

## N

- N/C ratio  
alteration, diagenetic, organic matter, 571308  
carbon, geochemistry, 42B0720  
Hess Rise, Albian sediment, 620941  
laminated/nonlaminated sediments, organic geochemistry, 640922  
organic geochemistry, 640719  
Cabo San Lucas, 640879  
Guaymas Basin, 640944  
protokerogen, hydrothermal effects, 640906, 640908, 640911
- Na  
basalt, mineral chemistry, 550631  
Bermuda Rise, crystallization, 511046  
East Pacific Rise, sediments, 650382  
*see also* sodium  
Na-feldspar, tholeiite, geochemistry, 590690  
Na-K phillipsite  
Rockall Plateau, 810739  
concretion, fossil polymetallic, 810706  
Na-montmorillonite  
geochemical history, sedimentation, 710404  
Mellish Seamount, post-Jurassic sedimentation, 620835  
Na-zeolite, Costa Rica Rift Zone, basalt, 830219, 830238
- Na/Al ratio  
Bermuda Rise, geochemistry, 511516  
interstitial water, 870870  
Japan Trench, interstitial water, 870868  
Nankai Trough, interstitial water, 870866  
Pacific Ocean E, modified sediments, 540335  
sediment chemistry, 350429
- Na/chlorine ratio  
Costa Rica Rift, carbonate, 690465  
Pacific Ocean E, modified sediments, 540329  
Red Sea, interstitial water, 230956  
sediment chemistry, 350427
- Na/Fe ratio, basalt, petrology, 160632
- Na/K ratio, Atlantic Ocean S, history, 740726
- NaCl  
Atlantic continental margin, interstitial water chemistry, 230953  
Black Sea, interstitial water, 42B0648  
bromine, chlorine, 42B0631, 42B0632, 42B0635  
continental slope basins, enrichment, 960707  
geochemistry, seawater, 640696  
halite, chemistry, 42A0615  
interstitial water, enrichment, 140753  
iodine, interstitial water, 42B0631, 42B0632, 42B0635  
Orca Basin, methane, 960777  
potash, chemistry, 42A0615  
Red Sea, geochemistry, 230991  
sedimentology, physical properties, 100715  
shale, black, chemical composition, 410877  
*see also* salt; sodium chloride  
Naha, 580403, 580943, 590024  
Nahant, Massachusetts, 260505  
Namaqualand, 401025, 401039  
continental shelf, onshore geology, 400972, 400973  
Namib Desert, 400972, 750765, 750766, 750767  
continental shelf, onshore geology, 400968, 400972  
Namibia, 38S0714, 750469, 750478, 750766, 750905, 780507  
Africa W, continental slope  
Atlantic Ocean N, oxygen, 801011  
coast, 750763, 750767, 801011  
margin, 750504  
Namibian Shelf, 42B0531, 960789  
organic geochemistry, 640895  
Angola Basin, 750460  
oxygen minimum zone, 750466  
perylene, 960789  
Walvis Ridge, alkanolic acid, 751092  
Nancoori Island, 130940  
Nankai Island, 870838  
accretionary prism  
accretionary wedge, 870950  
wedge, 870953  
deformation  
distribution, 870936  
framework, 870937, 870938, 870939  
forearc, 870824  
magnetic polarity reversal, 870759  
margin, Nankai Trough, 870037  
Philippines, genesis, 310875  
Nankai Trough, 580241, 580676, 580708, 580719, 580721, 580724, 580806, 580995, 660023, 660059, 660491, 660798, 670775, 670781, 780613, 870005, 870012, 870016, 870036, 870038, 870041, 870046, 870047, 870048, 870052, 870054, 870065, 870066, 870068, 870069, 870125, 870130, 870143, 870144, 870162, 870393, 870395, 870398, 870573, 870576, 870577, 870580, 870587, 870588, 870589, 870596, 870605, 870606, 870611, 870612, 870614, 870624, 870626, 870627, 870643, 870644, 870645, 870646, 870647, 870650, 870651, 870652, 870659, 870664, 870681, 870684, 870685, 870695, 870698, 870700, 870728, 870730, 870733, 870734, 870737, 870738, 870739, 870741, 870742, 870757, 870761, 870762, 870769, 870789, 870791, 870793, 870794, 870795, 870797, 870798, 870799, 870808, 870824, 870827, 870829, 870834, 870835, 870839, 870840, 870843, 870844, 870845, 870853, 870857, 870858, 870861, 870862, 870865, 870866, 870877, 870880, 870881, 870882, 870884, 870886, 870888, 870892, 870897, 870901, 870902, 870909, 870910, 870912, 870913, 870916, 870917, 870919, 870921, 870924, 870927, 870939  
accretion, 780601  
magnetic mineral, 870763  
accretionary prism, 870780, 870781, 870792, 870828, 870836, 870840  
accretionary tectonics, 870941  
acoustic impedance, 870727  
dewatering, 870841  
fault, thrust, 870941  
low-velocity layer, 870727  
plate boundary, convergent, 870941  
velocity, 870727  
velocity distribution, 870941  
accumulation rate, 870763, 870858  
active trench system, 870927  
anoxic sediment, 870915  
Brunhes/Matuyama boundary, 870915  
carbon, organic, 870915  
deformation, 870927, 870928  
hemipelagite, 870927  
multiple sediment sources, 870915  
oxygen, 870915  
plate boundary, 870927  
subduction, 870927  
trench fill sediment, 870927  
turbidites, 870927  
uplifting, 870927  
AF demagnetization, 870762
- ash  
accumulation rate, 870696  
age, 870698  
clastic-free minerals, 870695  
geochemistry, 870695  
glass, 870695  
Honshu E, 870684  
hygromagmatophile (HYG) elements, 870684  
La/Tb ratio, 870684  
mud, 870695, 870696  
pumice, 870695  
Quaternary, 870695  
Quaternary-Recent, 870698  
Shikoku Basin, 870695  
Shikoku Island, 870684  
subduction, 870685, 870695  
subduction zone, 870684  
Th/La ratio, 870684  
Th/Ta ratio, 870684  
trench fill, 870695  
turbidite, 870695  
Atlantic Ocean NW, physical properties, 310545, 310547  
axis, 870758  
turbidite, 870912  
basal thrust, 870794, 870795  
basalt, geochemistry, 590755  
basalt, altered, geochemistry, 580806  
basin genesis, 310859, 310870, 310874, 310875, 310878  
bedding, fault plane orientation, 870768  
bedding plane, 870758, 870768, 870799, 870802, 870805, 870806  
biostratigraphy, 870758, 870912  
Brunhes/Matuyama boundary, 870758, 870759  
bulk density, 870730, 870828, 870837  
<sup>12</sup>C/<sup>13</sup>C ratio, 870857  
carbon dioxide, 870858  
carbon, organic, 870858  
carbonate carbon, 870898, 870899  
carbonate, comparison, 870901  
carbonate nodule, authigenic, 870659  
Cenozoic paleoenvironments, sediment, 870633  
CH<sub>4</sub>, 870858  
clathrate, geochemistry, 870912  
clay, sedimentation, 870636  
clay minerals  
amphiboles, 870634  
chlorite, 870634  
feldspar, 870634  
illite, 870634  
kaolinite, 870634  
mixed layer, 870634  
Pleistocene-Pliocene sediment, 870634  
quartz, 870634  
smectite, 870634  
Cobb Mountain Event, 870761  
compressional wave velocity, 870834, 870837  
consolidation, 870839, 870840  
clay, 870844  
degassing, 870844  
permeability, 870845, 870846  
sediment, 310570  
trench fill, 870844  
void ratio, 870844  
convergence rate, 870780, 870789, 870791, 870794, 870795  
decollement, 870727, 870733, 870799, 870836, 870837  
deep sea sediment, geochemistry, 870643, 870652  
deep-sea fans sedimentation, 870912  
deformation  
framework, 870927, 870938, 870939  
trench slope, 870912  
deformation front, 870792, 870793, 870794  
density, 870730, 870828, 870837  
depositional history, 870758, 870759, 870761  
detrital modal analysis, turbidites, 870624  
dewatering, 870839, 870840, 870841  
dewatering, tectonic, 870839  
diagenesis, 310621, 870858  
organic matter, 870877  
effective stress, 870837, 870844

- Emperor Event, 870759  
erosion, 870828  
faulting, 870728, 870733, 870769, 870780  
faults, 870802, 870805  
fissility, 870799, 870802, 870805, 870828, 870840  
folding, 870805  
forearc, 870791, 870792, 870798  
forearc kinematics, 870912  
formation density, 870730  
fracture, 870805  
frontal thrust, 870802  
gas, isotopic composition, 870884  
gas hydrate, distribution, 870738  
Gauss Chron, 870759  
geochemistry, 870643  
  accumulation rate, 870646  
  Ce, 870646  
  clay, 870646  
  hemipelagite, 870646  
  hydrothermal activity, 870646  
  manganese, 870646  
  offshore sediment, 870646  
  plate movement, 870646  
  REE, 870646  
  ridge sediment, 870646  
geologic setting, 870910  
geomagnetic field direction, 870768  
geothermal studies, 310575  
grain size, 870836  
gravitational tectonic processes, 870912  
 $^3\text{He}/^4\text{He}$  ratio, 870861  
  gas, 870862  
heat flow, 870738, 870912  
  accreted material, lithologic distribution, 870737  
  cause, 870739, 870740, 870741, 870742  
  earthquake epicenters, 870737  
  gas hydrate, 870737  
  heat flow anomaly, 870737  
hemipelagite, 870644  
homoclinal dips, 870802, 870806  
hydrocarbon,  $\text{C}_{15}$ , migration, 870884  
hydrocarbon generation potential, potential, 870901  
Hyuga Basin, axis, 870942  
impedance, 870841  
impedance, acoustic, 870727, 870730  
inception, 580701  
inclination, 870769  
insoluble organic matter, 870891  
  degradation, 870891  
  humic acid, 870891  
  kerogen, 870891  
  lipid, 870891  
  petroleum, 870891  
interstitial water, 870853, 870857, 870865  
  chemistry, 870866, 870867  
  isotopic composition, 870857  
  oxygen isotope ratio, 870853  
  sediment relationship, 870872  
interval velocities, 870835  
intraformational deformation, 870769  
introduction, explanatory notes  
  inner slope, 310006  
  trench deposits, 310006  
isotope stratigraphy, 870758, 870759  
Japan, forearc, 870919  
Japan Trench  
  accumulation rate, 870866  
  biostratigraphic data, 870866  
  carbon dioxide, 870866  
  carbon, organic, 870866, 870901  
  chert, 870866  
  continental derived sediment input, 870866  
  gas hydrate, 870866  
  geochemistry, 870650, 870651  
  hydrocarbon, 870866  
  Miocene-Quaternary sediments, 870647  
  paleomagnetism, 870757, 870866  
  Pliocene/Miocene boundary, 870866  
  seaward dipping strata, 870866  
  turbidite, 870866  
Jaramillo Subchron, 870758  
  sedimentation rate, 870759, 870761  
kerogen  
  amorphous debris, 870899  
  oxidation, 870900  
  reworked material, 870899  
  Shikoku Basin, 870900  
  terrigenous origin, 870900  
kinks, 870808  
  bedding, 870805  
  compression, 870806  
  conjugate kinks, 870805  
  crenulation, 870806  
  dip directions, 870805  
  displacement, reverse, 870806  
  dissolution, preferential, 870805  
  fault, reverse, 870805  
  faults, flexures, 870806  
  maximum compressive stress, 870806  
  mineral grains, rotation, 870805  
  movement surfaces, 870805  
  primary layering, 870805  
  seismic discontinuities, 870806  
Kyushu, offshore, 870942  
lithology, 310287, 310328, 870730, 870758, 870791, 870798, 870827, 870828, 870829  
  effect on porosity, 870836  
  lithosphere, curvature, 870791  
  magnetic inclinations, positive, 870762  
  magnetic polarity chrons, 870758  
  magnetic polarity reversal, 870727, 870759  
  magnetostratigraphy, 870757, 870912  
major element  
  argillaceous sediments, 580719, 580721, 580724  
  geochemistry, 870644  
  maturation, kerogen, 870883  
  Matuyama Chron, 870758  
  methane, 870857  
  minor element, geochemistry, 870644, 870645  
  mud, axis, 870913  
  Nankai Island, margin, 870037  
  Neogene diatoms, 310782  
  NRM, 870758, 870762, 870768  
  Olduvai Subchron, 870759  
  organic chemistry  
  clastic sediment, 870888  
  gas, 870888  
  organic matter, 870897, 870902  
  petroleum generating potential, 870897  
  organic matter, 870857, 870891  
  carbonization, 310621  
  diagenesis, 870877  
  organic matter, insoluble, 870891  
  overconsolidation, 870843, 870844  
  oxygen isotope ratio, interstitial water, 870853  
  paleoceanography, 870912  
  Paleogene-Neogene, 310849, 310852  
  paleomagnetic declination, 870768  
  paleomagnetic results, 870757  
  accretionary prism, 870780  
  permeability, 870836, 870843, 870846  
  Philippine Basin, genesis, 310859  
  Philippine Sea  
  major element, 870645  
  minor element, 870646  
  Paleogene-Neogene, 310849, 310852  
  trace elements, 870646  
  Philippines, genesis, 310870, 310874, 310875, 310878  
  phyllosilicate, 870805  
  physical properties, 310545, 310547, 870763, 870827, 870912  
  physiography  
  clastics, provenance, 870613  
  Suruga Bay, 870613  
  plate movement, 870768  
  tectonic disturbance, 870769  
  plate tectonics, 870739, 870761, 870762, 870768, 870780  
  Pliocene formation, 580676  
  pore water, 870734, 870912  
  pore-water pressure, 870733, 870802, 870835, 870836, 870846  
  porosity, 870828, 870841  
  depth, 870829, 870839, 870840  
  lithology, 870836  
  protolith zone, 870792, 870794, 870806  
  radiolarians, 310709  
  reflection coefficient, 870727, 870730  
  reflection profiles, 870802, 870805  
  regional stratigraphy, 870915, 870917  
  turbidites, 870915, 870917  
  sand, 310510  
  sand, turbidite, 870644  
  sediment  
  accretion, 870827  
  faulting, 870827  
  mud, 870827  
  physical properties, 870827  
  sand, 870827  
  silt, 870827  
  subduction, 870827  
  turbidite, 870827  
  sediment supply change, 870868  
  sedimentary facies, sedimentation model, 870624, 870626, 870627  
  sedimentation, 870912  
  sedimentation rate, 870741, 870759, 870761, 870791, 870794, 870845, 870846  
  sediments  
  cohesion, 870838  
  gas hydrate, 870857, 870858  
  grain density, 870828  
  organic productivity, 870857  
  sedimentation rate, 870857  
  seismic reflection, 870857  
  sulfate, 870858  
  tectonic setting, 870857  
  turbidite, 870733  
  water content, 870828, 870838  
  seismic reflection, 870727, 870730, 870834  
  seismic reflectors, 870802  
  seismic slip rates, 870789, 870795  
  shear strength, 870829, 870838  
  shear wave velocity, 870834  
  Shikoku Basin, 870912  
  landward slope, comparison, 870799  
  major element, 870645  
  minor element, 870646  
  reversed magnetic polarity event, 870759  
  sediment correlation, 870762  
  trace elements, 870646  
  siderite nodule, 870769  
  silicoflagellates, 310765  
  slope, 870007, 870281  
  slumping, 870802  
  sonic velocity, 870730, 870834, 870837  
  structural features, 870608, 870797, 870806  
  accretionary complex, 870797  
  ancient analogs, 870797  
  Barbados, 870798  
  blueschist metamorphism, 870797  
  deformation, 870797

- structural features (Cont.)  
erosion, tectonic, 870797  
fault, thrust, 870798  
fold-thrust belt, 870797  
foliation, 870798  
imbricate thrust model variations, 870797  
melange terranes, 870797  
sediment deformation, 870797  
sediment lithification, 870797  
shallow structural features, 870797  
syndepositional disruption, 870797  
tectonic forces, 870797  
trench-slope deposit, 870797  
subduction, 870912  
subduction rate, 870789, 870794  
accretion, 870789  
convergence rate, 870789  
deformation front, 870794  
displacement, maximum age marker, 870795  
earthquake, recurrence rate, 870789  
elastic rebound theory, 870789  
Philippine Plate, 870789  
Philippine-Eurasian rotational pole, 870789  
plate movement, 870789  
sedimentary regime change, 870794  
seismic slip rate, 870789  
thrust ramp, 870795  
thrust relationships, 870794  
uplifting, 870794  
subduction zone, 780618, 870798, 870912  
Suruga Canyon, 870613  
synthetic seismogram, 870728  
tectonic disturbance, 870763  
tectonic stress, 870840  
temperature, bottom hole, 870737  
tephra, stratigraphy, 870912  
thermal conductivity, 870738  
thermal maturity  
  reflectance, 870900  
  true maturation trend, 870900  
  vitrinite-huminite, 870900  
thrust, basal, 870794, 870795  
thrust fault, 870728, 870733, 870802, 870841  
thrust slice, 870799  
tilted strata, cause, 870768  
trace elements, geochemistry, 870644, 870645  
transport, organic matter, 870882  
trench fill, 870827, 870836, 870839  
trench floor width, 870792, 870793  
turbidite, mud, 870644  
turbidites, 870611, 870761, 870762, 870780, 870791, 870795, 870913, 870915  
accretion, 870611  
ash, 870916  
bedding, graded, 870916  
bleb, ash-rich, 870916  
chlorite, 870916  
chondrites, 870916  
detrital modal analysis, 870611  
fissile sediment, 870916  
physical properties, 870916  
provenance, 870611  
Quaternary, oldest sediment, 870916  
sediment origin, 870916  
sedimentary structure, 870916  
sedimentation, 870611  
shallow trench, 870611  
turbidite cycle, 870916  
volcanic arc development, 871611  
upwelling, hot springs, 870741  
vein, structure, 870824  
vein structure, 870802, 870806, 870824  
velocity, 870727, 870730  
  depth, 870837  
  void ratios, 870844  
volcanism, 870739  
  clay, 870636  
  wedge, trench, 870791, 870827, 870839  
  deformation front, 870792  
  wet-bulk density, 870837  
  *see also* Philippine Sea  
Nankaido, 870953  
  accretionary prism, thrust types, 870947  
  Shiono-Misaki Canyon, earthquake, 870941  
Nanko Formation, 061289  
Nansei Islands, sandstone, 580661  
Nansei Islands. *See* Ryukyu Islands  
Nansen Plateau. *See* Yermak Ridge  
Nantucket, 950603, 950606  
Naparima Hill Formation, 151100  
naphthalene  
  bitumen, 440646  
  geochemistry, 42B0684  
  hydrogen, 310903  
  organic matter, insoluble, 440646  
  tetrapyrrole, geochemistry, 630808  
naphthene  
  bitumen, 571332  
  geochemistry, 42B0692, 42B0693  
  hydrocarbon, 241165  
  gasoline range, 220675  
  saturate fraction, 220675  
  hydrocarbon generation potential, organic facies, 640866  
  hydrocarbon, light, 38S0649  
  kerogen, 241165  
  petroleum, source bed, 240792, 240793  
  naphthenic compounds, Rio Grande Gap, geochemistry, 720841  
Naples, Sicily, 130667  
Naples, Bay of, 42A0396  
Nares Basin, 040125, 760169, 760172, 760177  
Nares Plain, 020001, 040125, 430235, 430816, 430832, 510006, 510030, 510036, 510040, 510360, 720485  
Eocene diatoms, 510851  
Mexico, Gulf of, regional aspects, 010637  
turbidites, 510028  
Narmada, 230505  
Nashville Seamount, 390906, 430005, 430012, 430031, 430155, 430160, 430166, 430173, 430175, 430474, 430477, 430513, 430728, 430734, 430739, 430743, 430847, 430877, 430890  
basalt, 430728  
  age, 430739  
  Cenozoic silicoflagellate, coccolith stratigraphy, 440775, 440778  
  clinoptilolite, Atlantic Ocean NW, 430464, 430469, 430470  
  lithology, 430041  
  petrography, 430723  
  petrology, 430723  
  phillipsite, Atlantic Ocean NW, 430464, 430469, 430470  
Naskapi shale, 930945  
Nassau, 330573, 330923  
  Bahama Islands, geology, 110877  
  islands, 110877  
Nasu volcano, 870272, 870716  
Natal, 400971  
  Brazil Basin, Sao Francisco, 040660  
  Indian Ocean W, regional aspects, 250752  
  Rio Grande Rise N, regional setting, 250691, 250693  
Natal Basin, 241176, 250353, 250405, 250432, 250436, 250437, 250439, 250481, 250491, 250499, 250515, 250539, 250740, 260021, 260417, 260466, 260477, 260669, 260909, 260913, 260914, 260918, 260938, 260939, 260941, 340194, 360538, 641080  
abyssal plain, 250727  
Africa E, coast, 250680, 250681  
Atlantic Ocean S, hiatuses, 391101  
creation, 250737  
Cretaceous sediments, geologic history, 250737  
deposition  
  bottom water, 250501  
  chalk, nannofossil, 250494  
  depositional paleoenvironment, 250499  
  ooze, nannofossil, 250494  
  geophysical measurements, 260417  
  heat flow, 250353  
  Indian Ocean S, geologic history, 260913, 260914, 260938, 260939, 260941  
  Indian Ocean W  
  lithology, 250740  
  regional aspects, 250743, 250749, 250752, 250753, 250756, 250757  
  volcanic sediment, 250541  
  lithology, 250484  
  Madagascar Plateau, 260955  
  volcanic sediment, 250525  
  minerals, terrigenous, 250431  
  pelagic components, distribution  
  biogenous components, 250489  
  volcanic sediments, age, 250491  
  Rio Grande Rise N, regional setting, 250690, 250691  
sand  
  abyssal plain environment, 250727  
  bedding, graded, 250727  
  source, 250727  
  transport, 250727  
  sea floor spreading, history, 250664  
  thermal conductivity, 250353  
  heat flow, 250353  
  volcanic sediment, 250520  
  ash, devitrified, 250526  
  carbonate compensation depth, 250528  
  chlorite, 250526, 250529  
  clay, 250525  
  clinoptilolite, 250526  
  cristobalite, 250526  
  diagenesis, 250528  
  feldspar, 250528  
  glass, volcanic, 250528  
  hornblende, 250526  
  illite, 250529  
  illite-mica, 250528  
  iron, 250528  
  kaolinite, 250529  
  laminae, 250525  
  manganese, 250528  
  montmorillonite, 250526, 250529  
  opaques, 250526  
  oxidizing environment, 250529  
  palygorskite, 250526, 250529  
  plagioclase, 250526  
  potash, 250526  
  potassium feldspar, 250529  
  pyrite, 250526, 250528  
  quartz, 250528, 250529  
  reducing environment, 250528  
  rhodochrosite, 250526, 250528  
  silica, 250528  
  silt, 250528  
  tridymite, 250526  
  volcanism, 250539  
  basalt, 250539  
  Madagascar Plateau, 250539  
  Mascarene Basin, 250536  
  *see also* Indian Ocean S; Indian Ocean W  
Natal Trough, turbidites, sedimentation, 870611  
Natal Valley, 250141, 250237, 250287, 250549,

