

THE BULLETIN OF THE HOUSTON GEOLOGICAL SOCIETY
Office—234 Esperson Bldg.—Houston, Texas 77002—CA 3-9309

VOLUME 17

MARCH, 1975

NUMBER 7

SOCIETY CALENDAR FOR MARCH

EVENTEVENING MEETING

- TIME: MONDAY, MARCH 10, 1975
Cocktails: 5:00 - 6:15 P.M., \$1.25 each
Dinner: 6:15 - 7:15 P.M., \$6.00
- SPEAKER: David E. Frazier, Exxon Production Research,
Houston, Texas
- TITLE: "Mississippi River Delta Facies Framework"
- PLACE: SUMMIT CLUB, Houston Citizen's Bank Bldg., 1800 Main Street.
Free Parking on Summit Club lot, Jefferson Street. Covered
parking available one block south of bank bldg. DO NOT
PARK in bank lot - cars will be locked in or towed away.

EVENTLUNCHEON MEETING

- TIME: WEDNESDAY, MARCH 26, 1975
Cocktails: 11:30 to Noon, \$1.25
Noon Luncheon, \$4.25
- SPEAKER: Donald P. McGookey, Chief Geologist
Texaco Producing Department, Central U.S.
Houston, Texas
- TITLE: "Gulf Coast Cenozoic Sediments and Structure: An Excellent
Example of Extra-Continental Sedimentation"
- PLACE: GRAND BALLROOM, RICE HOTEL

For late reservations or cancellations please call Society office at 223-9309

HOUSTON GEOLOGICAL SOCIETY

1974-1975

OFFICERS

President	<i>Sabin W. Marshall</i>	236-8181
1st Vice President	<i>Anthony Reso</i>	229-3122
2nd Vice President	<i>Stewart Chuber</i>	229-8395
Secretary	<i>William E. Dunaway</i>	224-9261
Treasurer	<i>Jeffery V. Morris</i>	626-8100

EXECUTIVE COMMITTEEMEN

<i>J. Denny Bartell</i>	228-6668
<i>Martin M. Sheets</i>	523-1975
<i>Walter A. Boyd, Jr.</i>	626-8090
<i>B. C. Phillips</i>	748-2566
<i>Ben J. Sorrell</i>	224-5111

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Finance	<i>Clyde G. Beckwith</i>	627-5297
Distribution & Publications	<i>Gay C. Helm</i>	227-4208
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Research & Study	<i>William A. Fowler, Jr.</i>	748-2566
Membership	<i>Craig C. Barclay</i>	228-0111
Personnel Placement	<i>Mike Pitzer</i>	224-9261
Remembrance	<i>E. R. (Jon) Swett</i>	223-4901
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Entertainment	<i>Richard E. McCrehan</i>	748-2566
	<i>Leonard C. Searles</i>	748-2566
Directory	<i>Bill Peebles</i>	626-8100
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Transportation	<i>W. W. Woolfolk</i>	623-0320
Library	<i>George Carver</i>	225-5511
Boy Scouts	<i>Tom W. Penn</i>	227-1818
Field Trips	<i>George Hinds</i>	771-1248
Environmental	<i>Sam Guy</i>	237-9177
Historical	<i>George H. Gore</i>	237-9661

SPECIAL COMMITTEES

Academic Liaison	<i>Al C. Raasch</i>	221-3975
Advisor, Museum of Natural Science	<i>Edd R. Turner, Jr.</i>	228-9361
Special Publications, Geology of Deltas	<i>Martha Lou Broussard</i>	528-4141
Continuing Education	<i>W. Tom Spurlock</i>	229-2069

REPRESENTATIVES

G.C.A.G.S. Representative	<i>John J. Amoruso</i>	228-5863
Alternate	<i>Ben J. Sorrell</i>	224-5111
A.A.P.G. Group Insurance	<i>John Bremsteller</i>	668-0610
A.A.P.G. Dist. Delegate Chairman	<i>Dean Grafton</i>	224-8631

EDITOR — BOB HARRIS — 224-4522

Associate Editors

In Memoriam	<i>E. R. (Jon) Swett</i>	223-4901
Distaff Side	<i>Mrs. James G. Floyd</i>	782-5516

PRESIDENT'S PAGE

I am pleased to present the following report to the membership.

