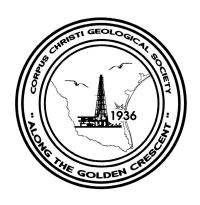
# **BULLETIN**

# Corpus Christi Geological Society



and

# Coastal Bend Geophysical Society



May 2018 ISSN 0739 5620

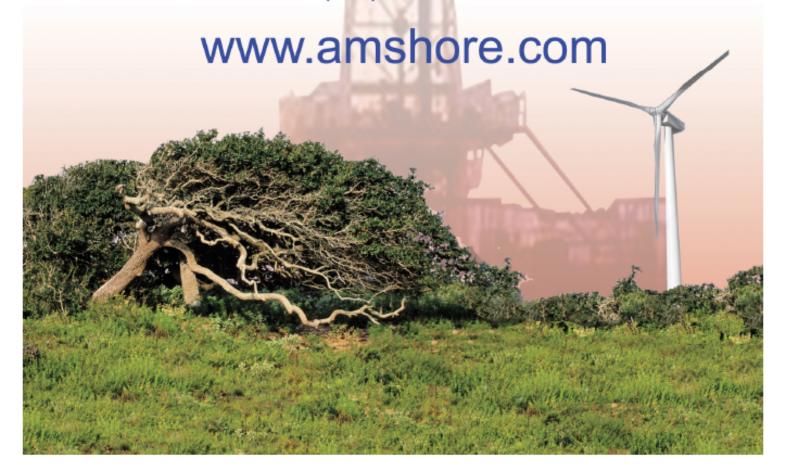
# Compliments of

# American Shoreline, Inc.



Specializing in
Oil & Gas Exploration
& Wind Energy

802 N. Carancahua Frost Bank Plaza, Suite 1250 Corpus Christi, Texas 78401 (361) 888-4496



# **Table of Contents**

Officers, Committees and Chairpersons for CCGS/CBGS	2&3
CCGS/CBGS Joint Calendar of Meetings & Events	4&5
CCGS President's Letter	6&7
9 <sup>th</sup> Annual Saltwater Fishing Tournament	8
CBGS President's Letter	9
Luncheon Meeting Announcement for May	13
Real Impacts of Sea Level & Subsidence along the Texas Coast	17
CCGS Papers available for purchase at the Bureau of Economic Geology	40
Geo Link Post	41
Type Logs of South Texas Fields	42
Order Oil Men DVD	43
Wooden Rigs Iron Men	44
Professional Directory	45



# P.O. BOX 1068\* C.C. TX. 78403 2017-2018

# www.ccgeo.org

President	Austin Nye	361-452-1435	austin@nyexp.us
President Elect	Frank Cornish	361-883-0923	frank.cornish@gmail.com
Vice President	William Thompson	361-242-3113	william.thompson@rrc.texas.gov
Secretary	Randy Bissell	361-885-0110	randyb@headingtonenergy.com
Treasurer	Casey Mibb	361-726-1092	clmibb@yahoo.com
Past President	Barbara Beynon	361-774-3369	bbeynon77@yahoo.com
Councilor I	Rick Paige	361-884-8824	rickp@suemaur.com
Councilor II	Brent Hopkins	361-884-8824	brent@suemaur.com

### **AAPG DELEGATE**

# **EDITORS**

Bulletin Editor	Marian Wiedmann	361-855-2542	wiedgulf@gmail.com
Bulletin Tech. Editor	Sebastian Wiedmann	361-946-4430	swiedmann.geo@gmail.com

Web Master Josh Pollard 361-654-3100 <u>support@interconnect.net</u>

# **GEOLOGICAL SOCIETY COMMITTEES & CHAIRPERSONS**

Advertising/Bus. Cards	Robby Sterett	361-739-5618	robert.sterett@gmail.com
Arrangements	Wes Gisler &	830-239-4651	arrangements@ccgeo.org
	Will Graham	361-885-0110	willg@headingtonenergy.com
Bloodmobile	Mike Lucente	361-883-0923	mikel@lmpexploration.com
Earth Day	Alan Costello	361-888-4792	acostello@royalcctx.com
Continuing Ed.	Stephen Thomas	361-660-8694	sthomas@spnaturalresources.com
Education	Dawn Bissell	361-960-2151	bissells@swbell.net
Scholarship	J. R. Jones	361-779-0537	jrjones5426@aol.com
Fishing Tournament	Leighton Devine	361-882-8400	ldevine@suemaur.com
History	Ray Govett	361-855-0134	ray30@hotmail.com
Membership	Dorothy Jordan	361-885-0110	dorothyj@headington.com
	Randy Bissell	361-885-0113	randyb@headington.com
Type Logs	Frank Cornish	361-883-0923	frank.cornish@gmail.com
University Liaison	Casey Mibb	361-726-1092	clmibb@yahoo.com
	Wesley Garcia		



# P.O. BOX 2741\*C.C. TX. 78403 2017-2018

### **OFFICERS**

President	Dr. Subbarao Yelisetti	361-593-4894	subbarao.yelisetti@tamuk.edu
Vice President	Lonnie Blake	361-883-2831	lonnie_blake@eogresources.com
Secretary/Treasurer	Matt Hammer	361-888-4792	mhammer@royalcctx.com
Golf Chairman	Lonnie Blake	361-883-2831	lonnie_blake@eogresources.com
Scholarship Chairman	Ed Egger	361-947-8400	edegger69@gmail.com
Education	Dr. Robert Schneider	361-593-3589	Robert.schneider@tamuk.edu
		361-447-2381	

\_\_\_\_\_

# Visit the geological web site at www.ccgeo.org

# CCGS/CBGS JOINT MEETING SCHEDULE 2017-2018

	September								Oct	ober				November						
S	M	T	W	Th	F	S	S	M	T	W	Th	F	S	S	M	T	W	Th	F	S
		2	2017						20	17						2	017			
					1	2	1	2	3	4	5	6	7				1	2	3	4
3	4	5	6	7	8	9	8	9	10	11	12	13	14	5	6	7	8	9	10	11
10	11	12	13	14	15	16	15	16	17	<b>18</b>	19	20	21	12	13	14	<b>15</b>	16	17	18
17	18	19	20	21	22	23	22	23	24	25	26	27	28	19	20	21	22	23	24	25
24	25	26	27	28	29	30	29	30	31					26	27	28	29	30		

Monday, Oct. 2, 2017 6:00 pm BBQ Kickoff at Hoegemeyers & Presentation by Carl Tape, Ph.D., Associate Professor of Geophysics, Geophysical Institute, University of Alaska Fairbanks "Seismology in Alaska: Earthquakes, Bears, & High-Performance Computing."

Oct., 18, 2017 11:30am-1:00pm Speaker: David Mittlefehldt, PhD., Planetary scientists, Astromaterials Research & Exploration Science (ARES), Johnson Space Center, National Aeronautics & Space Administration (NASA) "Mars Exploration Rover Opportunity: Exploring the Rim of Endeavour Crater on Mars, Day-4,841+of a 90-Day Mission."

11:30 am – 1:00 pm Speaker: Eugene L. Ames, Jr. "The History of Discovery: The Largest Oil Field in the World & Other Musing by a Geologist & Wildcatter."

	December								Ja	nuar	y			February							
S	l	M	T	W	Th	F	S	S	M	T	W	Th	F	S	S	M	T	W	Th	F	S
			20	17						2	2018							2018	}		
						1	2		1	2	3	4	5	6					1	2	3
	3	4	5	6	7	8	9	7	8	9	10	11	12	13	4	5	6	7	8	9	10
	10	11	12	13	14	15	16	14	15	16	<b>17</b>	18	19	20	11	12	13	14	15	16	17
	17	18	19	20	21	22	23	21	22	23	24	25	26	27	18	19	20	<b>21</b>	22	23	24
	24	25	26	27	28	29	30	28	29	30	31				25	26	27	28			
	31																				

Combined November/December for the Holidays.

11:30 am – 1:00 pm Speaker: Lindsay Roe, Core Laboratories "South Texas Reservoir Geology Presentation," to be Determined 11:30 am – 1:00 pm Speaker: Peter Wang, Geophysical Technical Advisor, Paradigm "A New Technique of Lithology and Fluid Content Prediction from Prestack Data: An Application to a Carbonate Reservoir" **CCGS/CBGS Joint Meeting Schedule 2017-2018** 

	March									April				May						
S	M	T	W	Th	F	S	S	M	T	W	Th	F	S	S	M	T	W	Th	F	S
			2018							2018	3						201	8		
				1	2	3	1	2	3	4	5	6	7			1	2	3	4	5
4	5	6	7	8	9	10	8	9	10	11	12	13	14	6	7	8	9	10	11	12
11	12	13	14	15	16	17	15	16	17	<b>18</b>	19	20	21	13	14	15	<b>16</b>	17	18	19
18	19	20	<b>21</b>	22	23	24	22	23	24	25	26	27	28	20	21	22	23	24	25	26
25	26	27	28	29	30	31	29	30						27	28	29	30	31		

11:30 am – 1:00 pm Speaker: Collegiate Month! Presentations from students & faculty from our local colleges regarding their Geological and Geophysical Research & Educational Programs 11:30 am – 1:00 pm Speaker: Phillipe Tissot, Ph.D., Department of Physical & Environmental Sciences, TAMUCC "Coastal Processes Presentation," to be determined

11:30 am-1:00 pm Speaker: To be determined

# **Calendar of Meetings and Events**

# **Calendar of Area Monthly Meetings**

Corpus Christi Geological/Geophysical Society	
South Texas Geological Society Luncheons	
San Antonio Geophysical Society Meetings	
Austin Geological Society	First Monday
Austin Chapter of SIPES	First Thursday
Houston Geological Society Luncheons	Last Wednesday
Central Texas Section of Society of Mining, Metalllurgy & Exp	2 <sup>nd</sup> Tues every other month in
	San Antonio



### CCGS PRESIDENT'S LETTER

We are closing another year for our Society. I enjoyed serving as President and especially working with the Society board and advisors and other volunteers. I appreciate Randy's acknowledgement in last month's letter of our board and volunteer membership as it is well deserved, but he was way too easy on me! It has been fun and I look forward to being involved as much as possible in the future. I would like to see future board members from both ends of the age gap. The recent graduates and other young professionals are needed on the board for newer perspectives and ideas for activities for our membership. Members who have been on the board are needed again for their experience as well as new ideas to keep things fun and interesting.