- 250691, 250693  
National Park Volcanics, 42B1203  
Mediterranean Sea E, history, 42B1203,  
42B1204, 42B1212  
natrium, geochemistry, trace elements, 060840  
natrolite  
alteration, remnant arc debris, 590737  
basalt  
mineral assemblage, 511222  
petrology, 580848, 580853  
basalt, altered, chemistry, 511320  
crust, oceanic, aging, 511569  
East Mariana Basin, sedimentary history,  
890668, 890669  
lithology  
basalt, 140090, 140140  
silt, dolomitic, 140140  
Naturaliste Fracture Zone, 260967  
Naturaliste Plateau, 250237, 250287, 260007,  
260008, 260009, 260281, 260327, 260359,  
260745, 260747, 260909, 260925, 260927,  
260928, 260937, 260938, 260939, 260940,  
260950, 260967, 270003, 270572, 270575,  
271002, 271017, 271050, 280007, 280437,  
280625, 280631, 280821, 280828, 280829,  
280831, 280832, 280945, 360538, 610433  
bathymetry, 260967  
biostratigraphy, 280922  
Gondwana, dispersal, 260950  
Indian Ocean E, bathymetry, 260967  
Indian Ocean S, geologic history, 260910,  
260924, 260925, 260927, 260928, 260934,  
260938, 260939, 260940  
lithology, 280922  
tectonics, geological and geophysical data,  
271050  
unconformity, 280931  
volcanic rock, 280821  
*see also* Indian Ocean E; Indian Ocean S  
Naukluft Mountains, 750766  
Nauru, 071170, 610634, 610635, 610637,  
610640, 610642  
geochemistry, 720831  
Nauru Basin. *See* Melanesian Basin  
Navesink Formation, 930761, 931348, 931350,  
950775  
Navet Formation, 400784  
Navoceano Guyot, 200655  
Nayarit, 641281  
Nazare Canyon, 47B0633, 47B0636  
Nazare Fault, Galicia, continental margin,  
47B0635  
Nazareth Bank, 240008, 240469, 240471,  
240482, 240608  
Indian Ocean W, tropical, 240646  
Reunion Island, 230528  
Nazca Plate, 160899, 160902, 340589, 340803,  
340804, 350263, 370548, 42A0875, 490848,  
540005, 540593, 540598, 540755, 540826,  
540865, 640652, 640653, 640662, 650594,  
650693, 650747, 660693, 670580, 670701,  
690644, 690648, 730466, 840879, 850972,  
890504, 890505, 890506, 910484, 910485,  
910486, 910488, 920026, 920217, 920229,  
920244, 920399, 920400, 920466, 920524,  
920586, 920599  
accumulation rate, metal, 340575  
Africa NW, continental margin, 340537  
alteration, basalt, 511261  
ash, distribution, 660693  
basalt, 340805  
chemistry, 340227, 340234, 340239,  
340240, 340242, 340243  
crystallization, 920466  
fission track ages, 340451, 340455  
geochemistry, 240227, 340215, 340227  
lead isotope, 340341  
magnetic properties, 340501, 340776  
major element, 340239  
mineral chemistry, 340227  
natural remanent magnetization, 340488  
petrography, 340227, 340245  
petrology, 240227, 340215, 340227,  
340245, 340277  
phase chemistry, 340245  
sonic density, 340543  
sonic velocity, 340543  
sulfide, magmatic, 340805  
thorium, 340341  
trace elements, 340239  
uranium, 340341  
zirconium, 490688  
Bermuda Rise, basalt, 340521, 340776  
borehole water, geochemistry, 920547  
bulk-rock compositions, basalt, 540639  
calcite compensation depth, 340804, 340805  
chemistry, 340575  
chromium, spinel, basalt, 450581  
Cocos Plate, spreading center, 670670,  
670672, 840891  
comparisons, other volcanic provinces, MAR,  
540826  
convergence  
lithology, 340795  
South America, 340795, 340804  
crust, oceanic, geology, 920571  
deposition, 340805  
East Pacific Rise  
fossil rise, 920586  
Pb isotope, 920392  
Sr isotope, 920392  
fission track chronology, 340455  
formation, 840891  
Galapagos Spreading center  
normative composition, 540381  
sediments, 540379  
geochemistry, ferrobasalt, 540765  
geologic, oceanographic setting, 850972  
geological, geophysical setting, 450030  
glass, basalt  
magnetic sulfide, 340363  
sulfide, magmatic, 340363  
lead, 340341  
basalt, 340341  
lithology, 340804  
magma, 340805  
mixing, 540842  
magnetic properties, 450402  
metalliferous sediment  
clay, zeolitic, 340787  
dissolution, 340787  
metal oxide supply, 340787  
oozes, 340787  
sedimentation model, 340788, 340789  
sedimentation rate, 340787  
spreading, 340787  
mineral, opaque, petrology, 340349  
mineralogy, 340589, 340600  
ferrobasalt, 540765  
motion, 340521, 340537, 340776  
Oligocene sediments, 730462  
opaque mineralogy, 450407  
Pacific Ocean  
convergence, 340795  
South America, 340795  
tectonics, 340803  
Pacific Ocean E, 850655  
Pacific Ocean NE, metal-rich basal  
sediments, 630669, 630674  
Pacific Ocean SE  
orientation, 920524  
Pb isotope, 920399  
Pacific Plate, 920301  
Peru Current, 340804  
petrography, basalt, 540598  
petrology, 340189  
mineralogy, 540800  
ridges, 340803  
sedimentology  
East Pacific Rise, 340779  
Galapagos Rise, 340779  
Peru-Chile Trench, 340779  
sedimentation rate, 340789  
Sediments, lithology, 340804  
seismic activity, 830396, 830398  
seismic characteristics, 340803  
seismic response, 920581  
South America, convergence, 340795, 340797,  
340798, 340799, 340800, 340804  
spreading rate, 340806  
Pacific Plate, 340806  
subduction, 830513  
sulfide, magmatic, basalt, 340805  
tectonic setting, formation, 920599  
tectonics, Pacific Ocean, 340803  
tephra, spreading rate, 660693  
thorium, 340341  
titanomagnetite, 450575  
trace elements  
East Pacific Rise, 650594  
Tamayo Fracture Zone, 650594  
uranium, 340341  
X-ray mineralogy, 340589  
Zr/Nb ratio, 490848  
Nazca Ridge, 340803, 540737, 670754, 690747  
Bauer Basin, structure, 340160  
Cocos Ridge, spreading center, 690217  
topography, 340805  
Nb/La ratio  
basalt, altered  
major element, 580882  
trace elements, 580882  
trace elements, 660732  
Nb/Sr ratio, tholeiite, basalt, alkali, 540719  
Nb/Ta ratio  
basalt  
Costa Rica Rift Zone, 830207  
Cretaceous, 511091, 511092  
geochemistry, 690767  
basalt, midocean ridge, 820039, 820041  
California, Gulf of  
basalt, 650632  
magma, 650632  
Emperor Seamounts, trace elements, 550585,  
550586, 550587  
Galapagos Spreading center, basalt, 540725  
hygromagmaphile element, nonfractionating  
pairs, 820467  
hygromagmaphile (HYG) elements, 540728,  
540732  
geochemistry, 650629  
low partition coefficient elements, 600660  
trace elements  
Cretaceous, 511091, 511092  
Goban Spur, 800944  
hygromagmaphile elements, 670568  
Nb/Zr ratio  
basalt, 820475, 820498, 820499  
geochemistry, 490625  
minor element, 490669, 490681, 490687  
California, Gulf of, Guaymas Basin, 650616,  
650619  
crust, oceanic, 820497  
hygromagmaphile element, 820464, 820465  
Meiji Guyot, K/Ar age, 550679  
trace elements  
East Pacific Rise, 650594  
Tamayo Fracture Zone, 650594

- $^{143}\text{Nd}/^{144}\text{Nd}$  ratio  
 Atlantic Ocean NC, mantle, 820483  
 basalt, midocean ridge, 820451  
 basalt, altered  
   major element, 580890  
   trace elements, 580890  
 California, Gulf of, Guaymas Basin, 650618  
 lava, isotope geochemistry, 810776, 810778  
 mantle, Atlantic Ocean NC, 820483  
 rare earth elements, Pacific Ocean E, 850798, 920402  
 Walvis Ridge, basalt, 740746, 740749, 740750, 740753  
 Nd isotope, 820470, 820471, 820483, 820489, 820490, 820491  
 basalt, 820474, 820475  
   geochemistry, 740739  
   Mid-Atlantic Ridge, 820428, 820430, 820431, 820501, 820502, 820503, 820504, 820505, 820506  
   midocean ridge, 820456, 820457, 820460, 820491  
 igneous rocks, chemical composition, 590719  
 lava, isotope geochemistry, 810776  
 Sr isotope, 590719  
 Suiko Seamount, trace elements, 550563  
 Walvis Ridge, basalt, 740739, 740746, 740748, 740752, 740753  
 Nd/Sm ratio, Walvis Ridge, basalt, 740753  
 Near Strait  
   Pacific Ocean N  
     Bowers Ridge, 190905  
     plate movement, 190902  
 Nebraska, 110501  
   glaciation, Pliocene-Pleistocene, 120959  
 Nebraskan Glacial Stage, glaciation, Pliocene-Pleistocene, 120959  
 Necker Ridge, 060691, 080045, 200667, 320313, 330758, 610822, 621067  
 Line Islands, tectonics, 330739  
 volcanic rocks, petrography, 200666  
 arc polarity reversals, 200674  
 erosion, submarine, 200678  
 faulting, 200678  
 Hawaiian Islands, 200674, 200678  
 Horizon Tablemount, 200674, 200678  
 intrusives, 200678  
 K/Ar age, 200674  
 manganese crust, 200674, 200678  
 Mid-Pacific Mountains, 200667, 200678  
 mineral, mafic, 200674  
 Samoa, American, 200678  
 slumping, 200678  
 volcanic event inundation, 200678  
 volcanism, submarine, 200678  
 xenolith, 200678  
 Necoja complex, Guatemala, offshore sediment, 840621  
 Negaunee Iron Formation, 260605  
 Negev, 42B1202  
 Nehalem Bank, 180213, 180218, 180545, 180964  
   lithology, 180218  
 Nemuro, 560474  
 neodymium, 820484  
 analyses, 920433  
 Atlantic Ocean S, history, 740715, 740721, 740728  
 basalt  
   geochemistry, 590754, 590761, 590783  
   Mid-Atlantic Ridge, 820422  
   midocean ridge, 820396, 820449, 820460  
   petrology, 590676  
 basalt, altered  
   major element, 580873  
   trace elements, 580873  
 Bermuda Rise, rare earth elements, 511115, 511116  
 crust, oceanic, 820497  
 Galapagos Spreading center, basalt, 540756  
 geochemistry, 600624  
   magma, 540651  
   major oxides, 540371  
 Indian Ocean SE, sediments, 260548  
 inorganic geochemistry, sediments, rocks, Angola Basin, 750925  
 lava, isotope geochemistry, 810776, 810779  
 petrology, 540747  
 rare earth elements, Pacific Ocean E, 920402  
 Suiko Seamount, trace elements, 550561  
 trace elements, 650594  
   geochemistry, 370573  
 Walvis Ridge, basalt, 740743, 740746  
 Neoeuxinic Basin, 42B1017  
 neohopane  
   Atlantic Ocean N, lipid, 500658  
   kerogen, organic geochemistry, 640887  
 neohopene  
   diagenetic assessment, 660568  
   limestone, Albian, 620924, 620929  
   lipid  
     hydrocarbon, cyclic, 630766  
     paleoenvironment, 640916, 660567  
   shale, black, thermal maturation, 711024  
 neon  
   basalt, midocean ridge, 820412  
   Bermuda Rise, basalt, 511121, 511122, 511123  
   Costa Rica Rift Zone, basalt, 830307  
   gas, inert, interstitial water, 200778  
 neopentane  
   Black Sea, sediments, 42B0661  
   Cape Bojador, hydrocarbon C, N C<sub>7</sub>, 47A0534, 47A0535  
   gas, 870884  
   hydrocarbon, low molecular weight, 711035  
   hydrocarbon, C<sub>1</sub>-C<sub>5</sub>, 571336, 571344, 571345  
   biological production, 571345  
   diffusivity, 571346  
   disappearance, 571346  
   formation, 571345  
   Japan Trench, 571337, 571339, 571341, 571342, 571343  
   precursor, 571345  
   production, 571346  
   hydrocarbon, C<sub>1</sub>-C<sub>7</sub>, volatile organic compounds, 571351  
   hydrocarbon, C<sub>1</sub>-C<sub>8</sub>, Baja California, 630783  
   hydrocarbon, light, 38S0650, 410859  
   Nankai Trough, Japan Trench, 870866  
   organic geochemistry, 640724  
   tetrapyrrole, geochemistry, 640810  
   Walvis Ridge, sediments, 751059, 751062, 751063  
 neophene, shale, black, thermal history, 711024  
 nepheline  
   basalt  
     chemical composition, 320563, 320564, 320565  
     geochemistry, 550601  
     petrology, 320563, 320564, 320565, 580848  
   basalt, altered  
     classification, 540684  
     geochemistry, 580793, 580798  
   Geisha Guyots, 200682  
   glass, norm, 540709  
   igneous rocks, 840948  
   major element, composition, 660731, 800940  
   mineralogy  
     basalt, 270556  
     basement, 42A0512  
   Wake Guyots, 200678, 200679, 200682  
 nephelinite  
   boninite, crystallization, 600701  
   Hess Rise, 620962  
   lava flows, 330780  
   seamounts, ridges, volcanic origin, 330779, 330780  
 nephelinite, potassic  
   seamount chain, petrography, 330756  
   seamounts, ridges, volcanic origin, 330780  
   volcanics, petrology, 330756  
 nepheloid layer, 050597, 061132, 120169, 120260, 120265, 220046, 250031, 280130, 310411, 340122, 350072, 350132, 350164, 360104, 38S0541, 410975  
 amorphous precipitates, iron oxide, 050541  
 Atlantic Ocean SW, basin, evolution, 361008  
 current, 310320  
 deposition  
   chalk, nannofossil, 250494  
   ooze, nannofossil, 250494  
 general synthesis  
   accumulation rate, 280930  
   biostratigraphy, 280925  
   lithology, 280925  
 lithology, 120169, 250031, 280130, 310411, 350072, 360104, 360262, 360263  
 current, 310328  
 Miocene to Recent sedimentation, 47A0037  
 mudstone, 120260, 120265  
 sedimentation, 350132, 350164  
 transport, 220046, 340122  
 mud, terrigenous, deposition, 250457  
 Pacific Ocean NE  
   lithology, 050597, 050613  
   regional aspects, 050635  
 Pacific Ocean W, noncalcareous sediment, 070989  
 Philippine Sea  
   lithology, 061132  
   Paleogene-Neogene, 310852  
   physical properties, clay, 061132  
 sedimentary structure  
   clay, 960530  
   mud, 960530  
   study material, 960532  
 sedimentation, geochemical aspects, 710430  
 Southeast Pacific Basin  
   evolution, geologic, 350732  
   sediment distribution, 350217  
   transport, 061132, 070989  
 Netherlands, 120958, 120961, 130981, 210654, 210656, 480371, 480613, 801209, 810919  
 Cretaceous ostracodes, 440921  
 Maastricht, 210717  
 Netherlands Antilles, 220477  
 Neuquen Province, Argentina, 710885  
 Nevada, 061217, 641292  
   Messinian environments, Lago Mare, 42A1018  
   soda lake, 42A1017  
 Nevis, 780084  
   limestone, Eocene neritic, 780090  
 New Amsterdam Island, 220219, 220429, 220430, 220435, 220464  
 New Britain, 300003, 300007, 300631  
   arc, 901153, 901154  
   basin genesis  
     Melanesia, 310876  
     New Guinea, 310876  
   Pacific Ocean SW, island arcs, 300700, 300702, 300703  
   Philippines, genesis, 310876  
   South Fiji Basin, history, 300631  
   tephra, source, 901153  
   Ulwan volcano, basalt, 511114  
 New Britain Trench, 210897  
 New Brunswick, Heath Steele, 340383  
 New Caledonia, 210902, 291158, 300013,

