

<b>Gulf of Mexico datapack of biostratigraphy and regional stratigraphy</b>			
		<i>Current contents (July 2016)</i>	
		<i>Standardized to GTS2016 age model</i>	
<b>Gulf of Mexico Biostrat</b>			
SHELL (2008) Oligocene-Recent		SHELL Late Cenozoic Gulf of Mexico Stratigraphic Chart; compiled by Michael Styzen & Charlotte Jolley (Shell International Exploration & Production), GCSSEPM 2008	
<b>Sequences (Gulf of Mexico, SHELL)</b>			
		<i>Sequence cycle</i>	
		<i>Sequences (SHELL)</i>	
<b>Foraminifers (Gulf of Mexico, SHELL)</b>		Industry Foraminifera Markers	
		<i>Foram Zone (Shell, 2005)</i>	
		<i>Foram Subzone (Shell, 2005)</i>	
		<i>Shell GoM Foraminifer Markers</i>	
		<i>Foram Datum (Shell GoM)</i>	
		<i>Industry Foraminifera Markers</i>	
<b>Nannofossils (Gulf of Mexico, SHELL)</b>		Industry Nannofossil Markers	
		<i>Nanno Zone (Shell, 2005)</i>	
		<i>Nanno Subzone (Shell, 2005)</i>	
		<i>Shell GoM Nannofossil Markers</i>	
		<i>Nanno Datum (Shell GoM)</i>	
		<i>Industry Nannofossil Markers</i>	
<b>Palynology (Gulf of Mexico, SHELL)</b>			
		<i>Paly Code</i>	
		<i>Shell GoM Palynology Markers</i>	
FILLON (2003) Cenozoic		Gulf of Mexico and Tropical-Subtropical Atlantic (Richard H. Fillon, compiler; with contributions by R.G. Lytton III, P.N. Lawless, J.E. Boudreaux, J.T. Christian and B.A. Jenkins; 2003). This is an update of the Lawless et al. (1997) charts.	
<b>Sequences and Facies (Gulf of Mexico, Fillon'03)</b>		Ages and magnitudes of sequence boundaries (solid lines) and surfaces of maximum transgression and flooding (dashed) are after Lawless et al. (1997) and Hardenbol et al. (1998). Sequence boundary nomenclature is from Hardenbol et al. (1998), "ME 2", etc., and from Lawless et al. (1997), "(DQB*[3])", etc. Numbers in brackets [ ] refers to sequence order. *= TGS industry designations; ** = this chart. Flooding surface nomenclature is from Lawless et al. (1997).	
		<b>Sequences (Gulf of Mexico, Fillon'03)</b>	
		<i>Second-order trends (GoM; Fillon'03)</i>	
		<i>Schematic Onlap curve (GoM; Fillon'03)</i>	
		<i>GoM sequences (Fillon'03)</i>	
<b>Gulf of Mexico Lithostrat Units (Paleogene)</b>			
		<i>Formation (GoM)</i>	
		<i>Member (GoM)</i>	
		Schematic offshore facies	
		Shelf margin progradations and submarine fan systems	

