Index

Aalenian, Whitby, 124
abandonment deposits, 103, 108, 150, 269, 298
ablation events, 69
Absaroka thrust plate, 322-4
accretionary palaeosols, 24
adhesion ripples, 263, 295
aggradation
sandurs, 62-3, 66, 71
Willwood Formation, 24, 26
aggradation rates, 38, 46-7
algae, 206, 210-11
Algeria, earthquakes, 16
Algodones, 173
alluvial fans
footwalls, 13
formation of, 11
hangingwalls, 14
Iceland, 53
Rotliegend, 302, 315
Rough Gas Field, 266
alluvial plains, 47
alluvial ridges, 46
anhydrites, 182, 276, 286, 298, 303
anisotropy, fluvial reservoirs, 2
ankerite, 287, 346
Ann Field, 303
Anschutz East Ranch Field, 321-38
antecedent drainage, 16
Arabian Gulf, 286
atenuation, 424
Auk Field, 377-97
autocycles, 162, 199
avalanche facies, 169-70, 234, 294
axial channels, 15
axial drainage, 11-12, 15
Aztec Sandstone, 200

backswamps, 100, 106, 113
Bagnold surfaces, 171-2
basajadas, 13-14
bank erosion potential, 37
bankfull depth, 34-5, 37-8, 47, 80
bankfull discharge, 9, 33, 41, 44
barchan dunes, 170, 255, 263, 299-301
Barremian Stage, Texas, 98
Barren Red Measures, 19-20
baryte, 352, 357
Basalt Gravel Sheet, 63
base-level changes, 137, 163
basin subsidence, 27, 163, 302-3
basin types, 7-8
Baton Rouge, 39, 42
Beara peninsula, 161
bed roughness, 40
bed thicknesses, sandurs, 71
bedforms, 299
bedload transport, 12, 39, 41-2, 47, 109-10
Bighorn Basin, 23, 27

bioturbation
deltaic deposits, 86
Kayenta Formation, 205
palaeosols, 24
Rotliegend, 298-9
Tumblagooda Sandstone, 220
bitumen, 324, 331
bivalves, 146
black mudrocks, 106, 134, 149
black shales, 108
Bothe Fault, 247
borehole spacing, 3
boundary shear stress, 61
bounding surfaces
aeolian, 2, 167
erosional, 17
Kayenta Formation, 201, 216
Page sandstone, 368
recognition, 80-1, 304-6
Brahmaputra River, 37
braid-plains
Pennant Sandstone, 143, 151
Texas, 112
Tumblagooda Sandstone, 226
braided rivers, 37, 55, 73
break-up features, 224, 227
Brent Group, 126, 138, 436
Bridgnorth Sandstone, 300
Brithdir Beds, 146
Broad Fourteens Basin, 315
Brownstones Group, 112
Buchan Field, 154
buckle folds, Hercynian, 19
bulk porosity, 361
Bunter Sandstone, 154, 175
Burghhead, 340-1, 344
Burghhead Beds, 339-41, 344, 346
burrows, 204, 206, 219

Cadomin Formation, 154
Calamus River, 254
carbonate palaeosols, 85-7
Carboniferous, southern North Sea, 19
Carnian, Crawford Field, 418
Carson River basin, 18
Castilian Meseta, 83
Cedar Mesa Sandstone, 173, 177
Cefn Glas, 144
cementation, 182, 188
Hopeman Sandstone, 352, 355, 357, 360
Central North Sea, 379
channel avulsion, 16-17, 35, 46, 85
autocycles, 162
and palaeosols, 15, 26, 28–9
Rough Gas Field, 272
tectonics, 8
Travis Peak, 113
channel bars, 127
channel bends, 37
channel confluences, 37
channel facies
fluvial, 146
high sinuosity channels, 100–3
channel incision, 137–8
channel migration, 15–17
channel morphology, 2
channel sandbodies, 27, 29
channel sandstones, 106
porosity, 117
channel stacking, 103, 108–9
channel stores, 126
channel styles, Travis Peak Formation, 99–100
channel thalwegs, 85
channel types, 8
channel-fill deposits, 85–6, 89, 92, 297