- 300028, 300089, 300630, 300647, 710910, 900747, 900887, 900939, 901090, 901231, 901249, 901459
- Coral Sea E, geology, 300659, 300660, 300661  
geothermal measurements, discussion, heat flux, 901322
- Pacific Ocean SW, 210897  
Cenozoic, 300679  
Eastern Marginal Basin Province, 210902  
island arcs, 300696, 300698, 300700, 300702  
unconformities, 210706  
Western Marginal Basin Province, 210900, 210903
- South Fiji Basin  
geology, 300619  
history, 300629, 300630
- southwest regional unconformities, ultramafic rocks, 210900
- New Caledonia Basin, 300005, 300007, 300089, 300444, 300629, 300650, 300663, 300667, 300679, 300680, 300693, 390865, 900005, 900115, 900378, 901037, 901041, 901056, 901183, 901339, 901506
- Coral Sea E, geology, 300650  
diagenesis, carbonate, 210498, 210499, 210501, 210502, 210503, 210506
- Eocene-Oligocene unconformity, 210701, 300663  
geothermal measurements, 210455  
geothermal measurements, discussion, nonlinear temperature, 901323
- Indian Ocean S, geothermal measurements, 210455
- Lansdowne Bank, Neogene sequence, 901339  
lithology, 210121  
margin, 901321  
microfossils, 210701, 210708, 300663
- Pacific Ocean SW, 210897  
Cenozoic, 300667, 300679, 300680  
island arcs, 300693, 300700  
regional evolution, 210900, 210902  
unconformities, 210701, 210702, 210708, 210906, 280701, 280708  
Western Marginal Basin Province, 210898, 210904
- Paleocene-Eocene unconformity, 210708  
lithology, 210708  
seismic refraction profiles, 310612
- South Fiji Basin, history, 300629
- southwest regional unconformities, 210701  
volcanic components  
ash, 210485  
K-feldspar, 210486  
montmorillonite, 210486  
quartz, 210486  
siliceous detritus, 210486  
volcanism, Eocene-Oligocene, 901183
- New Caledonia Ridge, 300660
- New England, 930947, 930958, 931389, 950585  
Atlantic Ocean, circulation, 720977  
Atlantic Ocean NW, regional aspects, 110960  
coast, 950313  
continental rise, 430118  
hot spot, 820493, 820494, 820495  
plume, 820494, 820495
- New England Seamounts, 110919, 110947, 330655, 410422, 411007, 430515, 430889, 430890, 440024, 440204, 760775, 790895, 820475, 820494, 931030, 931031, 931389, 950400
- Atlantic Ocean NE, evolution, 411223  
Atlantic Ocean NW, 430847  
sea floor spreading, 430865  
sedimentary evolution, 430811
- basalt  
geochemistry, 430732, 430734  
radiometric age, 430739, 430745, 430746, 430747, 430748, 430749  
bathymetry, 330655, 430889  
Blake Basin, 440204  
Cenozoic silicoflagellate, coccolith stratigraphy, 440775, 440778  
Christmas Island Trough, 330681  
Clarion Fracture Zone, 330679  
fault, 430857  
Hawaiian Arch, 330655  
Horizon A\*, 430890  
Horizon Av, 430890  
Horizon B, 430890  
J-Anomaly Ridge, 430890  
lower continental rise hills, Norfolk, 440024  
magnetic anomaly, 430865  
magnetic reversal, Keathley chronology, 430891  
magnetics, 330655  
Mesozoic variegated, red sediments, 440503, 440507, 440511  
Mexico, Gulf of, regional aspects, 010637  
Molokai Fracture Zone, 330679  
Moroccan Basin, margin, 500808  
origins, 140960, 411223, 430005, 430012, 430351, 430477, 430728, 430732, 430734, 430792, 430812, 430847  
geochemistry, 430732  
J-Anomaly Ridge, 430879  
Line Islands, 430855  
petrology, 430732  
volcanism, 430031, 430155, 430745, 430847  
volcano, 430877
- Penrhyn Basin, 330682  
petrology, 430732  
Co, 430734  
La/Sm ratio, 430734  
magmatic type, 430734  
nickel, 430734  
origins, 430734  
TiO<sub>2</sub>, 430734  
yttrium, 430734  
physical properties, 430757, 430758, 430762, 430763, 430766, 430767  
acoustic velocity, 430761  
porosity, density, 430759  
shear strength, 430760, 430764, 430765  
sedimentary reflectors, 430890  
seismic velocity, elastic constants, 430769  
tectonic history, clay, 430811  
volcanism, 430745  
volcano, height, 430877  
wet-bulk density, 431049
- New Guinea, 061286, 070003, 070338, 210369, 210376, 210489, 210905, 220807, 260935, 270983, 270984, 290377, 291158, 291166, 300003, 300007, 300153, 300542, 300543, 300649, 300679, 300698, 300700, 300702, 330467, 360820, 580888, 710910, 901090
- arc, 590793  
basin genesis, New Britain, 310876  
clay, uplifting, 300434  
Coral Sea E, geology, 300649, 300660, 300661  
Indian Ocean S, geologic history, 260935  
lithology, 290377  
geologic events, 210376
- Pacific Ocean SW  
Cenozoic, 300667  
island arcs, 300698, 300700, 300702, 300703  
Western Marginal Basin Province, 210900, 210905
- Philippine Sea, Paleogene-Neogene, 310848  
Philippines, genesis, 310876  
southwest regional unconformities, crust, oceanic, 210900  
turbidities, turbidity current, 300433  
*see also* Papua New Guinea  
New Guinea E, 42B1217  
New Hebrides, 210902, 300003, 300007, 300008, 300069, 300088, 300089, 300660, 300704, 901450  
arc, 901153, 901154  
basalt, island arc, 670581  
convergence, 780086  
Coral Sea E, geology, 300661  
Lord Howe Rise C, Neogene evolution, 901450  
Mariana Islands, 060682  
mineralogy, magmatic, 670561  
Pacific Ocean, islands, 670581  
Pacific Ocean SW  
Eastern Marginal Basin Province, 210902  
island arcs, 300700, 300702, 300703  
Western Marginal Basin Province, 210903, 210904
- South Fiji Basin  
geology, 300625  
history, 300630, 300631  
tephra, source, 901153  
tholeiite, island arc, 670559  
volcanic activity, 780086  
volcanics, fore arc, 600722  
*see also* Vanuatu
- New Hebrides Basin, 300667, 300679, 580996  
alteration, 300483  
Coral Sea E, geology, 300647, 300649, 300650, 300659, 300660, 300661  
deposition, 300441  
geology, 300647  
Pacific Ocean SW  
Cenozoic, 300667, 300679  
island arcs, 300691, 300693, 300696, 300700, 300702, 300704  
South Fiji Basin, history, 300629, 300630, 300631
- New Hebrides Ridge, 300647  
New Hebrides Trench, 210897, 300008, 300069, 300070, 300629, 300650  
Coral Sea E, geology, 300660, 300661  
Pacific Ocean SW, 210897  
island arcs, 300693, 300703  
South Fiji Basin  
geology, 300617, 300628  
history, 300630
- New Ireland, 300007  
Pacific Ocean SW, island arcs, 300702, 300703
- New Jersey, 120435, 120974, 340383, 440069, 440337, 440941, 440943, 860338, 930555, 930609, 930613, 930783, 930813, 930947, 950047, 950272, 950401, 950420, 950439, 950468, 950603, 950706, 950773, 950775  
benthic foraminifers, upper continental rise, 930525  
biostratigraphy, 440941, 440942  
continental rise, upper, 930493  
subsurface, 440943  
Blake Spur, north rim, 440069  
Blake Spur S, Blake Spur, 440337  
calcareous nannofossils  
biostratigraphy, 930661  
upper continental rise, 930685  
calcareous nannofossils, Paleocene-Eocene, coastal plain, 930699  
Campanian/Maestrichtian boundary, 720946  
carbon reservoir, erosion, 930439  
carbonate, margin, 950705  
chalk, upper continental rise, 950690  
coast, 950032  
ichnofabrics, 930825

- coast (Cont.)  
 upper continental rise, 930825  
 coastal plain, 930321, 930669, 931345, 931350, 931353, 931354, 931358, 931359, 931396, 931397, 931405, 950492, 950766, 950779, 950797, 950802  
 continental shelf, 950019, 950485  
 continental slope, 950015, 950249, 950481  
 Paleocene-Eocene calcareous nannofossils, 930699  
 continental margin, 890665, 930278, 930679, 931036, 950016, 950031, 950191, 950276, 950299, 950313, 950340, 950346, 950352, 950353, 950360, 950465, 950471, 950476, 950488, 950494, 950562, 950573, 950584, 950589, 950602, 950604, 950606, 950607, 950651, 950693, 950695, 950697, 950699, 950700, 950703, 950704, 950725, 950726, 950727, 950729, 950758, 950763, 950768, 950796, 950798, 950799, 950810  
 ancient continental slope, 950693  
 Atlantic Ocean NW, 930481, 930493  
 bathymetry, 950729  
 bottom current, 950706  
 Cenozoic, 950673, 950725  
 chronostratigraphy, 950729  
 coastal plain, 950585, 950800  
 deposition, 950706  
 deposition sequences, 950693  
 evolution, 950693, 950704  
 isopach maps, 950693  
 magnetic anomaly, 950604  
 organic matter, 950651, 950653, 950654, 950655  
 sea floor morphology, 950729, 950748  
 seismic facies, 950695, 950697, 950698, 950699, 950700, 950703  
 seismic velocities, 950729  
 submarine canyons, 950732, 950748  
 surficial geology, 950725  
 topography, 950603  
 continental rise, 930278, 950378, 950379, 950395, 950397, 950419, 950584, 950661, 950665, 950747  
 hiatuses, 950253  
 Pleistocene, 950753  
 sedimentary history, 931285  
 topography, 950746  
 continental rise, upper  
 hiatuses, 930661  
 sedimentation rate, 930661  
 seismic stratigraphy, 930661  
 continental shelf, 930506, 950459, 950493, 950583  
 continental slope, 930919, 931333, 931341, 950025, 950026, 950484, 950501, 950502, 950549, 950565, 950584, 950607, 950636, 950673, 950676, 950706, 950729, 950734, 950738, 950742, 950745, 950751, 950753, 950756, 950757  
 bottom current, 950753  
 canyon formation, 950752, 950753  
 coastal plain, 931343  
 Cretaceous and Cenozoic evolution, 950673  
 deposition, 950751  
 downslope mass movement, 950706  
 erosion, 950677, 950738, 950751, 950752  
 groove formation, 950754  
 grooved substrates, 950745, 950753  
 ground water effects, 950752  
 hiatuses, 950253  
 Holocene drape, 950729, 950738  
 lower slope, 950739, 950745, 950751, 950752, 950756  
 Maestrichtian to Eocene stratigraphy, 931343  
 Miocene, 950752  
 Oligocene unconformity, 950756  
 open slope, 950738, 950751  
 overburden pressure, 950752  
 Pleistocene, 950738  
 sea floor morphology, 950729, 950748  
 seismic reflection, 950729  
 stratigraphy, 950676  
 submarine canyons, 950732, 950740, 950748, 950752  
 surficial deposits, 950729  
 surficial geology, 950725  
 topography, 950729, 950732  
 transport, 950751, 950753, 950757, 950758  
 vertical joints, 950752  
 Western Boundary Undercurrent, 950753  
 Cretaceous subsurface, 47B0459  
 deposition, mass flow, 950756  
 depositional, 950706  
 downslope processes, margin, 950706  
 erosion, margin, 950693, 950695, 950698, 950703, 950704  
 fretted terrains, margin, 950752  
 hiatuses, upper continental rise, 930661  
 lithostratigraphy, 440941, 440942  
 subsurface, 440943  
 lower continental rise, 931281  
 planktonic foraminifers, 930481  
 Magnetic Quiet Interval, 760941  
 New Jersey Transect, 950805, 950808, 950809, 950810  
 stratigraphy, 950768  
 organic matter, margin, 950655  
 petroleum, 950763  
 sedimentary environments, 440974  
 Atlantic Ocean W, 440978  
 continental shelf, 440971, 440976, 440977  
 sedimentation rate, upper continental rise, 930661, 950756  
 seismic profiles  
 continental slope, 950673  
 margin, 950606, 950607, 950693, 950729  
 upper continental rise, 950673, 950747  
 seismic stratigraphy, upper continental rise, 930661  
 seismic velocities, margin, 950729  
 shelf, 440971  
 siliclastic sediment, continental margin, 950581, 950584  
 slumping  
 continental slope sediments, 950668  
 detection, 950661  
 tektite, continental slope, 950565  
 transport, downslope, 950751, 950753, 950757, 950758  
 upper continental rise, 930505, 930525, 930661, 931192, 931339, 931367, 950673, 950747, 950756  
 biostratigraphy, 930493  
 Cretaceous and Cenozoic evolution, 950673  
 debris flow, 950756  
 deposition, 950756, 950758  
 depositional sequences, 950673, 950677, 950682, 950686, 950691, 950706  
 downslope mass movement, 950688, 950690, 950693, 950706  
 erosion, 950689, 950706  
 faulting, 950682  
 New Jersey Transect, 931368  
 olistoliths, 950747, 950756  
 paleoceanography, 930493  
 planktonic foraminifers, 930493  
 Pleistocene, 950753  
 sedimentation rate, 950756  
 slumping, 950688  
 surficial geology, 950725  
 topographic depressions, 950747, 950756  
 topography, 950746  
 Western Boundary Undercurrent, margin, 950753  
 New Jersey Transect, 930005, 930027, 930029, 930699, 930801, 930908, 930910, 931028, 931029, 931031, 931032, 931033, 931034, 931367, 931413, 950005, 950076, 950155, 950191, 950253, 950262, 950263, 950268, 950273, 950277, 950299, 950313, 950349, 950417, 950429, 950453, 950508, 950510, 950549, 950635, 950642, 950643, 950763, 950766, 950797, 950804, 950805, 950808, 950811, 950813  
 ash, rhyolitic, Eocene, 930977  
 carbon isotope, 950647  
 Cenozoic ostracodes, 950439  
 Cenozoic radiolarians, 950339  
 clay minerals, 931023  
 Cenozoic, 931023  
 clay, red, 950641  
 coastal plain, 931343  
 continental margin, 950267, 950339, 950809  
 continental slope, 930504, 950339, 950453, 950562  
 depositional history, 950763  
 stratigraphy, 950763  
 diagenesis, silica, 950501, 950502, 950508, 950510  
 diatom occurrences, 950417  
 ebridians, 930801  
 Eocene calcareous phytoplankton, 950395  
 Eocene sediments, slumping, 950661  
 Eocene siliceous phytoplankton, 950359  
 foraminifers, benthic, Quaternary, 950313  
 gas, 950647  
 carbon isotope, 950647  
 hydrogen isotope, 950647  
 geochemistry, 950641  
 unconformities, 950549  
 hydrocarbon, nonaromatic, composition, 950655  
 hydrogen isotope, 950647  
 iron, 950641, 950642  
 lithologic changes, unconformities, 950549  
 magnetic properties, elements, 950641  
 microbiologic activity, 950635  
 sediments, 950635, 950638  
 midslope, 950636  
<sup>14</sup>C, 950636, 950638  
<sup>14</sup>CH<sub>4</sub>, 950636  
<sup>14</sup>CO<sub>2</sub>, 950636  
 carbon, organic, 950638  
 gas, 950636  
 methane, 950636  
 Mississippi Fan, 950636  
 mud, nannofossil, 950636  
 San Francisco Bay, 950636  
 sand, glauconitic, 950636  
 spatial heterogeneity, 950636  
 sulfate, 950638  
 Mossbauer spectroscopy study  
 continental slope, 950642, 950645  
 oceanic sediments, 950641  
 Neogene benthic foraminifers, 950299  
 passive margin, coastal plain, 931344  
 petrology, 950641  
 principal objectives achieved, summary, 950804, 950805, 950806, 950808, 950809, 950810, 950811  
 sea level, 950642  
 seaward end  
<sup>14</sup>C, 950638  
 hydrogen sulfide, 950638  
 mud, nannofossil, 950638  
 surficial sediment contamination, 950638

