidad.net) for further information.

□ INTERNATIONAL

- XII Symposium of Geophysics and Exhibition, Merida, Mexico, September 4th-7th
- 9th. International Congress of the Brazilian Geophysical Society, September 11th-14th
- The AAPG will be having its Annual International Conference and Exhibition, from September 11th to 14th at CNIT, La Defense, Paris, France. Please visit the AAPG's website at <http://www.aapg.org>

PAST TECHNICAL SESSIONS

The GSTT hosted six Technical Sessions since our last issue of the Hammer. However, be sure to attend future sessions as you get a chance to relax and learn something at the same time, not to mention the delicious refreshments. Notification of future sessions will be sent out to you via email, you can also check the GSTT's website at <http://www.gstt.org> for information. To host a Technical Session, please contact Mr. Stanley Wharton at whartosr@bp.com or call (868)623-2862.

- *“Examples of Residual Gas in the Columbus Basin”* presented by Ken Davies of bpTT, on Thursday 14th April, 2005, at Cara Suites Hotel, Claxton Bay.

- *“Petroleum Geomechanics: A piece of the puzzle”* presented by Dr. Marisela Sanchez of Global Geosoluciones on Tuesday 26th April, 2005, at the Paria Suites Hotel, La Romaine.

- *“Growing a Successful LNG Business, Transforming a Business and Transforming a Nation”* presented by Mrs. Elizabeth Jolley, of BP, on Thursday 5th May, 2005 at the Hilton Hotel

- *“Bow-Wave Model for Late Miocene-Recent Evoluton of Trinidad-Reconciling Structural Developments with Plate Kinematics”* presented by Dr. Jim Pindell of Tectonic Analysis Ltd. on Wednesday 11th May , 2005 at the Normandie Hotel.

- *“Realizing Value from Core: Technology and Improvement in Performance”* presented by Mr Kevan Sincock of BP, on Thursday 19th May 2005 at the Cara Suites Hotel, Claxton Bay.

- *“Spectral Decomposition”* presented by Mr. Greg Partkya of BP, on Tuesday 7th June 2005 at the Courtyard Marriott Hotel.

Please visit the GSTT's website at <http://www.gstt.org>, for the presentation materials.

PAST FIELD TRIPS

A couple field trips were held since the last issue of the Hammer, namely:

- *“Pliocene Shelf Edge Delta Field Trip”* which was led by Dr. Richard Dixon of BP to the South East Coast

of Trinidad. This trip was held on Saturday 9th of April, 2005. This field trip was quite useful and very informative especially for those working in fields in the Columbus Basin. The outcrops provide excellent analogues to reservoir intervals seen in some of the wells drilled in the Columbus Basin.

- **“Yara Gorges Field Trip”** which was led by Mr. Curtis Archie of Petrotrin on Saturday 14th May, 2005.
- **“Salybia Falls”** which was led by Mr. Curtis Archie of Petrotrin, on Saturday 2nd July, 2005.

GSTT 2006 CALENDAR PHOTO COMPETITION

Here are the results of the GSTT’s 2006 Calendar Photo Competition:



Congratulations to all our winners!

Thanks!

DONATION OF BOOKS AND JOURNALS

The Geological Society of Trinidad and Tobago would like to express our appreciation and thanks to Mr. Patrick Acham, CEO of Primera Oil and Gas Limited for his support to the society in

the donation of books and journals to our library located at the GSTT Office, UTT Building, Couva, Point Lisas Campus. Mr. Acham has sourced the books and journals from geoscientists in Calgary, Canada. To date GSTT has received two shipments each comprising approximately 25 boxes of good reading material for our young geoscientists. The second shipment was even more valuable to us as it comprised of text books and important research papers made available from the library of Dr. Albert Along, a Trinidad Geologist who was one of the early pioneers working with Dominion Oil Company in Trinidad. A third shipment is being planned.

Mr. Acham shares the vision of GSTT to provide a library with the required research material for use by our members. He has, through Primera Oil and Gas Limited been a supporter of many GSTT activities including our Golf Tournament, Calendar and “Geos’ Who Can Cook” event.

GSTT would like to thank Mr. Acham and Primera for their assistance and look forward to their continued support in future.