chaotic sandstone, 131
chemical remanent magnetization, 399, 403
Cherokee Group, permeability, 139
Cheshire Basin, 232, 247, 251, 260
Chester Pebble Beds, 252, 260
chlorite, 283, 287, 326, 412
Chloritic Sandstone Formation, 158, 161–2
Chocolate Mountains, 173
chromite, 410
electric wedge development, Travis Peak Formation, 99
clay enrichment, Willwood Formation, 25
clay minerals, Sherwood Sandstone Group, 283, 287
clay plugs, 81
Cleveland Basin, 126, 131, 137
climatic change, 39, 83, 163–4, 306
climbing bedforms, 167, 173
climbing ripples, 131, 138, 208, 222, 298
coal seams, 144, 146–7
coals, Westphalian, 19
cobble-gravel sheets, 63
coefficient of variation, 436
Colorado Plateau, 200
common mid-point determination, 423, 427
compactive deformation, 330
compartmental faults, 332–3
composite bedforms, 85
composite palaeosols, 28, 30
conditional simulation, 367, 369, 371–2
conductivity, electrical, 424
Congaree River, 254
conglomerates, Rotliegend, 296, 315
constricted flow, 36
continental settings, 1
control points, 36–8
Cordilleran thrustbelt, 321
cornstones, 280
Corrie Sandstone, 347
Covesa, 341, 360
Crawford Field, 399–419
crescentic dunes, 202, 207, 300
crevasse-splay deposits, 35, 86–7
location, 2
Daoing Oil Field, 83
darcy-Weisbach equation, 40, 61
debris flow deposits, 297, 303
decementation, 188
deemster Basin, 249
deemster Fault, 247
deflation surfaces, 203, 222–3, 255, 295
deforination bands, Hopeman Sandstone, 347–8, 364
deformed zones, permeability and porosity, 334
delemere Member, 252
delta foresets, 14
deltaic deposits, 86–7
desiccation cracks, 204, 206, 214, 256, 298
destrafication, 112, 119
destrafied beds, 108
dewatering, 112, 268, 297, 302
deweve Terrace, 43
diagenesis
Sherwood Sandstone Group, 286
Travis Peak Formation, 116–21
dickite, in pores, 126
dielectric permittivity, 424
differential subsidence, 28, 314
diffusion coefficients, 11
dinosaur trampling, 206, 212
dip-slip faults, North Sea, 293
Diplocraterion, 219, 222
Derk Hartog Formation, 228
discharge variations, Munster Basin, 160–1
dish and pillar structures, 268, 297, 302
distal facies, 297–8
Dogger Formation, 124, 126, 135, 138
dolocrete, 286
dolomites
Crawford Field, 412
Minnelusa Formation, 181–2
Rotliegend, 268
Sherwood Sandstone, 280, 283, 285–7
dolomitization, 271
domino tectonics, 10
Doulus Conglomerate, 162
down-lapping, 87
Dowsing Fault Zone, 268, 293, 301, 303, 311, 314–15
draas, 167-8, 171, 299
  Kayenta Formation, 201, 212, 214-15
  Rotliegend, 306
drainage basins, 9-11, 13
drainage density, 10
dune apron facies, 2, 379
dune complexes, 168
dune flank slumping, 344
dune grainflow deposits, 2
dune height, 159-60
dune liquefaction, 206
dune migration, 127, 268
dune slipface facies, 379
dunes
  compound, 168
  Rotliegend, 293
earthquakes, El Asnam, 16
East Anglian granite, 293, 314
East Irish Sea Basin, 231, 247-64, 249, 252, 255-6, 260, 263, 280
East Midlands Pediment, 293, 310, 314-15
Echo Cliffs, 200, 210
effective permeability to gas, 117, 119
electrical properties, geological materials, 424
