Training Objectives		Date of Assessment and Level of Attainment				Comments
		A	K	E	C	
C	**CORE SKILLS**					
C1	Explain the complexities of geology and of geological processes in space and time within a stratigraphic framework.				•	
C2	Classify sedimentary, igneous and metamorphic rocks, assemblages and terrains; their mode of formation, field occurrence and engineering significance.				•	
C3	Describe geological structures; their mode of formation, field occurrence and engineering significance.				•	
C4	Interpret the stratigraphic framework of the region in which the work is to be undertaken.				•	
C5	Categorise the Quaternary setting of a given project area and predict the associated sediments, landforms and geohazards present within that terrain.				•	
C6	Recognise and categorise landslides and potentially unstable slopes.				•	
C7	Accurately record geoscience and engineering data in a notebook.				•	
C8	Take appropriate orientation data including dip and strike or dip and dip direction measurements.				•	
C9	Assess and record height and other dimensional data.				•	
C10	Map read, orientate and locate in the field and understand map scales.				•	
C11	Recognise the importance and concepts of factual data collection including the transfer of data to others.				•	
C12	Communicate effectively with others at all levels orally, in writing and by presentation.				•	
C13	Utilise geoscience information to develop preliminary predictive and conceptual ground models which include aspects of:-				•	
	Stratigraphy				•	
	Lithology				•	
	Structural Geology				•	
	Geomorphology				•	

Training Objectives		Date of Assessment and Level of Attainment				Comments
		A	K	E	C	
C	**CORE SKILLS**					
	Hydrogeology				•	
	Contamination and environmental aspects				•	
	Geotechnics				•	
C14	Undertake systematic, geological, engineering geological, geomorphological and other appropriate thematic mapping. Mapping undertaken must include aspects of :				•	
	Geology / statigraphy and geological structure				•	
	Geomorphology and terrain evaluation				•	
	Rock mass properties				•	
	Hydrogeological and hydrological features				•	
	Geological hazards				•	

Training Objectives		Date of Assessment and Level of Attainment				Comments
		A	K	E	C	
S	**SITE RECONNAISSANCE AND MAPPING**					
S9	Design a structured, formal site reconnaissance visit.					
S10	Identify the key geological and geomorphological features of engineering significance from the site reconnaissance.					
S11	Identify potential contaminant sources, pathways and receptors from the site reconnaissance.					
S12	Identify potential ground and surface water issues from the site reconnaissance.					
S13	Undertake an evaluation of existing cuttings / embankments and identify any potential defects.					
S14	Undertake field-based mapping including the compilation of thematic maps such as:					
	Slope and landslide hazards Potential construction material sources					
	Ease of rock excavation					
	Foundation category map					
	Rock mass properties					
	Engineering geological description					
	Utilise remotely sensed data to assist with site mapping.					
S15	Detail the advantages and disadvantages of using various remote sensing systems.					
S16	Explain the need for obtaining ground truth information					
S17	Analyse and interpret the following remotely sensed data formats:					
	Colour or black and white aerial photography					
	Stereographic imagery					
	Infrared photography					
	Multispectral and hyperspectral satellite imagery					
	Digital terrain models					
	Radar imagery including interferometry					

Training Objectives		Date of Assessment and Level of Attainment				Comments
		A	K	E	C	
S	**SITE RECONNAISSANCE AND MAPPING**					
S18	Utilise these data to generate a three dimensional interpretation of the ground to feed into the Conceptual Ground Model.					
S19	Identify the presence of geological hazards from the site reconnaissance and mapping activities					

Training Objectives		Date of Assessment and Level of Attainment				Comments
		A	K	E	C	
S	**DESK STUDY**					
S1	Prepare a site specific engineering geological desk study.					
S2	Outline what information is available, the potential sources of that information, how to obtain that information and how to present and report that information. This should include usage of the following data sets:-					
	Published and unpublished topographic maps and other plans at relevant scales (including previous editions and historical maps).					
	Published and unpublished geological and applied geological maps					
	Published hydrogeological maps					
	Published geological and geotechnical academic papers, reports, memoirs, guides, monographs and other relevant literature					
	Aerial photographs, satellite images and other remotely sensed imagery					
	Previous technical reports on the site or nearby sites					
	Records of previous borehole or trial pit investigations					
	Well or water monitoring borehole records					
	Mining or other mineral extraction records and plans					
	National geoscience databases					
	Internet-based material					
	Data in AGS Format					
	Digital terrain or elevation models					
	Building Inspection / defect reports					
	Historical construction records					
S3	Assess the reliability and relevance of such information					
S4	Utilise existing information to develop a Conceptual Ground Model of the site					