Our next luncheon is Wednesday, May 16<sup>th</sup> at Water Street. Frank Cornish will be delivering his talk about Hydrocarbon Traps Associated with Upper Wilcox Canyons and Seismic Response, MidGulf Coast Texas.

Fermin and BJ reported great times and success of the Golf Tournament and subsequent Pub Crawl. Both certainly should be looked forward to again next year.

Don't forget about the Fishing Tournament Friday July 27<sup>th</sup>, 2018 with the Captain's meeting Thursday at the Robert's Point Pavilion from 3pm to 7pm for food and fun as well as door prizes for everyone! Come early, stay late, fish hard and have fun!

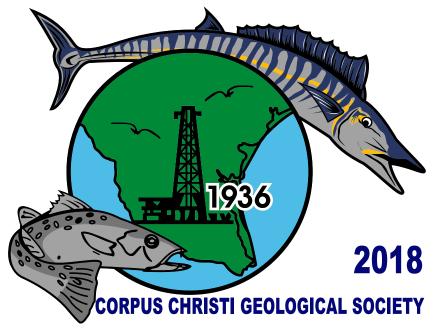
The recent luncheon that showcased the local University student's projects reminded me of my field camp in Ireland for some reason. Being far away from home, hiking tens of kilometers per day through bogs and billy goating up the sides of slick, steep hills. There were beautiful, sunny beach days and 44F raining sideways on the rocks days. We saw textbook geology outcrops and cross-sections of complete E-A Bouma's, the Clare Shale, cirques, turbidites galore, glacial shearing, pillow basalts, fold thrust sequences, folded marble that would blow your mind. I left with a really nice sample of Carbononiferous driftwood, stigmaria. Sitting in on a Chevron turbidite study with geologists from all over the world in attendance was a pretty cool hour spent before going on a boat ride and looking at outcrops all sunny day. I was also able to spend evenings after dinner teaching myself how to dry fly fish for wary brown trout in Lough Mask. I caught two in a nearly religious 6-week period. Making friends with the locals and the time to roam the countryside before and after field camp found me everlasting friends from a hill down the street from the best Guinness in all of Ireland in a county that makes the best apple cider I've ever had. They visited over Christmas and I was able to take them to a location and show them a well in progress. Tying the academic experience in the summer of 2012 when I graduated to an industry experience five years later was an awesome reflection; and to imagine that the students who presented their posters and talks could be in the same position not too long from now...

Our Society is in good shape to head into a new year with our new venue working out well and allowing our members easier access to luncheons. Our budget is balanced and we have relocated our HQ to a smaller footprint and more logistically sound space down the hall in the same building. Our new board has a few open positions ripe for our expanding younger membership as well as anyone who feels the urge to give a position another go. Our committee members are always coming up with new Field Trip ideas and activities to bring our membership together for fun and continued learning, so the next few years should see some exciting activities to look forward to.

Again, it has been an honor serving our Society as President, and I look forward to serving again in the future.

Austin Nye—CCGS President Vice President, Exploration & Land

# 9th ANNUAL SALTWATER FISHING TOURNAMENT



# ROBERTS POINT PAVILION PORT ARANSAS, TX

DOCK PARTY: THURSDAY, JULY 26th

Dinner, Drinks, Door Prizes, 50/50 Raffle

**TOURNAMENT: FRIDAY, JULY 27th** 

Refreshments, Awards

For More Information Email: Idevine@suemaur.com www.ccgeo.org



# **CBGS President's Letter**

# **CBGS Scholarships**

The board awarded two scholarships of \$2,000 each to undergraduate geophysics majors from Texas A&M University-College Station, and University of Houston. A third scholarship of \$2,000 will be given to a geophysics major at Texas A&M University-Kingsville.

The following criteria is followed in awarding the scholarships.

- 1. Must be a citizen of the USA
- 2. Must have declared Major Geophysics at the main campus of the receiving university
- 3. Must have GPA 3.0
- 4. Must 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.

Dr. Subbarao Yelisetti- President Lonnie Blake- Vice President Matt Hammer- Secretary/ Treasurer Dr. Robert Schneider- Continuing Education Lonnie Blake- Golf Chair Ed Egger- Scholarship Chair

# News

- At the time of writing this report, U.S. crude futures have averaged over \$68 a barrel, as opposed to an average of \$50.85 a barrel in 2017 and \$43.47 a barrel in 2016, as reported by Scott DiSavino on reuters.com.
- According the U.S. government, the oil output in the Permian basin will rise to a record high of ~3.2 million barrels per day in May, which is about 30 percent of total U.S. oil production.
- There were 820 oil rigs active in the week of April 20, the highest level since March 2015 as reported by Scott DiSavino on reuters.com.

### **CBGS Business**

CBGS currently has 122 members.

# **CBGS** workshop

CBGS will be offering a Geophysics workshop on April 20<sup>th</sup> in EOG conference center.

When: 11:00 am - 4:00 pm, April 20<sup>th</sup>

Where: EOG 3<sup>RD</sup> Floor Conference Room, 539 N. Caranchua, Corpus Christi, Texas

Cost: Free for CBGS Members/students, \$25 to join CBGS membership for non CBGS members.

Lunch provided by HIS

### Talks:

1. IHS - What's new/coming in the Kingdom Software Suite

2. Tad Smith – SEG Distinguished Lecturer: Seismic Petrophysics

3. CGG/Hampson Russell: Reservoir Property Prediction with Seismic

Contact Lonnie Blake Lonnie Blake@eogresources.com for additional information.

CBGS is looking forward to offer many such workshops in the future. Topic/speaker suggestions are welcome. Email your suggestions to <a href="Subbarao.Yelisetti@tamuk.edu">Subbarao.Yelisetti@tamuk.edu</a> or Lonnie Blake@eogresources.com

### **Golf Tournament**

CBGS organized its annual **Golf Tournament** to fund its scholarship program on October 6, 2017 at Northshore Country Club.

20 Players, 10 sponsors, 7 contributing cash, 3 contributing golf balls, coolers, etc.....

Raised \$1951 for the scholarship fund.

2018 Golf tournament will be in the first week of October. If you are interested in the Golf Tournament, please contact Lonnie Blake at 361-887-2665 or <a href="Lonnie\_Blake@eogresources.com">Lonnie\_Blake@eogresources.com</a>

### **New Degree Tracks at TAMUK**

- TAMUK is currently accepting applications for MS Petrophysics program for Fall 2018.
- BS degree in Geophysics, Minor in Geophysics and Certification in Geophysics offered at Texas A&M University-Kingsville from Fall 2017.

Please contact Dr. Subbarao Yelisetti (<u>Subbarao.Yelisetti@tamuk.edu</u>), graduate coordinator for petrophysics for additional information.

### **Exploration Geophysics class**

PHYS 5382 Exploration Geophysics will be offered in Fall 2018 at Texas A&M University-Kingsville. Schedule is MWF 11:00-11:50 AM. This is available for the professional community as well as our students. You can sign up as a "transient" student in order to take classes without actually enrolling in the school. If anyone in the professional community wishes to sign up for this, please contact the instructor, Dr. Subbarao Yelisetti <u>Subbarao Yelisetti@tamuk.edu</u>.

# **SEG Distinguished Lecture**

CBGS and TAMUK SEG student chapter organized 2018 SEG Distinguished Lecture in January, 2018. We wish to organize many more lectures in the future.

### **Education/Events**

# -<u>SEG</u>

SEG annual meeting will be held in Anaheim, CA from Oct 14<sup>th</sup>-19<sup>th</sup>, 2018. Abstract due date is April 1<sup>st</sup>, 5 pm CDT. See https://seg.org/Annual-Meeting-2018 for additional details.

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

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

# -GSH

SEG and GSH jointly organizing a live webinar on "Basic Seismic Interpretation" by Don Herron and Bob Webgner. It is scheduled from 10 am-2 pm, May 8-11<sup>th</sup>, 2018 (four half-days). The course consists of lectures on fundamental topics including basics of petroleum geology, seismic response, velocity, resolution, seismic migration, seismic correlation and mapping techniques, and quantified interpretation. Lectures are supported by hands-on exercises, and the second half of the course includes two practical correlation & mapping projects.