Eller Beck Formation, 124
Entrada Sandstone, 171, 199, 348
Eocene, Wyoming, 23
eogenesis, 242
ephemeral channels, 236, 238
ephemeral deposits, 206, 254, 268, 303
ephemeral streams, 38
  Equisetum, 136
erbs
  contraction, 168, 177
  facies changes, 199
  flooded, 182
  growth, 168
  margins, 199, 299, 314
  migration, 177, 306
  Navajo Sandstone, 200, 210-12, 214-16
  termination, 177
erosion coefficient, 41, 46
erosion surfaces, 81, 306
erosional cycles, 9
eruptions, subglacial, 58
Esmond Complex, 154
Etive Formation, 433, 436, 438
eurypterids, 226
eustatic processes, 39, 43, 54, 60
evaporites, 203, 265, 268, 286, 298, 303-4
extensional provinces, Greece, 11
extensional terranes, 10
extreme scour, 38
facies analysis, Pennant Measures, 146-7
facies architecture, Pennant Measures, 149-51
facies migration, 163
facies modelling, 53
facies stacking, 173
Fammenian, Munster Basin, 161
fan deltas, 11, 13, 298, 304
fan progradation, 14
feldspars, 280-1, 285
ferroan dolomite, 283, 287, 412
fine-grained floodplain deposits, 208
finite element modelling, 367-75
fission-track dating, 280
Flamborough Head Fault Zone, 293
flash flooding, 302
flood cycles, 54
flood events, 38, 55
  Iceland, 53-4
flood plain deposits, 23, 26, 100, 109, 113, 146
flood scour, 9
flood surfaces, 173
flood surge deposits, 55
flooded interdunes, 203, 206
flooding, Tumblagooda Sandstone, 226
flow barriers, 152-3, 216, 347
flow magnitude, sandurs, 71-2
flow modelling, 367-75
flow profiles, Rough Gas Field, 276
flow variability, 54
fluid flow simulation, 371, 373
fluorite, 352, 355, 357
fluvial architecture, 7
fluvial channel deposits, 23, 83-4
fluvial channels, 100
Sherwood Sandstone, 252-4
fluvial fans, Loranca Basin, 83
fluvial-aeolian interaction, 199-217
fold spacing, 9
fold-segment boundaries, 333
folding, Anschutz East Ranch Field, 328-9
Fontainebleau Sandstones, 286
footprints, theropods, 201
footwall fans, 13
footwall incision, 13
footwall slopes, 10-11
Formby Point Fault, 247, 249
Four Corners, 200
fractal models, 10, 372-3
fracture inter-connection, 334-5
fractures, Anschutz East Ranch Field, 329
Frodsham Member, 232, 252
gas basin, southern North Sea, 19
Gas Research Institute Database, 97
gas slippage effects, 97
gas storage, 265
geochemical well-logs, 27
geological characterization, 79
gemmagentic field direction, 403-5
gemorphic oil traps, 181
Geopseudos, 394
Gija River, 58
glacial advances, 57
glacial cycles, 54
glaciation, Wisconsin, 42-3
Glen Canyon, 367
Glen Canyon Group, 200
Gobi Desert, 205
Godred Croven Fault Zone, 247
goethite, 25, 412, 417
Gow's Castle, 360
gradient changes, 44
Graenalon, 67
grainfall deposits, 238
grainfall facies, 169–70, 377, 379
grainfall surfaces, 201
grainflow facies, 368, 377, 379, 381
granites
   East Anglian, 293, 314
   Market Weighton, 293, 315
   Newark, 293
granule ripples, 171
Great Glen Fault, 339
Great Sand Dunes, Colorado, 173, 228
Grimsvötn, 58, 67, 69
ground penetrating radar, 421–32
groundwater, aeolian deposits, 2
Grovesend Beds, 146
growth faults, accumulation at, 36