Training Objectives		Date of Assessment and Level of Attainment				Comments
		A	K	E	C	
S	**DESK STUDY**					
S5	Develop a profile of the site history including potential contamination sources, historical structures and any relevant geological hazards that may effect the site.					
S6	Utilise the preliminary predictive and conceptual ground models to identify potential contaminant sources, pathways and receptors.					
S7	Utilse the preliminary predictive and conceptual ground models to identify potential ground or groundwater hazards.					
S8	Utilise historical data to provide evidence for seismic activity					

Training Objectives		Date of Assessment and Level of Attainment				Comments
		A	K	E	C	
S	**DESIGNING THE INVESTIGATION**					
S20	Design an investigation to confirm predicted ground conditions and further develop the Conceptual Ground Model. Design should address aspects of:-					
	Geomorphology					
	Sequence of strata anticipated					
	Thickness of strata and variations anticipated					
	Nature of strata boundaries					
	Strata variability					
	Groundwater levels and their variability					
	Contamination sources, their extent and concentration in ground and groundwater, potential contamination pathways					
	Structural geology					
S21	Define the methods of investigation including depth range, size and manoeuvrability of equipment, time required, relative costs, capabilities and limitations					
S22	Design ground investigations for a range of engineering projects using appropriate and cost effective methods; preparing cost estimates of investigations.					
S23	Recognise the phasing of investigations to optimise information gathering to suit the stages of a engineering scheme for example route optimisation, preliminary design, detailed design and construction.					
S24	Design investigations on contaminated land including sampling techniques and protection measures for company personnel and the public.					
S25	Summarise environmental regulations and best practice					

Training Objectives		Date of Assessment and Level of Attainment				Comments
		A	K	E	C	
S	**FIELD BASED GEOTECHNICAL INVESTIGATION - SOIL AND ROCK**					
S26	Undertake ground investigation utilising a variety of sampling techniques, including:					
	Trial pits and trenches					
	Window sampling					
	Augering					
	Cable tool percussion					
	Piston sampling					
	Rotary open hole					
	Rotary core drilling					
S27	Undertake ground investigation utilising a variety of in situ testing techniques, including:					
	Cone penetration testing					
	Dynamic probing					
	Plate testing					
	High pressure dilatometer					
	Weak rock self boring pressuremeter					
	Dynamic probing					
	Shear vane testing					
	In situ density tests					
	Standard penetration testing					
	Plate bearing tests					
	Pressuremeter testing					
S28	Undertake ground investigation utilising a variety of geophysical techniques including:					
	Seismic reflection					
	Seismic refraction					
	Electrical resistivity and conductivity					
	Magnetometer					
	Gravimeter					
	Ground penetrating radar					
	Borehole sonde geophysics					
	Crosshole seismic tomography					
S29	Utilise geophysical techniques to provide seismic acceleration co-efficients					
S30	Describe and log rock/soil material and rock/soil masses to appropriate standards such as BS 5930 - 1999					

Training Objectives		Date of Assessment and Level of Attainment				Comments
		A	K	E	C	
S	**FIELD BASED GEOTECHNICAL INVESTIGATION - SOIL AND ROCK**					
S31	Describe and classify rocks and soils utilising specialist descriptive schemes such as for Chalk, Granite, Mercia Mudstone, London Clay, Glacial Till					
S32	Draw appropriate pit, face and borehole logs to appropriate standards					
S33	Undertake a rock mass characterisation including scanline surveys, discontinuity surveys and general rock mass assessments					
S34	Prescribe instrumentation including:					
	Piezomenters					
	Inclinometers and tiltmeters					
	Extensometers					
	Pressure gauges and load cells					
	Settlement gauges					