- sedimentation rate, 950642  
 sediments  
   methane, 950635  
   microbiologic activity, 950635  
   Mississippi Fan, 950635  
   sulfate, 950635  
 silicoflagellates, 930801  
 slumping, continental slope, 950661  
 stratigraphy, 950763, 950768  
   abundant planktonic species, 950769  
   abyssal unconformities, different origins, 950813  
   alteration, 950772  
   Atlantic coastal plain, 950766  
   Baltimore Canyon Trough, 950766, 950813  
   barite, 950771  
   basinwide productivity bloom, 950813  
   bathyal microfossil assemblages, 950769  
   benthic foraminifers, enrichment, 950767  
   biosilica, 950769  
   Blake Plateau, 950766  
   burrows, 950767, 950769  
   calcareous microfossils, age indicators, 950767  
   calcareous nannofossils, 950770  
   calcite, 950767  
   carbon, organic, 950767, 950769  
   carbonate, 950769, 950771, 950813  
   CCD, 950770, 950772  
   chalk, 950769, 950772  
   chalk, black, 950767  
   chalk, reworked, 950772  
   chert, 950813  
   chondrites, 950767  
   clay, 950767, 950772  
   clay minerals, 950767  
   claystone, 950770  
   claystone, nannofossil, 950767  
   coastal plain, 950813  
   composite stratigraphy construction, 950813  
   contact, acoustic impedance change, 950767  
   continental shelf depocenter, 950813  
   debris flow deposit, 950772  
   deposition, 950767, 950769, 950771  
   depositional history, 950763  
   diagenesis, 950767  
   diatoms, 950769  
   dinoflagellates, enrichment, 950767  
   distant terrigenous sources, 950768  
   erosional events, 950769  
   erosional unconformities, 950766  
   feldspar, 950767, 950772  
   Georges Basin, 950766  
   glauconite, 950767, 950772  
   hiatus, 950767, 950771  
   interglacial unconformities, 950813  
   iron sulfide, 950767  
   limestone, 950767  
   mackinawite, 950767  
   marcasite, 950767  
   marl, nannofossil, 950767  
   mica, 950767, 950768, 950772  
   microfaunal changes, 950767  
   midrise depocenters, 950813  
   mineralogic changes, 950767  
   mud, 950771, 950772  
   mudstone, 950767  
   North American Basin, 950766, 950769, 950813  
   nutrient-enriched, well-oxygenated sea floor, 950769  
   paleoenvironmental shifts, 950767  
   planktonic foraminifers, 950767  
   porcellanite, 950769, 950770, 950813  
   pyrite, 950767  
   quartz, 950767, 950768, 950772  
   sand, 950767, 950772  
   sea level, 950813  
   seismic horizons, 950813  
   seismic reflection, 950767  
   seismic unconformities recognition, 950766  
   shale, 950767  
   silica, 950769  
   siliceous constituents, 950813  
   silt, 950767  
   sonic velocity, 950769  
   terrigenous components, 950767  
   turbidite, 950772  
   unconformities, 950767, 950769  
   unconformity, formation, 950772  
   upper continental slope, 950767  
   unconformable sequence boundaries, 950453  
   upper continental rise, 931023, 950015  
   New Mexico, 150817, 730343, 770232, 770539  
   San Juan Basin, 730657, 740525  
   New Providence Island  
   Bahama Islands, geology, 110877, 110878, 110879, 110882, 110885, 110886, 110888  
   lithology, 110016  
   New South Wales, 210490  
   basalt, petrology, 580856  
   New York, 010003, 150007, 931389, 950585  
   Atlantic Ocean NW, regional aspects, 110960, 110966, 110967  
   basin, 110966  
   Bermuda, continental rise, 110764  
   continental rise, 110937, 110951  
   islands, Long Island, 440941  
   upper rise, 950603  
   New Zealand, 401063, 590656, 590657, 620513, 620600, 680409, 690600, 710009, 710029, 710031, 710036, 710120, 710121, 710126, 710159, 710314, 710410, 710445, 710454, 710455, 710457, 710739, 710789, 710802, 710827, 710828, 710832, 710833, 710834, 710835, 710836, 710863, 710909, 710911, 710954, 710956, 710957, 710959, 710960, 710961, 710962, 710963, 720649, 720701, 720738, 730629, 730758, 740056, 740469, 740515, 750659, 810446, 820551, 820613, 820615, 900264, 900492, 900506, 900552, 900655, 900657, 900660, 900747, 900798, 900800, 900887, 900939, 900956, 900957, 900961, 900962, 900967, 900979, 900986, 901087, 901089, 901090, 901094, 901106, 901107, 901153, 901154, 901155, 901156, 901157, 901166, 901167, 901169, 901181, 901184, 901225, 901230, 901234, 901291, 901325, 901329, 901333, 901334, 901336, 901413, 901439, 901444, 901445, 901449, 901450, 901459, 901463, 901473, 901480, 901481, 901483, 901494, 901514, 920332, 950419, 950453, 950468, 950474, 950494  
   andesite, 590656  
   Antarctica, glaciation, 291039, 291042  
   Atlantic Ocean SW, basin, evolution, 361009  
   carbon isotope, shift, 901376  
   Cenozoic changes, 901230  
   Chatham Rise, 350285  
   Quaternary, 901425  
   seismic stratigraphy, 901327  
   clay, associations, 901225  
   clay, terrigenous  
   sea floor spreading, 291062  
   Whangai Formation, 291062  
   continental shelf, 300629  
   crust, continental, 910271  
   currents  
   clay minerals, 901235  
   Eocene-Oligocene, 901231  
   evolution, 901231  
   Miocene-Pleistocene, 901234, 901235  
   deposition  
   bottom water, 250500  
   chalk, nannofossil, 250493  
   ooze, nannofossil, 250493  
   disconformities, 210706, 210708, 210711  
   Dunroonian sediments, 210706, 210708  
   Eocene-Oligocene unconformity, 210706, 210708  
   eolian sedimentation, 680409  
   Europe W, 210541, 210586  
   foraminiferal zones, 710117  
   general synthesis, oceanography, 280937  
   Indian Ocean S, geologic history, 260935, 260937  
   Lord Howe Rise, pale green laminae, 901154, 901155, 901157  
   Lord Howe Rise C, Neogene evolution, 901450  
   Miocene Awamoan, 720700  
   North Island, 300617, 300629  
   Northern Hemisphere, glaciation, 720987  
   ocean basin, evolution, 291152  
   Oligocene foraminiferal fauna, 710824  
   Pacific Ocean EC, geologic history, 090919, 090921  
   Pacific Ocean SE, trade winds, 920332  
   Pacific Ocean SW  
   Cenozoic, 300667, 300679, 300680, 300681, 901514  
   Eastern Marginal Basin Province, 210904  
   island arcs, 300691, 300693, 300698, 300703  
   paleoceanography, 901495  
   unconformities, 210706, 210708, 280711  
   Western Marginal Basin Province, 210900, 210903, 210904, 210905  
   Pacific Ocean W, volcanic components, 210490  
   Paleocene-Eocene unconformity, 210711  
   Paleogene and Neogene deposits, 710821  
   particle, origin, 901230  
   phyllite, 590656  
   platform, 901384  
   rare earth elements, tuff, 590656  
   regional unconformities, 210706, 210711  
   Rio Grande Rise N, regional setting, 250698  
   Ross Sea, continental shelf, 280940  
   seismic stratigraphy  
   erosion, 901333, 901334  
   Gondwana, 901336  
   mountain chains, elevation, 901336  
   South Mernoo Knolls, 901334  
   silt, terrigenous  
   sea floor spreading, 291062  
   Whangai Formation, 291062  
   South Fiji Basin  
   geology, 300617, 300619, 300624, 300625, 300626, 300627  
   history, 300629, 300630, 300631  
   South Tasman Basin, borderland, 291142, 291143, 291144  
   Southeast Pacific Basin, evolution, geologic, 350736, 350738  
   tectonics  
   circulation, oceanic, 901235  
   clay minerals, 901231, 901235  
   continental margin evolution, 901235  
   continental morphology, control, 901235  
   Eocene/Oligocene boundary, 901235  
   evolution, 901231  
   evolution, regional, 901235  
   Miocene southward currents, 901235  
   New Zealand E, 901235  
   Oligocene subsidence, 901235  
   Oligocene/Miocene boundary, 901235  
   Tasman Sea, 901235  
   tectonic stages, 901235

- tephra  
 Cenozoic, 901170  
 source, 901153, 901166, 901169  
 Teurian/Waipawan boundary, 210711  
 unconformities, regional, 210706, 210711  
 volcanic deposit  
 regional extension, 901185  
 rifting, 901185  
*see also* North Island, South Island  
 New Zealand Alps, 900661, 901235  
 Pacific Ocean EC, geologic history, 090919  
 New Zealand E, 660419, 660420, 890214, 900925, 900928  
 Chatham Rise, seismic stratigraphy, 901325  
 currents, current, 901235  
 margin, 901332  
 Pacific Ocean SW, Cenozoic, 300667  
 New Zealand N, 901326, 901361  
 Pacific Ocean SW, island arcs, 300700  
 New Zealand Plateau. *See* Campbell Plateau  
 New Zealand SE, 901273, 901434, 901471  
 carbonate, Quaternary, 901434  
 New Zealand W, 180527, 180534, 180950, 210003, 210007, 210063, 210110, 210204, 210206, 210211, 210277, 210341, 210379, 210488, 210490, 210541, 210647, 210656, 210706, 210711, 210900, 210904, 220125, 220503, 220507, 220609, 230054, 240969, 250199, 250698, 260075, 260242, 260709, 260744, 260815, 260816, 260935, 260937, 270748, 270983, 280005, 280007, 280226, 280227, 280342, 280375, 280378, 280601, 280602, 280887, 280888, 280905, 280937, 280947, 290134, 290723, 300008, 300620, 300624, 300626, 300630, 300631, 300667, 300679, 300680, 300681, 300691, 300700, 300704, 320771, 320772, 320776, 320783, 320788, 350073, 350271, 350273, 350531, 350542, 350560, 350724, 350736, 360496, 360500, 360519, 360532, 360536, 360581, 360690, 360746, 361000, 400007, 400681, 400687, 400696, 400728, 400783, 400811, 42A0687, 430725, 480611, 901185  
 Broadlands field, 210538  
 diatomite, 010376  
 Europe, 210541, 210586  
 Kokoamu greensand, 38S0688  
 lithologies, minor, turbidite, volcanic, 901483  
 9000050026New Zealand W., 050564, 050565, 061281, 071260, 090921, 091060, 110573, 120965, 150816  
 North Island, 400811  
 Northland, 210204, 210552  
 Oamaru, 290682, 290847, 290876, 290879, 350819, 360583  
 Ross Sea, continental shelf, 280940  
 South Island, New Zealand, 38S0688  
 Taupo, 210490  
 Wairakei, geothermal field, 210538  
 Newark Group, 340383  
 Newfoundland, 120003, 120036, 120067, 120077, 120079, 121115, 121174, 121181, 130033, 47B0672, 481007, 590681, 790653, 801106, 930914, 931390  
 Atlantic Ocean C, basin, 511504, 511506  
 Atlantic Ocean N  
 paleogeography, 121174, 121177  
 Paleozoic, 801107  
 Precambrian features, 801106, 801107  
 basalt, petrology, 580865  
 coking coal basins, 47B0525  
 continental margin, 801188  
 continental rise northeast, 120033  
 continental shelf offshore, 121164  
 fracture zone, 110919, 47B0029, 47B0030, 47B0095, 510028  
 bathymetric reconstruction, 511506  
 Gibraltar, fracture zone, 47B0080  
 Iberian margin W, evolution, 47B0766  
 Iberian Peninsula  
 seaway, 47B0057  
 separation, 47B0030  
 Labrador Sea S, 121155  
 magnetic anomaly, 121164  
 Mid-Labrador Sea Ridge, continental margin, 121181  
 Moroccan Basin, evolution, 500801  
 North America, 760892  
 orogenic belt, Caucasus Mountains, 590681  
 Orphan Knoll, continental shelf, 121181  
 pre-Campanian depositional history, 950774  
 regional geology, physiography, 801188  
 Newfoundland Basin, 47B0028, 760920  
 Newfoundland N, 801110  
 Newfoundland Ridge, 430865, 430879, 430881, 510028, 950766  
 Labrador Ridge, 820494  
 southeast, 430013, 430099, 430128  
 Newport Bay, California, 180535, 180618, 180957  
 Newport Beach, 160818  
 California, 190376  
 Ngeremlengui Formation, Philippine Sea, Paleogene-Neogene, 310848  
 Ni-porphyrin, diagenesis, thermally controlled, 630945, 630947  
 Ni/Co ratio  
 basalt, yttrium, 370568  
 basalt, altered  
 major element, 580884  
 trace elements, 580884  
 trace elements  
 Co, 370568  
 distribution, 42A0504  
 zinc, 370568  
 Ni/Cr ratio, trace elements, 650569  
 Ni/Cu ratio  
 sulfide, globules, 370875  
 tetrapyrrole, geochemistry, 630799  
 Ni/Fe ratio, Pacific Ocean SE, hydrothermal component, 920386  
 Ni/MgO ratio  
 major element, geochemistry, 42B0531  
 minor element, geochemistry, 42B0531  
 Ni/Mn ratio, Emperor Seamounts, mineralogy, 550469  
 Ni/olivine ratio  
 major element, 650570  
 trace elements, 650570  
 Ni/Y ratio, basalt, yttrium, 370568  
 Ni/Zr ratio  
 alteration, bulk chemical changes, 650652  
 basalt, altered, geochemistry, 580830  
 Mariana Islands, basement, 600616  
 Nias Island, 670006, 870007, 870909  
 Sumatra, active margin, 660815  
 Nicaragua, 150331, 670487, 670744, 670753, 670763, 670773, 840832  
 Pacific coast, 670671, 670739  
 Nicaragua Plateau, basalt, compressional wave velocities, 151015  
 Nicaraguan Rise, 151081  
 basalt, 100385, 151096, 200107  
 compressional wave velocities, 151013  
 nickel, 060845, 540727, 540738  
 abyssal plain  
 cyclic sedimentation, 801078  
 inorganic geochemistry, 801074  
 accumulation rate, metal, 340580, 340581  
 alteration, products, 810734, 810736  
 alteration minerals, trace elements, 920496  
 analysis, 920354, 920433  
 Angola Basin, geochemistry, 750847  
 Antarctica, Miocene-Pleistocene, 280797  
 ash  
 glass, basalt, 650482  
 hyaloclastite, 650482  
 Assemblage IA(+), 710394  
 Assemblage IIA(+), 710395  
 Assemblage IIIB(-), 710396  
 Atlantic continental margin, interstitial water chemistry, 040427, 050516, 070883, 070884, 080853, 090841, 230953  
 Atlantic Ocean N, lipid, 500650  
 Atlantic Ocean SE, Cretaceous, 740778  
 B, trace elements, 920491  
 basalt, 240784, 670567, 830336  
 alkali metal, 810759, 810767  
 Barbados Ridge, 780403  
 chemical composition, 320567, 320568  
 chemical variation, 340303, 340305  
 chemistry, 450447, 450450, 450458, 460118, 540675, 540681, 540682, 920472, 920473, 920476  
 Costa Rica Rift Zone, 830140, 830141, 830142, 830143, 830147, 830153, 830155, 830162, 830201, 830205, 830212  
 Cretaceous, 511087  
 geochemistry, 260567, 260568, 430729, 430734, 460112, 490601, 490611, 490617, 590754, 590759, 590761, 590762, 590769, 590772, 590773, 590774, 590777, 590781, 590783, 590784, 590786, 590795  
 major element, 510993, 510997, 510999  
 Melanesian Basin, 610689  
 Mid-Atlantic Ridge, 820422, 820423, 820424, 820425, 820426, 820427, 820428, 820429, 820431  
 midocean ridge, 820396, 820397, 820399, 820404, 820408, 820409, 820410, 820411, 820412, 820415, 820452, 820454, 820457  
 mineral, opaque, 511435  
 minor element, 490665, 490668, 490681, 490682  
 olivine, 820472  
 petrology, 160628, 220459, 220463, 320567, 320568, 460112, 460118, 580856, 590676  
 pyroxene, 590705  
 rare earth, 370581, 370582  
 sill-pillow complex, 610675  
 trace elements, 510993, 510997, 510999  
 basalt, altered  
 chemistry, 511323  
 geochemistry, 540671, 540686, 580792, 580793, 580798, 580802, 580807, 580810, 580816, 580819, 580823, 580824, 580830, 580834, 580835, 580838, 580839  
 major element, 580875, 580884  
 petrochemistry, 580792, 580793, 580798, 580802  
 petrology, 540686  
 trace elements, 580875, 580884  
 basalt, oceanic, petrochemistry, 610642  
 basement  
 chemistry, 600622  
 geochemistry, 600654  
 opaque mineralogy, 370859  
 petrography, 600654  
 petrology, 370695, 370698, 370700, 370701, 370702  
 Bauer Basin, basalt, 340239, 340242  
 Bermuda Rise  
 basalt, 511206  
 sulfur isotope, 511147  
 Blake Basin, 760774  
 Blake Ridge, 760420, 760421

- Brazil Basin, geochemistry, 720421, 720422  
 bulk-rock compositions, 540741  
 California, Gulf of  
 Guaymas Basin, 650616  
 gulf mouth, 650404, 650407, 650410, 650416  
 carbon isotope, 950647  
 carbon, organic, geochemistry, 750828, 750834  
 chemical composition, metal, 571259, 571265, 571266  
 chemistry, 070967, 650419  
 chert, geochemistry, 620728  
 chlorophyll, diagenesis, 571391, 571405, 571406  
 chlorophyll derivatives, 220678  
 clay, trace elements, 170511, 170512, 170513, 860555  
 clay, green, trace elements, 700220  
 clay minerals, microelements, 560987  
 claystone, basalt, 550707  
 Cocos Plate, geochemistry, 660684  
 continental margin, inorganic geochemistry, 801073  
 Costa Rica Rift, chalk, 690403, 690404  
 Costa Rica Rift Zone, stockwork-like zone, 830271  
 Cretaceous, 440641  
 porphyrin, 440641  
 Cretaceous/Tertiary boundary, 860537  
 crust, oceanic  
 Costa Rica Rift Zone, 830185, 830187, 830197  
 hygromagmatophile (HYG) elements, 650623, 650624  
 crystal morphology, 600683  
 crystallization, fractional, melting, partial, 370539, 370540, 370542, 370543, 370545  
 deposition, models, 750840  
 diabase, trace elements, 240784  
 diagenesis, slope sediments, 840575, 840582  
 East Pacific Rise  
 sediments, 650426  
 silicate, hydrothermal, 920375  
 Emperor Seamounts  
 mineralogy, 550469, 550472  
 petrology, 550522, 550534  
 trace elements, 550585  
 euxinic sediment, shale, black, 750852  
 Falkland Plateau, basement, 360896, 360897, 360902  
 ferromanganese sediment, sediment chemistry, 190631, 190634  
 Galapagos Fracture Zone, East Pacific Rise, 540402  
 Galapagos Spreading center, 540377  
 manganese, 540379  
 normative composition, 540380  
 sediment classification, 540322  
 geochemical component grouping, 801074  
 geochemical history  
 Albian, 710406  
 Jurassic-Cretaceous, 710406  
 sedimentation, 710405  
 geochemical partitioning, 650427, 650428  
 resistant detrital minerals, 650427  
 geochemical variation, 810800  
 geochemistry, 370698, 370700, 370701, 370702, 390477, 390490, 540757, 540766, 660684, 720429, 720438, 720829  
 accumulation rate, 340561  
 andesite, 220463  
 Bauer Basin, 340571  
 California, Gulf of, 640696  
 carbonate, 390484  
 Cenozoic sediments, 42B0543, 42B0545, 42B0551, 42B0562, 42B0589, 42B0599  
 chemistry, 340218, 340220  
 claystone, red variegated, 440508  
 comparison, other oceanic rocks, 220459  
 comparison, other rock types, 220463  
 differentiation, 220463  
 Guaymas Basin, 640708  
 Hatton Drift, 810734  
 igneous rocks, 370735, 370740  
 major oxides, 540359  
 mathematical treatment, 500701  
 mineral chemistry, 160628  
 mineralogical, geochemical relationships, 370702  
 origins, basal sediments, 340564  
 petrology, 370695  
 Rockall Plateau, 810736  
 trace elements, 220459  
 glass  
 basalt, 650482  
 chemical variation, 510977, 510979  
 Goban Spur, evolution, 801209  
 heavy metals, Cenozoic sediments, 450350  
 Hess Rise  
 post-Jurassic sedimentation, 620820, 620821  
 pyrite-marcasite, 620855, 620859  
 rocks, 620863, 620864  
 Hess Rise N  
 post-Jurassic, 620806, 620807  
 sedimentary sequences, 620765  
 hyaloclastite, glass, 650482  
 hydrogen isotope, 950647  
 hygromagmatophile element, 820467  
 igneous rocks, 840948  
 chemical composition, 590724  
 Indian Ocean SE, sediments, 260542, 260547  
 Indian Ocean W  
 basalt, 250543, 250548, 250549  
 geochemistry, 250405, 250415  
 regional aspects, 250753, 250758  
 inorganic chemistry, 440579, 960736  
 trace elements, 430682  
 inorganic geochemistry, 801079  
 inorganic geochemistry, sediments, rocks, 750951  
 Angola Basin, 750924, 750929, 750933  
 Hess Rise, 620689, 620692, 620693  
 Mid-Pacific Mountains W, 620688  
 Walvis Ridge, 750925, 750950  
 interstitial water, 060823  
 Japan Trench  
 clay minerals, 560987  
 sediments, 271223, 271224, 271226, 271228, 271230, 571213, 571251, 571253, 571255  
 Li, trace elements, 920491  
 limestone, Albian, 620933  
 lipid, shale, black, 410857  
 magma, mixing, 540842  
 magma chamber, 650624  
 major element, 650561  
 chemistry, 370645  
 geochemistry, 42B0531, 42B0533, 42B0536, 630694  
 minor element, 500680  
 manganese, 291083, 291084  
 Manihiki Plateau, oceanic basalt resemblances, 330878  
 mantle, upper, trace elements, 460247, 460248, 460249  
 Mariana Islands, fore arc, 600620, 600652, 600653  
 Mariana Trench, 600620  
 boninite, 600731  
 Mariana Trough, 600614  
 basalt, 600650  
 Melanesian Basin, ash, 610637  
 Mellish Seamount, post-Jurassic sedimentation, 620834, 620835  
 melting, tholeiite, olivine, 450513  
 melting, partial, 460247, 460248  
 decrease, 460249  
 metalliferous sediment, Eocene-Oligocene, 850799  
 Mid-Atlantic Ridge  
 basalt, 450494, 450495, 450497  
 chemistry, 450682  
 isotopes, 450545, 450548  
 mineral, chemical composition, sediments, 38S0043  
 sediment chemistry, 38S0041  
 mineralization, 220471  
 mineralogical facies comparison, manganese oxide, 810708  
 mineralogy, 540766, 650419  
 geochemistry, 600712, 600719  
 sulfide, 540744  
 minor element  
 East Pacific Rise, 650608, 650612  
 geochemistry, 360930, 360932, 360937, 42B0531, 42B0533, 42B0536  
 Mounds Hydrothermal Field, chemistry, 540408  
 Nankai Trough  
 minor element, 870644  
 trace elements, 870644  
 Nazca Plate, basalt, 340239, 340242  
 ore, deposit, 540803  
 organic geochemistry, tetrapyrrole, 640820  
 Pacific Ocean, guyots, 620773, 620774, 620775, 620776  
 Pacific Ocean EC, geologic history, 090924  
 Pacific Ocean NE, metal-rich basal sediments, 630667, 630669, 630671  
 Pacific Ocean NW  
 clay, 860555  
 geochemical history, 620786, 620787, 620800  
 Pacific Ocean SE, basalt, 340218, 340220  
 petrogenesis, modeling, 920445  
 petrology, 540747, 540794  
 geochemical variation, 740757  
 geochemistry, 430729  
 New England Seamounts, 430734  
 polymict breccia, clast, 600748  
 Porcupine Plain, 801197  
 pyrite, framboidal, framboid, 750876  
 rare earth elements, geochemistry, 600737, 600738, 600740  
 Red Sea, geochemistry, 230977, 230981  
 Rio Grande Rise, sediment, 720425  
 Rockall Plateau  
 basalt, 810796, 810803  
 concretion, fossil polymetallic, 810703, 810706  
 Ross Sea, diamict, 280789  
 sediment, hydrothermal mounds, 700281, 700282, 700284  
 sediment chemistry, trace elements, 350451  
 sediment geochemistry, 550457, 550462  
 laterite, 550461  
 nondepositional environment, 550460, 550461  
 shale, black, chemical composition, 410875  
 Sr isotope, 600679  
 trace elements, 590724  
 Suiko Seamount, trace elements, 550561, 550562, 550566  
 sulfide, 370875  
 chemistry, 630679  
 globules, 370875  
 pyrite, 370880