growth fold drainage, 15–16
growth folds, 13
growth surfaces, 170–8
growth-fold plays, Upper Carboniferous, 7
Gudaool Field, 83
Guerrero Negro, 173
Gulf Coastal Plain, 46
Gulf of Corinth, 11
Gulf of Mexico, 2, 98
gypsum, 83, 286
gyromagnetic remanent magnetization, 408
halite, 251, 256, 286–7, 298, 303–4, 307
Hambleton Mudstones, 280, 286
Handil Field, 143, 154
hangingwall basins, 137
hangingwall channels, 135
hangingwall damming, 16
hangingwall fans, 14
hangingwall ramps, 322, 324
hangingwall sedimentation, 163
hangingwall slopes, 10–11
Hardlegsen unconformity, 232
Havengg Fault, 247
headward extension, drainage basins, 11
Hebgen Lake, 427
Heimdallia, 222, 226, 228
Helgoland, 175
helicoidal flow, 37, 80
Helsby Sandstone, 251, 280
hematite, 25, 286, 410, 412, 415–16, 418
Hercynian front, 19
Hewett Fault, 314
high sinuosity channels, 100–10
Holar flood deposit, 63, 66
Holocene
   braid-plains, 53
   Iceland, 55
Hopeman Sandstone, 300, 339–65
Huete, 83
Hughes Beds, 146, 151–3
humid-glacial braid-plains, 53
hummocky cross stratification, 436
hydraulic fracture stimulation, 107
hydrocarbons, leaching by, 286
hydrographs, 8, 17, 45
Iberian Chain, 83
ice retreat rates, 69
ice-margin variations, 64–6, 68–9
ice-sheet wastage, Iceland, 56
Iceland, sandurs, 53
illite, 244, 283, 287, 326
ilmeno-hematite, 410, 412, 415
incised terraces, 64
incision, 33–4, 39, 60–1
   models, 39–46
   sandurs, 71, 73
incision/aggradation cycles, 16–17
Inde Erg, 315
Inde Pediment, 293, 309, 314
injection behaviour, Anschutz East Ranch Field, 327
interdune facies, 2, 202–3, 379
interdunes, Rotliegend, 294–5
intertonguing, 200, 210, 212
intrachannel muds, 109
intrinsic scour, 34, 38
invasion percolation, 11
Irish Sea, 231, 247, 260, 280, 287
iron oxides, Willwood Formation, 24
iso-porosity mapping, 273
isostasy, 68
isothermal remanent magnetization, 410
Iveragh peninsula, 161
jokulhaups, 53–5, 58, 60, 62–3, 66, 68, 70–3
Jokulsar terrace sequence, 63
Kalbarri Group, 219
kaolinite, 283, 286–7, 412
in pores, 126
Katla, 58, 63
Kayenta Formation, 199–217
Kern River, 83
Keuper Sandstone, 232
Keuper Waterstones, 252
Keys Basin, 249
Keys Fault, 247, 249, 260
Kirkham borehole, 280, 286–7
knickpoints, 13, 44
Kupferschiefer, 268, 299, 307
lacustrine deposits, 137
   Texas, 99
lacustrine facies, 298
lacustrine-palustrine limestones, 87
Ladinian, Crawford Field, 418
lag deposits, 71, 84, 296
Lagman Fault, 247, 249, 260
Lake Bonneville, 69
Lake District Boundary Fault, 247
lateral accretion, meander-loop deposits, 85
lateral stacking, 36
Laurentide ice-sheet, 43
layer-parallel flow, 334
INDEX 447

layer-parallel slip, 331–2
Lees ferry, 200
Lemian Sandstone Formation, 265, 268, 303, 339
levee deposits, 35, 80
igneous, 154
limestones
  algal, 206, 210–11
  lacustrine-palustrine, 87
liquefaction, 299
Little Ice Age, 57, 63, 66, 69, 71, 73
Lynfi Beds, 146, 149
Lochanine Sandstone, 441
log casts, 146
London-Brabant Massif, 268, 293, 314–15
The Loop, 222
Loranca Basin, 82–3, 85
Losiennough, 340
Lossiemouth Fault, 339, 341, 344, 349, 351–2