--Sabin Marshall

H.G.S. SCHOLARSHIP FUND

The Executive Committee has unanimously approved the establishment of a special, self-perpetuating trust fund, with the income to be used solely for graduate scholarships to worthy, needy students in the field of economic geology. The Society will be the Trustee of the fund and will disburse monies in accordance with the recommendations of a scholarship board consisting of the following members:

Sabin Marshall
Carl Norman
Robert Schrock
Robert Zinn
Norman West

The corpus of the trust has been started by a donation of \$8000 in 9 percent bonds by Warren L. Calvert. The I.R.S. has ruled that all donations to the fund will be tax deductible as charitable contributions. When the corpus of the trust has reached \$11,000 or more (it will take 3 years without additional donations), one-half the annual income will be used to award a \$500 annual scholarship to be used at any accredited university of the applicant's choice; the other half of the annual income will go to build up the corpus of the trust. As the trust grows, the size and number of scholarships will be increased.

Members of the Houston Geological Society who can afford it are encouraged to make tax deductible contributions to this worthy cause. The more rapid the growth of the fund, the sooner the Houston Geological Society can begin to award scholarships. Please make checks payable to the Houston Geological Society Scholarship Fund and mail to 234 Esperson Building, Houston, Texas, 77002. Names of donors will be published in the monthly bulletin. Let's support this fund for the benefit of our science and our fellow men.

DAVID E. FRAZIER
Biographical Review

David Edward Frazier was born in Meriden, Connecticut. After graduating from Tufts University with a B.S. in 1953, he worked at the Narragansett Marine Laboratory of the University of Rhode Island where he studied bay and nearshore deposits until 1957. In 1959 he received an M.S. at Texas A and M. His thesis was concerned with the depositional processes and sediment distribution in Barataria Bay, Louisiana. In January of 1960 he began his employment at the Humble Research Center in Houston (now Exxon Production Research Company). During that time he has investigated the clastic deposits of fluvial, deltaic, nearshore, shelf, slope, and abyssal plain environments. His publications include studies of the fluvial and deltaic facies, peat deposits, and the effects of depositional episodes on the stratigraphic

framework of basins filled with clastic sediments.

MISSISSIPPI RIVER DELTA FACIES FRAMEWORK

Abstract

David E. Frazier

The coastal depositional complex prograded by the Mississippi River in the past 6,000 years was subdivided into sixteen separate delta lobes by detailed analysis of several hundred sediment cores. Definition of the delta lobes was accomplished through identification of vertical sequences of environmental facies which were determined by their sedimentary textures and structures as well as the environmental significance of incorporated fauna and flora.

Sand constitutes 20 to 25 percent of the sediment load of the Mississippi River and silt and clay the remainder in varying amounts. These proportions are readily apparent in the regional stratigraphic sections which have been constructed through the deltaic deposits.

The typical facies sequence of the Mississippi River delta lobes consists of a basal progradational unit of fine-grained prodelta silty clay, overlain by sand-prone delta front deposits which together form the delta platform; a central, heterogeneous, aggradational delta-plain unit, which comprises interfingering organic-rich marsh-bay deposits overlapped inland by natural levees of the distributary network; and an uppermost transgressive unit consisting of reworked shoreline sands, offshore bars and their associated bay deposits.

Several shorter sections have been constructed more recently through two eastern lobes which thicken basinward from less than 50 to more than 190 feet in an attempt to define the geometry of sand bodies incorporated delta sequences.

DONALD P. MC GOOKEY

Biographical Review



Donald P. McGookey received a B.A. in Geology at Bowling Green State University in 1951; a Masters in 1952 at the University of Wyoming and completed his Doctorate in 1958 at Ohio State University. In 1952, Dr. McGookey began his professional career with Texaco as a Junior Geologist and worked in several states of the Rocky Mountain area. In 1967, he was promoted to Assistant Division Geologist in Denver. Shortly thereafter he served in New York as a Staff Geologist and Assistant to Senior Vice President in the Executive Department. Since April, 1971 Dr. McGookey has been

located in Houston where he is the Chief Geologist, Producing Department-Central U.S. He has contributed several publications on the Cretaceous and Tertiary of the Rocky Mountain area, including the Cretaceous Chapter of the Rocky Mountain Association of Geologists Geologic Atlas of the Rocky Mountain Region.