- sulfur isotope, minor element, 500680  
tetrapyrrole  
  geochemistry, 630785, 630787, 630793, 630794, 630798, 630799, 630801, 630802, 630804, 630806, 630808, 630809, 630813, 630814, 630815, 640792, 640798  
  pigment, 440641  
tetrapyrrole, diagenetic, pigment, 410825, 410832, 410834, 410835  
tholeiite  
  basalt, alkali, 540719  
  geochemistry, 590681, 590687  
  magmatism, 540714  
  petrology, 590681, 590687  
trace elements, 370581, 370582, 450545, 650564, 660731, 660732, 810788, 850785, 850789  
  Cretaceous, 511087  
  Cretaceous/Tertiary boundary, 720403  
  distribution, 42A0493, 42A0504, 42A0505  
  East Pacific Rise, 650608, 650612  
  geochemistry, 630694, 650624  
  glass, 540710  
  Goban Spur, 800943, 800944  
  insoluble residue relationship, 720402  
  iron, 850786  
  magnetite, 450548  
  manganese, 850786  
  olivine, 450548  
  partitioning, 850796  
  transition elements, 920495  
  turbidities, Guatemala, 840925  
  Walvis Ridge, basalt, 740743, 740753, 740757  
  West Mariana Basin, metallogenesis, 590649  
  whole rock chemistry, 370725  
nickel porphyrin, limestone, Albian, 620933  
Nicobar Fan, 220771  
  Indian Ocean NE  
  Cretaceous, 220718, 220723, 220771  
  sediment history, 220771, 220772  
  lithology, 220021  
  regional summary, 220816  
  Ganges Fan, 220825  
  Wharton Basin, 220818  
  sand, mineralogy, 220711  
  *see also* Indian Ocean NE  
Nicobar Islands, 210841, 220407, 220408, 220411  
  Ganges Fan, history, 220407  
  regional summary, 220815  
  Ganges Fan, 220825  
Nicosia Formation, 42B1185  
  Neogene formations, paleogeography, 42A0903, 42A0908, 42A0917  
Nicoya Complex, 670028, 670143, 670739, 670741, 670742, 670743, 670744, 670747, 670762, 670773, 670775, 670776, 670792, 840621, 840643, 840644, 840791, 840832, 840838, 840839, 840846, 840857, 840955  
basalt  
  clinopyroxene, 670561  
  Esperanza unit, 840833  
  Matapalo, 840834  
basalt, pillow, Esperanza unit, 840833  
basement, 840831  
  lithology, 840833, 840834  
  Clipperton Fracture Zone, 840833  
dolerite, 840833, 840834  
Esperanza unit, 840833  
  age, 840833  
  basalt, 840833  
  dolerite, 840833  
  folding, 840834, 840837  
  lithology, 840833  
  tectonic deformation, 840834, 840837  
  folding, 840834, 840835  
Matapalo  
  age, 840834  
  basalt, 840834  
  folding, isoclinal, 840834  
  lithology, 840834, 840837  
  nappes, 840837  
  overthrust, 840837  
Middle America Trench, 670739  
  Central America, 670753  
  ophiolite, 840954  
  nappes, 840837, 840845  
  Nicoya Peninsula, 670753, 840021, 840845  
  peridotite, 840833  
  radiolarian assemblages, 840833, 840834  
  Sediments, 840846  
  Barra Honda Formation, 840841  
  Campanian-Tertiary onshore history, 840837  
  El Viejo Formation, 840838  
  Esperanza unit, 840833  
  Las Palmas Formation, 840840  
  offshore sequences, 840842  
  origins, 840841  
  Paleocene sequences, 840839  
  Rivas Formation, 840840  
  Sabana Grande Formation, 840837  
  Samara Formation, 840841  
  tectonic analysis, 840843  
  stratigraphy, 840833, 840837  
  unconformities, 840833, 840842, 840846  
  Nicoya, Gulf of, 840839  
  Nicoya Peninsula, 670006, 670676, 670685, 670688, 670733, 670739, 670741, 670743, 670744, 670753, 670754, 670759, 670771, 840006, 840031, 840037, 840038, 840419, 840421, 840515, 840517, 840534, 840571, 840669, 840806, 840837, 840838, 840839, 840840, 840841, 840842, 840843, 840857, 840879, 840940, 840954, 870007  
  basalt, chert, 840805  
  basement, 840833  
  Costa Rica, continental margin, 840924  
  faulting, 840845, 840846  
  lithology, 840833, 840838  
  Matapalo, 840834  
  Middle America Trench, slope deposits, 670739  
  ophiolite, 840805, 840833  
  Paleocene sequences, 840839  
  sediment, Cretaceous-Eocene, 840947  
  slope, 840728  
  tectonics, 840845  
  tilting, 840845  
  Niger River, 140729, 280939, 391064, 411091  
  delta, 391057, 391061, 750478, 760432, 840709  
  valley, 720413  
  Nigeria, 151098, 38S0714, 38S0845, 390451, 391056, 411091  
  Nightingale, 580856  
  Nihoa Island, 550023, 550536, 550699  
  Kaula, 330008  
  Niigata, Paleogene-Neogene, 310850  
  Niihau, 550005, 550024, 550536, 550633, 550670, 550672  
  Nile Abyssal Plain, 131031  
  Nile Cone. *See* Nile Fan  
  Nile Fan, 130010, 130325, 130355, 130668, 130669, 130726, 130731, 130742, 130944, 130971, 130973, 131021, 131028, 131031, 131035, 131039, 131046, 131221, 42A0903, 42A0991  
  channels, 130384  
  clay minerals, 130731  
  interstitial water, 130807  
  halite, 130807  
  Israel, history, 42B1212, 42B1214, 42B1216  
  lithified rocks, 130726  
  lithology, 130371  
  provenance, 130392  
  Mediterranean Ridge, mineralogy, 130734  
  Mediterranean Sea  
  Levantine Basin, 130669  
  lithified sediments, 130727  
  lithostratigraphy, 131028, 131031, 131032, 131033  
  Mediterranean Sea E, history, 42B1212, 42B1214, 42B1216  
  mineralogy  
  amphiboles, 130611  
  calcite, 130611  
  calcium carbonate, 130668  
  carbonate, 130734  
  chlorite, 130669  
  clay minerals, 130735, 130739  
  dolomite, 130611, 130669  
  feldspar, 130611, 130668  
  fine-grained sediment, 130731  
  gypsum, 130669  
  Kaolinite, 130611, 130669  
  lithology, 130739, 130742  
  mica, 130611, 130669  
  mineral, heavy, 130734, 130735  
  montmorillonite, 130611, 130669  
  mud, terrigenous black, 130731  
  ooze, carbonate, 130731  
  pyrite, 130611, 130669  
  quartz, 130611, 130668  
  sandstone, 130731  
  siderite, 130669  
  siltstone, 130731  
  transport, 130743  
  Neogene formations, paleogeography, 42A0903  
  sandstone, mineralogy, 130731  
  sandstone, clay, 130731  
  western, 130383  
  Nile River, 130355, 130357, 130371, 130392, 130610, 130669, 130735, 130978, 131033, 131038, 140730, 42A0403, 42A0411, 42B1195, 42B1214, 42B1216  
  assemblage, 130739  
  delta, 130714, 130739, 130743, 130973, 131046, 131242, 131249, 42A0312, 42A0969, 42B1195, 42B1214  
  flooding, 130979  
  gorge, 130977  
  lithology, 42A0312  
  provenance, 130392  
  Mediterranean Sea, lithostratigraphy, 131028  
  Mediterranean Sea E, history, 42B1199, 42B1212, 42B1214, 42B1216, 42B1219  
  plain, 131031  
  Pliocene, Pleistocene deposits, 131242  
  cross-sections, 131242  
  valley, 130692, 130735, 131234, 131249, 42B1214  
  deposition, 131242  
  Nils Larsen Glacier, 350341, 350344  
  Peter I Island, geology, 350341, 350344, 350349  
  Nine Degree Channel, 230038  
  Ninetyeast Ridge, 210885, 220365, 220406, 220407, 220739, 220766, 220815, 220843, 220844, 220845, 220851, 220853, 231001, 240887, 241129, 241141, 241146, 241147, 241176, 250237, 250287, 250664, 250743, 250746, 260007, 260153, 260168, 260233, 260243, 260244, 260281, 260470, 260483, 260487, 260489, 260541, 260553, 260567, 260613, 260699, 260816, 260909, 260910, 260918, 260920, 260924, 260925, 260928, 260939, 260940, 271002, 360531, 360536, 38S0005, 390904, 390906, 540746, 540747,

- 540826, 540827, 730630, 740706, 740748  
 Atlantic Ocean S, Rio Grande Rise, 391125  
 basalt, 220477  
   K/Ar age, 220377  
   petrology, 220463  
   radiometric age, 220381  
 basalt, dolomitic, 220477  
 basement, 220845, 220853  
   seismic velocity, 220853  
   topography, 220845, 220853  
 biostratigraphy, chemostratigraphy  
   correlation, 850766  
 coal, Paleocene, 220485  
 comparisons, other volcanic provinces  
   aseismic ridges, 540826  
   spreading ridge, 540826  
 currents, 220845  
 dolomite, 220477  
   algae, calcareous, 220479  
   bioclastic debris, 220479  
   calcite, 220479, 220482  
   coral, 220479  
   cristobalite, 220482  
   dolomitization, 220482  
   lagoonal environment, 220482  
   quartz, 220482  
   recrystallization, 220479  
   reef, 220482  
   sedimentology, 220477, 220478  
   silica, 220479  
   stratigraphy, 220477, 220478  
   structure, 220479  
   tridymite, 220482  
 dolomitic basal sediments, 220477  
 East Pacific Rise, basement, 540827  
 fault, transform, 220214  
 fracture zones, 220822  
 Ganges Fan, history, 220406, 220407  
 geochemistry, origin, 220463  
 geophysical data, 220365, 220366, 220843,  
   220851, 260418  
 gravity anomaly, 220843, 220845, 220851  
 India, 230053  
 Indian Ocean NE  
   Cretaceous, 220763, 220764, 220771  
   sediment history, 220766  
 Indian Ocean S  
   geologic history, 260910, 260919, 260920,  
   260922, 260924, 260925, 260930, 260934,  
   260936, 260938, 260939, 260940  
   geothermal measurements, 220391  
 Indian Ocean W, regional aspects, 250743,  
   250746  
 interstitial water, carbonate, 740706  
 lithology, 220021  
 magnetic anomaly, 220843, 220851, 220853  
 ooze, calcareous, 220739  
 paleolatitudes, 260523  
 paleomagnetic measurements, paleolatitudes,  
   260523  
 palynology, Paleocene, 220503  
 petrology, 220463  
   basalt, Fe-Ti, 540746  
 pyroclastics, basalt, 260553  
 radiometric age, 220381  
 reflector, correlation with lithology,  
   220397  
 reflector and lithology correlation, 220397  
 regional summary, 220815, 220816  
   age, 220825  
   Antarctica, 220824  
   Australia, 220824  
   basement, 220822  
   Broken Ridge, 220825  
   clay, 220824  
   crest, 220824  
   fault, transform, 220816, 220825  
   fracture zone, 220822  
   Ganges Fan, 220825  
   glauconitic sediments, shallow shelf  
   environment, 220824  
   Indian Ocean E, 220825, 220826  
   Indo-Australian Plate, 220825  
   lignite, 220824  
   magnetic anomaly, 220825  
   micrite, 220824  
   reconstruction, 220827  
   reef, dolomitized, 220824  
   sand, glauconitic carbonate, 220824  
   shelf environment, 220824  
   Southeast Indian Ridge, 220824  
   spreading center, 220822  
   spreading rate, 220824  
   subsidence, 220824  
   tectonic reconstructions, evolution,  
   220822  
   tuff, 220824  
   Wharton Basin, 220822, 220824  
   ridges, 220815  
   sea floor, 220845  
   sea floor spreading, history, 250664  
 sediments  
   age, 220845, 220853  
   composition, 220845, 220853  
   radiometric age, 220381  
   seismic profiles, 220365  
   seismic velocity, 220845, 220853  
   basement, 220845, 220853  
   temperature, 220391  
   time scales, 220381, 220382, 220385  
   magnetic anomaly, 220381  
   topography, 220843, 220845, 220851, 220854  
 Walvis Ridge, basalt, 740748  
*see also* Indian Ocean NE; Indian Ocean S  
 Nintoku Seamount, 550010, 550014, 550015,  
 550016, 550017, 550019, 550020, 550024,  
 550025, 550026, 550027, 550029, 550078,  
 550083, 550084, 550095, 550096, 550101,  
 550104, 550108, 550109, 550112, 550114,  
 550115, 550116, 550285, 550289, 550290,  
 550292, 550293, 550297, 550298, 550300,  
 550301, 550327, 550354, 550356, 550365,  
 550378, 550389, 550420, 550421, 550422,  
 550424, 550425, 550430, 550431, 550457,  
 550463, 550468, 550474, 550503, 550600,  
 550605, 550651, 550674, 550685, 550688,  
 550715, 550723, 550734, 550737, 550748,  
 550753, 550760, 550770, 550771, 550802,  
 550807, 550845, 550848, 620565  
 ages, 550659  
 basalt, 550707  
   Fe-Ti oxide, 550639, 550640  
   geochemistry, 550599, 550601, 550603,  
   550604  
   major element, 550599  
   mineral chemistry, 550607, 550615,  
   550616, 550617  
   trace elements, 550599  
 claystone, basalt, 550707, 550710  
 emergence, 550659, 550707  
 Emperor Seamounts, 550807  
   bathymetry, 550848  
   carbonate, 550419  
   geology and vertical tectonic history,  
   550782  
   mineralogy, 550464  
   petrology, 550511, 550516, 550571  
   trace elements, 550585  
 mineralogy, 550857  
 subaerial formation, 550707  
 volcanic rocks, ages, 550660, 550668  
 volcano, 550011  
 niobium, 820035, 820037, 820039, 820041,  
   820470, 820471  
 Alboran Basin, basement, 130762  
 Assemblage IIA(+), 710395  
 Atlantic Ocean NC, 820035  
 basalt  
   alkali metal, 810757, 810767  
   chemical composition, 320565  
   chemical variation, 340305, 340306  
   chemistry, 450447, 450457, 820035, 820037  
   Costa Rica Rift Zone, 830140, 830141,  
   830143, 830153, 830155, 830161, 830201,  
   830207, 830209, 830210, 830212  
   Cretaceous, 511087, 511092  
   depletion, 820474  
   geochemistry, 550599, 550603, 590754,  
   590759, 590769, 590772, 590776, 590781,  
   590784, 590785, 590795  
   Mid-Atlantic Ridge, 820422, 820423,  
   820424, 820425, 820426, 820427, 820428,  
   820429  
   midocean ridge, 820396, 820399, 820403,  
   820404, 820408, 820409, 820410, 820415  
   minor element, 490666, 490682  
   petrology, 320565  
   potassium-argon age, 42A0533  
   yttrium, 370567, 370569  
 basalt, altered  
   classification, 540685  
   geochemistry, 580807, 580811, 580818,  
   580823, 580824, 580825, 580828, 580834  
   major element, 580875, 580888, 580889,  
   580892  
   trace elements, 580875, 580888, 580889,  
   580892  
 basalt, midocean ridge, overestimated,  
   820039  
 basement  
   alteration, 490695  
   geochemistry, 590746, 590750, 590751  
 Bauer Basin, basalt, 340239  
 bulk-rock compositions, minor element,  
   540639  
 California, Gulf of  
   basalt, 650643  
   Guaymas Basin, 650614  
   crust, oceanic, 820497  
   Costa Rica Rift Zone, 830185  
   hygromagmatophile (HYG) elements, 650623  
 Emperor Seamounts, trace elements, 550585,  
   550586  
 Falkland Plateau, basement, 360896  
 Galapagos Spreading center, 540322  
 geochemical variation, 810797  
 geochemistry, 600624  
   basalt, 380719, 380720  
   fusion, partial, 540645  
   magma, 540642  
 hygromagmatophile element, 820461, 820462,  
   820463, 820464  
   fractionation, absence, 820460  
   nonfractionating pairs, 820467  
 hygromagmatophile (HYG) elements  
   contamination, 540732  
   geochemistry, 650631  
 igneous rocks, chemical composition,  
   590721, 590724  
 Indian Ocean W  
   basalt, 250543, 250548, 250549  
   regional aspects, 250753, 250757  
 isotopic composition  
   thorium, 370608  
   uranium, 370608  
 lithologic, chemical stratigraphy, 510939  
 low partition coefficient elements,  
   hygromagmatophile (HYG) elements,