		<b>Planktonic Foraminifers (Gulf of Mexico, Fillon'03)</b>		
			WHCZ Codes (Plank. Forams)	
			GoM Plank. Foraminifer Markers (Fillon'03)	A= abundant; C= common; R= rare; VR = very rare; RHC = Righthand coiling variety; LHC = Lefthand coiling variety; Updip = inner to middle neritic; Downdip = middle neritic to bathyal
			Globorotalia menardii Abundance Zones (high-resolution)	After Ericson & Sollin (1968); Kennett & Huddleston (1972); Briskin & Berggren (1975). Adapted for the Pliocene by R.H. Fillon
			Coiling changes (Gt. truncatulinoides)	After Lawless et al. (1997)
			Coiling changes (Gt. crassaformis)	After Lawless et al. (1997)
		<b>Benthic Foraminifers (Gulf of Mexico, Fillon'03)</b>		
			GoM Benthic Foraminifer Zones (Fillon'03)	
			WHCZ Codes (Benthic. Forams)	
			GoM Benthic Foraminifer Markers (Fillon'03)	
		<b>Calcareous Nannofossils (Gulf of Mexico, Fillon'03)</b>		
			GoM NN-NP Zones (Fillon'03)	
			GoM CC-CP Zones (Fillon'03)	
			GoM Nannofossil Zones (Fillon'03)	
			WHCZ Codes (Nannos)	
			GoM Nannofossil Markers (Fillon'03)	
		<b>Petroleum Industry Biochronozones (DASHED ages are midway between labels)</b>		
			Plank. Foram (Blue)	
			Benthic Foram (Green)	
			Nannos (Red)	
		<b>MMS (2003) Callovian to Recent</b>		Biostratigraphic Chart of the Gulf of Mexico Offshore Regions (US Dept. Interior; Minerals Management Service). [MMS Gulf of Mexico Resource Evaluation Paleontological Group -- For public release May 1, 2003 -- Robert B. Witrock (504) 736-2718, Tony Friedmann (504) 736-2713, or 1-800-200-GULF [ <a href="http://www.gomr.mms.gov/homepg/whatsnew/speeches/PPDM-2002.html">http://www.gomr.mms.gov/homepg/whatsnew/speeches/PPDM-2002.html</a> ]]
		<b>MMS Chronozone</b>		
			Cretaceous regional stage	
			Proposed MMS zone	
			Current MMS zone	
		<b>MMS Biostratigraphy</b>		
			Planktic and benthic foraminifera and ostracod (O) regional and local markers	[Marker age based on even-divisions within stage listing (dual foram/nanno)]
			Calcareous nannoplanktic regional and local markers	[Marker age based on even-divisions within stage listing (dual foram/nanno)]
		<b>PaleoData - Neogene-Late Cretaceous (2011)</b>		Biostratigraphic Chart of the Gulf Basin, USA -- QUAT-NEOGENE version 11.8 (2011); compiled by: A. S. Waterman, M.W. Center, R.A.. George, N.S. Vallette, A.F. Porter, Jr., T.M. Reilly, R.D. Weber, R.V. Roederer, J. Schmieder, J.A. Sarao, R.H. Fillon; PALEOGENE version 11.8 (2011, by same team); LATE CRETACEOUS version 11.9 (2011, by Center, Waterman, Schmieder and Saroa) Downloaded from <a href="http://www.paleodata.com">www.paleodata.com</a>
		<b>PaleoData sequence summaries</b>		
			PDI and Fillon (2008; 2004) Map Sequences	Usually (but not always) begin with GoM MFS levels => tried to align

		GoM Basin Margin Sequences from Biostratigraphic Signatures	MFS "name" (mainly Nanno events) used to FIX position within GTS04 stages
		Univ. TX GBDS Deposodes	
		<b>PaleoData biostrat summaries</b>	
		Planktonic Foraminifers (PaleoData)	
		<i>Planktonic Forams Primary Events</i>	
		<i>Planktonic Forams Secondary Events</i>	
		Benthic Foraminifers (PaleoData)	
		<i>Benthic Foram Primary Events</i>	
		<i>Benthic Foram Secondary Events</i>	
		<i>Benthic Foram Paleoenvironmental Range</i>	
		Calcareous Nannofossils (PaleoData)	
		<i>Nanno Primary Events</i>	
		<i>Nanno Secondary Events</i>	
		<b>Gulf of Mexico Lithostratigraphy (DNAG; linked to on-line USGS Lexicon)</b>	Mainly from (1) Salvador, A. & Quezada Muneton, J.M. (1989) Stratigraphic correlation chart Gulf of Mexico Basin, Vol. Journal of the Geology of North America, Geological Society of America
		Gulf of Mexico "deep-water standard"	
		<b>S Louisiana - deep ("GoM deep-water standard")</b>	<i>South Louisiana - offshore (DNAG column 14) would be the closest to deep water GOM, as the industry is still using lithostratigraphy for chronostratigraphy -- this is not the best practice, but it is the common practice. (Chengjie Liu (ExxonMobil); 3Aug09 e-mail advice to J.Ogg)</i>
		<b>Mexico (preliminary)</b>	Mainly from (1) Salvador, A. & Quezada Muneton, J.M. (1989) Stratigraphic correlation chart Gulf of Mexico Basin, Vol. Journal of the Geology of North America, Geological Society of America, (2) Moran-Zenteno, D. (1984; translated 1994) Geology of the Mexican Republic. AAPG Studies in Geology #39, 160 pp., and (3) Mex. Geol. Map (on-line access; using legends of rock succession in different regions). However, none of these contain useful biostrat and facies diagrams summarizing the generalized stratigraphic column.
		<b>Yucatan Platform</b>	
		<i>Yucatan - shallow</i>	
		<i>Yucatan - deep</i>	
		<b>Macuspana Basin - Gulf of Campeche and Villahermosa uplift</b>	
		<i>Macuspana and Campeche - shallow</i>	
		<i>Macuspana and Campeche - deep</i>	
		<b>Sierra de Chiapas</b>	
		<i>Chiapas - shallow</i>	
		<i>Chiapas - shallow to intermediate</i>	
		<i>Chiapas - intermediate</i>	
		<i>Chiapas - intermediate to deep</i>	
		<i>Chipas - deep</i>	
		<b>Comalcalco Basin &amp; Isthmus Saline Basin</b>	
		<i>Comalcalco &amp; Isthmus - general</i>	
		<b>Veracruz Basin</b>	

