



The Hammer

Newsletter of the Geological Society of Trinidad and Tobago

March 2005

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

www.gstt.org

Trinidad and Tobago Petroleum Conference



The South Chamber of Industry and Commerce (STCIC) in conjunction with The Geological Society of Trinidad and Tobago (GSTT) are once again hosting the annual Trinidad and Tobago Petroleum Conference (TTPC 2005) at the Hilton Trinidad and Conference Center, Port of Spain, Trinidad and Tobago, from February 21st to 23rd, 2005. The Conference is touted to be the premier energy sector conference in the region. The following is an excerpt from the STCIC.

The annual Trinidad & Tobago Petroleum Conference has, over the past decade, grown to become the premier energy event in the region. This is not just the opinion of the organisers – it was described as such by the Honourable Patrick Manning, Prime Minister of

Trinidad & Tobago in his opening address at TTPC 2004.

The theme of TTPC 2005 is “Energy for Development”. This reflects our desire to explore ways of ensuring that our booming energy sector is able to deliver not just profits to oil and gas companies, but sustainable development to Trinidad & Tobago and the wider Caribbean region. As in previous years, we will attempt to place developments in T&T into their international and regional context and we have invited high-powered speakers from Brazil, Ecuador and Venezuela to provide this regional context. Key issues of discussion will revolve around subjects such as sustainable development, corporate social responsibility, long-term planning, local content, foreign investment and the fiscal regime for oil and gas industry.

The TTPC is organised by two local Trinidadian not-for-profit organisations, the South Trinidad Chamber of Industry and Commerce (STCIC) and the Geological Society of Trinidad & Tobago (GSTT). This fact accounts for many of the features that set this conference apart from other international oil and gas conferences.

Firstly, because it is organised by two membership organisations, we are able to attract very strong panels of speakers from amongst our own local membership. Secondly, because the STCIC is recognised as the voice of the T&T energy sector, we are always able to count on very good support from the Government of Trinidad & Tobago: they know that this is the best forum to speak to the industry. Thirdly, because the conference is organised by the industry for the industry, we know what our members and others wish to hear and can develop programmes to suit.

Furthermore, we are able to attract significant levels of sponsorship from member companies, as they know that profits derived from the conference are re-invested into the local industry through the STCIC and the GSTT. Profits derived from previous TTPC's allowed the STCIC to provide significant funding for the establishment of a Centre for Energy Enterprise Development and the GSTT to offer a number of scholarships. This fact also means that the TTPC registration fees are significantly lower than for comparable conferences – as much as fifty percent lower than a recent two-day conference held in Trinidad & Tobago. Please visit the South Chambers website at <http://www.southchamber.org> for further information.

Report on the conference:

This years Petroleum Conference was a resounding success, both in terms of the number of attendees and caliber of presentations. There were 406 participants registered on the opening day and there was also a large walk in crowd. Due to scheduling conflicts some of the first days speakers could not

attend and this necessitated some reordering of the proceedings. The conference was opened by STCIC President Jim LeeYoung, who emphasized the need for more local participation in the hydrocarbon sector. Feature speaker Professor Ken Julien then set the tone for the rest of the proceedings with a “What if?” scenario and ways to overcome it. Local content was addressed, as was the need for increased tertiary education. The Minister of Energy, Eric Williams and Junior Minister in the Minister of Finance Christine Sahadeo, shed light on where the government was in the implementation of various policies. All the major oil companies gave an update of their current activities and plans for the immediate future. All of this created an air of excitement, as it was obvious that 2005 was going to be a very active one for the sector. All of the attendees who we talked to had much praise for a well-organized and informative conference.

*Curtis Archie
President 2005-2006*

GSTT's 2nd Golf Tournament

The Geological Society of Trinidad & Tobago hosted its second annual golf tournament at the Pointe a Pierre Golf Club on February 20, 2005. The tournament was very successful with 23 teams sponsored by companies from the energy sector vying for the lovely prizes. The weather was excellent for golf, although the heat in the morning session made it mandatory for consumption of liquid refreshments provided at vantage points along the course. The evening session turned out to be quite lovely with a breezy and cool atmosphere made for great golf.