Session 1	Session 2	Session 3	Session 4
Introduction to Petroleum	·Seismic response	·Fault interpretation	·Quantified interpretation
·Petroleum Geology	·Velocity	Horizon interpretation	·Bright Spot Interpretation
·What is Seismic Exploration	·Resolution	Correlation and mapping	·Course summary
Intro to Seismic Interpretation	·Seismic migration	exercise (3D seismic grid)	

https://www.gshtx.org/SharedContent/Events/Event Display.aspx?EventKey=7d75200f-62cf-44fb-b17b-61d8d62943b3&iSearchResult=true&WebsiteKey=955f17e6-46ad-4401-acbd-2af6c393752b

Webinar Pricing	Per Person
Individual Registration	\$390
Company/Group 2-10	\$325
Company/Group 11+	\$295
Individual Student	\$100
Student Group	\$60

### -AGU

2018 Fall AGU annual meeting will be held in Washington, DC from December 10<sup>th</sup>-14<sup>th</sup>, 2018. https://fallmeeting.agu.org/2018/

# **Monthly Saying**

"First look at the size of the prize and then the risk involved - Geology first, Economics second" - R. E. Mcgill

# **Monthly Summary**

Texas Oil and Gas Info	Current Month	Last Month	Difference	
Texas Production	MMBO/BCF	MMBO/BCF	MMBO/BCF	
Oil	96.5	98.4	-1.9	December
Condensate	10.5	10.5	0.0	December
Gas	630.3	636.3	-6.0	December
	<b>Current Month</b>	Yr to date - 2018	Yr to date - 2017	
Texas Drilling Permits	1220	3483	3257	March
Oil wells	358	885	801	March
Gas wells	77	242	160	March
Oil and Gas wells	690	2121	2140	March
Other	11	26	41	March
Total Completions	867	2712	1925	March
Oil Completions	656	2067	1537	March
Gas Completions	173	501	256	March
New Field Discoveries	3	6	8	March
Other	3	9	3	March

Subbarao Yelisetti President, CBGS



# CORPUS CHRISTI GEOLOGICAL SOCIETY COASTAL BEND GEOPHYSICAL SOCIETY



# LUNCHEON MEETING ANNOUNCEMENT

# **MAY 16, 2018**

**Location:** Water Street Events (Previously the Seafood Company

Restaurant), 300 Block N. Water Street, CC, TX 78401

**Student Sponsor:** Imagine Resources, Nye Exploration, Viper Exploration, Ltd.

Bar Sponsor: SPONSORSHIP OPPORTUNITIES AVAILABLE!!!

Time: 11:30 am Bar, Lunch follows at 11:45 am, Speaker at 12:00 pm

**Cost:** \$25.00 (additional \$10.00 surcharge without reservation; No-shows

may be billed, and non-RSVP attendees cannot be guaranteed a lunch); **FREE** for students with reservation (discounted by our

generous sponsors)!

**Reservations:** Please **RSVP** by **4PM** on the **FRIDAY** before the meeting!

E-Mail: arrangements@ccgeo.org

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

SPONSORSHIPS OPPORTUNITIES ARE AVAILABLE!
IF YOU WOULD LIKE TO SPONSOR, PLEASE CONTACT US AT:

arrangements@ccgeo.org

# Imagine Resources, LLC



802 N. Carancahua, Suite 1840 Frost Bank Plaza Corpus Christi, TX 78401 www.nyexp.us VIPER
EXPLORATION,
LTD.

# Hydrocarbon Traps Associated with Upper Wilcox Canyons and Seismic Response, Mid Gulf Coast, Texas

# **Abstract:**

Three types of hydrocarbon traps occur along the predominantly shale filled Upper Wilcox (Early Eocene) canyons in Dewitt, Goliad, Victoria, and Lavaca Counties, TX: 1) Regional Upper Wilcox sands trapped (unconformably) against the shale filled canyon wall, 2) Meandering channel sands within the shale canyon fill, and 3) Canyon fill sands associated with the final phase of canyon fill and initial phase of the return to regional deltaic sedimentation (regression). These are listed in economically significant order. Poor production does not eliminate a trap type from consideration in exploration, as these wells can be considered "show" wells and reduce the risk of hydrocarbon presence. The Anna Barre/Meyersville and Jennie Bell canyons were previously described by the author, occurring in two separate stratigraphic intervals of the Upper Wilcox. These are shelf incised canyons with adjacent slope confined canyons.

The sandstone trap against a shale filled canyon (unconformity) is common along the Middle Wilcox Yoakum Canyon. It is the best trap for the Upper Wilcox canyon fields as well. Anna Barre Wilcox J (RRC) field has produced 38.4 BCFG and 561 MBC from the Middle Wilcox J sand on a rollover of 630 acres with 94' of closure truncated by canyon erosion. The Upper Wilcox Lower Massive 1 and 2 (LM1, LM2, this author) has produced 37 BCFG and 730 MBC from the Mission Valley 10220 sandstones and Mission Valley, W. 10600. The trap is a structural rollover with lateral sandstone truncation by deep canyon erosion. These two traps occur in the Anna Barre and Meyersville canyons, respectively.

Meandering sandstone structural/stratigraphic traps are present in the Jennie Bell canyon and the Anna Barre canyon. Thomaston 8750 (2 BCFG & 19.1 MBC), Anna Barre 8400 (0.6 BCFG & 6.9 MBC), and Rob Welder Wilcox 9100 (1.1 BCFG & 30.5 MBC) are all one well fields from a similar meandering sandstone in the Jennie Bell canyon. The canyon has as many as seven separate meander sands. Within the Meyersville canyon one well has produced a "show" (0.013 BCFG) from the Meyersville Massive IV sandstone. Anna Barre 8400 and Rob Welder Wilcox 9100 are in structurally high locations on rollovers. Thomaston 8750 and Meyersville Massive IV sandstone traps occur along the north flank of Thomaston and Meyersville E, fields, respectively.

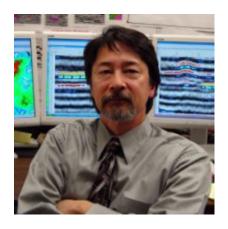
Sandstones productive from the initial delta filling of the uppermost canyons occur in Anna Barre 8500 (TC 0.8 BCFG and 16 MBC) in a structural rollover trap.

Canyons can be identified on some seismic data, using varying color bars and noting reflector termination against canyon walls. Mission Valley 10220 sandstone "lights up" on amplitude and has an AVO response. Meanders can clearly be seen with seismic

data in both canyons. Classic AVO cannot distinguish wet meander sandstones from productive reservoirs.

# Presented by:

Frank Cornish - Imagine Resources, LLC



# **About our Presenter:**

Frank Cornish received his BS from LSU (1973) and MA from UT at Austin (1975) in geology. He began his career with the USGS in Colorado in 1973. After UT he worked the Permian and Anadarko Basins for Getty Oil in Midland and Oklahoma City. In 1978 he started with Texas Oil and Gas in Oklahoma City and was transferred to Corpus Christi as a District Geologist. After TXO was sold in 1990, he worked for Suemaur Exploration, Yuma Exploration, and SV Energy. Since 2003 he has generated prospects for various industry partners under his company name of Imagine Resources, LLC. Currently he is consulting for Suemaur Exploration in Corpus Christi.

He is the author of several technical and popular articles, including "Dinosaurs", Texas Highways, 1988, "Riches in the Heart of Texas", Texas Parks and Wildlife, 1991. Mr. Cornish has studied and published papers about the Recent/Pleistocene sediments along the Nueces River with Dr. Jon Baskin of Texas A & M, Kingsville. Mr. Cornish is a Distinguished Member of the Corpus Christi Geological Society Award since 1995. He has received the GCAGS Distinguished Service award in 2007. He coauthored a paper with Robert W Parker "Southwest Speaks Lower Wilcox Structural Complex, Lavaca County, Texas" which has been awarded the 3<sup>rd</sup> place Grover E Murray Best published paper for the 2007 GCAGS Transactions. This paper is an extension of a poster session for 2016 GCAGS in Corpus Christi. He is a member of AAPG, SEG, SIPES, CCGS, CBGS, and Rotary.

### **SPONSORS**



P.O. Box 252 Corpus Christi, Texas 78403

Office: (361) 884-0435 Fax: (361)-654-1436 www.nuecesland.com

Nueces Energy, Inc. is a complete land services company in the business of providing professional landmen and project management to various energy related jobs primarily in the oil and gas industry.

With over 30 years of industry experience, we specialize in determining surface and subsurface ownership and negotiating and acquiring contracts, rights of way agreements, and easements to provide our clients with the legal right to explore and develop oil and gas resources. We provide a full service land company capable of managing any project no matter how large or small.



### THUNDER EXPLORATION, INC.

Celebrating 30+ years of prospect generation and exploration in the following South Texas plays and trends.

Frio	San Miguel	Edwards
Jackson	Austin Chalk	Pearsall
Yegua	Eagle Ford	Sligo
Wilcox	Buda	Cotton Valley
Olmos	Georgetown	Smackover

Thunder is currently seeking non-operated working interest participation in projects and prospects.

Contact Walter S. Light Jr. President/Geologist 713.823.8288 EMAIL: wthunderx@aol.com

Headington Oil Company is now...

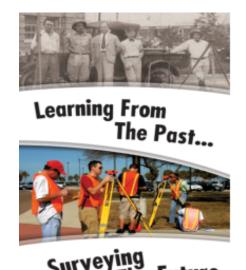


# Proudly operating in South Texas.

For more information contact:
Randy Bissell, randyb@headingtonenergy.com or call 361-885-0113



Offices in Corpus Christi, Sarita, and McKinney, Texas - Exploring and Developing properties In South Texas, Permian Basin, East Texas & Oklahoma



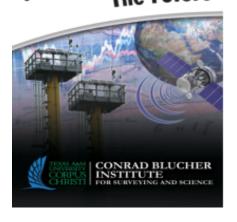
# Real Impacts of Sea Level and Subsidence along the Texas Coast

# **Philippe Tissot**

Texas A&M University-Corpus Christi
Conrad Blucher Institute

Contributions from Anthony Reisinger & Mark Besonen Harte Research Institute, Texas A&M University-Corpus Christi

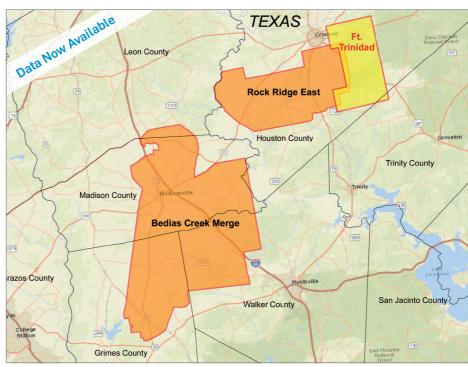
Corpus Christi Geological Society & Coastal Bend Geophysical Society Luncheon Meeting April 18, 2018



Global sea level rise (GSLR) was remarkably steady for the past six or seven thousand years. Last century GSLR rose at a rate of about 1.7mm/yr. Presently gslr is increasing at a rate of  $\sim$  3.4mm/yr. This may not seem like much but if such rate had prevailed over the past 6,000 years we would have sea levels about 20m above present level, a consequential difference.