From the Mona Chapter of the GSTT

THE BIRTH OF THE MONA CHAPTER OF THE GSTT

By Julia Farrell

The Geological Society of Trinidad and Tobago (GSTT) has in its membership a number of seasoned professionals who have made exceptional strides in making the society what it is today. However, after these professionals have gone, there must be a group of dynamic young

people whose vibe and commitment to acquiring and disseminating geoscientific knowledge is central to the survival of the Society in future. Herein lies the reason for the birth of the Mona Chapter of the GSTT. The Mona Chapter is a student-run subsidiary of the GSTT. Its main objective is to provide a much-needed interface for established professionals to aid the development of aspiring geologists whilst the Society increases its accessibility to its student stakeholders. Furthermore, the formation of this liaison between student members at the Mona campus of the University of the West Indies seeks to “facilitate an active and consistent development and augmentation of present and future national (Trinidad and Tobago) and regional geoscience skills pool through the direct and early involvement of students” (Section 2.3 (b), the Constitution of the Mona Chapter). To achieve this objective, the Chapter plans to:

1. Host technical sessions where professionals impart their knowledge to students. Our members would also be encouraged to attend those hosted by the parent body.
2. Train students in the use of relevant modern hardware and software used in the geosciences, and assist in the creation of technical presentations. Some members of the teaching staff and students of the Masters programmes at the Mona campus have indicated their willingness to head training sessions.
3. Have field trips guided by professionals.
4. Create a mentorship programme in which professionals are paired with

students, and advanced geoscience students tutor younger students.

The Chapter has also invited the involvement of engineering students at the University of Technology, Papine, Jamaica (UTech). To date, the response has been quite favourable and we anxiously await the formation of the UTech Arm of the Chapter. The creation of the Chapter’s website is also ongoing. For years, there have been young people who actively seek one of the bursaries generously awarded by the Society annually, and they have yet to contribute worthwhile to the work and progress of the GSTT. Have no fear. Behold the birth of the Mona Chapter – youths committed to “Exploring the Past, Fuelling the Present, Securing the Future”!

The Executive and Founding Members of the Mona Chapter are:

STAFF ADVISOR – Rafi Ahmad
PRESIDENT – Julia Farrell
1st VICE PRESIDENT – Seema Kadir
2nd VICE PRESIDENT – Khadijah Benjamin
SECRETARY – Candice de Gale
ASST. SECRETARY – Alicia Jackman
TREASURER – Candice Richardson
P.R.O – Teddy Mark Saunders
TECHNICAL DIRECTOR – Daniel Ahye
INTERNAL AUDITOR – Shivana Samuel (Ag. 2nd Vice President)

Some Humour

A big Oil and Gas corporation recently hired several cannibals in the interest of cultural diversity. "You are all part of our team now," said the HR rep during the welcoming briefing. "You get all the usual benefits and you can go to the cafeteria for something to eat, but please don't eat any of the other employees."

The cannibals promised they would not. Four weeks later, their boss remarked, "You're all working very hard, and I'm satisfied with you. However, one of our Geoscientist's has disappeared. Do any of you know what happened to him?" The cannibals all shook their heads no.

After the boss left, the leader of the cannibals said to the others, "Which one of you idiots ate the Geoscientist?" A hand rose hesitantly, to which the leader of the cannibals continued, "You fool --- for 4 weeks we've been eating Engineers and VPs and no one noticed anything, but noooooo, you had to go and eat someone who actually does something!"

Feature Article

The following is an Abstract to a paper that was presented at this year's AAPG Annual Convention in Calgary as well as the 17th Caribbean Geological Conference in Puerto Rico.

The Early Pliocene Orinoco Shelf Margin off Trinidad.

Rene Winter, Ron Steel and Ian Stewart
University of Texas at Austin and BP TT

The Pliocene–Pleistocene sedimentary succession of the Columbus Basin, a prolific hydrocarbon province off the southeast coast of Trinidad, has been the focus of extensive exploration and production. Recently there has been a stratigraphic initiative towards basinwide correlation of the repeatedly stacked, regressive-to-transgressive sequences that construct the Plio-Pleistocene shelf succession. These sequences record the cyclic (regressive-to-transgressive) shelf transits of the Plio-Pleistocene Orinoco Delta system, on a 4th or 5th-order time scale (10s to

100k years). As the reservoir potential of this relatively small basin approaches maturity, this new basinwide correlation has the potential to drive new play concepts that must be identified to sustain traditional reserve growth. Detailed correlations are now possible between the main Columbus Basin and the Columbus Channel (a synclinal feature separating Northern Venezuela and Southern Trinidad), an area that has historically received much less focus of effort and attention. Ironically, it is the early Pliocene succession in this region that is responsible for significant onshore oil production in the Southern Basin of Trinidad. Well, outcrop and seismic data over the onshore Southern Basin and Columbus Channel are allowing reconstruction of the Early Pliocene shelf margin, as well as its evolution and changing character as it migrated eastwards.

