Subject Index

A Computers fiber optic sensors and, 311 Acetone, 151 Conductivity Airport fuel tank farms, 169 electrical, soil, 169 Alluvium electromagnetic, 69 monitor wells in, 230 hydraulic, 79, 93, 346, 362 recharge rate through, 111 terrain, 59 testing, 93 Cone penetrometer, 169, 183, Aquifers 199 characterization, 79 Containment cells, 69 resistivities, 79 Contamination evaluating ground water, 3, 79 screens for, 230, 241 skeleton, 24 thicknesses, 79 hydrocarbon product, 169 soil gas, 151 vapor adsorption, 140 ASTM Standards soils, 59 D 4750: 273 volatile organics, 199 Core boring samples, 230 R Crust tests, 93 D Background levels, 3 Bentonite grout, 256 Bomb-pulse tritium method, 111 Darcy's law, 111 Boreholes, 24, 79 Data acquisition, 273 monitoring, 273 Data quality support, in well construction, historical, 377 256 monitor well levels, 273 need for, 24 statistical evaluation, 411 C variance, 391 Degradation, plastics, 217 Casings, well, 217, 256 Dispersion coefficients, 79 Characterization, aquifer, 79 E Characterization, field containment cell, 69 Chemical sensor system, 300 Electrical conductivity, 169 Chloride, 111 Electromagnetic conductivity, 69 Chlorinated solvents, 140 Entropy, disposal site, 391 Clay soils Error control, 3 Estuarine sediments, 183 gas permeability, 331 hydraulic conductivity, 362 leak detection, 124 F Codisposal, 151 Computerized data acquisition, 169 Fabric elements, 24 Computer modeling Fiberglass resistance devices, 124 geologic data use in, 24 Fiber optic chemical sensors, 311

Field tests L aquifer characterization, 79 cone penetration, 169, 199 Landfill, 331 D 4750: 273 detection, toxics, 59 geophysics, location study, 59 monitoring wells at, 256 geophysics, surface, 69 soil gas surveys, 151 hydraulic conductivity, 346, Leakage, 391 362 Liners, 331 lithology, estuarine sediments, Lithographs, 183 183 purging techniques, 241, 281, 300 M sensing, 311 soil gas surveys, 151 Magnetometer, 59 vadose zone characterization, Mill tailings, uranium, 69 93 Monitoring vadose zone leakage, 124 network design, 3 Filter pack, 230, 241 regulatory requirements, 39 Flow direction, 79 Fuel tanks, airport, 1669 0 G Optoelectronics, 311 Organic vapor adsorption, 140 Gas chromatograph, 151 Gas permeability, 331 P Geoelectrics, 79 Gradiometer, 59 Grain size, use in well design, 230 Grout, bentonite, 256 Packers, 281 Gypsum resistance devices, 124 Partitioning, vadose zone, 140 Pattern recognition, 377 Penetration testing, piezometric Н cone, 169 Penetrometers, 169, 183, 199 Pentachlorophenol, 377 Halloysite, 346 Permeability Hazardous waste facility fields, 24 monitoring system, 39 gas, 331 Hydraulic conductivity, 362 Permeameters, 93 field vs. laboratory tests, 346 Petroleum, 169 Hydrocarbon product Piezometers, 362 contamination, 160 Piezometric cone penetration Hydropunch, 183, 199 testing, 169, 199 Plastics, degradation, 217 Polytetrafluoroethylene, 217 I Poly (vinyl chloride), 217, 256 Porosities, 79 Probes, electrical resistivity, 124 Indicator parameters, 411 Pumps, types, 281 Infiltration, 93 Purge volume, 241

Purging, 281, 300

Isotopes, stable, 111

Q	T
Quality assurance, soil gas	Teflon, 217
survey, 151	Terrain conductivity, 59 Tracers, 111, 281
R	velocity, 79
	Transducers, vibration strip, 273
Radar, ground penetrating, 59	Trichloroethene, 199
Recharge rate, 111 Regression analysis, 377	Tritium, 111 Turbidity, 230, 241
Resistivities, electrical, 79	1 41 51 41 7 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Resistivities, hydraulic, 124	**
Resource Conservation and	U
Recovery Act, 39, 300, 311 site monitoring program, 391	
5.00 mountering pro-Brown, 5 / 1	Uranium Mill Tailings Remedial
S	Action program, 69
Samplers, materials for, 217	
Sampling intervals, 39	${f V}$
Screens, sampling, 230, 241 Sedimentary facies, 25	
Sensors	Vapor adsorption, organic, 140
fiber optic chemical, 311	Vapor migration, 151
in situ, 300	Volatile organics contamination,
Sieve analysis, 230 Silts, 346	151, 199
Soils	
alluvium, 93, 111, 230	W
clays, 124, 331, 362 compacted, 331	
gas, 151	Wells, monitor, 3
profiling, continuous, 169	alignment, 256
sandy, 241	casings, 217, 256
saturated granular, 169 silts, 346	construction, 256 design, 230, 300
unsaturated, 93, 111, 331	location, 39, 199
water coated, 140	piezometers, 362
Solvents, chlorinated, 140	purging, 281, 300
Sorptivity tubes, 93 Stainless steel, 217	regulatory compliance of, 39 screens, 230, 241
Standpipe piezometers, 362	water levels in, 273
Statistics, in ground-water	Well screens, 230
quality, 411	Wireline sampling, continuous,
Stratigraphy, defining, 24 Suction, 124	230 Wire wrap screens, 241
·, ·	- ··