# New Ft. Trinidad 3D Survey Houston and Trinity Counties, TX



CGG continues to expand its East Texas footprint with high-quality 3D projects while illuminating the stacked pay formations.

Data is already available from our Bedias Creek Merge and Rock Ridge East projects. Orthorhombic PSTM from our newest project Ft. Trinidad is also now available.

### The right data, in the right place, at the right time

Scott Tinley

**+**1 832 351 8544

Cheryl Oxsheer

**+**1 832 351 8463

cheryl.oxsheer@cgg.com





# Sea Levels: Temporal Variability

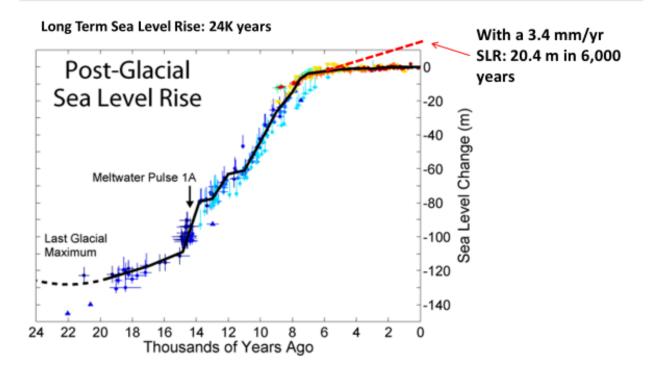


Figure: (http://en.wikipedia.org/wiki/Current\_sea\_level\_rise

Improvements in our ability to observe quantitatively our planet such as measuring sea levels globally thanks to satellite altimetry, measuring water temperatures and other parameters around the world's oceans thanks to the Argos buoys and quantifying changes in glaciers and other land forms thanks to the Grace satellites mission, allow us to understand well the recent causes of global sea level rise.

# JOIN!



The Desk & Derrick Club of Corpus Christi is a dynamic organization that promotes the education of the petroleum, energy and allied industries and advances the professional

### Member Benefits:

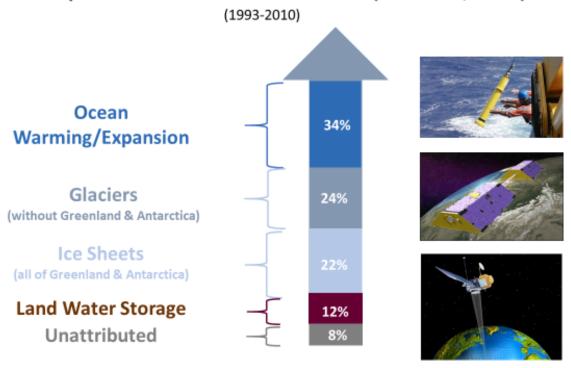
- · Learn from energy industry experts.
- Network with energy industry leaders and colleagues.
- · Attend regional and national meetings.
- Receive critical updates and information about the energy industry.
- Enhance communication and leadership skills.
- Make friends for life!

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

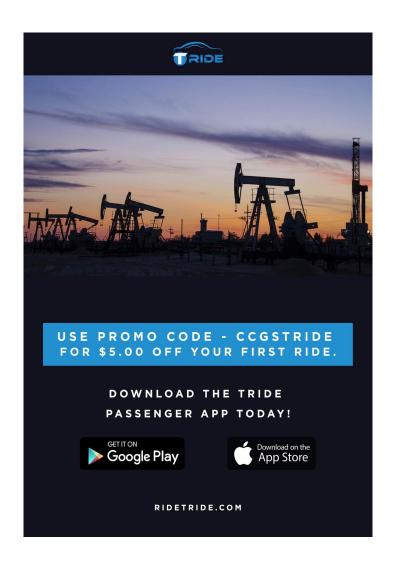
# Causes for Global Sea Level Rise

# Components to Global Sea Level rise (IPCC AR5, 2013)



When thinking about longer term (2050-2100) GSLR, the role of Greenland and Antarctica will be critical. Research is ongoing to better model glaciers melting, migration and contributions to the oceans. During the next decade we should have much better models to estimate how these areas of our planet will contribute to the rate of GSLR including a substantial risk of larger GLSR than presently estimated in the latest IPCC report.

# **SPONSORS**





# **Austin Office:**

1717 W. 6<sup>th</sup> Street, Ste 230 Austin, Texas 78703 512.457.8711

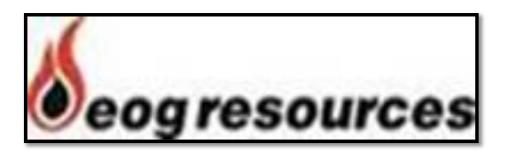
Contact: Bill Walker, Jr. bwalker@stalkerenergy.com

# **Houston Office:**

2001 Kirby Drive, Suite 950 Houston, Texas 77019 713.522.2733

Contact: Todd Sinex tsinex@stalkerenergy.com

www.stalkerenergy.com







When looking at SLR in Texas, we have a great time series for Galveston. The tide gauge of Pier 21, maintained by NOAA and part of the National Water Level Observation Network (NWLON), has been active since 1908 with hardly any gaps. A wonderful technical and scientific achievement. The rate of sea level rise is 6.4mm/yr over this time, quite larger than the values discussed above.

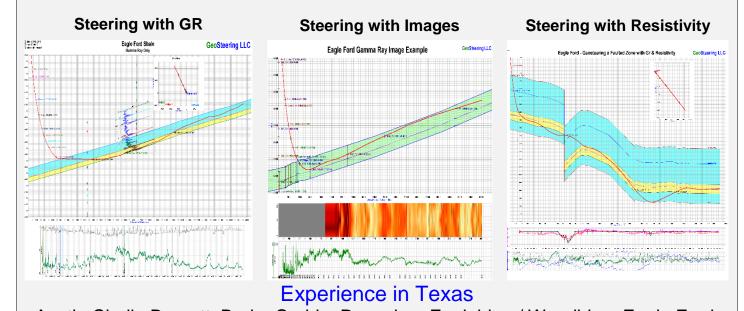
The difference is due to vertical land motion, subsidence in this case. Combining the change in average water levels (sea level rise) and vertical land motion leads to relative sea level rise (RSLR), the important parameter if you have property or infrastructure on the shoreline!



# info@geosteering.com

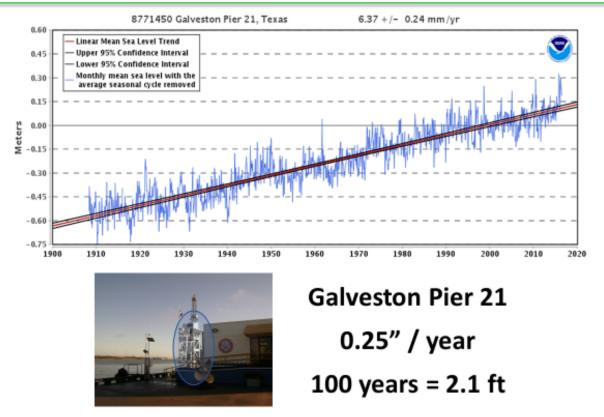
281-573-0500

# Geosteering in the USA and Internationally since 2002



Austin Chalk, Barnett, Buda, Caddo, Devonian, Eaglebine / Woodbine, Eagle Ford, Georgetown, Granite Wash, Permian (Delaware, Midland), Smithwick





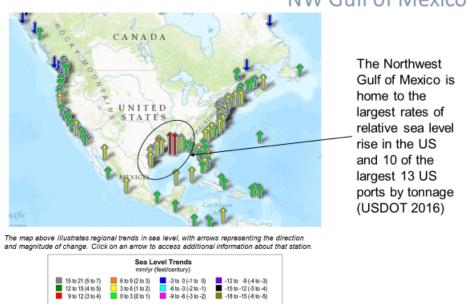
RSLR varies around the coastlines, positive and sometimes large in the lower 48 states often negative further north. RSLR is particularly high in the northwest portion of the Gulf of Mexico.



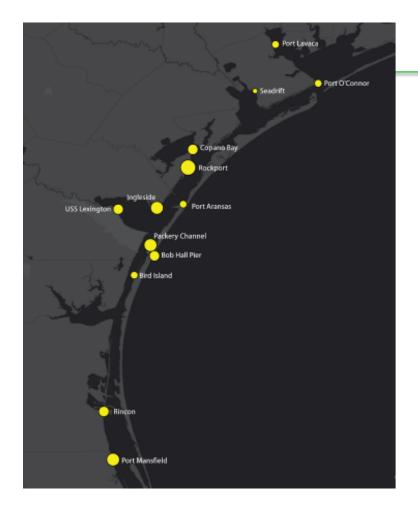
SABALO ENERGY | P.O. BOX 2907 | CORPUS CHRISTI, TX 78403 | 361.888.7708 | SABALOENERGY.COM



# Relative Sea Level Rise in the NW Gulf of Mexico



While the previous slides showed the variability of RSLR around the country's shorelines, there is also variability at the local scale. Recent research at TAMUCC has combined the tide gauge signals of a high-density network of stations (combination of NWLON and TCOON tide gauges) with 20-25 years' time series. While this time span is in general too short to estimate rslr, the combination of the group of stations signals allowed for an improvement of the classic method to estimate rslr. The results are displayed in the following slide. RSLR rates range from 3.0 to 8.4 mm/yr with confidence intervals of less than 1.1 mm/yr, on average 0.7 mm/yr.