As expected the tournament was well managed and the preplanning by the team led by Fazal Hosein and Clem Ramroop paid off. Nazreen Mohammed, Simone Meighu and Sushma Chatelal made registration easy and players were given their complimentary golf balls, polo shirts, golf towels and GSTT calendar. They posed for the photo sessions under the direction of Adrian Nathai, Samantha Singh, Natasha Buchoon and Allan Ragoobar.

The game started at 10.00 a.m. and all players headed off to their respective tees for a shotgun start. After intense competition through the greens, our hard working members, including Vernon Dookie, Rajindra Maharaj and Stan Wharton who were strategically placed in the shade under the tents, gave the players refreshments. After the game, all returned to the sportsman verandah at the club for a relaxing snack and much needed drink to recuperate from a game of fun and exercise in the sun.

By this time our team had everything well organized with prizes decided and the photos of the teams printed under Sushma's direction. The slide show organized by Curtis also showed pics of golfers in action on the field.

After a sumptuous meal with drinks, there was the prize giving ceremony during which all players received a prize. The winner of this year's tournament was MI-SWACO with Rajesh Ablack and Jim Wood leading the rest of the players. GSTT would like to express our sincere appreciation for all sponsors that made this tournament a great success. We look forward to next year's game when we hope to have more teams participating.

*Fazal Hosein
Immediate Past President
2004-2005*



Some of the participants in this years' Golf Tournament (Photo courtesy Rajindra Maharaj)

GSTT's Squash Tournament

This years Energy Week, launched jointly by the South Trinidad Chamber of Industry and Commerce and the Geological Society of Trinidad and Tobago, ended with the GSTT Squash Tournament at the Petrotrin Pointe-a-Pierre Club.

This one-day tournament ran from 9am on two courts and triggered very keen competition among the teams from the GSTT, The Society of Petroleum Engineers and from the oil-field service and supply sector. The eventual winners were the Service Squashers with 28 points, with the SPE team taking 2nd with 20 points and the GSTT team in 3rd place with 15 points.

At the close of the day's proceedings the individual string prizes were presented by GSTT Director and immediate past-president Fazal Hosein to winners Shiva Ramlogan- string #1; Glen Massy- string #2 (from the SPE); Rudy Celestine-string #3; Victor Thong- string #4; Allan Poon King- string #5; Gail Edghill- Lady winner (from the GSTT); and Anthony Singh- Novice winner (SPE).

Petrotrin's Manager Geological Services, Kim Gillezeau, presented the GSTT Squash Challenge Trophy,

sponsored by Petrotrin, to Shiva Ramlogan for the winning team.

Kim Gillezeau



Petrotrin's Manager Geological Services, Kim Gillezeau, presented the GSTT Squash Challenge Trophy, sponsored by Petrotrin, to Shiva Ramlogan for the winning team. (Photo courtesy Rajindra Maharaj)

GSTT Annual General Meeting, November 3rd, 2004

The Annual General Meeting of the Geological Society of Trinidad and Tobago was held on Wednesday November 3rd, 2004 at the University of Trinidad and Tobago, Point Lisas Campus, Couva.

The outgoing president Mr. Fazal Hosein chaired the meeting.

The agenda was as follows:

- Auditors Report
- Treasurers Report
- Outgoing President's Report
- Election of Officers

The 2005-2006 Executive committee comprise:

President - Mr. Curtis Archie, Petrotrin - curtis.archie@petrotrin.com

President Elect- Mr. Stanley Wharton, bpTT, whartosr@bp.com

Treasurer – Ms. Sushma Chatelal, Petrotrin - chatesc@trinmar.com

Director 1- Ms. Natasha Buchoon, Ministry of Energy and Energy Industries- nbuchoon@energy.gov.tt

Director 2- Mr. Derek Meigu, Petrotrin, meighda@trinmar.com

Immediate Past President - Mr. Fazal Hosein, International Geological Services Limited- fhosein@tstt.net.tt

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. Here are some of the **Upcoming Technical Sessions** for the next quarter.

- **“3D Visualization of the Columbus Basin”** to be presented by Justin Smith and Dale Baptiste of bpTT, on Thursday 7th April, 2005, in the HIVE at bpTT's Port-of-Spain office.
- **“Examples of Residual Gas in the Columbus Basin”** to be presented by Ken Davies of

- bpTT, on Thursday 14th April, 2005, at Cara Suites Hotel, Claxton Bay.
- ***“Realising Value from Core-Technology and Improvement”*** to be presented by Kevin Sincock of OMNI, on Thursday 19th May 2005 at a venue to be determined.
 - ***“Shelf Edge Delta Facies and Architecture”*** to be presented by Richard Dixon of bpTT, on a date and venue to be determined.