- low partition coefficient elements (Cont.)  
600661, 600662
- magma, tectonic affinities, 810801
- Mariana Islands, basement, 600617
- Meiji Guyot, K/Ar age, 550678
- minor element, geochemistry, 360930
- Nazca Plate, basalt, 340239
- Pacific Ocean E, sediments, 540319
- petrology, geochemical variation, 740757, 740759
- Rio Grande Rise N, regional setting, 250691
- Rockall Plateau, basalt, 810795, 810803
- Siqueiros Fracture Zone, basalt, 540635
- Sr isotope, 600679
- alteration, 590721
- trace elements, 590724
- trace elements, 370569, 650564, 650594, 660731, 810788
- anomaly, 810790
- basalt, 810790
- classification, 370567
- Cretaceous, 511087, 511092
- East Pacific Rise, 650594
- glass, 540710
- Tamayo Fracture Zone, 650594
- Thulean Volcanic Province, 810793
- yttrium, 370567
- trace elements, incompatible, 820487
- volcaniclastics, oceanic basalt
- resemblances, 330878
- Walvis Ridge, basalt, 740743, 740748, 740749, 740757, 740759
- Nishikurosawa Formation, 870714
- Pacific Ocean EC, geologic history, 090921
- Philippine Sea, Paleogene-Neogene, 310850
- Nishikurosawa stage, Tohoku Arc, geology, 870715
- Nishioga Formation
- Pacific Ocean EC, geologic history, 090921
- Philippine Sea, Paleogene-Neogene, 310850
- Nishitsugaru Basin, major element, argillaceous sediments, 580721
- Nitinat Fan, 180981
- nitrogen, 580752
- amino acid, decrease, 680477
- ammonia, exchangeable, 42A1221
- Angola Basin, Cretaceous, 751010
- Atlantic continental margin, interstitial water chemistry, 160891
- Atlantic Ocean W, 931245
- Barbados Ridge, 780385, 780386, 780557
- basalt
- gas, 450647
- intrusion, 580741
- Rb-Sr, 550702
- basalt, oceanic, petrography, 490709
- bitumen, 450647
- geochemistry, 42B0690
- Blake Ridge, 760382
- California, Gulf of, 641303
- Cape Bojador
- carbon, 47B0553
- hydrocarbon C, N C<sub>7</sub>, 47A0533
- carbon, 42A1221
- deep-sea sediments, 580745, 580746, 580748, 580751, 580752, 580753
- geochemistry, 38S0655, 410849, 42B0717, 430655, 440605, 440606, 440611, 440614, 480947, 480948
- carbonization, temperature history, 181077
- Caribbean Sea W, sediments, 680477
- Daito Basin, organic geochemistry, 580989
- Daito Ridge, organic geochemistry, 580989
- deep-sea sediments
- ash, 580745
- bacterial activity, 580752, 580753
- bacterial degradation, 580750
- burial depth, 580753
- carbon, 580753
- carbon, organic, 580745, 580753
- CCD, 580745
- clay, 580745
- consumption, 580753
- decrease, 580753
- detrital organic debris, 580745
- diagenesis, bacterial, 580753
- ecosystem, abyssal, 580753
- glass, volcanic, 580745
- inorganic detritus, land sources, 580745
- kerogen, 580745, 580746, 580748
- kinetics, 580751, 580752
- organic material, 580745, 580753
- Philippine Sea, 580745
- photosynthetic activity, 580745
- plankton blooms, 580745
- postdepositional effects, 580745
- rate-limiting process, 580753
- scavenger activity, 580745
- sediment nature, 580750, 580751
- sediment-water interface, 580745
- sedimentation rate, 580748, 580749, 580753
- thermal effect, 580749, 580750
- time, 580753
- transport, 580745
- utilization rate, 580753
- environment, 42A0447, 42A0455
- gas, interstitial, geochemistry, 640781
- Goban Spur, 800993
- Gulf of Mexico, nonvolatile organic matter, 960748
- <sup>3</sup>He/<sup>4</sup>He ratio, 870862
- hydrocarbon, higher weight, 090887, 090900
- hydrocarbon, C<sub>1</sub>-C<sub>5</sub>, oxygen, 571335, 571336
- kerogen, 870898
- organic geochemistry, 640885
- sediment cores, 42B0739
- limestone, 931263
- lipid, 571368, 660581
- humic acid, 571383
- organic geochemistry, 640885
- Mediterranean Sea, 42A1221
- Mesozoic sediments, organic matter, 360941
- methylene chloride, 660581
- mud, terrigenous, organic geochemistry, 400557
- Neogene cores, organic geochemistry, 42A0466
- organic geochemistry, 580989, 640717, 640720, 640723, 640724, 640877, 800949
- Angola Basin, 750462
- diagenesis, microbial, 800962
- kerogen, 630838, 630845
- Pendragon Escarpment, 800955
- Porcupine Plain, 800956
- terrigenous influence, 800963
- organic matter, 500586
- organic matter, extractable, compound, 870882
- organic matter richness, 801000
- oxidative, chlorite, 340408
- Pacific Ocean SE
- carbon, organic, 920410
- contamination, 920551
- preliminary organic analyses, 42B0723, 42B0725, 42B0726
- protokerogen, hydrothermal effects, 640906, 640908
- Quaternary sediments, kerogen, 640926
- sapropel, sedimentology, 42A0447, 42A0455
- sapropelic sediments, 42A1221
- shale, 931263
- organic geochemistry, 400557
- shale, black, Cretaceous, 410866
- Shikoku Basin, organic geochemistry, 580989
- sulfate-reducing, methane producing microorganism, sediment maintenance, 960773
- Vigo Seamount, carbon, 47B0553
- nitrogen, asphaltic, 260675
- nitrogen, inorganic
- ammonia, 800994, 800996
- ammonium, ion, 800994
- Atlantic Ocean NE, 800993
- C/N, atomic, 800975
- C/N, atomic ratios, carbon, total organic, 800995
- C/N ratio, kerogen, 800996
- calcareous sediment, 800995
- carbon, organic, 800993
- bathyal environments, 800995
- dominant nitrogen form, 800996
- carbon, total organic, 800994
- pelagic sediments, 800995
- carbonate, 800993, 800996
- clay, 800995, 800996
- ammonium nitrogen, 800996
- fixing capacity, 800996
- diagenesis, carbon, total organic, 800995
- Goban Spur, 800993
- exchangeable ammonia species, 800996
- kerogen, 800994
- algal origin, 800994
- macroscopic wood fragments contribution, 800995
- mixed marine-terrigenous organic matter, 800994
- noncalcareous sediments, 800995
- organic matter, algal origin, 800994
- organic matter sources, 800995
- Pendragon Escarpment
- carbon, total organic, 800993
- shale, black, 800994
- sublittoral-upper bathyal sediments, 800994
- Porcupine Plain
- carbon, total organic, 800994
- nitrogen, total, 800993
- pelagic sediments, 800994
- terrigenous debris, aquatic organisms contribution, 800995
- nitrogen, organic
- ammonia, 800994, 800996
- ammonium, ion, 800994
- Atlantic Ocean NE, 800993, 880993
- C/N, atomic, 800975
- C/N, atomic ratios, carbon, total organic, 800995
- C/N ratio, 800996
- kerogen, 800996
- calcareous sediment, 800995
- Cape Bojador, carbon, 47B0553
- carbon, 42A1221
- geochemistry, 410852, 42B0718, 571322, 590644, 590645, 610621, 610622, 610624
- carbon, organic, 720834, 800993, 800994, 800995, 800996
- bathyal environments, 800995
- C/N ratio, 740732
- dominant nitrogen form, 800996
- carbon, total organic, pelagic sediments, 800995
- carbonate, 800993, 800996
- clay, 800995, 800996
- ammonium nitrogen, 800996
- fixing capacity, 800996
- clay minerals
- ammonia fixing, 800996
- ammonium, 800996
- clay-rich sediments, free, exchangeable

- clay-rich sediments (Cont.)  
 NH<sub>3</sub>, 800996  
 diagenesis, carbon, total organic, 800995  
 Goban Spur, 800993  
 exchangeable ammonia species, 800996  
 nitrogen, 800996  
 kerogen, 800996  
 algal origin, 800994  
 pelagic sediments, 800996  
 macroscopic wood fragments contribution, 800995  
 Mazagan Escarpment, 790808  
 mixed marine-terrestrial organic matter, 800994  
 nitrogen, 42A1221  
 noncalcareous sediments, 800995  
 organic geochemistry, Cenomanian-Turonian black sediments, 800964  
 organic matter, 800994, 800996  
 algal origin, 800994  
 organic matter sources, 800995  
 Pacific Ocean SE, carbon, organic, 920410  
 Pendragon Escarpment  
 carbon, total organic, 800993  
 shale, black, 800994  
 sublittoral-upper bathyal sediments, 800994  
 Porcupine Plain, 800994  
 carbon, total organic, 800994  
 nitrogen, total, 800993  
 pelagic sediments, 800994  
 terrigenous debris, aquatic organisms contribution, 800995  
 Vigo Seamount, carbon, 47B0553  
 Walvis Ridge, 750967  
 Niura Peninsula, 840818  
 No, geochemical variation, 810800  
 Nobori Formation, 270747  
 Philippine Sea, Paleogene-Neogene, 310849  
 nodule  
 Antarctica  
 ferromanganese, 280795  
 Miocene-Pleistocene, 280795, 280796, 280797, 280798  
 Atlantic continental margin NW, evolution, 440956  
 Atlantic Ocean N  
 mantle, 490843  
 sedimentation, 120928  
 basalt, altered  
 major element, 580891  
 trace elements, 580891  
 calcareous facies, Pleistocene-Pliocene ooze, 291151  
 carbon isotope, stable, chert, 410947  
 carbonate, Mn-rich, 680481  
 Pacific Ocean EC, 680481  
 Caribbean Sea, sediments, 150936  
 chert  
 formation, 320444, 320445, 320447  
 Line Islands, 330855  
 porcellanite, 320444, 320445  
 Emperor Seamounts, mineralogy, 550464, 550468, 550471, 550473  
 evaporites, Mediterranean Sea, 130702  
 ferromanganese nodules  
 bottom current, 280751  
 deposition rate, 280751  
 Galapagos Fracture Zone, East Pacific Rise, 540403  
 Galapagos Spreading center, sediment classification, 540323  
 gas, natural, zonation, 110799  
 geochemistry  
 Atlantic Ocean, 810715  
 condensed sequences, 810713  
 Hatton Drift, 810715  
 Indian Ocean, 810715  
 nondepositional environment, 550461  
 principal component, 810709  
 glaciation, detritus, 360857, 360858  
 Goban Spur, evolution, 801209, 801212, 801213  
 Hess Rise N, sedimentary sequences, 620767  
 Hess Rise  
 post-Jurassic sedimentation, 620830  
 rocks, 620863  
 Hess Rise N, sedimentary sequences, 620759, 620763, 620765, 620766  
 hydrocarbon, C<sub>1</sub>-C<sub>5</sub>, manganese, 571355  
 hydrocarbon, C<sub>1</sub>-C<sub>7</sub>, volatile organic compounds, 571353  
 Japan Trench, sediments, 271234  
 lithology, 330044  
 Cretaceous-Eocene, 110225  
 Eocene, 110013  
 iron, 260028  
 iron oxide, 220196  
 iron-manganese, 150279  
 manganese oxide, 450140, 450269  
 manganese-iron oxide, 060196  
 Marquesas Oceanic Formation, 080139  
 phosphate, 290226, 290227  
 manganese, phosphate, 291084  
 mineral, diagenetic, silica minerals, diagenetic, 801084  
 mineralogy, Pacific Ocean N, 540346  
 Mounds Hydrothermal Field, chemistry, 540408  
 Neogene, 630582  
 opal-CT, lattice ordering, 801089  
 oxygen isotope, stable, chert, 410947  
 Pacific Ocean, guyots, 620773, 620774, 620775, 620776  
 Pacific Ocean EC, carbonate, 680481, 680482, 680483, 680487, 680488  
 Pacific Ocean SE, Pb isotope, 920395  
 Pacific Ocean W, guyot, 200655  
 pebbles, petrography, 801039, 801040, 801042  
 pelagic components, distribution, Indian Ocean WC, 250490  
 Peter I Island, geology, 350351  
 porcellanite  
 chert, 320444, 320445, 320447  
 formation, 320444, 320445  
 rare earth elements  
 Bauer Basin, 850798, 920404  
 ferromanganese, 850798  
 rhodochrosite, manganese oxide, 510771  
 Rio Grande Rise, limestone, flaser, 721014  
 Rockall Plateau, concretion, fossil polymetallic, 810701, 810702, 810703  
 silica, diagenesis, 801091  
 siliceous rock, Neogene, 630582  
 stable isotope, carbonate, 650383  
 Tethys N, margin, 440956  
 thorium isotope, manganese, 230951  
 uranium isotope, manganese, 230951  
 Walvis Ridge, basalt, 740752  
 nodule, calcareous, lithology, 050109  
 nodule, dolomitic silicified  
 mineral, diagenetic, 801084  
 chalcedony, 801085  
 dolomite, 801084, 801085  
 opal-CT, 801085  
 quartz, 801085  
 nodule, porcellanous, mineral, diagenetic, silica minerals, diagenetic, 801084  
 nontronite, 560946, 560957, 700315, 700316  
 Aden, Gulf of, 700317  
 alteration  
 products, 810734, 810736, 810739  
 remnant arc debris, 590737  
 Bauer Basin, sediment, 850794  
 Bermuda Rise, mineral, secondary, 511256, 511259, 511261  
 breccia, volcanic, Neogene, 630650  
 clay minerals  
 hydrothermal mounds, 700225, 700226  
 mineralogy, 140730  
 Cretaceous/Tertiary boundary, paleoenvironmental history, 740689  
 crust, oceanic, seawater interaction, 511169  
 East Pacific Rise, sediments, 850793  
 Emperor Seamounts, mineralogy, 550466  
 formation, 700318  
 accumulation, 700228  
 Galapagos Fracture Zone, hydrothermal activity, 540407  
 Galapagos Hydrothermal Mounds, 700317  
 sediments, 850791  
 Galapagos Islands, hydrothermal mounds, 700194, 700207  
 Galapagos Spreading center  
 basal sediments, origin, 540382  
 layer, 540378  
 normative composition, 540381  
 geochemistry  
 Galapagos Islands, 810715  
 Hatton Drift, 810734  
 Hatton Ridge, 810739  
 Rockall Plateau, 810736  
 geochemistry, partition, 700298, 700299, 700301  
 calcium, 700298  
 diagenesis, 700302  
 iron, 700298  
 manganese, 700298  
 geochronology, 700310  
 Hess Rise N, sedimentary sequences, 620763, 620766  
 hydrogen isotope, 700319  
 formation, 700320  
 temperature, 700320  
 hydrothermal deposits  
 assemblage, paragenetic, 700253  
 Galapagos Spreading center, 700242, 700249  
 Indian Ocean W, interstitial water, 250367  
 Japan Trench, 560946  
 K, 700318  
 lead isotope, 700327, 700328  
 major element, 700316  
 Mid-Atlantic Ridge, 700317  
 mineralogical facies comparison, clay, green, 810708  
 mineralogy, Atlantic Ocean, 140730  
 Mounds, origin, 540382, 540383, 540384, 540385  
 Mounds Hydrothermal Field, chemistry, 540408  
 Mounds Hydrothermal Field, origin, 540412, 540415  
 mud, 700315  
 ooze, 700315  
 oxygen isotope, 700319  
 formation, 700320  
 temperature, 700320  
 Pacific Ocean SE  
 mineralogy, 920394  
 Sr isotope, 920400  
 pore water, silica, 700349  
 rare earth elements, 700318  
 Red Sea, 700317  
 sandstone, basalt, 320541  
 sediment, 560946  
 chemical composition, 700269, 700272, 700273  
 hydrothermal mounds, 700279  
 silica, mineralogy, 140730  
 smectite, K, Fe, crust, oceanic, 540308

- strontium isotope, sediment, 700329  
tuff, Neogene, 630650
- nontronite, Al-poor  
Galapagos Spreading center, 540377  
Mounds Hydrothermal Field, chemistry, 540410
- nontronite, authigenic, Emperor Seamounts, mineralogy, 550465, 550466
- nontronite, ferroan, clay, green, Galapagos Spreading center, 700211, 700213
- nontronite, green  
Galapagos Fracture Zone, East Pacific Rise, 540403  
Galapagos Spreading center, 540377  
mineral, secondary, elemental composition, 920510
- nontronite, hydrothermal, 700310, 700312  
Galapagos Spreading center, normative composition, 540379  
Mounds, nontronite, 540384  
sedimentation rate, 700310  
transformation, 700310, 700312  
uranium, 700310, 700312
- nontronite, K-rich  
alteration, products, 810739  
geochemistry, Rockall Plateau, 810739
- nontronite-beidellite, alteration, montmorillonite, 300485
- Nord Jan, 38S0106  
Nordic Province, Europe W, 160014  
Nordvestkapp Formation, 38S0106  
Norfolk, 440005, 800614, 930005, 930031, 931368, 931390  
Cape Blanc, fracture zone, 790915  
Cenozoic silicoflagellate, coccolith stratigraphy, 440775  
Cenozoic silicoflagellate, coccolith stratigraphy, 440807  
continental rise, 930881  
geophysical measurements, 440547, 440554  
lower continental rise hills, 440023, 440024, 440028  
Pacific Ocean SW, Western Marginal Basin Province, 210904  
Virginia, 760341
- Norfolk Basin. *See* Gazelle Basin  
Norfolk Island, 210489  
Lord Howe Rise, pale green laminae, 901156  
Pacific Ocean SW, regional evolution, 210900  
Norfolk Ridge, 210003, 210104, 210117, 210490, 300005, 300007, 300028, 300630, 300667, 300693  
lithology, geologic events, 210110  
Pacific Ocean SW  
Cenozoic, 300667  
island arcs, 300693  
Mesozoic regional evolution, 210902  
regional evolution, 210900  
Three Kings Rise, 210897  
West Norfolk Ridge, 210897  
Western Marginal Basin Province, 210903
- South Fiji Basin  
geology, 300617, 300619, 300620  
history, 300629, 300630
- norite  
Mariana Trough, 600614  
mineralogy, gabbro, 600588  
Norphlet Formation, 760924
- norphytene  
Cariaco Trench, organic geochemistry, 200915, 200925  
organic geochemistry, 200905
- norsimonellite  
organic geochemistry, 640890, 640895  
molecular markers, 630845
- North Africa, 800050  
Iberian margin W, evolution, 47B0764  
margin, 500717  
Moroccan Basin, margin, 500805
- North America, 110883, 540825, 620959, 621043, 630949, 641008, 641085, 660723, 660728, 670744, 670749, 670752, 670753, 670754, 670755, 670762, 670775, 680275, 710753, 710754, 710791, 710836, 710910, 720032, 750035, 760142, 760439, 760694, 760705, 760743, 760831, 760871, 760887, 760904, 770352, 770360, 770512, 770526, 790181, 790551, 800005, 800653, 801111, 801115, 801189, 801198, 801202, 810035, 810439, 810440, 810517, 810691, 810884, 820494, 820582, 840891, 860473, 901089, 920519, 920599, 930679, 930866, 930868, 931029, 931032, 931033, 931034, 931036, 931103, 931107, 931110, 931121, 931132, 931208, 931323, 931338, 931341, 931399, 950023, 950565, 950568, 950570, 960675
- Africa  
Europe, 490007  
separation, 460004
- Africa W, 130005  
rifting, 47B0028  
separation, 440941
- Atlantic Ocean  
basins, 770691  
continental shelf, 760233  
margin, 930092, 950563
- Atlantic Ocean C, basin, 511501, 511506, 511507
- Atlantic Ocean N  
continental margin, 760897  
paleogeography, 121173
- Atlantic Ocean NE, evolution, 411233
- Bahama Islands, geology, 110878, 110882, 110883, 110888
- basalt, mass flow, 760900
- Biscay, Bay of N, continental margin, 481025  
block, 180099, 180984, 480865  
calcium carbonate, continental rise, 930465  
California, continental margin, 630949  
Cape Bojador, continental margin, 47A0810, 47A0811
- Cape Hatteras, continental rise, 930839  
carbon, organic, continental rise, 930465  
Central America, 670675
- clay  
diatoms, 010522  
source, 020418  
clay, kaolinitic, 020418  
claystone, organic, continental rise, 931223  
coast, 760894  
rise and slope, 760891  
conjugate-margin region, 790906  
continental margin, 430810, 47B0658, 750838, 760012, 760148, 760861, 760901, 760913, 760931, 760940, 770731, 790201, 790885, 820582, 930739, 930741, 930977, 931094, 931122, 931213, 931333, 950606, 950811  
breakup, 760897  
evolution, 760924  
stratigraphy, 630949
- continental rise  
calcium carbonate, 930465  
carbon, organic, 930465  
carbonate, authigenic, 931061  
claystone, organic, 931223  
diagenesis, 950501  
hydrocarbon, C<sub>1</sub>-C<sub>8</sub>, 931231  
magnetostratigraphy, 930839
- continental shelf, 120067, 510851, 760842, 930947  
Eocene diatoms, 510851  
continental slope, diagenesis, 950501
- craton, 750291  
Cretaceous faunas, marine deposits, 770692  
Cretaceous foraminifers, 440671  
California, 440671  
Grand Banks of Newfoundland, 440671  
Oklahoma, 440671  
Scotian Bank, 440671  
Texas, 440671  
Trinidad, 440671
- deposition  
bottom water, 250500  
models, 750838
- diabase, petrology, 630701
- diagenesis  
reconstruction, 020422  
silica, 950501
- Europe, 760878  
Europe NW, continental margin, 801187  
Europe W  
drifting, 380118  
predrift fit, 47B0028  
South America, 47B0026  
fault, 481015  
forests, 930783  
glaciation, Pliocene-Pleistocene, 120962  
glaucony, Pacific continental margin, 660421  
Goban Spur  
continental margin, 801158  
evolution, 801198, 801210  
Great Lakes, 42A0778  
Greenland, 380118, 810691  
plate, 121177  
Gulf Coast, 760878  
hydrocarbon, C<sub>1</sub>-C<sub>8</sub>, continental rise, 931231  
Iberian margin W, evolution, 47B0766  
Iberian Peninsula, 130019, 130033  
position, 47B0766  
Labrador Sea S, Europe NW, 121155  
Laurentian Ice Sheet, 131228  
lower continental rise, 930005, 930919  
continental margin, 930913  
lower continental rise hills, 440033  
bedding structure, shallow, 440042  
magnetic pole, Cretaceous, 511373  
margin, 120070  
Mesozoic magnetobiostratigraphy, Gulf Coast, 720944  
Mexico, Gulf of, regional aspects, 010634, 010637  
microfacies, sediments, 440492  
continental rise hills, 440477  
Moroccan Basin, margin, 500805, 500809, 500817  
New Jersey Transect, stratigraphy, 950813  
Newfoundland, 760892  
ooze, radiolarian, 020417  
origin, 760442  
Pacific coast, 630559, 640988  
Pacific Ocean, margin, 660421, 660427  
Pacific Ocean NE, regional aspects, 050624  
Paleogene-Neogene, Pacific Ocean, 310852  
Philippine Sea, Paleogene-Neogene, 310848, 310852  
polar wandering, 760846  
rare earth elements, trace elements, 590661, 590664  
regional geology, regional structure, 801189  
regional tectonics, Europe, 801153  
rifting, continental margin, 760901  
river basins, 640574  
Rockall Plateau W, stratigraphy, 481062  
sand, source, 020418  
sediment, hydrothermal mounds, 700285  
sedimentary environments, continental rise, 440977  
shale, 700286