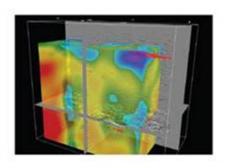
Coastal Bend Relative Sea Leve Rise Variability

Several hypotheses are considered to explain the spatial variability of RSLR in the Coastal Bend including (1) influence of growth faults (several tide gauges are located in their vicinity), (2) fluid extraction including oil and gas wells and groundwater pumping, (3) difference in compaction rates related to the coastal geology including presence of former river beds.

Continued discussions and advice from local geologists are most welcomed. Special thanks to Michael Hill, Ray Govett, Dorina Murgulet and others for sharing ideas and advice during and after the talk.



Innovative Seismic Processing Solutions



2D and 3D Land and Marine Pre-Stack Time and Depth Imaging

Pre- and Post-Stack Attributes for Amplitude, Frequency and Resolution

4805 Westway Park Blvd. Houston, TX 77041 p: 832.554.4301 www.seimaxtech.com

# **RSLR & Regional Growth Faults**

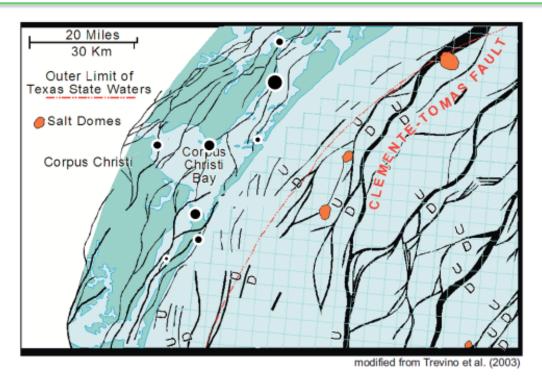
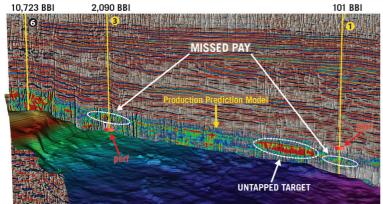


Figure from: Hammes, U., et al. "Structural setting and sequence architecture of a growth-faulted lowstand subbasin, Frio Formation, South Texas." Gulf Coast Association of Geological Societies Transactions, Vol. 54, 2004.

Regarding rslr, there are also special cases such as the city of Corpus Christi's bay front and marina which were built on fill (bay sediments) in the 30s and early 40s in response to the impact of the 1919 Hurricane. Based on historic photographs of the sea wall, the rate of vertical land motion is likely much larger there than the rest of the Coastal Bend. The message is that RSLR is local, in large part dependent on coastal geology and sometimes anthropogenic input.

# SEISMIC-BASED ANALYTICS



An arbitrary line through 3 vertical wells in the West Texas Permian Basin shows the lateral variations of the Production Prediction Model and reveals refrac potential for Wells 1 and 3 where the red disks indicate the actual completion intervals and the white circles highlight the missed pay. Note the untapped target near Well 1.

ND WHAT YOU'VE BEEN MISSING

For More Information: www.globalgeophysical.com/ANALYTICS or Contact ANALYTICS@globalgeophysical.com



In today's challenging market, no one can afford a bad well. Global's seismic-based analytics can help you avoid the pitfalls and pinpoint the sweet spots. By integrating seismic, geological, and engineering data, this proprietary workflow identifies the most prospective areas and zones for drilling - down to the stage level! This reduces risk, optimizes spend, and greatly increases the chance for every well and stage to be a winner.

- High-grade prospective drilling areas and zones
- Enhance well planning and geosteering
- Optimize completion placements and frac design
- Predict well performance at stage level
- Boost EUR of individual wells
- Identify candidates for refrac

Global's **SEISMIC-BASED ANALYTICS** approach is field-proven with successful projects in both conventional and unconventional reservoirs. Contact us today to find out how Global can help you make every well a winner.



When looking at water levels in the Coastal Bend one need to include other factors than just the tides (tides = impact of gravitational pull of moon, sun and response of ocean basins on water levels). The Coastal Bend is the windiest coastline of the lower 48 states. Wind influences water levels short term during frontal passages and strong southeasterlies, monthly, seasonally and year to year. The tide range is about a foot along the coast (Bob Hall Pier) and much smaller in the bays and estuaries, the seasonal range is also about a foot as well as the interannual or year to year difference. Considering only the "gravitational tides" is usually insufficient to analyze water levels and their impact on the Coastal Bend.



DALLAS DENVER HOUSTON NEW ORLEANS TULSA 4805 Westway Park Blvd., Houston, Texas 77041 832.590.5100

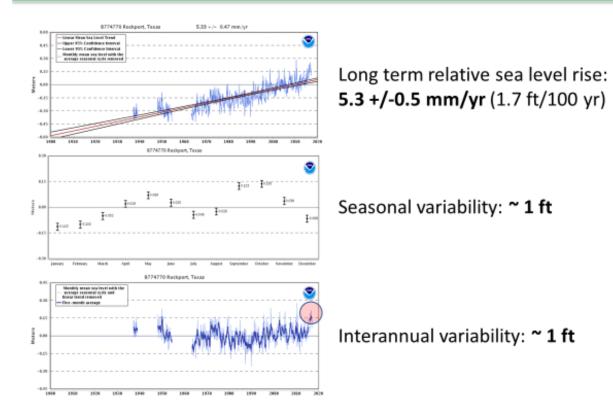
www.seismicexchange.com



# VirTex Operating Company, Inc.

615 North Upper Broadway, Suite 525, Corpus Christi, Texas 78477 (361) 882-3046

# Water Level Variability: Rockport



For the future impact of RSLR, one needs to rely on estimates and models. The speaker finds the sea level rise component of the IPCC report excellent, uses it as his guide and recommends to do so with the caveat that the information and in particular the predictions will change as the science advances, particularly predictions beyond 2050.

# CHARGER EXPLORATION

## **Michael L. Jones**

President/Geologist

### **Onshore Gulf Coast Prospect Generation and Consulting**

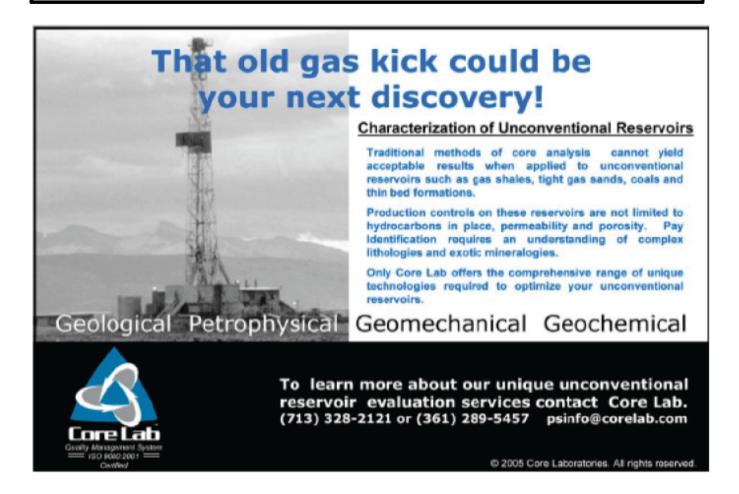
1001 McKinney Street, Suite 801 Houston, TX 77002 Ofc: 713.654.0080 Cell: 713.398.3091 Email: mjones@chargerexploration.com www.chargerexploration.com

Serving Corpus Christi for over 20 years



CALL 888-4332 for details - Ask for Anne

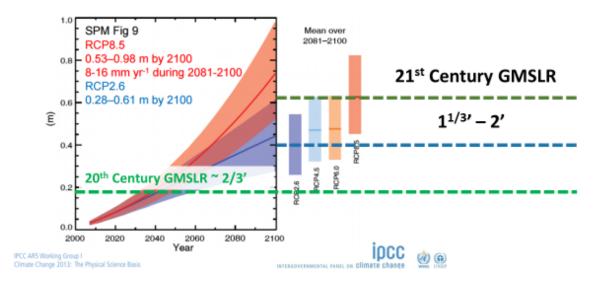
- We process 1<sup>st</sup> class mail with a direct discount to you
- No meter procedure change except for the amount you meter your envelopes





### Projections of 21st-century GMSLR under RCPs

### Medium confidence in likely ranges



### IPCC ARV (2013):

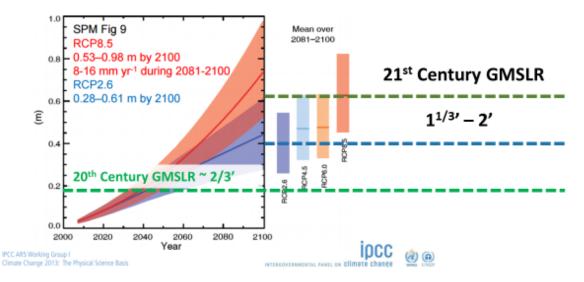
Likely range of GMSLR for 2081-2100 is 0.40 to 0.63 m above 1986-2015 (medium confidence) It is virtually certain that GMSLR will continue for many centuries beyond 2100



## Sea Level Rise Future

### Projections of 21st-century GMSLR under RCPs

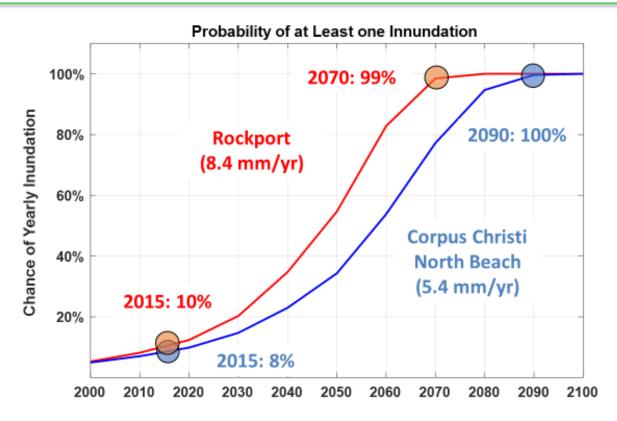
### Medium confidence in likely ranges



### IPCC ARV (2013):

Likely range of GMSLR for 2081-2100 is 0.40 to 0.63 m above 1986-2015 (medium confidence) It is virtually certain that GMSLR will continue for many centuries beyond 2100





For more information a recent meeting ahead of the next IPCC took place in New York in July 2017. Great source of the latest research results.