Training Objectives		Date of Assessment and Level of Attainment				Comments
		A	K	E	C	
S	**FIELD BASED CONTAMINATION INVESTIGATION**					
S35	Define a risk-based conceptual ground model of a Brownfield or potentially contaminated site.					
S36	Identify potential contaminants on a site.					
S37	Determine the nature and extent of any contamination on a site.					
S38	Identify any hazards posed by that contamination.					
S39	Identify plausible pathways for contaminant movement on a site.					
S40	Identify possible receptors of contamination from a site.					
S41	Detail significant Pollutant Linkages associated with a site.					
S42	Recognise different phases of a contaminated land based investigation such as:					
	Preliminary; Primary non - intrusive phase					
	Exploratory; Limited intrusive phase					
	Main or detailed phase; Dominated by intrusive ground investigation techniques					
S43	Design and specify a contaminated land based investigation applicable to the assessment phase of a site, such as:					
	Pre – purchase investigation					
	Preliminary investigation					
	Exploratory investigation					
	Main investigation					
	Supplementary investigation					
	Method Testing investigation					
	Performance Testing investigation					
S44	Design and implement a desk study and site reconnaissance programme applicable to a Brownfield site.					
	Categorise and define the investigation objectives in relation to:					
	Potential contaminants on site					
	Existing or proposed use of the land					

Training Objectives		Date of Assessment and Level of Attainment				Comments
		A	K	E	C	
S45	Potential human targets on and in the vicinity of the site					
	Proximity to, and sensitivity of, water bodies					
	Proximity to, and sensitivity of, flora & fauna					
	Nature of building materials and services					
	Nature of building structures and confined spaces					
	Potential physical and man - made pathways					
	Nature, extent, form, source and distribution of contaminants in a range of media both on - and off - site					
	Ground temperatures					
	Levels of microbial activity					
	Health of existing on - site and off - site ecosystems					
	Water Environment					
	Groundwater levels, pressures and their variation with time					
	Direction and volume of flow of ground and surface water					
	Abstraction and recharge activities having an influence on the site					
	Propensity of site to flooding					
	Chemical and mineralogical quality of ground and surface waters including background composition in area					
	Geological strata, composition and structure					
	Primary and secondary permeability / porosity					
	Rainfall and evaporation characteristics					
	Tidal fluctuations					
	Geotechnics					
	Physical characteristics of the ground					
	Physical characteristics of contaminated matrices					
	Geotechnical characteristics					
	Presence of old mine workings					
	Topography of the site and surroundings					

Training Objectives		Date of Assessment and Level of Attainment				Comments
		A	K	E	C	
S46	Distinguish the risk management context of contaminated land assessment including:					
	Purchase, transfer or divestment of land and property					
	Funding, insurance or valuation activities					
	Establishment of potential legal liabilities by site owner or occupier					
	Land redevelopment					
	Implementation of environmental and public health legislation					
S47	Define a testable representation of environmental processes on a site and its vicinity.					
S48	Assess current and potential risks presented by a site conceptual ground model.					
S49	Determine whether remedial action is needed.					
S50	Define a Formal Safety Policy for working on contaminated sites.					
S51	Apply appropriate Health and Safety measures as defined by current regulations such as:					
	Health and Safety at Work Act 1974					
	Control of Substances Hazardous to Health Regulations 1995					
	Management of Health & Safety at Work Regulations 1992					
	Construction (Design & Management) Regulations 1994					
S52	Implement an ecological assessment where necessary.					
S53	Initiate appropriate investigation management such as:					
	Quality control					
	Legislative requirements					
	Sampling					
	Real - time measurements					
	Documenting and recording activities					
	Handling, transport and storage of samples					

Training Objectives		Date of Assessment and Level of Attainment				Comments
		A	K	E	C	
S54	Inform decisions on the nature, extent and performance requirements of any remedial works.					