Louan Salt, 99
low sinuosity channels, 108–15, 150–1
Lower Basalt Sandur, 63
Lower Keuper Sandstone, 251
Lower Pumice Gravels, 63–4, 66
Madison Limestone, 323
Madison River, 421, 426–7, 431
Madrid Basin, 83
magnetite, 408, 410, 412, 416–18
magnetization components, 407
magnetostratigraphy, Crawford Field, 413–15
Malha Formation, 208
manganese oxide, 25
Manx-Furness Basin, 280
marine flooding, aeolian deposits, 173
marine transgressions, Rotliegend, 303
Market Weighton granite, 293, 315
mass-flow deposits, 301
Mauritania, 177
meander development, 103
meander scars, 43
meander-loop deposits, 80–2, 84–5, 89, 92, 101, 103
meandering channels, Travis Peak Formation, 99
meltwater, 43, 55, 57, 67
Mercia Mudstone Group, 251, 280, 286–7
Messarit Field, 143
microfaults, 347–52, 358
Mid-North Sea High, 268, 293
Milankovitch theory, 163–4
millet-seed grains, 222
Minnelusa Formation, 168, 178, 180, 182
minor channels, 107
miospores, Skagerrak Formation, 401
mire facies, 147
Mississippi River, 16, 39, 42–4
Moab, 213
Moenave Formation, 303
Moenkopi, 199–200, 210
Mojave River wash, 228
Monument Uplift, 212
Moray Firth, 300, 339–65
Morescambe Fields, 231–45, 247, 251–2, 260, 286–7
mud cracks, 206
mud drapes, 110, 205, 212, 238
high sinuosity channels, 101, 103, 107
mudrocks, 99–100
in correlation, 113
flood basins, 106
Willwood Formation, 24–5
multi-storey sandbodies, 254, 256, 296
multiple reflections, ground penetrating radar, 425
Munster Basin, 157–65
Murchison Gorge, 221
Murchison River, 219
Murdock Anticline, 20
Myrdalsjókull, 63
Myrdalssandur, 58
Namib Sand Sea, 206, 212–13
natural remanent magnetization, 401–2
Navajo erg, 211, 214
Navajo Sandstone, 199–200, 202, 213, 215, 348, 367
neck cut-off, 45
Needwood Basin, 247
Neoglacial, Iceland, 66, 71
Ness Formation, 123, 138
New Madrid, 16
New Mountain Sandstone, 228
Newark granite, 293
North Sea, 339, 379
North Viking Field, 303
Ochinson Formation, 200, 216, 321, 323–5, 328, 331, 336
offset stacking, 36
Oficina Formation, 83
Ogham Platform, 249
oil production, Minnelusa Formation, 181–92
oncolites, 87
Opeche siltstone, 181, 188
open fractures, 334–5
Orinoco Heavy Oil belt, 83
Ormskirk Sandstone Formation, 232, 251–2, 254–7, 260, 263
Ouachita River, 43
outwash, 63
outwash sediments, sandurs, 58
overbank deposits
  floodplains, 80, 113, 211, 273
  grain size, 47, 84
  porosity, 117
Willwood Formation, 23–4, 29–30
overbank facies, 103
overturned cross-bedding, 131
oxbow cutoffs, 15
Page Sandstone, 367, 372, 377
palaeocurrent directions, 82
palaeocurrents
  Kayenta Formation, 210–11, 213
  Sherwood Sandstone, 236
INDEX

palaeomagnetism, Triassic, 399-419
palaeoslope sands, 2
palaeosols, 85
development, 15, 47
maturity, 24–5, 28
Saltwick Formation, 134
Willwood Formation, 24
palaeovalleys, 35, 39, 46
paludal deposits, Texas, 99
parabolic dunes, 255, 263
paragenesis, Sherwood Sandstone Group, 285, 287
paralic deposits, Texas, 99
parallel lamination, 206–8, 211, 238, 298
parasequence boundaries, 177–8, 182
Paris Basin, 286
partial thermal remanent magnetization, 399, 403, 417