# Actively Seeking High Quality Drilling Prospects

# Contacts:

Mike Layman (Geophysicist) 361-844-6922 Tom Winn (Geologist) 361-844-6992 Southern Winn (Geologist) 361-844-6998

> 800 North Shoreline Blvd. 19th Floor, North Tower Corpus Christi, Texas 78401

Office: 361-844-6900 Fax: 361-844-6901

# EXPLORING SINCE 1968 EXPLORING SINCE 1968 539 N Carancahua St, Suite 1100, Corpus Christi, TX 78401

(361) 884-8824 www.suemaur.com



Regional Sea Level Changes and Coastal Impacts 10-14 July 2017, Columbia University, New-York (NY) - USA

### Conference Sessions:

- · Paleo sea level data and GIA modeling
- Millennial-scale ice sheet and sea level interactions
- · Contemporary contributions from ice sheets and glaciers
- Contemporary sea level change
- · Coastal zone
- · Sea level rise adaptation in greater New York: the response to Sandy and beyond
- Projections

# Corpus Christi Geological Society Papers available for purchase at the Texas Bureau of Economic Geology

Note: Publication codes are hyperlinked to their online listing in <a href="https://example.com/The Bureau Store">The Bureau Store</a> (http://begstore.beg.utexas.edu/store/).

Cretaceous-Wilcox-Frio Symposia, D. B. Clutterbuck, Editor, 41 p., 1962. CCGS 002S \$15.00

Type Logs of South Texas Fields, Vol. I, Frio Trend. Compiled by Don Kling. Includes 134 fields. 158 p., 1972. Ring binder.

CCGS 015TL \$25.00

Type Logs of South Texas Fields, Vol. II, Wilcox (Eocene) Trend. Compiled by M. A. Wolbrink. 98 p., 1979. Ring binder. CCGS 016TL \$25.00

### Field Trip Guidebooks

South Texas Uranium. J. L. Cowdrey, Editor. 62 p., 1968. CCGS 102G \$12.00

Hidalgo Canyon and La Popa Valley, Nuevo Leon, Mexico. CCGS 1970 Spring Field Conference. 78 p., 1970. CCGS 103G \$8.00

Padre Island National Seashore Field Guide. R. N. Tench and W. D. Hodgson, Editors. 61 p., 1972. CCGS 104G \$5.00

Triple Energy Field Trip, Uranium, Coal, Gas—Duval, Webb & Zapata Counties, Texas. George Faga, Editor. 24 p., 1975. <a href="CCGS 105G">CCGS 105G</a> \$10.00

Minas de Golondrinas and Minas Rancherias, Mexico. Robert Manson and Barbara Beynon, Editors. 48 p. plus illus., 1978.

CCGS 106G \$15.00

Portrero Garcia and Huasteca Canyon, Northeastern Mexico. Barbara Beynon and J. L. Russell, Editors. 46 p., 1979. CCGS 107G \$15.00

Modern Depositional Environments of Sands in South Texas. C. E. Stelting and J. L. Russell, Editors. 64 p., 1981. CCGS 108G \$15.00

Geology of Peregrina & Novillo Canyons, Ciudad Victoria, Mexico, J. L. Russell, Ed., 23 p. plus geologic map and cross section, 1981.

CCGS 109G \$10.00

Geology of the Llano Uplift, Central Texas, and Geological Features in the Uvalde Area. Corpus Christi Geological Society Annual Spring Field Conference, May 7-9, 1982. Variously paginated. 115 p., 53 p.

CCGS 110G \$15.00

Structure and Mesozoic Stratigraphy of Northeast Mexico, prepared by numerous authors, variously paginated. 76 p., 38 p., 1984.

CCGS 111G \$15.00

Geology of the Big Bend National Park, Texas, by C. A. Berkebile. 26 p., 1984. CCGS 112G \$12.00

# GEO LINK POST

http://www.lib.utexas.edu/books/landsapes/index.php Free service. Rare, fragile, hard-to-find, public domain documents covering various topics about the landscape of Texas. Includes the Texas Geological Survey from 1887 until 1894.

**USGS TAPESTRY OF TIME AND TERRAIN** <a href="http://tapestry.usgs.gov">http://tapestry.usgs.gov</a> The CCGS is donating to all of the 5th and 6th grade schools in the Coastal Bend. Check it out--it is a spectacular map. You might want to frame one for your own office. The one in my office has glass and a metal frame, and It cost \$400 and it does not look as good as the ones we are giving to the schools.

FREE TEXAS TOPOS'S <a href="http://www.tnris.state.tx.us/digital.htm">http://www.tnris.state.tx.us/digital.htm</a> these are TIFF files from your state government that can be downloaded and printed. You can ad them to SMT by converting them first in Globalmapper. Other digital data as well.

FREE NATIONAL TOPO'S <a href="http://store.usgs.gov/b2c\_usgs/b2c/start/">http://store.usgs.gov/b2c\_usgs/b2c/start/</a> <a href="http://store.usgs.gov/b2c\_usgs/b2c/start/">(xcm=r3standardpitrex\_prd)/.do</a> go to this webpage and look on the extreme right side to the box titled TOPO MAPS <a href="https://doi.org/10.2016/j.com/doi

http://www.geographynetwork.com/ Go here and try their top 5 map services. My favorite is 'USGS Elevation Date.' Zoom in on your favorite places and see great shaded relief images. One of my favorites is the Great Sand Dunes National Park in south central Colorado. Nice Dunes.

http://antwrp.gsfc.nasa.gov/apod/asropix.html Astronomy picture of the day--awesome. I click this page everyday.

http://www.spacimaging.com/gallery/ioweek/iow.htm Amazing satellite images. Check out the gallery.

http://www.ngdc.noaa.gov/seg/topo/globegal.shtml More great maps to share with kids and students.

www.ccgeo.org Don't forget we have our own we page.

http://terra.nasa.gov/gallery/ Great satellite images of Earth.

<u>www.ermaper.com</u> They have a great free downloadable viewer for TIFF and other graphic files called ER Viewer.

http://terrasrver.com Go here to download free aerial photo images that can be plotted under your digital land and well data. Images down to 1 meter resolution, searchable by Lat Long coordinate. Useful for resolving well location questions.

### TYPE LOGS OF SOUTH TEXAS FIELDS by Corpus Christi Geological Society

**ARANSAS COUNTY** MCMULLEN COUNTY Vista Del Mar Maurbro Plymouth Aransas Pass/McCampbell Deep **COLORADO COUNTY** StewartSwan Lake Arnold-Weldon Portilla (2) Taft Bartell Pass E. Ramsey Swan Lake, Fast Brazil Graceland N. Fault Blk Blackjack Texana, North Devil's Waterhole Taft, East **Burgentine Lake** Graceland S. Fault Blk West Ranch Hostetter White Point, East STARR COUNTY **DEWITT COUNTY** JIM HOGG COUNTY Copano Bay, South Hostetter, North Anna Barre **NUECES COUNTY** Estes Cove Chaparosa El Tanque Fulton Beach Cook Thompsonville, N.E. Agua Dulce (3) Garcia Goose Island Nordheim JIM WELLS COUNTY Arnold-David Hinde Half Moon Reef Smith Creek Freebom Arnold-David, North La Reforma, S.W. Lyda Nine Mile Point Warmsley Hoelsher Baldwin Deen Ricaby Rockport, West Yorktown, South Palito Blanco Calallen **DUVAL COUNTY** St. Charles Wade City Chapman Ranch Rincon KARNES COUNTY DCR-49 Corpus Christi, N.W. Tally Island Rincon, North Tract 831-G.O.M. (offshore) Corpus Christi West C.C. Four Seasons Burnell Ross Good Friday Virginia Coy City **Encinal Channel** San Roman **BEE COUNTY** Flour Bluff/Flour Bluff, East Hagist Ranch Person Sun GOM St 9045(offshore) Caesar Herbst Runge Yturria **KENEDY COUNTY** VICTORIA COUNTY Mosca Loma Novia Indian Point Nomanna Petrox Candelaria Mustang Island Helen Gohike, S.W. Seven Sisters Julian Mustang Island, West Keeran, North Orangedale(2) Ray-Wilcox Seventy Six, South Julian, North Mustang Island St. Marcado Creek San Domingo Starr Bright, West Laguna Madre 889S(offshore) McFaddin **GOLIAD COUNTY** Tulsita Wilcox Rita Nueces Bay/Nueces Bay Meyersville Strauch Wilcox Berclair Stillman Placedo **KLEBERG COUNTY BROOKS COUNTY WEBB COUNTY** North Blanconia Perro Rojo Ann Mag Rombs Alazan Pita Island Aguilares/Glen Martin Boedecker Alazan, North Ramada Big Cowboy Boyce Cabeza Creek, South Cage Ranch Big Caesar Redfish Bay Bruni, S.E. **Encintas** Goliad, West Borregos Riverside Cabezon FRF St Armo Chevron (offshore) Riverside, South Carr Lobo Gyp Hill Terrell Point Laguna Larga Saxet Davis Gyp Hill West **HIDALGO COUNTY** Seeligson Shield Hirsch Loma Blanca Alamo/Donna Sprint (offshore) Stedman Island Juanita LA SALLE COUNTY Mariposa **Turkey Creek** Las Tiendas Edinburg, West **REFUGIO COUNTY** Mills Bennett Nicholson LAVACA COUNTY Pita Flores-Jeffress Bonnieview/Packery Flats O'Hem Tio Ayola Halletsville Greta **Olmitos** Foy Tres Encinos La Rosa Tom Walsh Hidalgo Hope **CALHOUN COUNTY WHARTON COUNTY** Southwest Speaks LA Blanca Lake Pasture McAllen& Pharr Southwest Speaks Deep Refugio, New Black Owl Coloma Creek, North McAllen Ranch LIVE OAK COUNTY Tom O'Connor **WILLACY COUNTY SAN PATRICIO COUNTY** Heysei Mercedes Atkinson Chile Vieja Lavaca Bay Angelita East La Sal Vieja Monte Christo, North Braslau Long Mott Penitas Chapa Commonwealth Paso Real Magnolia Beach San Fordyce Clayton Encino **Tenerias** Mosquito Point Dunn Willamar San Carlos **Enos Cooper ZAPATA COUNTY** Olivia San Salvador Harris Geronimo Panther Reef S. Santallana Houdman Harvey **Benavides** Kittie West-Salt Creek Powderhorn Shary Hiberia Davis, South Jennings/Jennings, West Seadrift, N.W Tabasco Lucille Hodges Steamboat Pass Weslaco, North Sierra Vista Mathis, East Lopeno Webb Point Weslaco, South Tom Lyne McCampbell Deep/Aransas Pass M&F