GULF COAST CENOZOIC SEDIMENTS AND STRUCTURE:
AN EXCELLENT EXAMPLE OF EXTRA-CONTINENTAL SEDIMENTATION

Abstract

Donald P. McGookey

Relatively abrupt stratigraphic and structural changes reflect the transition from continental to oceanic crust in the northern Gulf of Mexico basin. This transition is coincident with the hinge zone where the thick Cenozoic clastic section progrades basinward from Mesozoic carbonate shelves. Cenozoic sediments were poured at high rates into areas underlain by mobile deep water muds and Jurassic salt. Loading on an unstable section combined with subsidence of the oceanic crust caused by loading, developed a complex interrelation of structural and sedimentation events that progressed in two phases. Initially, sedimentation at or near the shelf edge caused the underlying shale and/or salt to flow into a series of ridges. Intervening areas became depopods which were self-perpetuating as sediment dumping grounds until up to 14 km was accumulated. At that point near isostatic equilibrium was reached, and the delta front or shelf edge prograded farther basinward to repeat phase one in that area. During phase two basin-wide loading caused slow regional subsidence that allowed deposition of an additional 3 km of nearly horizontal sediments. This section is undisturbed except for local salt piercements.

These relationships may be present worldwide where deltaic progradation causes significant loading of oceanic crust. Conversely, the recognition along the edge of a continent of thick sedimentary sections (17 km) with the structural-depositional relations described, signifies sedimentation on oceanic crust.

NOTICE

CHAMPAGNE PARTY!

This variation on last years' theme will again be held in an appropriate geological setting.

PLACE: Houston Museum of Natural Science
(Hermann Park)

TIME: Sunday Evening, March 16, 1975
6:00 - 8:00 P.M.

COST: \$5.00 Per Couple

Please enclose a self addressed envelope when ordering tickets, and mail your order to "Champagne Party" H.G.S., 234 Esperson Bldg., Houston, Texas 77002.

Be SURE to stamp your self addressed envelope.

NEWS OF OTHER SOCIETIES

The Corpus Christi Geological Society will conduct a two day overnight field trip to Laredo on April 18-19, 1975. This triple energy--coal, gas, uranium--excursion will traverse Webb and Duval Counties with visits to the Santo Tomas Cannel Coal District, the Clark Ranch gas play, and a major uranium deposit.

We invite advance registrations in care of the Secretary, Corpus Christi Geological Society, P.O. Box 1068, Corpus Christi, Texas 78403, or J. F. Sulik, 1139 The 600 Building, Corpus Christi, Texas 78401.

* * * * *

NEWS OF MEMBERS

John D. Frick, retired from Exxon Co., U.S.A. on September 1, 1974, now is manager of Foreign Exploration for Houston Oil & Minerals Corporation.

W.L. Tidwell formerly with Superior Oil is now with Houston Oil & Minerals Corporation at 242 The Main Building, phone 236-1212.

John S. Reeder, Jr., former division scout of the gulf coast division, has been named chief scout of the exploration department of Exxon U.S.A.