Training Objectives		Date of Assessment and Level of Attainment				Comments
		A	K	E	C	
S	**FIELD BASED GEOTECHNICAL INVESITGATION - GROUNDWATER**					
S55	Specify and schedule specialist in situ groundwater testing including:					
	Pumping Tests					
	Flow Tests					
	Variable Head Tests					
	Constant Head Tests					
	Packer Tests					
S56	Prescribe instrumentation including:					
	Piezometers					

Training Objectives		Date of Assessment and Level of Attainment				Comments
		A	K	E	C	
S	**LABORATORY BASED GEOTECHNICAL INVESTIGATION - SOIL AND ROCK**					
S57	Specify and schedule appropriate laboratory testing of soil samples including:					
	Moisture Content					
	Soil Density Test					
	Atterberg Limit Tests					
	Grading Analysis (Particle Size Analysis)					
	Sedimentation Test					
	B.S. Compaction Test / Proctor Test					
	Laboratory CBR Test					
	Consolidation Test					
	Swelling Test					
	Consolidated Undrained Triaxial Test					
	Triaxial Compression Test					
	Shear Box Test (Direct Shear Test)					
	Shear Box Test (Peak Test)					
	Shear Box Test (Residual Test)					
	Laboratory Vane Test					
	Saturation Moisture Content					
	Organic Test (Chemical Oxidation)					
	Organic Test (Loss on Ignition Tests)					
	Total Sulphate test					
	Water Soluble Sulphate test					
	Determination of pH value					
	Chlorides					
	Moisture Condition Value					
S58	Specify and schedule specialist soil testing including:					
	Scanning electron microscopy					
	Small strain triaxial testing					
	Stress path analysis					
	Laboratory permeability testing					
	X-ray diffraction and X-ray florescence analysis					
	Specify and schedule appropriate laboratory testing of rock samples including:					
	Thin section analysis					
	Moisture Content					

Training Objectives		Date of Assessment and Level of Attainment				Comments
		A	K	E	C	
S	**LABORATORY BASED GEOTECHNICAL INVESTIGATION - SOIL AND ROCK**					
S59	Rock Density Test					
	Uniaxial Compression Test (UCS)					
	Triaxial Compression Test					
	Shear Box Test					
	Indirect Tensile Strength Test (Brazil Test)					
	Point Load Index Test					
	Slake Durability Test					
	Swelling Test					
	Sound Velocity Test					
	Seismic Velocity Test					
	Dynamic Modulus Test					
	Static Elastic Modulus					
S60	Recognise the effects of sample disturbance, the stress and moisture changes that occur in samples with time and how these affect the test results.					
S61	Recognise the effects of sample size and fabric on test results.					
S62	Specify and schedule tests to mirror the stress changes that will occur during construction.					
S63	Specify and schedule tests used in assessing construction materials including:					
	Los Angeles Abrasion test					
	Sulphate Soundness test					
	Aggregate Abrasion Value					
	10% fines					
	Alkali Silica Reactivity					
	Lime Stabilization Testing					
	Concrete Cube Compressive Strength					
	Concrete Core Compressive Strength					
	Concrete Carbonation Testing					
	Concrete Oxide Testing					
	Concrete Chloride Content					
	Concrete Chloride Content Testing					
	Cement Content Testing					

Training Objectives		Date of Assessment and Level of Attainment				Comments
		A	K	E	C	
S	**LABORATORY BASED CONTAMINATION INVESTIGATION**					
S64	Design and specify a contaminated land laboratory test programme including testing for:					
	Heavy metals					
	Cyanides					
	Asbestos					
	Semi volatile organic compounds (SVOC)					
	Volatile organic compound (VOC)					
	Chlorinated solvents					
	Total petroleum hydrocarbons (TPH)					
	Polycyclic aramatic hydrocarbons (PAH)					
	Polychlorinated biphenols (PCB)					
	Dioxins/Furans					
	Pesticides/Herbicides					
	Explosives					
	Leachability					
	Biological Oxygen Demand (BOD)					
	Chemical Oxygen Demand (COD)					
	Total Dissolved Solids (TDS)					
	pH					
	Eh					
S65	Specify the usage of specialist testing and analytical equipment such as:					
	Atomic Absorption					
	Gas Chromatography					
	Induction Coupled Plasma Mass Spectrometry					
	X Ray refraction techniques					
	X Ray diffraction techniques					
S66	Recognise issues of sample disturbance, the chemical and physical changes that occur in samples with time and how these affect the test results.					
S67	Identify the effects of sample size and fabric on test results.					
S68	Evaluate the quality accreditation framework of chemical testing laboratories.					