#### JACKSON COUNTY S.E. Zoller

**CAMERON COUNTY** Carancahua Creek

Holly Beach Francitas

Luttes Ganado & Ganado Deep

San Martin (2) LaWard, North Three Islands, East Little Kentucky **MATAGORDA COUNTY** Collegeport

White Creek

White Creek, East

Call Coastal Bend Geological Library, Lettie: 361-883-2736

Midway

Odem

Midway, North

I log -- \$10 each, 5-10 logs \$9 each and 10 + logs \$8.00 each - plus postage

Pok-A-Dot

El Bano

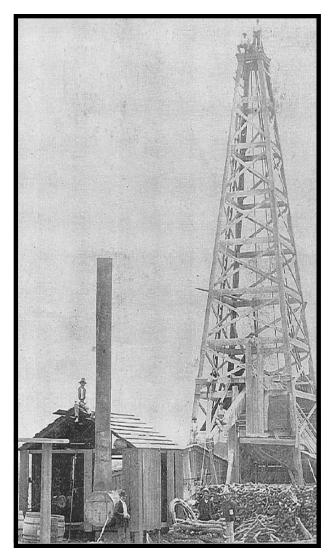
**ZAVALA COUNTY** 

# **OIL MEN**

# TALES FROM THE SOUTH TEXAS OIL PATCH DVD MEMBER PRICE \$25 NON-MEMBER \$30



To Order DVD
Sebastian Wiedmann
swiedmann.geo@gmail.com
If mailed add \$5.00



Wooden Rigs—Iron Men
The Story of Oil & Gas in South
Texas
By Bill & Marjorie K. Walraven
Published by the
Corpus Christi Geological Society

Corpus Christi Geological Society C/O Javelina Press P. O. Box 60181 Corpus Christi, TX 78466

Order Form
Mail order form for Wooden rigs-Iron Men. The price is \$75 per copy, which includes sales tax, handling, and postage  Name
Address
City, State, Zip
No. of books Amount enclosed
Send to Corpus Christi Geological Society Book Orders P. O. Box 60181 Corpus Christi, TX. 78466 Tax exempt# if applicable

### TOG Exploration LLC

David Becker Geologist 600 Leopard St. Ste 706 Corpus Christi, TX 78401

dkbecker1137@sbcglobal.net

361-884-3613





### Dawn S. Bissell Geoscientist

Advent Geoscience Consulting, LLC Corpus Christi, TX 78411

> Phone: 361-960-2151 Email: bissells@swbell.net

MUD LOGGING SERVICE



MIKE BULLARD

(361) 221-9717 Office (361)522-1245 Cell E-Mail md\_bullard@sbcglobal.net

(361) 211-9715 Fax P.O. Box 1011 Kingsville, Tx 78363



11777 Katy Freeway, Ste 570 | Houston, TX 77079 office: 281.977.7432 ext 109 | fax: 281.829.1788

Elizabeth Chapman

# James L. Claughton Consulting Geologist

Office | 361-887-2991 Cell | 361-960-2014 clausoie@sbcglobal.net 615 North Upper Broadway Corpus Christi, Texas 78401-0779

### Jim Collins Geoscientist



361.537.4034 jim@gulfcoastgas.com

# Imagine Resources, LLC

zell 713.817.4232 email elizabeth@flamingoseismic.com

Frank G Cornish **President/Consulting Geologist** 

5103 Turnabout Lane Austin, Tx 78731

361-563-9184 frank.cornish@gmail.com

### TOM DAVIDSON

**GEOLOGIST** 

28550 IH-10 WEST SUITE #4 **BOERNE, TEXAS 78006** 

BUS: (210) 844-8963 RES: (830) 981-5883 FAX: (830) 981-5567 CEL: (210) 844-8963



Director of Marketing & Business Development

4805 Westway Park Blvd., Houston, TX 77041 p: 832.554.4301 d: 832.554.4314 c: 713.256.8737 sdavis@seimaxtech.com



Brian Desaulnier Owner / President 512.923.2059 brian@gtls.us

Office:512.308.8200 P.O. Box 305 Red Rock, TX 78662 Fax:830.839.4832 www.geotechloggingservices.com

Leighton L. Devine Exploration Geologist

 $\underbrace{SUEMAUR}_{\text{Experience. Expertise. Exploration.}}$ 

361-510-8872 ldevine@suemaur.com Suemaur Exploration & Production, LLC 539 North Carancahua, Suite 1100 Corpus Christi, TX 78401

# **Tommy Dubois**

Geologist

2627 CR 312 Yoakum, Texas 77995

361-215-0223

tvdubois@yahoo.com



THOMAS E. EWING, PH.D. AAPG CPG #4538; Texas Lic. Geol. #1320

19240 Redland Road, Suite 250, San Antonio, TX 78259 (210) 494-4526; (210) 824-6423 FAX tewing@fronteraexploration.com

### FOX ENVIRONMENTAL SERVICES, LLC

PLANNING | PERMITTING | REAL ESTATE MARKETING MAPS

LAURA M. FOX LAURA@FOXENVIRONMENTALSERVICES.COM

> P.O. Box 745 ROCKPORT, TEXAS 78381 361.319.3119



AAPG Certified Petroleum Geologist #6342 Texas Licensed Professional Geologist #1169

FRANEY OIL OPERATIONS, INC. 600 Leopard Street, Suite 904 Corpus Christi, TX 78401

361-563-6327 mfraney57@att.net Enrique (Rick) Garza



Geoscience Solutions

GISLER BROTHERS LOGGING CO., INC.

106 E. MAIN

Wes Gisler Bus. (830) 239-4651 Mobile (361) 676-1369 RUNGE, TX 78151

wes@gislerbrotherslogging.com

DIRECT +1 713-808-7428 WOBILE +1 361-701-6480 FAX +1 713-808-7928 13927 South Gessner Road Missouri City, Texas 77489 USA

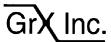
Since 1982

YOUR CARD COULD BE HERE!!! \$30 FOR 10 ISSUES AD. PRICES PRO-RATED. EMAIL ROBBY AT ROBERT.STERETT@GMAIL.COM.