WELCOME NEW MEMBERS

William B. Anderson	Phillips Petroleum Company	478-2566
Jack K. Andrews	Tetra Tech, Inc.	626-4081
Ann E. Ayres	Houston Oil & Minerals	236-1212
John J. Barnes	Amoco Production Company	227-4371
Richard A. Barrett	Burmah Oil & Gas	686-9261
Alan W. Blair	Gulf Oil Company, U.S.A.	226-3144
James P. Brown	Esso Exploration, Inc.	221-1864
Thomas Burns	Phillips Petroleum Company	748-2566
John R. Castano	Shell Development Company	667-9261
Joe P. Castleberry, III	McClelland Engineers, Inc.	772-3701
Michael A. Chaney	Burmah Oil & Gas Company	686-9261
Uel S. Clanton	NASA Johnson Space Center	483-5171
Howard C. Clark	Rice University	528-4141
H.J. Buster Conway	Independent	(214)845-2144
James M. Doyle	Oil Well Drilling Technology	(602)277-3983
Igor Effimoff	Shell Oil Company	220-3337
John L. Elliott		627-8519
Thomas E. Fanning	Marathon Oil Company	(318)425-7461
Alan R. Gensamer	Exxon Company, U.S.A.	221-7827
Ben C. Groenewold	Natomas Exploration, Inc.	627-9505
Jeff C. Gruetzmacher	Gulf Oil Company	226-2641
Edward W. Hayes	Alminex, Ltd.	(403) 263-5860
Ralph L. Henderson	Subsurface Disposal Corp.	666-8158
David M. Henry	Getty Oil Company	529-3443
Richard B. Hibbard	Apco Oil Corporation	224-0610
John A. Jameson	Marathon Oil Company	623-0320
Jimmy J. Jones	Quintana Offshore, Inc.	225-0911
David C. Kisling	Mesa Petroleum Company	237-8585
Stephen W. Knecht	Sohio Petroleum Company	621-9394
Lynne A. Little	Amoco Production Company	227-4371
David A. Loepf	Gexcon	237-1773
Forrest M. McLain	Consultant	686-9752
Alan J. May	Natomas Exploration, Inc.	627-9505
Salvatore J. Mazzullo	Texaco	666-0151
Frank C. Merrill	Clinton Oil Company	688-0371
Edward D. Minihan	Home Petroleum Corp.	237-1261
Howard J. Nickel	Schlumberger Offshore	237-8300
Lloyd Meredith	Independent	774-0231
Robert E. Paddock	Roy M. Huffington, Inc.	236-1600
Joe Preece	Getty Oil Company	228-9361
Dale E. Prudhon	Natural Gas Pipeline of Amer.	621-9030
T.S.M. Ranneft	Consultant	666-8311
Dennis C. Rehrig	Getty Oil Company	529-3443
Roger F. Rice	Tesoro Petroleum Corp.	224-8999
David L. Rockey	Phillips Petroleum Company	748-2566
Roger A. Rozendal	Shell Oil Company	220-1234
John B. Sangree	Exxon	221-3000
M.A. Schuepbach	Exxon Production Research	622-4222
David L. Simerka	Houston Oil & Minerals	236-1212

New Members continued

R. C. Slocum	Natomas Exploration, Inc.	627-9505
A. Richard Smith	Jefferson Lake Sulphur Co.	623-2850
Sigmund Snelson	Shell Oil Company	220-6601
E. Mack Stewart	Independent	781-6774
Bruce A. Thompson	Inexco Oil Company	237-3473
Wylden Reed Tompkins	Coastal States Gas Prod. Co.	627-3700
William B. Turner	Exxon	221-7833
William A. Van Wie	Tenneco Oil Company	229-4839
Younathan Y. Youash	Sohio Petroleum Company	621-9394

COMMITTEE REPORTS

ENVIRONMENTAL COMMITTEE

Wanted: Photos Showing Geologic Hazards

The H G S Environmental Committee is gathering material for a pamphlet to inform the Houston home buying public about potential geologic hazards, such as subsidence, faulting, flooding, and soil problems. H G S members are asked to contribute photographs which illustrate these problems. If you have such photos or wish to offer ideas or other help to this project, please call one of the following: H.C. Clark 528-4141 Ext. 460, Elena Clark 224-9811 Ext. 538, Vic Hansen 236-1212 Ext. 310, Rudy Schwarzer 528-4141 Ext. 635; or mail photos to Vic Hansen, 242 The Main Bldg., 1212 Main Street, Houston, 77002.

Vic Hansen

PERSONNEL PLACEMENT

The employment committee of the H.G.S. is presently trying to update the resume file of geologists seeking employment. The prime goal of this committee is to serve the members of the H.G.S.

At present, some 40 companies are seeking experienced geologists to work in the Gulf Coast with emphasis on Texas and Louisiana. Most companies require 5 or more years experience in the area.

Anyone interested in more information may contact Mike Pitzer at 224-9261 on Tuesday afternoons. Those members who have submitted resumes can help us up-date the placement committee's files by completing the enclosed status report and returning to M. G. Pitzer, P. O. Box 2252, Houston, 77001. All information will be held strictly confidential.