peak flow hydrographs, 63
peak Trough, 126
pedofacies, 25–8, 30
pedogenesis
Sherwood Sandstone Group, 286
Willwood Formation, 24
Pennant Sandstone, 143–55
Pennine Axis, 293
Pennine Uplift, 268
permeability
aeolian deposits, 2, 244
anisotropy, 2
Auk Field, 377–97
Brent Group, 438, 440–2
Page Sandstone, 368, 372
Rough Gas Field, 272–3
Travis Peak Formation, 97
Whitby West sandstone, 138–9
permeability barriers, fluvial reservoirs, 2
petrology, Sherwood Sandstone Group, 280–7
pin-stripe lamination, 169, 188, 234, 379, 381, 388, 390
Pinedale, 427
planar cross-bedding, 108, 131
planar laminated sandstone, 131, 134
plane-bedded bars, 112
plant fragments, 146, 150
playa deposits, 238, 254, 256, 263, 302
playas, 213–14, 298
point-bars
cut-offs, 45
Kayenta Formation, 211
ripple cross-lamination, 85
transverse, 37
Travis Peak, 100, 103, 106–7
pore tortuosity, 124
pore waters, Sherwood Sandstone Group, 287
porosity
aeolian deposits, 2, 234, 242, 257
Hopeman Sandstone, 344
Rotliegendes, 268
Sherwood Sandstone Group, 281, 283, 285
sinuous channels, 117
straight channels, 119
Travis Peak Formation, 97
porosity-depth relations, 116
post-depositional remanent magnetization, 415
Powder River Basin, 181
Pre-palagonite Gravels, 63, 66
predictive tools, 1–2
pressure decline, 188
Preston, 279–89
Preuss Formation, 322
primary bounding surfaces, 169, 188
primary current lineation, 146, 254
probability density functions, 88
probe permeameter, 433–42
productivity, aeolian reservoirs, 242
proglacial channels, 55
progradation, 60, 99, 163
proximal facies, 295–7, 303
Prudhoe Bay, 143
pull-apart basins, 7
Purple Sandstone Formation, 158, 163
pyrite, 283, 286, 410, 412, 417
pyrrhotite, 410
radar facies, 426, 429–31
radar sequence boundaries, 425, 428–31
radiocarbon dating, Iceland, 56
raindrop impressions, 201, 298
Rannoch Formation, 433, 436, 438, 440
Raven Creek Oil Field, 181
Ravenscar, 137
Ravenspur Anticline, 20
reactivation surfaces, 170–1, 215, 223–4
recovery efficiency, 1
Red Bluff, 219
Red Canyon Fault, 427
Reelfoot Uplift, 16
reflector terminations, 425
regional bounding surface, 216
reservoir heterogeneity, 152
reservoir modelling, 3
reservoir potential, 14–15
reservoir simulation, 107, 114
resolution, ground penetrating radar, 431
reworked deposits, 299
rhizoliths, 201–2, 204, 206, 210
Rhondda Beds, 146, 150
ribbon sandbodies, 27, 29, 85
ridge and swale morphology, 84
Riedel shear, 334, 347, 352
rills, 10
Ringkøbing-Fyn High, 268
Rio Mayor, 83
ripple bedding, 108
ripple cross-lamination, 84–6, 131
ripple foresets, 169
ripple lamination, 297, 436, 440
ripple strata, 169
river base-levels, 39, 44–5, 47
river terraces, 63
river widths, 43–4
Rocky Mountains, 153
Rocky Ridge Field, 83
rotational remanent magnetization, 408
Rotliegend, 2, 265–6, 307
Auk Field, 379
Southern North Sea, 291–319, 339
Rough Gas Field, 265, 269, 310, 315
Rourke Gap Oil Field, 182
INDEX

INDEX 449

runoff events, duration, 62
runoff hydrographs, 58
rutile, 410

Saalian Unconformity, 292
Sabkha Matti, 177
sabkhas, 167