The earliest Pliocene growth of the paleo-Orinoco shelf margin in the area of the inner Columbus Channel and back into eastern Venezuela shows a spectacular development of shelf-edge collapse, canyons and other slope-disruption features, suggesting significant sediment by-pass and delivery of sand into the deepwater basin at this time. This time interval of rapid regressive loading and growth of the shelf margin relates to a period of shift and re-organization of the Orinoco Delta into this region, and may possibly have been stimulated by the time-equivalent uplift of the Interior Mountain Range in eastern Venezuela. This early phase of regressive growth was followed by a time of significant transgression and backstepping (50-100km) of the delta to the inner-shelf region. Subsequent early Pliocene regression of the system

brought the delta back to the shelf edge and initiated a new period of vigorous shelf-margin growth involving also the slope and deepwater components. In this period, in contrast to the preceding regressive period, there is abundant growth-fault development but apparently little canyon generation accompanying shelf-margin accretion. Documentation of the role of the paleo-Orinoco River and this early history of development of the Orinoco Shelf Margin will involve an integration of seismic and well data with outcrop studies along the south coast of Trinidad.

Letters to the Editor:

Been reading "The Hammer" for a while to keep abreast of what's happening in the business.

Noticed the call for contributions in the form of articles, etc. Since recent deepwater operations have been affected frequently by high currents caused by eddies, we wondered if your membership might be interested in the the strong currents that affect drilling, construction and seismic operations offshore Trinidad and Venezuela. If so, we'd be willing to contribute technical articles from time to time.

If there is interest, we'd be willing to allow publication of our Oceanographic Analyses (such as the attached recent examples) on a monthly or quarterly basis. These analyses are the heart of the daily forecast service which is provided by ROFFS-schautd.us. If there is interest, we could also bring in discussions of risk of high currents, vortex suppression equipment, etc.

Let us know if we can be of service.

Best regards

Ken

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EDITORIAL NOTE

I hope that you enjoyed reading this second issue of the Hammer for 2005, capturing the events that have taken place since the last issue.

I would like to take this opportunity to welcome Ms. Samantha Singh to this very small editorial committee. Samantha has generously offered her time and efforts in helping out with the publications and we look forward to her input in the production of The Hammer. Thanks also go out to Mr. Rene Winter, for providing his abstract to his master's thesis, which was presented at recently held conferences, namely the AAPG Annual Convention in Calgary as well as the 17th Caribbean Geological Conference in Puerto Rico. Rene is pursuing an MSc. in Sedimentology at the University of Texas, Austin. This issue would not have been possible without the help of our President Mr. Curtis Archie. I would also like to thank Ms. Julia Farrell (President of the Mona Chapter of the GSTT) for the contribution made by the Mona Chapter of the GSTT. We look forward for more updates on "wha gwan" from the Mona Chapter.

The committee would like to urge the members of the GSTT to contribute in any way, articles, advertisements, information, and pictures etc., anything that may be of interest to the geological

society here in Trinidad and Tobago, please feel free to send them to us. Any feedback or comments on this article are welcome as we try to continuously improve each issue. We welcome any ideas. Comments can be sent to Justin Smith at smitjw@bp.com or Samantha Singh at samanthac.singh@petrotrin.com. If you

are interested in providing any contributions to GSTT's activities either in the form of articles, technical presentations or ideas, please contact Ms. Nazreen Mohammed at (868)679-6064 or by email at gstt@tstt.net.tt

Justin Smith: smitjw@bp.com

The Last Quarter in Pictures



Faz in action during the cricket match between SPE and GSTT at the Family day

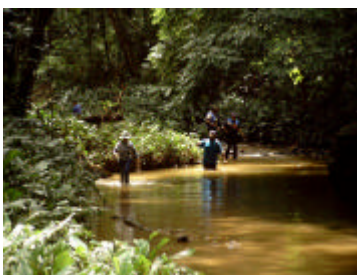


A small cross section of the crowd at the Family Day



Cricket match between SPE and the GSTT

SEG Distinguished Lecturer Mr. Greg Partkya being presented with a token from Ms. Natasha Buchoon



Wading through the Yara River



Mr. Norm Cooper being presented with a token from GSTT President Mr. Curtis Archie