45



Robert Graham President grexploration@gmail.com Phone 361-882-7681 Fax 361-882-7685 Cell 361-774-3635



Mail: P. O. Box 1843 Corpus Christi, Texas 78403-1843

Office: 606 N. Carancahua, Ste. 610 Corpus Christi, Texas 78401-0634



### HART EXPLORATION, LLC.

**RICK HART** Geologist / Owner

P.O. Box 3576 Bandera, Texas 78003

Cell: 512-626-3053 Email: hartexploration@aol.com

### RIVIERA EXPLORATION, LLC

H. TONY HAUGLUM President

600 LEOPARD ST. **SUITE 1704** CORPUS CHRISTI TEXAS 78401

Patrick Nve

PHONE 361.884.1811 Fax 361.884.8071 E-MAIL THAUGLUM@SWBELL.NET **Chuck Henry** 

Vice President, Geosciences

T 713.623.7139 M 713.501.9575 chenry@frostwoodenergy.com frostwoodenergy.com

Moving offices on Aug 15th

Brent F. Hopkins President and Chief Executive Officer

SUEMAUR Experience. Expertise. Exploration.

p. 361-884-8824 x1101 361-215-4855

Suemaur Exploration & Production, LLC 539 North Carancahua, Suite 1100 Corpus Christi, TX 78401

### James R. Jones Geologist

7434 Long S Drive Corpus Christi, TX 78414 361-779-0537 jrjones5426@aol.com



Randy Lambert

Geological Advisor

EOG Resources, Inc. 539 N. Carancahua Suite 900 Corpus Christi, TX 78401-0908

Direct: (361) 887-2681

Fax: (361) 844-1546

### CURTIS R. MAYO

GEOLOGICAL CONSULTANT

Reserve Analysis Expert Witness

Prospect Evaluation Prospect Generation

Fredericksburg, Texas 78624 Office: 830.992.2938 Cell: 830.765.0628 E-Mail: cmayo@ctesc.net



PATRICK J. McCULLOUGH [President] patrickm@emeraldbayexp.com

311 Saratoga Boulevard Corpus Christi, Texas 78417 361.852.6195 [o] 361.852.6676 [f] 361.876.7881 [c]



### VALOR EXPLORATION, LLC

Armando Medina Owner / Geologist

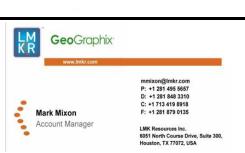
8610 N. New Braunfels #703 . San Antonio, TX 78217 (210) 538-2170 • amedina@valorexploration.com



J. Mark Miller President

Phone (361) 883-7700 Fax (361) 883-7701 mark@millersmithgas.com 545 N. Upper Broadway Suite 400 Corpus Christi, Texas 78476

Wellhead Gas Marketing





Mailing Address 615 Leopard, Ste. 640 Corpus Christi, Texas 78401-0641 361.882.7888 phone 361.882.7889 fax 361.946.2581 mobile Contact Address

1701 Southwest Parkway, Ste. 109 College Station, Texas 77840 866.946.2581 phone 866,946,2580 fax

pmueller@muelrexp.com www.muelrexp.com



J. Paul Mueller, Jr.



Daniel J. Neuberger Geologist and President

Austin Office: 712 Windsong Trail West Lake Hills, Texas 78746

Office (361) 548-7723 Home (512) 306-1223 dan@neuoilandgas.com





Ken Orlaska Account Manager

281-497-8440 Birect: 281-249-5051 Fax: 281-558-8096 Cell: 832-455-1818 e-mail: korlaska@geotrace.com 12141 Wickchester Lane, Suite 200 Houston, Texas 77079 www.geotrace.com

YOUR CARD COULD BE HERE!!! \$30 FOR 10 ISSUES AD. PRICES PRO-RATED. EMAIL ROBBY AT ROBERT.STERETT@GMAIL.COM.



### Herradura Petroleum, Inc. JEFF OSBORN Geologist

Corpus Christi, Texas 78475 e-mail:jeff@herradurapetroleum.com Office: 361-884-6886 Fax: 361-884-9102 Cell:361-537-2349



539 N. CARANCAHUA, SUITE 1100

CORPUS CHRISTI, TEXAS 78401-0999

RICHARD E. PAIGE

OFF: (361) 884-8824 (ext. 1121) CELL: (361) 563-1517 HOME: (361) 887-1912

Richard M. Parker

Consulting Geologist

Adjunct Professor - Geosciences Texas A&M University - Kingsville

Registered State of Texas Board of Professional Geoscientists License # 6056

12802 Max Rd. Brookside Village, Texas 77581 Email: rparkstar@sbcglobal.net

Email: Richard.Parker@tamuk.edu

713-724-4380 Cell 1 713-206-3158 Cell 2 281-412-0745 Home 361-593-4072 A&M



Beth Priday Geologist

Minerals Exploration and Mining Uranium In Situ Leach

Richard M. Rathbun, Jr.

Certified Professional Geologist 9544 / AIPG

ICARUS OIL AND GAS, INC.

Barry J. Rava

Mobile: 281-235-7507 Office: 713-621-7282

barry@icarusog.com

P.O. Box 820253 Houston TX 77282-0253

Deliveries 1710 S. Dairy Ashford Rd., Ste. 202 Houston, TX 77077

615 North Upper Broadway Suite 525, WF168 Corpus Christi, Texas 78401 Bus (361) 882-3046 Fax (361) 882-7427

Mobile: (361)443-5593 • E-mail: bpriday@virtexoperating.com

First Rock, Inc.

RGR Production

First Rock I, LLC

Gregg Robertson

600 Leopard St., Suite 1800 Corpus Christi, TX 78401 361-884-0791

Email firstrockinc@msn.com Cell 210-260-0300

**Weatherford** 

921 Barracuda Pl. Corpus Christi, Texas 78411

Sam Roach US Guld Coast Wireline Sales

Wireline Services

(361) 903-8207 rathbunassoc@~~

Weatherford International Ltd. 401 E. Sonterra Blvd., Suite 1 San Antonio, Texas 78258 USA

- +1.210.930.7588 Direct +1.210.930.7610 Fax +1.210.241.2463 Mobile
- sam.roach@weatherford.com www.weatherford.com

Ofc. (432) 563-0084

Cell (432) 288-2259

(800) 578-1006

100

Alvin Rowbatham

Direct +1 281 781 1065 +1 713 789 7201 Mobile +1 832 372 2366 alvin.rowbatham@iongeo.com

Main +1 713 789 7250

2105 CityWest Blvd. | Suite 900 Houston, TX 77042-2839 USA



**Doug Sartoris** 

Exploration Geologist / Managing Partner 800 North Shoreline Blvd. Office: 361-884-1130 Suite 2570 South Cell: 361-548-1130 Suite 2570 South Corpus Christi, TX 78401

doug@dsxenergy.com

TOM SELMAN selmanlog.com

tselman@selmanlog.com

AND ASSOCIATES, LTD.

GEOLOGICAL CONSULTING / SURFACE LOGGING SERVICES

P.O. Box 61150 Midland, TX 79711

4833 Saratoga #624 Corpus Christi, TX 78413

P.O. Box 2993 Rock Springs, WY 82902

Joe H. Smith

etrophysics, Inc. Velocity Surveys · Synthetics · Sonic Log Data

P.O. Box 863323 Plano, Texas 75086

713.560.9733 jsmith@petrophysics.com www.petrophysics.com

**Crossroads Exploration** 

Gloria D. Sprague Geologist

189 North First Street, Suite 111 Timpson, Texas 75975

Office: 936-254-3600 Mobile: 936-488-9428

gsprague4532@att.net

DAHCO Exploration, llc

ROBBY STERETT GEOLOGIST

P.O. Box 907 CORPUS CHRISTI, TEXAS 78403 CELL (361) 739-5618

Charles A. Sternbach, Ph.D

President

Star Creek Energy Company

Oil and Gas Exploration

800 Wilcrest Drive, Suite 230 Houston, Texas 77042 office: 281.679.7333 cell: 832.567.7333 carbodude@gmail.com



www.starcreekenergy.com

Exploration & Production

THOMAS W. SWINBANK

STRIKE OIL & MINERALS CORP. P.O. Box 1339 GEORGETOWN, TEXAS 78627

PHONE/FAX 512-863-7519 CELL 512-876-9585

Dennis A. Taylor President and Chief Geologist dennis@amshore.com



Fax: (361) 888-4588 Direct Line: (361) 844-6728 Cell: (972) 672-9916

AMERICAN SHORELINE, INC.

AMSHORE US WIND, LLC

802 N. Carancahua Street, Suite 1250 Corpus Christi, Texas 78401-0019 www.amshore.com

Environmental Off: (361) 888-4496

JEANIE TIMMERMANN

GEOSCIENTIST TX LICENSE #2289

7214 Everhart #9 Corpus Christi, TX 78413

(361) 991-7451 jtimmermann74@msn.com

YOUR CARD COULD BE HERE!!!

\$30 FOR 10 ISSUES AD. PRICES PRO-RATED. EMAIL ROBBY AT ROBERT.STERETT@GMAIL.COM.



Jim Travillo Senior Geoscientist

1330 Post Oak Boulevard Suite 600 Houston, Texas 77056

 Direct:
 713.439.6773

 Main:
 713.626.7766

 Fax:
 713.626,7775

 Call:
 713.823.933.933

jtravillo@davcos.com



WILLIAM A. WALKER, JR. Certified Petroleum Geologist bwalker@stalkerenergy.com

1717 West 6" Street, Ste. 230 • Austin, TX 78703 2001 Kirby Dr., Ste. 950 • Houston, TX 77019 Austin 512.457.8711 cell: 512.217.5192 fax: 512.457.8717 Houston

Houston 713.522.2733 cell: 512.217.5192 fax: 713.522.2879

### SEBASTIAN P. WIEDMANN

4425 DRITWOOD PLACE
CORPUS CHRISTI, TEXAS 78411 MOBRE (361) 946-4430 swiedmann.geo@gmail.com



Dave Willis Onshore Sales Main +1 713 789 7250 Direct +1 281 781 1035 Mobile +1 281 543 6189 Fax +1 713 789 7201 dave.willis@iongeo.com

2105 CityWest Blvd. | Suite 900 Houston, TX 77042-2839 USA ROLF WOODS Exploration Geologist

ESENJAY
PETROLEUM CORPORATION

500 N. Water St., Ste. 1100S — CORPUS CHRISTI, TX 78401-0236 Work: (361) 883-7464 • Fax: (361) 883-3244 • Cell: (361) 947-9200 e-mail: wrwoods@gmail.com









### www.millenniumpetrocapital.com



The Millennium family of companies are a privately held oil and natural gas exploration and production enterprise founded in 2006 and are headquartered in San Antonio, Texas.

Geographically focused, Millennium specializes in developing and producing reserves in the Gulf Coast regions of Texas. Our team aggressively pursues large working interest positions with operations in prospects with strong geological merit, well control and reliable seismic interpretations.

To present your prospect for consideration, please email a summary and/or any associated confidentiality documents to our exploration team:

geology@millenniumpetrocapital.com