Training Objectives		Date of Assessment and Level of Attainment				Comments
		A	K	E	C	
S	**LABORATORY BASED INVESTIGATION - GROUNDWATER**					
S69	Specify and schedule appropriate laboratory testing of groundwater samples including:					
	TBC					
	TBC					
	TBC					

Training Objectives		Date of Assessment and Level of Attainment				Comments
		A	K	E	C	
A	**INTERPRETATION AND ANALYSIS OF DATA**					
A1	Formulate the problem being investigated and select a method of analysis that is appropriate.					
A2	Utilise appropriate computer techniques for data manipulation, analysis and presentation					
A3	Estimate and communicate the precision of results and their limitations. Investigate and understand the sensitivity of the analysis and design method to different assumptions or simplifications.					

Training Objectives		Date of Assessment and Level of Attainment				Comments
		A	K	E	C	
A	**GEOTECHNICAL DESIGN**					
A4	Undertake an analysis for different modes of failure appropriate to the design situation and identify the dominant failure mechanism.					
A5	Undertake an analysis for different limit state conditions using appropriate geotechnical parameters, for example, worst credible, moderately conservative or most probable.					
A6	Undertake and specify a Rock Design including aspects of:					
	Rock slope stability and rock bolting					
	Tunnel support					
	Acceptability/suitability of materials					
A7	Undertake and specify a qualitative and quantitative slope stability analysis and remdiation design including:					
	Circular methods					
	Non-circular methods					
	Infinite slope models					
	Embankment design					
	Cutting design					
	Soil nail design					
	Reinforced soil design					
	Landslide stabilisation design					
A8	Undertake and specify a Foundation Design including aspects of:					
	Bearing capacity					
	Settlement/acceptable limits for spread footings on clay/sands					
	Pile design					
A9	Undertake and specify a Retaining Wall Design including aspects of:					
	Bearing capacity/rotation					
	Acceptable limits					
	Active/passive methods					
A10	Undertake Advanced Design Techniques including aspects of:					
	Finite element/difference methods					
	Distinct element methods					

Training Objectives		Date of Assessment and Level of Attainment				Comments
		A	K	E	C	
A	**GEOTECHNICAL DESIGN**					
A11	Undertake and specify a Hydrogeological Design including aspects of:					
	Well/dewatering design					
	Estimating flow/modelling					

Training Objectives		Date of Assessment and Level of Attainment				Comments
		A	K	E	C	
A	**GEOTECHNICAL DESIGN**					
	Geological controls					
	Screen/filter design					
A12	Specify and utilise appropriate computer techniques for geotechnical analysis and conceptual design					
A13	Identify and specify which sustainable materials that can be used in design					

Training Objectives		Date of Assessment and Level of Attainment				Comments
		A	K	E	C	
A	**CONTAMINATED LAND REMEDIATION DESIGN**					
A18	Undertake an analysis and modelling hydrogeological problems such as groundwater flow, pressure and pollutant migration.					
A19	Design and specify a remediation by excavation and removal.					
A20	Design and specify a remediation utilising a civil engineering approaches such as:					
	Containment - cover systems					
	Containment - hydraulic barriers					
	Containment - in-ground barriers					
A21	Design and specify a remediation utilising a biological based approaches such as:					
	Biopiles					
	Bioventing					
	In situ bioremediation					
	Ex situ bioremediation					
	Landfarming					
	Composting					
	Slurry phase biotreatment					
	Windrow turning					
	Phytoremediation					
	Biodegradation and natural attenuation					
A22	Design and specify a remediation utilising chemical based approaches such as:					
	Chemical dehalogenation					
	Soil flushing					
	Solvent extraction					
	Surface amendments					
A23	Design and specify a remediation utilising physical based approaches such as:					
	Air sparging					
	Physico-chemical washing					
	Soil vapour extraction					
	Soil washing					
	Electrokinetics					
	Treatment Walls					