			Veracruz - shallow		
			Veracruz - deep		
			<b>Tampico-Misantala Basin</b>		
			Tampico - shallow		
			Tampico - intermediate		
			Tampico - deep		
			<b>Sierra Madre Oriental</b>		
			Sierra Madre Oriental - shallow		
			Sierra Madre Oriental - shallow to intermediate		
			Sierra Madre Oriental - intermediate to deep		
			Sierra Madre Oriental - deep		
			<b>Burgos Basin</b>		
			Burgos - shallow		
			Burgos - deep		
			<b>Sabinas Basin</b>		
			Sabinas - shallow		
			Sabinas - intermediate		
			Sabinas - deep		
			<b>Texas to Alabama</b>		Salvador, A. & Quezada Muneton, J.M. (1989) Stratigraphic correlation chart Gulf of Mexico Basin, Vol. Journal of the Geology of North America, Geological Society of America.
			<b>Rio Grande (South Texas)</b>		
			South Texas - shallow		
			South Texas - intermediate		
			South Texas - deep		
			<b>San Marcos Arch - Central Texas</b>		
			Central Texas - shallow		
			Central Texas - shallow to intermediate		
			Central Texas - intermediate to deep		
			Central Texas - deep		
			<b>East Texas Basin</b>		
			East Texas - shallow		
			East Texas - intermediate		
			East Texas - deep		
			<b>Southeast Texas, Southwest Louisiana &amp; offshore</b>		
			SE Texas, SW Louisiana - shallow		
			SE Texas, SW Louisiana - Intermediate		
			SE Texas, SW Louisiana - deep		
			<b>South Louisiana and offshore</b>		
			S Louisiana - shallow		
			S Louisiana - deep ("GoM deep-water standard")		
			<b>South Arkansas, North Louisiana &amp; West-central Mississippi</b>		
			S Arkansas to central Mississippi - shallow		
			S Arkansas to central Mississippi - intermediate		
			S Arkansas to central Mississippi - deep		

	Florida to Mississippi		Salvador, A. & Quezada Muneton, J.M. (1989) Stratigraphic correlation chart Gulf of Mexico Basin, Vol. Journal of the Geology of North America, Geological Society of America.
	<b>Southeast Mississippi, Southwest Alabama, W. Florida panhandle &amp; offshore</b>		
		<i>SE Mississippi, SW Alabama, W. Florida panhandle - offshore</i>	
		<i>SE Mississippi, SW Alabama, W. Florida panhandle - intermediate</i>	
		<i>SE Mississippi, SW Alabama, W. Florida panhandle - deep</i>	
	<b>Southeast Alabama, Central Florida panhandle &amp; Southwest Georgia</b>		
		<i>SE Alabama, Florida panhandle &amp; SW Georgia - shallow</i>	
		<i>SE Alabama, Florida panhandle &amp; SW Georgia - deep</i>	
	<b>South Georgia &amp; North Florida</b>		
		<i>S Georgia &amp; N Florida - shallow</i>	
		<i>S Georgia &amp; N Florida - intermediate</i>	
		<i>S Georgia &amp; N Florida - deep</i>	
	<b>Central and South Florida</b>		
		<i>S Florida - shallow</i>	
		<i>S Florida - intermediate</i>	
		<i>S Florida - deep</i>	