Michael Pitzer
Committee Chairman

DELTAS--MODELS FOR EXPLORATION

PRE-PUBLICATION OFFER EXPIRES APRIL 1, 1975

The fifth publication in a series devoted to the geology of deltas will be published by the Society on April first. The book will contain twenty-two papers covering virtually every aspect of deltaic sedimentation, with the emphasis on depositional processes.

Specific subjects include the occurrence of petroleum in deltaic sediments; the variability of processes and sandbodies in modern deltas; the recognition of deltaic environments from small samples; a comparison of the Mississippi and Mekong deltas; multiuse management in the Mississippi Delta; descriptions of the modern Ebro Delta, Spain, and Irrawaddy Delta, Burma; and discussions of ancient delta systems in the Appalachians, the Pennsylvanian of Texas, the Carboniferous of Scotland and Spain, the late Paleozoic of South Africa, and the Cretaceous of Utah and Mexico.

PRE-PUBLICATION PRICE: \$10.00 (hardbound) --Orders must be received before April 1, 1975. ORDERS ARE ACCEPTED ON PRE-PAID BASIS ONLY.
(Post-publication price will be \$12.50)

Order from the Houston Geological Society, 234 Esperson Bldg., Houston, Texas, 77002.

STILL AVAILABLE: Two other books from the society's delta series--Deltas in Their Geologic Framework (Third Printing) and Holocene Geology of the Galveston Bay Area.

ORDER FORM

- _____ DELTAS--MODELS FOR EXPLORATION (order before April 1, 1975) \$10.00
(postage & handling, 75¢)
 - _____ DELTAS IN THEIR GEOLOGIC FRAMEWORK (third printing)..... \$ 7.00
(postage & handling, 70¢)
 - _____ HOLOCENE GEOLOGY OF THE GALVESTON BAY AREA \$ 1.00
(postage & handling, 30¢)
- Sales tax: Texas Residents (outside Houston), 4%
Houston Residents, 5%

NAME: _____ ADDRESS: _____
CITY AND STATE: _____ ZIP: _____

UNIVERSITY OF SOUTHWESTERN LOUISIANA

U.S.L. GEOLOGY DEPARTMENT
SHORT COURSE ON
DETRITAL
SEDIMENTATION MODELS

By
Rufus LeBlanc
of Shell Oil Company Research

March 17-21, 1975
8:00 a.m.-4:30 p.m.

Auditorium - Madison Hall, U.S.L.
(Engineering Building)

Events: Overnight Field Trip, Classroom Work, Banquet

Cost: All Inclusive \$100.00

Limit: 40 — Please Register NOW

For additional information call 233-3850, Ext. 354
Paine or Gimbrede

P.O. Box 4530, USL

Fee Due First Night

ON THE DISTAFF SIDE

A special invitation and message from the President of the Houston Geological Auxiliary to all those persons who have failed to join our organization for the small sum of \$5.00.

We are determined to turn things around and we are extending a warm welcome to all new members. Please join in the fun of being a member of this wonderful organization. Give yourself the opportunity of getting to know some 540 women, plus their wonderful husbands. If you join, you are missing out on four nice social events a year, plus getting to know some wonderful people of all ages with a great deal of talent and knowledge.

Believe me, you will never meet a stranger in this warm cordial group of women.

Send in your dues to Royce Woodward, 10014 Wichersham, Houston, Texas 77042, in time to be included in the Aloha Brunch scheduled for May 2nd at the Houston Junior League.

Olga Colle

Some 230 people were on hand at the 25th Silver Anniversary Ball to honor 28 chartermembers and seventeen past presidents. Each of those present received a certificate of recognition for their many years of service. Those who had such a great time have Marybelle Clark (chairman) and her committee to thank for such a fine job. Marybelle wishes to thank Midge Schrock and Avis Thomas for their many hours of work on the certificates.