Upcoming Field Trip:

Be on the look out for an upcoming “Pliocene Shelf Edge Delta” field trip along the Mayaro Coast line to be led by Richard Dixon of bpTT. Date: Saturday 9th April 2005. Details will be made available to you via email.

□ **INTERNATIONAL**

- **VI Congreso de Geología y Minería (GEOMIN 2005)** to be held in Cuba from the 6th –8th April 2005. Please visit the website at www.scg.cu/circularing.htm
- **Offshore Technology Conference 2005** to be held in Houston, Texas, from the 2nd-5th May 2005. Please visit the website at www.otcnet.org
- **AAPG 2005 Annual Convention “Exploring Energy Systems”** to be held from June 19th –22nd, at Calgary Stampede Park, Alberta, Canada. The schedule promises this event to be an interesting one. Participants will certainly benefit from a technical program

that explores energy systems around the globe. Further information is available online at www.aapg.org.

- ***Look out for the 17th Caribbean Geological Conference to be held in Puerto Rico in July! To receive the second circular for the Conference, please contact: Johannes H. Schellekens
General Coordinator
17th Caribbean Geological Conference
Department of Geology, UPRM
PO Box 9017
Mayagüez, Puerto Rico 00681
geolconf@uprm.edu***
- ***The Seismic Research Unit is spearheading the organisation of a scientific meeting in Montserrat this year. The conference also has a website which members are welcome to browse for further information. Please visit http://www.uwiseismic.com/shv2005/shv2005_index.html or call Richard Robertson at (868)662-4649 for further details.***

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 eats and drinks. 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.

- *“Novel Water Winning Technologies for Hard Rock environments applied to the Island of Tobago”*, presented by Dr. Utam Maharaj, on Monday 6th September 2004.
- *“Resolution of the T&T/Barbados Maritime Dispute through the Principles and Procedures established by the new 1982 Law of the Sea Convention”* presented by Mr. Stephen Kangal, on Wednesday 29th September 2004.
- *“Amplitudes risk and all that Geophysical Malarkey”* presented by Rob Simm of BG, on Thursday 17th March, 2005.

The GSTT in conjunction with bpTT jointly hosted a geosciences lecture series on Deltaic Reservoirs. Look out for this years GSTT/bpTT geosciences lecture series! :

- *“Shelf Edge Delta Models Illustrated with Outcrop and Subsurface Data”*, presented by Professor Ron Steele (University of Texas, Austin, USA) on Wednesday 13th October 2004.
- *“Outcrop Studies of Pliocene Shelf and Slope Reservoir Analogues, Mayaro Formation, Trinidad”*, presented by Dr. Richard Dixon, bpTT. on Wednesday 10th November 2004.
- *“Deltas on Mars and Origins of Life”*, presented by Professor Janok Bhattachayra (University

of Texas, Dallas, USA) on Wednesday 15th December 2004.

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

PAST FIELD TRIPS

The first field trip for 2005 was carried out on the 29th January. On this trip the outcrops of the Trinity Hills sandstone and St. Hilare silt members of the Gros Morne Formation were examined. Curtis Archie, President of the GSTT, headed this excursion.

At 9:15am, the maxi left Point-a-Pierre destined for Gran Calle Point, Guyaguayare. A grand total of ten persons were present, three of which were students from The University of Trinidad and Tobago. At about 11am, we arrived, and began our trek down to the beach. We took a “short-cut” along a narrow road, which involved precariously crossing (more like doing a balancing act across) a wooden “bridge”. There were nine stops along the outcrop, which was basically a coarsening upward sequence. At stop 1, we observed clay clasts in a sandstone matrix. The clasts were observed to be nearly perfectly rounded, which were probably formed by uprooted trunks, which were subsequently in-filled with clay. See figure 1 below.



Figure 1: Clay clasts in sandy clay

Stop 2 began the sandy member of the St. Hilare Formation. Ripples were seen within silty unity, and this was followed by parallel laminated sands, which became massive to the top. Here there were pebbles interbedded in the formation, which was probably due to a storm or some kind of high energy event. See figures 2 and 3.