- South America, 621044  
 structural evolution, tectonic history, 481062  
 subduction, 630917  
 Franciscan Zone, 670744  
 tectonic setting, East Pacific Rise, 920599  
 tektite, 730633  
 Tethys, Mediterranean Sea, 42A0944  
 upper continental rise, 930005  
 Venezuelan Basin, South America, 040666  
 Western Interior Seaway, 750893  
 North America E, 020001, 020371, 040666, 061281, 110573, 120003, 120052, 120070, 120077, 120440, 120958, 120962, 121115, 130902, 140490, 140967, 150413, 150817, 151061, 151063, 151091, 151105, 190020, 190909, 260775, 270983, 330559, 38S0841, 38S0847, 381174, 381213, 400860, 400884, 430577, 47B0753, 480036, 480212, 480213, 481025, 490861, 760142, 810439, 930417, 930914, 931079, 931112, 950025, 960644  
 Africa, 130005  
 separation, 440941  
 Atlantic continental margin, 411178  
 Atlantic Ocean, 120056, 120067  
 shelf, 120428, 120431  
 Atlantic Ocean C, basin, 511507  
 biostratigraphy, continental margin, 440941  
 carbonate platform, Mesozoic, 790857  
 coast, 120079, 931087, 931237, 931285  
 hydrocarbon, 931237  
 coastal plain, 930941  
 continental margin, 050593, 121130, 130466, 180517, 181019, 760757, 930091, 930092, 930997, 931111, 931163, 931175, 931254, 931379  
 carbonate platform, 790857  
 evolution, 760924  
 passive margin, 790551  
 tectonics, 760897  
 continental rise, 350285, 411233, 931061, 931163, 931303  
 Cenozoic stable isotopic stratigraphy, 930997  
 continental rise hills, 260023  
 continental rise, lower, 930005  
 continental rise, upper, 930005  
 continental shelf, 950527, 950571  
 drifting, Europe, 380118  
 Europe, predrift fit, 47B0028  
 Europe S, rupture, 47B0026  
 Gulf, 120056, 120067  
 Gulf Coast, 330507  
 High Plains, 360909  
 hydrocarbon, low molecular weight, 931237  
 Iberian Peninsula, 130019, 130033  
 position, 47B0766  
 ice sheet, 120958  
 Jurassic sedimentation, Atlantic  
 continental margin, 760861, 760864, 760865  
 lithology, limestone, 120055  
 lithostratigraphy, continental margin, 440941  
 lower continental margin, 930942  
 lower continental rise, 931223  
 lower continental rise hills, 110219  
 margin, Cape Bojador, 47A0810  
 northern, 120161  
 offshore, 950501  
 opening, 47B0429  
 Pacific Coast, 180527, 180533, 180633, 180949  
 Pacific continental margin, geomorphology, 350285  
 passive margin, continental margin, 790551  
 rifting, Africa, 47B0028  
 sedimented margins, 480039  
 tectonic plate, 110888  
 tensional episode, Jurassic-Cretaceous, 47B0094  
 virtual pole, 430869  
 Western interior, 110573  
 North America W, 630173, 641113, 660827, 670751, 670754, 730759, 860583, 901085  
 coast, 630473  
 continental margin, 650005  
 Pacific Ocean N, ooze, diatomaceous, 190909  
 North American Basin, 010243, 020001, 020003, 030007, 030442, 040007, 040017, 040125, 110075, 110901, 110924, 110939, 110942, 110970, 150003, 330925, 410164, 410187, 410439, 410984, 430350, 490859, 720805, 760007, 760011, 760144, 760146, 760232, 760856, 760857, 760859, 760861, 760898, 760907, 790889, 800161, 820633, 930005, 930063, 930074, 930085, 930087, 930088, 930091, 930431, 930433, 930440, 930613, 930617, 930619, 930629, 930801, 930803, 930945, 931080, 931081, 931129, 931189, 931198, 931287, 931371, 931375, 931389, 931402, 931413, 931417, 950509, 950553, 950661, 950763, 950766, 950769, 950773, 950774, 950775, 950786, 950796, 950799, 950800, 950807, 950808, 950809, 950810, 950813  
 Atlantic Ocean C, basin, 511505, 511506  
 Atlantic Ocean NE, evolution, 411215, 411218, 411219, 411223, 411225, 411228, 411229, 411230, 411232  
 Atlantic Ocean NW  
 regional aspects, 110956  
 sedimentary evolution, 430793, 430810  
 Bermuda Rise Formation, 950509  
 Cape Hatteras, 930713  
 carbon, organic, geochemistry, 750833  
 continental margin, 931088, 931385  
 depositional and tectonic history, 430793  
 geochemistry, continental rise, 931093  
 Goban Spur, evolution, 801212  
 Hatteras Ridge, 931196  
 margin, 950813  
 Mesozoic variegated, red sediments, 440503  
 Moroccan Basin, margin, 500816  
 New Jersey Transect, 950810, 950813  
 stratigraphy, 950766, 950769, 950813  
 passive margin, 930090  
 depositional history, 950763  
 Puerto Rico Trench, 040665  
 regional seismic grid, borehole data  
 extrapolation  
 Campanian sequence, 950775  
 chalk, siliceous nannofossil, 950796  
 deposition, 950800  
 Miocene depositional history, 950799  
 pre-Campanian depositional history, 950774, 950775  
 western margin, 950773  
 sedimentary evolution, 110942  
 slumping, detection, 950661  
 tectonic history  
 deposition, 430793  
 J-Anomaly Ridge, 430810  
 wedge, 931368  
 North American Cordillera, 361000, 670750, 670752  
 Atlantic Ocean SW, basin, evolution, 361000  
 North American Plate. See American Plate  
 North Atlantic Bottom Water, 430700, 720849  
 seismic modeling, paleoceanography, conclusions, circulation, 850968  
 North Atlantic Current, 490529  
 present-day hydrological framework, subtropical origin, 800793  
 North Atlantic Deep Water, 480378, 480475, 680445, 710319, 720016, 720023, 720024, 720025, 720027, 720028, 720029, 720030, 720031, 720032, 720033, 720063, 720074, 720339, 720340, 720343, 720357, 720358, 720362, 720364, 720384, 720515, 720516, 720601, 720805, 720871, 720875, 720876, 720878, 720880, 720896, 720897, 720903, 720905, 720907, 720908, 720909, 720911, 720912, 720913, 720914, 720915, 720917, 720918, 720977, 720978, 720984, 720986, 730036, 730717, 730721, 730722, 730723, 730775, 730782, 740003, 740006, 740042, 740069, 740163, 740238, 740309, 740408, 740602, 740603, 740613, 740658, 740664, 740892, 750846, 800495, 800498, 800500, 800501, 800553, 800725, 800742, 800746, 800805, 800809, 800811, 801183, 801195, 801197, 810036, 810071, 810297, 810507, 810509, 810512, 810525, 810608, 810620, 810683, 810695, 810875, 850947, 900986, 930477, 950322, 950453  
 abyssal plain, benthic microfauna, 800744, 800745  
 Atlantic Ocean, margin, 481100, 481102  
 Atlantic Ocean C, hiatuses, 391105  
 Atlantic Ocean NE  
 climate, 800805  
 evolution, 411230  
 stable isotope, 480475  
 Atlantic Ocean S  
 hiatuses, 391105  
 Paleogene, 720985  
 carbon isotope  
 benthic foraminifers, 800814  
 bottom water, 850771, 850775  
 carbon, 850771  
 Colombian Basin, isotope stratigraphy, 680450  
 diatom paleoceanography, paleoclimatology  
 Antarctica, 850944  
 increased production, 850944  
 Eocene-Oligocene benthic foraminifer  
 isotope record, present day analogy, 850775  
 Feni Ridge, 941220  
 cyclonic loop, 941065  
 flow path, 720481  
 geological, geophysical setting, 390953  
 morphology, 390948  
 glacial cycles, deep-sea environment, 800813  
 Goban Spur, benthic foraminifers, 800726, 800727  
 isotopes, present hydrological features, faunal assemblages, 800808  
 lithology  
 Atlantic Ocean W, 721022  
 Greenland Sea, 721022  
 upwelling, 721022  
 Miocene, Messinian salinity crisis, 720987  
 Miocene changes  
 Antarctic Divergence, 850943  
 increased production, 850943  
 Moroccan Basin, margin, 500818  
 New Jersey Transect, 950810  
 Northern Hemisphere, glaciation, 720988  
 Norwegian Sea Overflow Water, 810613  
 oxygen isotope, glacial stage, 800814  
 Pacific Ocean C, oxygen isotope, 850771  
 paleoceanographic changes, 950766  
 paleoceanography  
 purple (11-12 Ma or 8.5-9.5 Ma), 850964  
 Red (13.5-14.5 Ma), 850964  
 Reflector Lavender, 850963

- paleoenvironment, interglacial stage, 800819  
 Pendragon Escarpment  
   bathymetry, 800743  
   species distribution, 800739  
 Quaternary calcareous benthic foraminifers  
   Antarctica, 800746  
   well-oxygenated, 800746  
   well-oxygenated waters, 800745  
 Rio Grande Rise, mineralogy, 720996  
 Rockall Trough, 941065  
 Santos Plateau, 390948, 390951  
 sedimentary evolution, 430817  
   circulation, abyssal, 430817  
 seismic modeling, paleoceanography,  
   conclusions  
   cause, 850968  
   intensification, 850968  
 stratigraphy and evolution  
   composite, 801185  
   Goban Spur, 801182  
 Tertiary, Miocene, 801180  
 thermohaline flow, Quaternary, 720989,  
   720990, 720991  
 upper slope  
   bottom water, 800735, 800736  
   species distribution, 800733  
 Walvis Ridge  
   history, 740875  
   transect, 740645  
 North Atlantic Drift, 810278, 810459, 810611,  
   810696  
   Atlantic Ocean, margin, 481100  
   Atlantic Ocean NE, stable isotope, 480475  
   diatom paleoceanography, paleoclimatology,  
   saline waters, 850944  
   Goban Spur, planktonic foraminifers, 800793  
   paleoenvironment, surface water, 800818  
 North Brazilian Ridge. *See* Belem Ridge  
 North Carolina, 120433, 440944, 931031,  
   950263, 950272, 950474, 950756  
 coast, 770589  
 coastal plain, 950047  
 continental rise, 931189  
 clay minerals, 931079  
 continental rise, lower, sand, turbidite,  
   930941  
 lower continental rise, 930941, 931079,  
   931368  
 nearshore, 950488  
 sand, turbidite, Cretaceous, 930941  
 North Caucasus, 480446  
 North Dakota, 230823  
 North East Providence Channel  
   Atlantic Ocean NW, regional aspects, 110972  
   Bahama Islands, geology, 110887  
 North Fiji Basin, 300667  
 North Indian Deep Water, 241140  
 deposition  
   chalk, nannofossil, 250496  
   ooze, nannofossil, 250496  
 North Island, 210535, 210538, 210897, 210904,  
   290769, 300617, 300629, 400811, 900655,  
   901085, 901089, 901090, 901167, 901170,  
   901233, 901326, 901450, 901452, 901480  
 Chatham Rise, seismic stratigraphy, 901325  
 clay, terrigenous, Whangai Formation, 291062  
 coast, 910209  
 currents, Miocene-Pleistocene, 901234,  
   901235  
 lithologies, minor, tephra, vitric, 901483  
 Lord Howe Rise C, Neogene evolution, 901452  
 New Zealand, tectonics, 901233, 901234,  
   901235  
 Pacific Ocean SW, 210897  
   Western Marginal Basin Province, 210904  
 silt, terrigenous, Whangai Formation, 291062  
 South Fiji Basin  
   geology, 300617  
   history, 300629  
   Taupo, 210110  
 tephra  
   Cenozoic, 901170  
   source, 901166, 901169  
 volcanism, 901166  
 North Mernoo Fault Zone  
 seismic stratigraphy  
   Chatham Rise, 901334  
   collision, oblique, 901334  
   Cretaceous half-graben system trend,  
   901336  
   fault, normal, 901334  
   faulting, 901335  
   faulting, antithetic, 901336  
   Hikurangi Trench, 901334, 901335  
   North Mernoo Slope, 901332  
   plate boundary, strike-slip, 901335  
 North Mernoo Slope  
 seismic stratigraphy  
   Chatham Rise, 901332  
   collision, oblique, 901332  
   earthquake epicenters, 901332  
   erosion, 901332  
   faulting, 901332  
 North Pole, 270983, 430780, 920338  
 Atlantic Ocean NE, stable isotope, 480482  
 Mid-Atlantic Ridge, basalt, 320576  
 paleomagnetic location, 320576  
 North Pond, 780826, 780831, 780832  
 Atlantic Ocean N, geological and  
   geophysical setting, 450028  
 geological, geophysical setting, 450024,  
   450026, 450032, 450034  
 crust, 450028  
 faulting, 450032  
 fracture zones, 450024, 450034  
 Mid-Atlantic Ridge, 450132  
 ooze, nannofossil foraminiferal, 780835  
 North Pontides zone, 42B1077  
 North Scotia Ridge. *See* South Georgia Ridge  
 North Sea, 120673, 120962, 120965, 350560,  
   38S0285, 380837, 381200, 381210, 381221,  
   381232, 381240, 400687, 400891, 42B0783,  
   47B0026, 47B0028, 480371, 480533,  
   480535, 480611, 480771, 480780, 481045,  
   490538, 760550, 760719, 760874, 790524,  
   800579, 800845, 800849, 801063, 801177,  
   801179, 801206, 801209, 801210, 801213,  
   810520, 810525, 810913, 810917, 810919,  
   860314, 931390  
 ash, 800848, 810920  
 stratigraphy, 800848  
 Atlantic Ocean, margin, 481105, 481106,  
   481107  
 basin, 480789  
 basins, 810515  
 bentonite, 810920  
 continental margin, structural evolution,  
   481042  
 dinoflagellate cysts, 810858  
 Goban Spur, evolution, 801201, 801206,  
   801210, 801213  
 grabens, 801201  
 Hatton Ridge, Rockall Bank, 800287  
 lava, isotope geochemistry, 810778  
 New Jersey Transect, 950810  
 organic matter richness, shale, black,  
   800999  
 Porcupine Plain, volcanism, 801197  
 pyroclastics, 810919  
 Rockall Rise SW, structure, 481078, 481083  
 stratigraphy  
   Paleocene-pre-Oligocene interval, 481078  
   sea floor spreading, 481083  
   tensional phases, 47B0671  
 Tertiary  
   Eocene, 801179  
   Paleocene, 801177  
   Viking Graben, rifting, 480006  
   volcanism, pyroclastic, 810900  
 North West Providence Channel, Bahama  
   Islands, geology, 110886, 110888  
 Northampton Seamounts, 550674  
 Northeast Bank, 630911, 630913, 630951  
 Pliocene rocks, 630910  
 Southern California Borderland, volcanic  
   rocks, 630951  
 Northern Hemisphere, 070338, 120956, 120958,  
   120962, 190782, 190785, 220506, 220522,  
   220806, 220809, 270699, 290769, 290780,  
   340537, 38S0682, 400681, 400696,  
   42B0516, 42B1039, 47B0031, 480056,  
   480768, 480816, 540545, 620349, 620658,  
   680005, 680016, 680164, 680269, 680271,  
   680360, 680361, 680362, 680410, 680446,  
   680452, 710212, 710219, 710340, 710467,  
   710476, 710802, 710833, 710836, 710837,  
   710954, 710955, 730701, 730702, 730720,  
   730758, 730782, 740893, 750917, 780506,  
   790392, 800390, 800811, 801182, 810045,  
   810067, 810294, 810456, 810611, 810620,  
   810663, 810685, 810687, 850715, 850723,  
   850730, 850731, 850746, 850947, 850966,  
   850968, 860025, 860589, 860598, 860602,  
   860647, 860651, 860657, 860666, 900003,  
   900400, 900572, 901037, 901082, 901213,  
   901372, 901375, 901380, 901383, 901399,  
   901401, 901403, 901433, 901437, 901452,  
   901481, 901513, 901514, 920336, 920338,  
   920601, 930508, 930543, 930613, 930661,  
   930679, 930998, 931033, 931036, 931413,  
   931417  
 Arctic, glaciation, 42A0441  
 Atlantic Ocean NE, stable isotope, 480477,  
   480486  
 Cenozoic paleoceanography, glaciation,  
   901493  
 Challenger Plateau, Quaternary, 901422  
 coarse fraction variation, glaciation,  
   901213  
 Colombian Basin, isotope stratigraphy,  
   680446  
 cycle description, upwelling, 750917  
 deposition, eolian, eolian grain size,  
   920338  
 eolian sedimentation, glaciation, 860598,  
   860600, 860602, 920337  
 foraminifers, planktonic, Miocene to  
   Quaternary, 940822  
 glacial cycles, deep-sea environment, 800811  
 glaciation, 280939, 490869, 780486, 780505,  
   850968  
   history, 290801  
   ice sheet, 780486  
   importance, 480272  
   low elevation, 490462  
   Pliocene, 720987, 720988, 850723, 850730,  
   850731  
   Pliocene-Pleistocene, 120958, 120962  
   ice cap, 480477  
   ice rafting, Atlantic Ocean N, 490869  
   ice sheet, 290801, 290804  
   formation, 780504  
   lithologies, major, ooze, 901481  
   Lord Howe Rise, Neogene evolution, 901361  
   Lord Howe Rise C, Neogene evolution, 901452  
   mineralogy, Goban Spur, 801032  
   Miocene time series, statistical analysis,  
   850746