bounding surfaces, 168, 170
Kayenta Formation, 210–11
Minnelusa Formation, 182
Rotliegend, 295, 298, 303-4, 314
Sherwood Sandstone, 238, 286
Sahara, 216
Sahelian Zone, 177
St Aethans, 344
St Bees Sandstone Formation, 232, 251–2, 260
St Bees Shale, 251
saltation, 238
Saltwick Formation, 124, 126–7, 137
sample spacing, permeability tests, 393-4
sand dispersal points, 10
sand sheet facies, 379, 386
sand sheets, 167–8, 170, 222, 238, 255
Tumblagooda, 228
sand-drift surfaces, 175
sandbodies
connections, 46, 87, 114–15
dimensions, 80–1
sandbody density, 160
sandbody thickness, and bankfull depth, 38
sandflats, 163
sandflows, 201, 205
SANDSIM model, 58–74
sandstone complexes, 80
sandurs, 53, 55, 58
modelling, 59–74
sediment input, 58, 60, 62, 70
Saskatchewan River, 26, 112, 254
scale effects, basin architecture, 7–8
scour, 17, 33, 63
scour and fill deposits, 38, 207
scour pools, 35, 37
scoured bases, 35
scours, interlocking, 207
Scythian
Cheshire, 280
Sherwood Sandstone Group, 249
sea-level changes, 39, 45
Cleveland Basin, 137
Gulf Coast, 46
Iceland, 55, 71
Wisconsin glaciation, 42–3
Seascale Fault, 247
seatearths, 150, 153
secondary circulation, 37
sediment continuity equation, 12
sediment discharge functions, 11
sediment flux, Gulf of Corinth, 11
sediment input, sandurs, 58, 60, 62, 70
sediment loads, 8
sediment transport rates, 73
sediment volume, 39
sediment yield, 10

sedimentary architecture, 81
sedimentary basins, 9
sedimentological logs, 87
sedimentology, sandurs, 70
seif dunes, 272, 300
seismic deformation, 131
seismic facies, Sherwood Sandstone Group, 257, 260
seismic pumping, 348
seismic resolution, 3
SELECTHITES, 222
Selima Sand Sheet, 242
semivariograms, 388–90
sequence boundaries, 178
sequence stratigraphy, 47
shale-clast conglomerates, 109
Sharp Field, 182
shear stress, channel beds, 36
sheet deposits, 86
sheet floods, 297, 303, 315
sheet sandbodies, 30
sheet-flood deposits, 254
Kayenta Formation, 211
Rotliegend, 298
Rough Gas Field, 266, 269
Sherwood Sandstone, 238, 240
Travis Peak, 106
sheet-flow deposits, 302
sheet-flood deposits, Ormskirk Sandstone, 255
Sherkin Sandstone Formation, 158, 161, 163
Sherwood Sandstone Group, 154, 231, 236, 245, 247, 279–89
Shields coefficient, 61
siderite, 126, 346
Sierra de Altomira, 83
Sigurd Fault, 247, 249, 260
siltstones, Saltwick Formation, 134
silty mudstone, 134, 208
Silverpit Anticline, 20
Silverpit Formation, 265, 303, 307
Silverpit Shale, 268
Singleton Mudstones, 287
sinuosity, 42
sinuosity changes, 45, 99
sinuous channels, 16
Skagerrak Formation, 399–419, 413, 418
Skeidara River, 58
Skeidararjökull, 67–8
Skeidararsandur, 58, 67–74
Skoga Pumice Fan, 63–4, 66–7
Skogasandur, 63
Skolithos, 219, 228
Sligo (Pettet) Formation, 99
smectite, 283, 287, 412
Sole Pit, 293
Sole Pit Basin, 292, 307, 314–16
Sole Pit Erg, 300–1, 307, 314–15
Solheimajökull, 57, 63
Solheimasandur, 58, 63, 66
Solway Basin, 247, 260
source rocks, Travis Peak Formation, 99
South Fork Madison, 19
South Hewett Basin, 315
South Hewett Erg, 315
South Hewett Fault, 293
South Hewett Pediments, 314