Figure 2: Parallel beds



Figure 3: Interbedded pebbles

At stop 3 there were more finer grained rock (clays). Stop 4 comprised sands separated by slumped units See Figure 4.



Figure 4: Slump Unit

Large clasts were also seen, and this was probably due to rapid deposition in front of the delta. Stop 5 was a finer section (St. Hilare Silt), with laminated clay beds. See Figure 5



Figure 5: Laminae of clay-silt and sandstone

Asymmetric current ripples were seen (Figure 6), as well as load casts and claystone rip-up clasts. Flame structures and load casts were observed at stop 6. See Figure 7.



Figure 6: Current Ripples



Figure 7: Load Casts

These features imply delta front and pro-delta conditions. At stops 7 and 8, there was lignite present. Here was our first encounter of evidence of bioturbation. Three types of burrows were seen implying a marine environment.

Stop 9 was the Trinity Hills Sandstone Member. Here there were alternating, fairly parallel claystone/siltstone beds (Figure 8). A graben feature was also observed.



Figure 8: Trinity Hills Sandstone Member

Due to the high tides, we were unable to go around this point, so we made our way back to the maxi. We took another “short-cut”. This time we cut across grass as high as our thighs (note that some of us were wearing shorts!), and slush through mud. And of course, let us not forget the crossing of that bridge again! After refreshments and

discussions about the day, we left at around 12:45, and arrived at Point-a-Pierre at about 4 pm.

It was a great day for a field trip. The weather was good, and the networking was great! We had fun, and do look forward to the next field trip.

Samantha Singh

From the Mona Chapter of the GSTT

Dear Mr. Archie,

Congratulations on your election as GSTT's President for 2004-2005. I wish you all the best during your time in office and thereafter.

Early in 2004 when the idea of creating the Mona Chapter was conceived, I was in constant contact with Ms. Tricia Andrew, who was then a member of the GSTT Executive for 2003-2004. Now that she is no longer on the executive, she suggested that I liaise with you directly on matters with respect to the Chapter. The Mona chapter of the GSTT was formed to create a liaison between the professional society of the Trinidad-based GSTT and the geology/geoscience student population at U.W.I. and the University of Technology (UTech), with the main objective of allowing the GSTT's greater accessibility to its student stakeholders.

The Chapter is still in its fetal stages as we await the approval of the Constitution by the GSTT's legal team. We have been waiting since September for the Constitution's final ratification. Once officially recognised by our parent body, we can proceed with Chapter activities on both the UWI and UTech campuses.

Here is a brief list of the activities of the Chapter:

1. Constitution
2. Mission Statement

3. Logo: These were done during our July/August break in 2004.
4. Website - under construction by the Technical director
5. Mentorship Programme - three streams
6. Career Guidance
7. Field Trips and technical sessions - training in the use of relevant geological software is inclusive here.
8. Aid in the refurbishment of the Geog./Geol. department on the UWI Mona Campus.

I believe that the Chapter's Secretary would have sent all Chapter documents to Ms. Nazreen Mohammed. Please request the same from her.

The excitement is building here in Mona and Papine as the students are eager to get involved in this student-run society that is under the prestigious Geological Society of Trinidad and Tobago. As mentioned before, we are waiting on the Constitution's approval, for this is the only way we can legally operate on both campuses. It would be my pleasure to work alongside the Executive to ensure that the liaison is strengthened as time goes by.

Yours respectfully,
JULIA FARRELL
President, Mona Chapter of the GSTT

EDITORIAL NOTE

The editorial committee would like to welcome the new executive of the Geological Society of Trinidad and Tobago for the 2005-2006 calendar year. We hope that you would carry on the superb tradition of past committees.

I hope you enjoyed reading this first issue of the Hammer for 2005. It would not have been possible without the help of our President Mr. Curtis Archie and our Immediate Past President Mr. Fazal Hosein. Thanks also go out to Ms. Samantha Singh for her article on the Filed trip to Grand Cayo Pt. Guayaguayare, and Mrs. Kim Gillezeau for her report on the squash tournament and lastly Mr. Rajindra Maharaj for supplying photos from the golf and squash tournaments.

We would also like to welcome Ms. Julia Farrell (President of the Mona Chapter of the GSTT) it would be great to hear what's happening from the Geology Department at the Mona Campus.

Look out for updates from the Mona Campus in the next issue of The Hammer.

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. 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