Marybelle, a charter member, has been active in the Auxiliary serving as Treasurer, Secretary and numerous times on the board. Active in the past in her church, Fine Arts and the Clayton Library, Marybelle has retired to enjoying her grandchildren, (her newest - only a month old) fishing at their lakeplace, playing bridge and golfing. In fact, she and husband Kenley are in Palm Springs for a week of golf and relaxation.

Enjoying a 5 day skiing trip to Breckenridge, Colorado were Bobbie and Ron Keller and Carol and Dave Threinen. The Kellers new to the slopes were successful in learning to ski and are looking forward to trying it again someday.

Rachel and H.J. Schoetti spent the holidays traveling in Europe then settled at 57 Tanglin, Singapore 10. Rachel will be missed by her Auxiliary friends during her two year stay there.

Sally Berner and many other members will be working on the Women's Golf Charity Tournament at Westwood Country Club March 12 through 16. Be sure and look for them if you attend.

Be sure and include your Western Dudes when you attend the AAPG - SEPM Convention in Dallas, April 6-9. One of the activities is a visit to the Circle T Ranch for a Party and Bar-B-Que. Other exciting activities planned for your pleasure is a World of Art Tour and a Wine Tasting Festival. Everyone have a great time and let us hear all about it when you get back.

Enjoying the luncheon and speaker, Senator Paul Fannin, of Arizona at the SIPES Convention in Dallas were Orville and Marion Lundstrom. Marion enjoyed the tours, especially the one to Olla Podirda, a small mall consisting of quaint shops. Also, seen at the convention were Treva and Eugene Maxwell, Nancy and David Remick, and Marian and Owen Wood.

Glenna Floyd

Geo-WIVES

Mary Louise and Frosty Rees' son Bob, has just been made Audio-Visual Producer-Director of the Medical Dept. of Texas Tech University. His proud parents moved him into his new apartment in Lubbock.

Sue and Jim Womack's high school son, Frank won a trophy for Huskuvarna Motorcycle racing at the Fairbank race track.

Mickie and Van Robinson were enthusiastic participants at the Society of Independent Petroleum Earth Scientist (Better known as SIPES) Convention.

Former members Gladys and Dave Sheridan were able to combine business and pleasure and visit many old friends both in Houston and Corpus Christi the first week in February.

Not only is the Auxiliary celebrating their 25th Anniversary but we would like to congratulate Billie and Howard Mashaw, Dottie and Fred Ealand and Betty and Rags Johnson on their 25th Wedding Anniversaries.

The Johnsons have a lot of celebrating to do this year, it is also their 25th college graduation anniversary, their son Glenn graduates from law school at Texas, their son Henry graduates from A & M and their daughter Gayle graduates from High School as a member of the National Honor Society.

Geo Wives had about 70 participants at the luncheon February 19, to honor their 17 past presidents. We were all surprised to find 14 of the 17 still in Houston.

Next month come and be entertained by Judge F. Lee Duggan, Jr., (here comes a judge!) - seriously his topic will be Humor in the Courtroom. We'll see you at the Steak and Ale, 11111 Katy Fwy., March 19th.

Avis Thomas

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622-1130

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Geologist
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JACK W. CRAIG
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<p align="center">HENRY H. PHILLIPS Paleontological Consultant Paleontologic, Biostratigraphic and Geologic Interpretations 7507 Linden 645-1109 Houston, Texas 77012</p>	<p align="center">FRED L. SMITH, JR. Consulting Geologist Paleontologist Office: 225-5757 1014 C&I Building Res.: 468-7300 Houston, Texas 77002</p>
<p align="center">LEO PUGH Gulf Coast Geo Data Corp. Seismic — Gravity Data 816 AMERICANA BLDG. Houston, Texas 77002 228-4421</p>	<p align="center">CRAMON STANTON Oil & Gas Consultant 5906 Bermuda Dunes Drive Houston, Texas 77069 444-0965</p>
<p align="center">RAYMOND D. REYNOLDS Geologist 436 Bankers Mortgage Bldg. Houston, Texas 77002 227-7633</p>	<p>S. BROOKS STEWART DAVID B. DARDEN ELWIN M. PEACOCK C. C. LILLEY Exploration Associates International Geophysical Consultants 910 C & I Building Houston, Texas 77002 227-3146</p>
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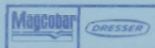
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