- Miocene-Pliocene isotope stratigraphy, glaciation, 901403  
 Neogene oceanography, glaciation, 901380  
<sup>18</sup>O, trends, 901375  
 oxygen isotope  
 Pliocene, 901399  
 thermal gradients, 901401  
 Pacific Ocean NW, eolian sedimentation, 860598, 860600, 860602  
 Pacific Ocean S, eolian sedimentation history, 920601  
 Pacific Ocean SE, trade winds, 920332  
 Pacific Ocean SW  
 Cenozoic, 901514  
 paleoceanography, 901512, 901513  
 paleoclimate, 901372  
 Pliocene, 730711  
 Reflector Green, 850966  
 stratigraphy, Colon Ridge, 680361  
 stratigraphy and evolution, Goban Spur, 801182  
 terrigenous detritus, glaciation, 860657  
 Tertiary, Pliocene, 801181  
 unconformity, Polar Front Zone, 710467  
 Northland  
 New Zealand W, 210204, 210552  
 Pacific Ocean SW, island arcs, 300704  
 South Fiji Basin  
 geology, 300626  
 history, 300630  
 Northland Marginal Plateau, 300619, 300625, 300626, 300630  
 South Fiji Basin  
 geology, 300619, 300625  
 history, 300630  
 Northwest Atlantic Mid-Ocean Canyon, Labrador Sea S, bathymetry, 121155  
 Northwest Cape, *see also* Indian Ocean E  
 Northwest Cape Fracture Zone, 270341  
*see also* Indian Ocean E  
 Northwest Pacific Guyots. *See* Emperor Seamounts  
 Northwest Territories, 340383, 670591  
 gas hydrate, 670591  
 Norvegia Bay, 350341, 350344, 350347, 350349  
 Peter I Island, geology, 350341, 350344, 350347, 350349, 350351, 350352, 350353, 350354  
 Norway, 38S0121, 38S0196, 381210, 720504, 790524  
 continental margin, 380003, 38S0197, 381112, 381231, 810919  
 continental shelf, 38S0044, 380897  
 gravity anomaly, continental shelf, 280905  
 Greenland, 380118  
 Norwegian Sea, regional conclusions, 38S0251  
 surface water, 720027  
 Voring Plateau, continental margin, 740837, 740839  
 Norwegian Basin, 38S0455, 480271, 481100, 481102, 481107, 490826  
 Atlantic Ocean, margin, 481100, 481102, 481107  
 basalt, 38S0067  
 biotite, 38S0067, 38S0068  
 carbonized detritus, 38S0067  
 chlorite, 38S0067  
 extinct axis, 38S0455  
 Fe-montmorillonite, 38S0070  
 geophysical data, 38S0455  
 graywacke, 38S0067  
 hyaloclastics, 38S0067, 38S0070  
 iron, 38S0070  
 manganese, 38S0070  
 mica, 38S0067  
 montmorillonite, 38S0070  
 mudstone, 38S0067  
 Oligocene-Miocene  
 Fe-montmorillonite, 38S0071  
 glauconite, 38S0071  
 manganese, 38S0071  
 volcanoclastics, 38S0071  
 zeolite, 38S0071  
 phillipsite, 38S0070  
 platform association, 38S0067  
 Pliocene-Pleistocene  
 chlorite, 38S0072  
 clay, 38S0072  
 glacial sedimentation, 38S0071  
 marlstone, 38S0071  
 mica, 38S0072  
 pyritization, 38S0067  
 quartz, 38S0067  
 shield association, 38S0067  
 siltstone, 38S0067  
 slump deposits, 38S0067  
 spreading axis, 38S0455  
 tectonics, 381213  
 bathymetry, 381221  
 extinct rift axis, 381222  
 limestone, 381221  
 Magnetic Anomaly 20, 21, 22, 381221  
 Norwegian Sea, 381213  
 terrigenous material, 38S0067  
 turbidites, 38S0067  
 volcanic material, 38S0067  
 volcanism, 38S0070  
 Norwegian Current, 490861  
 Norwegian Overflow Water, 850963  
 Norwegian Ridge, 38S0251  
 Norwegian Sea, 38S0193, 38S0215, 38S0216, 38S0221, 38S0224, 38S0225, 38S0226, 38S0227, 38S0229, 38S0230, 38S0231, 38S0235, 38S0237, 38S0246, 38S0248, 480116, 480348, 720028, 720878, 720985, 720986, 720987, 720991, 730485, 740837, 751245, 760887, 760907, 800591, 800646, 800647, 800703, 800726, 800736, 800744, 800757, 800808, 800813, 801003, 801019, 801031, 801203, 810033, 810035, 810036, 810111, 810440, 810442, 810459, 810484, 810504, 810525, 810544, 810565, 810568, 810613, 810614, 810669, 810681, 810683, 810690, 810691, 810696, 810804, 810867, 810883, 810886, 810900, 810903, 810913, 810914, 810919, 820625, 930030  
 abyssal plain, benthic microfauna, 800744  
 accumulation rate, 38S0243, 38S0246  
 Arctic Ocean, 760142  
 ash, 38S0238  
 Atlantic Ocean, margin, 481099, 481102, 481106, 481107  
 Atlantic Ocean C, hiatuses, 391105  
 Atlantic Ocean N, paleogeography, 121177, 121178  
 Atlantic Ocean NE, stable isotope, 480482, 480483  
 Atlantic Ocean S  
 hiatuses, 391105  
 Paleogene, 720985  
 axis, extinct, 38S0248  
 Barremian, 38S0225  
 basalt, 810919  
 contact, 38S0241, 38S0242, 38S0243  
 geochemistry, 380719  
 K/Ar age, 380755  
 petrology, 380717, 380731  
 rare earth, 380741  
 basement, basalt, rare earth elements, 380741  
 biogenic calcareous lithofacies, 38S0218  
 biogenic siliceous lithofacies, 38S0217  
 bottom water, 800833  
 circulation, 941114  
 Brito-Arctic Volcanic Province  
 evolution, 380751  
 magma, 380751  
 burrows, 38S0224  
 calcite, 38S0224, 38S0237  
 carbon, geochemistry, 380791  
 carbonate, authigenic, 38S0221  
 carbonate, secondary, vein, 580909  
 chlorite, 38S0224  
 circulation, abyssal, 810683  
 clast  
 claystone, 38S0224  
 mudstone, 38S0224  
 turbidites, 38S0224  
 clay, 38S0216, 38S0217, 38S0221, 38S0225, 38S0248  
 clay minerals, 38S0222, 38S0231, 38S0232, 38S0233, 38S0235  
 ash, 38S0231  
 breccia, 38S0233  
 calcareous sediments, 38S0235  
 chlorite, 38S0231, 38S0232, 38S0233, 38S0235  
 conglomerate, 38S0233  
 Eocene, 38S0231, 38S0232  
 gravity flow, 38S0231  
 illite, 38S0231, 38S0232, 38S0235  
 interbedding, 38S0232  
 kaolinite, 38S0231, 38S0232, 38S0233, 38S0235  
 mica, 38S0232, 38S0233, 38S0235  
 Miocene, 38S0231  
 Miocene to Pleistocene, 38S0235  
 montmorillonite, 38S0231, 38S0232, 38S0233, 38S0235  
 mud, 38S0231, 38S0232, 38S0233, 38S0235  
 mudstone, 38S0231, 38S0233, 38S0235  
 mudstone, terrigenous, 38S0233  
 Oligocene to Miocene, 38S0235  
 ooze, calcareous, 38S0231  
 ooze, diatomaceous, 38S0231  
 plagioclase, 38S0232, 38S0235  
 quartz, 38S0232, 38S0235  
 sand, 38S0231  
 zeolite, 38S0233  
 clay, red, 38S0225  
 claystone, 38S0223  
 diagenesis, organic, Miocene, 380809  
 diapir, Voring Plateau, 38S0197, 38S0200  
 diatomite, 38S0222  
 dissolution, 38S0248  
 dolomite, 38S0237  
 Eocene, 38S0224  
 Faroe-Iceland Ridge, sand, glauconitic, 38S0246  
 geologic setting, 38S0193  
 glacial cycles, deep-sea environment, 800813  
 glaciation, organic matter, 380805  
 glass, 38S0238  
 glass, volcanic, 38S0222  
 glauconite, 38S0223  
 Goban Spur  
 benthic foraminifers, 800726  
 evolution, 801203, 801210  
 upper slope, 800757  
 Greenland Sea, 380023, 380117, 380151, 380389, 380451, 380521, 380595, 380685, 381213, 42A0851, 430011, 430817, 480483, 480519, 480520, 480533, 480613, 480614, 480615, 480616, 481125, 620361, 620364, 650492, 720977, 720989, 800505, 800507, 800529, 800553, 800580, 800590, 800595, 800669, 800670, 801180, 801210, 810439, 810504, 810505, 810506, 810517, 810519,

- Greenland Sea (Cont.)  
 810520, 810581, 810611, 810620, 810621,  
 810666, 810691, 810870, 820626, 850408,  
 850655, 901462, 931359, 950562, 950757  
 basalt, 380717, 380741  
 biostratigraphy, Cenozoic, 381197  
 coccolith and silicoflagellate  
 stratigraphy, 490553  
 mineralogy, 38S0135, 38S0437, 38S0438,  
 38S0440  
 nannoplankton, 490536, 490538, 490541  
 organic geochemistry, 380783  
 paleoceanography, 381197  
 petroleum generating potential, 380801  
 stratigraphy, 381197  
 tetrapyrrole, 380785  
 thermal history, 380801  
 turbidites, 38S0259, 38S0261, 38S0262,  
 38S0263, 38S0264, 38S0265, 38S0266,  
 38S0267, 38S0268, 38S0269, 38S0270,  
 38S0271, 38S0272, 38S0273, 38S0275,  
 38S0276, 38S0278, 38S0279, 38S0281,  
 38S0282, 38S0284, 38S0285, 38S0286  
 groups, occurrence, general trends,  
 calcareous nannoplankton, 901462  
 Iceland Plateau, Jan Mayen Ridge, 38S0246  
 interbedding, 38S0221, 38S0222  
 isotopes, present hydrological features,  
 faunal assemblages, 800808  
 K/Ar age, 38S0193  
 basalt, 380755  
 Labrador Sea S, magnetic anomaly, 121166  
 lithology, 120267, 120326  
 Reflector, 4, 120449  
 magma, petrology, 380685  
 margin, 810883, 810886  
 mica, 38S0235, 38S0237  
 microfacies, sediments, 440492  
 micronodule, 38S0238  
 mineral, heavy, 38S0237  
 mineral, opaque, 38S0237  
 mineralogy, 38S0135  
 Rockall Rise, 801033  
 Miocene, 38S0224, 38S0248  
 Antarctica, 720986  
 Moroccan Basin, margin, 500817  
 mud, 38S0217, 38S0222  
 mudstone, 38S0222, 38S0223  
 nannofossils, 38S0221  
 Oligocene to Pliocene, 38S0248  
 ooze, diatomaceous, 38S0221, 38S0222  
 ooze, nannofossil, 38S0221, 38S0222  
 opening, 120003, 120267, 120314, 120326,  
 120373, 120449, 120913, 121130, 330441,  
 390863, 391105, 430700, 440492, 480271,  
 480348, 480350, 480351, 480446, 480815,  
 481099, 481102, 481106, 481107, 481149,  
 490007, 490825, 490826, 490848, 490849,  
 490859, 490862, 490863, 500817  
 lipid, 480969  
 opal, 490589  
 radiolarians, 490585  
 ridge crest elevation, 490866  
 sediment drift, 490861  
 organic matter, plant, 380815  
 orthoclase, 38S0237  
 other mineral components  
 barite, 38S0237  
 glauconite, 38S0237, 38S0238  
 palagonite, 38S0237  
 paleoclimatology, estimated temperatures,  
 800703  
 Pendragon Escarpment, bottom water, 800743  
 physical oceanography, 38S0215  
 bottom current, 38S0216  
 general circulation, 38S0215  
 plagioclase, 38S0235, 38S0237  
 Pleistocene, 38S0248  
 Pliocene, 38S0248  
 pyrite, 38S0224  
 nodules, 38S0224  
 quartz, 38S0235, 38S0237  
 quartzite, 38S0237  
 radiolarians, 38S0222, 38S0223  
 regional conclusions  
 basalt, 38S0250, 38S0251, 38S0253  
 basalt, alkali, 38S0252  
 biogenic sediment, 38S0251  
 breccia, epiclastic, 38S0251  
 clay, 38S0250, 38S0251  
 continental margin, 38S0248, 38S0251,  
 38S0252  
 hyalobasalt, 38S0251  
 ice rafting, 38S0251  
 interbedding, 38S0252  
 mud, 38S0253  
 mudstone, 38S0250  
 nannofossils, 38S0251  
 Norway, 38S0251  
 ooze, biogenic, 38S0253  
 ooze, calcareous, 38S0253  
 "opaque" layer, 38S0250  
 pollen, 38S0252  
 sand, glauconitic, 38S0251  
 siliceous sediments, 38S0250, 38S0252,  
 38S0253  
 terrigenous sediment, 38S0250, 38S0251,  
 38S0252, 38S0253  
 tholeiite, 38S0252  
 turbidites, 38S0251  
 turbidity current, 38S0251  
 Rockall Plateau, Tertiary deposits, 810669,  
 810681  
 Rockall Rise, 810913, 810920  
 sand, 38S0217  
 schist, 38S0237  
 sea floor spreading, 381213, 381238  
 sediment classification, 38S0193  
 sediment composition, 38S0238  
 sediment dispersal, 941114  
 sediment history, 38S0259  
 sediments, 380761  
 silica, biogenic, 810867  
 siliceous sediment, 38S0221, 38S0248  
 silicoflagellates, 38S0222, 38S0223  
 silt, 38S0217  
 slumping, 38S0224  
 sponge spicules, 38S0222, 38S0223  
 stratification, 38S0224  
 deformation, 38S0224  
 tectonics  
 basement, 381213  
 land bridge, 381213  
 Magnetic Anomaly, 24, 381214  
 opening, 381238, 381239  
 sea floor spreading, 381213  
 structural framework, 381213, 381214,  
 381215, 381218, 381237  
 terrigenous sediment, 38S0221, 38S0224  
 thermohaline flow, Quaternary, 720989,  
 720991  
 Thulean Volcanic Province, evolution, 380741  
 turbidites, 38S0216, 38S0224, 38S0235  
 structure, 38S0225  
 upper slope, bottom water, 800736  
 volcanism, pyroclastic, 810900  
 zeolite, 38S0225, 38S0238  
*see also* Greenland Sea  
 Norwegian Sea Deep Water  
 Feni Ridge  
 effect on, 941062, 941071  
 overflow, 941062, 941071, 941125  
 Rockall Trough, overflow, 941062, 941125  
 Wyville Thomson Ridge, overflow, 941062  
 Norwegian Sea Overflow Water, 720911, 810507,  
 810512  
 Atlantic Ocean, margin, 481102  
 diatom paleoceanography, paleoclimatology,  
 volume, 850944  
 Feni Ridge, 941220, 941231, 941236, 941240  
 Gardar Ridge, 941220  
 Labrador Sea S, deep current-controlled  
 sediment body, 121161  
 North Atlantic Deep Water, 810613  
 paleoceanography, Reflector Lavender, 850962  
 Wyville Thomson Ridge, 941220  
 Norwegian Seamounts, 380685  
 Norwegian-Greenland Sea. *See* Greenland Sea,  
 Norwegian Sea  
 Nosoko Formation, Philippine Sea,  
 Paleogene-Neogene, 310848  
 Nosy Be Island, 250533  
 volcanism, Madagascar, 250533  
 Nosy Kalakajoro Island, Rio Grande Rise N,  
 regional setting, 250697, 250698  
 Noto Peninsula, 190755  
 fan, submarine, deposits, 310489  
 Philippine Sea, Paleogene-Neogene, 310850  
 Noumea, 890589, 900023, 900116, 900763  
 Nova Scotia, 120051, 121137, 410164, 500809,  
 500812, 500815, 760899, 790194, 790195,  
 790510, 790521, 790552, 790653, 790894,  
 801110, 930092, 930945, 931385  
 Atlantic Ocean, circulation, 720977  
 basin, 790927  
 Blake Basin, 440154  
 coking coal basins, 47B0525  
 continental margin, 790369, 790907  
 graben formation, 790438  
 hydrocarbon, 790181  
 diapir, 790179  
 evaporites, 47B0028, 790894  
 eastern boundary, 790894  
 Meguma Formation, 790547, 790553  
 Moroccan Basin  
 evolution, 500801  
 margin, 500805, 500809, 500812, 500813,  
 500815  
 salt, Jurassic, 47B0028  
 sedimentary environments, 440974  
 shelf, 120036, 120055, 480533  
 slope, 950320  
 Nova Trough, 170103, 330681  
 Line Islands, tectonics, 330735, 330737,  
 330738, 330739, 330744  
 Nova-Canton Ridge, 330735  
 Novorossisk, flysch trough, 42B0469  
 Noyo Canyon, 180032, 180040  
 Nubia, 230754, 230885, 230917  
 Mediterranean Sea E, history, 42B1212  
 plate, 230754  
 Pliocene and Pleistocene deposits, 131242  
 nucleation  
 basalt  
 crystallization, 920464, 920466, 920467  
 mineral, secondary, 340416, 340424  
 basalt, phyrlic  
 growth, 650641  
 plagioclase, 650636  
 basalt, sparsely phyrlic, crystal  
 morphologies, 540627  
 boninite, crystallization, 600701  
 chalk, calcite, garnet, 260598  
 clinopyroxene, crystallization, 540665  
 dolerite, pyroxene, calcium-poor, 540665  
 Emperor Seamounts, petrology, 550583  
 garnet, metasomatic, garnet, 260598  
 rhyolite, spherule, 210530

nucleation, heterogeneous  
basalt, sparsely phyrlic, tholeiite, aphyric  
olivine-poor, 540619  
boninite, crystallization, 600701  
nucleation, metastable  
chalk, calcite, 260598  
garnet, metasomatic, 260598  
Nueiba, 42B1214  
Nuevo Leon, 790653  
Nugata  
alteration, diagenetic, organic matter,  
571306  
Philippine Sea, Paleogene-Neogene, 310850  
Numa Formation, 870606  
Numidia, flysch, 130739, 130742, 42A0966  
Nuremberg, Jurassic, calcisphaerulids, 440899  
Nye Klov, Denmark, 930552