South Morecambe Field, 240, 242, 244
South Platte River, 236
South Wales Coalfield, 143-4
Southern North Sea Basin, 265, 269
Spain, Cape Basin, 54
spatial variation, and channel types, 116
splay fault, 344, 348
Squamish River, 254
stabilization surfaces, 177
stacked channel deposits, 251, 436
stacked channels, 114, 149
stacked cross-sets, 202
stacked palaeosol profiles, 26, 28
stacked sandbodies, 268
stacking surfaces, 173
Stafford Basin, 247
star dunes, 301
Stafford Field, 441
Stokes surfaces, 167, 177, 203, 255
straight channels, Travis Peak Formation, 99
Stranger Shale, 27
stream power, 12
strike-slip faults, 293, 303
subglacial lakes, 58
submarine fans, 14
subsidence rates, 8, 28-9
subsiding basins, 302-3
super surfaces, 177, 216, 306
suspended loads, 47, 109
swales, 109
swaley cross-stratification, 436
Swansea, 144
Swansea Beds, 146
Swarte Bank Hinge, 293, 301, 314-15
talus cones, 13
Tarbert Formation, 400
Taylor Group, 228
terminal fan systems, 158-9, 162
terminal lobes, 303, 314
terrace aggradation, 67
Tertiary, Spain, 82
thalwegs, 34, 37
thermal demagnetization, 407
thermal sagging, 8
thermal subsidence, 417
theropods, 201, 212
thrust-related basins, 7
Thurcaston Member, 232, 252
tight gas sandstones, 95
titanium oxide, 410, 412
Toe Head Formation, 161
Top Terrace Gravels, 63, 66
topsets, 127, 131
Törtola deposits, 82-3
trace fossils, 219-20, 226-8
transverse drainage, 12-14
transverse fans, 11
Transverse Ranges, California, 16
Travis Peak Formation, 95-121
tributaries, 38

trough cross-bedding, 84-6, 110-11, 127, 206-8, 219, 221-2, 236
truncated dunes, 211
trunk streams, 98
Tumblagooda Sandstone, 219-30
Twin Creek Limestone, 324, 336
Tynwald Sandstone, 249
Tynwald Fault, 249
unblocking temperatures, 402, 404, 408, 415, 417
uplift, 10

Valanginian Stage, Texas, 98
variability, laminated sediments, 433-42
Variscan Orogeny, 144, 158, 292
Vatnajökull, 57, 68
vertical stacking, 36, 108-9, 114
Viking Field, 303
Viking Graben, 399, 417
Villalba de la Sierra, 83
volcanogenic deposits, 63-4

wadis, 268-9, 272, 276
Walther’s law of facies, 27
washload, 12
washouts, 207
water injection, 153
water table effects, 173, 226-7, 294-5
Weber Sandstone, 171, 213
Weeton Camp borehole, 280, 286-7
Weichselian, 55
Weissliegend, 293, 298-9
Welton oilfield, 154
Westphalian, North Sea, 19-20
Whitby fault, 126, 137-8
Whitby West sandstone body, 123-41
White Sands, 170, 173, 223-4
whole-reservoir conditions, 8
Widge field, 188
Willwood Formation, 23, 26-8, 30
wind direction, Rotliegend, 300
wind ripple deposits, 379, 381
wind ripple lamination, 202
wind ripples, 201, 205, 255, 294, 301, 368, 377
wind scour, 167, 171
Wingate Sandstone, 303, 306, 348, 360
wireline logs, 100, 104-5, 256
Wisconsin glaciation, 42-3
within-reservoir conditions, 8
Wolfcampian, Wyoming, 181
Worcester Graben, 247
Wyoming-Idaho-Utah thrustbelt, 321, 323
Wytch Farm Oilfield, 154

XRF analyses, 27
Yellow River, 12
Yellow Sands, 300, 315
Zechstein Sea, 271, 299, 315, 379
Zechstein Supergroup, 268
zibar, 222
Zuni lineament, 211, 213