Training Objectives		Date of Assessment and Level of Attainment				Comments
		A	K	E	C	
A	**CONTAMINATED LAND REMEDIATION DESIGN**					
A24	Design and specify a remediation utilising solidification and stabilisation approaches such as:					
	Cement and pozzolan based systems					
	Lime based treatments					
	Vitrification					
	Geochemical fixation					
A25	Design and specify a remediation utilising thermal based approaches such as:					
	Incineration					
	Thermal desorption					

Training Objectives		Date of Assessment and Level of Attainment				Comments
		A	K	E	C	
A	HYDROGEOLOGICAL DESIGN					

Training Objectives		Date of Assessment and Level of Attainment				Comments
		A	K	E	C	
A	EXTRACTIVE INDUSTRIES DESIGN					

Training Objectives		Date of Assessment and Level of Attainment				Comments
		A	K	E	C	
A	**CONSTRUCTION EXPERIENCE**					
	Implement construction activities including:					
	Ground anchorages					
	Earthworks (cut and fill)					
	Dewatering					
	Ground improvement					
	Grouting					
	Dynamic compaction					
	Vibroreplacement					
	Shallow foundations					
	Piled foundations and pile testing methods					
	Tunnel excavation and support					
	Surface drainage					
	Rock slope construction					
	Construction of remedial measures					
	Remediation of contaminated land					
	Retaining walls					
	Landslide and slope stabilisation					
	Geotextile installation					
	Specify compliance tests including:					
	Pile tests					
	Soil nail pull-out tests					
	Earthworks density tests					
	Define the circumstances that may lead to variation in contract cost or construction period and the need for procedures to maintain site records on which to evaluate these circumstances.					
	Appraise the problems involved in the practical application of design and theoretical studies to construction					

Training Objectives		Date of Assessment and Level of Attainment				Comments
		A	K	E	C	
A	**RISK ASSESSMENT AND RISK MANAGEMENT**					
	Construct geotechnical risk assessments and revise them routinely.					
	Identify hazards of engineering significance					
	Undertake a risk analysis for design, construction and maintenance identifying project risks, the level of risk and mitigation measures.					
	Monitor and implement risk mitigation measures					
	Define ground related problems in terms of their associated risks such as:					
	Project costs					
	Completion times					
	Profitability					
	Health and Safety					
	Quality and fitness for purpose					
	Environmental damage					
	Distinguish and identify sources of geotechnical uncertainty such as:					
	Site Conditions					
	Soil Engineering Parameters					
	Unanticipated Conditions					
	Loading Uncertainties					
	Seismic					
	Flood					
	Other impacts					
	Identify Geotechnical Specialists to supervise hazard identification.					
	Search for existing information on the site and produce a ground model to estimate likely ground conditions and how much variation is possible.					
	Identify all hazards and the risks they might pose to all foreseeable types of construction.					
	Provide a report to communicate the findings to the client, designers and builders/ contractors.					
	Recognise the Client's role within the risk management framework including:					

Training Objectives		Date of Assessment and Level of Attainment				Comments
		A	K	E	C	
	Setting out the fundamental construction objectives					
	Defining risk tolerance					
	Management of geotechnical risks					
	Investment in good geotechnical advice					
	Applying Geotechnical Risk Registers					
	Undertaking vulnerability assessments					
	Appraising the impacts of contract					
	Recognise the Constructor's role within the risk management framework including:					
	Issues of risk transfer to the constructor					
	Ground related risks presenting opportunities					
	Developing contractual frameworks					
	Starting risk management as early as possible					
	Applying Geotechnical Risk Registers					
	Undertaking geotechnical design reviews					
	Designing temporary works and foundation construction					
	Risk Communication					
	Conservation and monitoring					
	Feedback					
	Reviewing effectiveness of procedures					
	Recognise the Designer's role within the risk management framework including:					
	Good engineering design					
	Geotechnical hazard and risk identification					
	Use of risk analysis techniques					
	Recognising uncertain ground conditions					
	Implementing systematic design					
	Specifying ground investigation proportional to degree of geotechnical risk					

Training Objectives		Date of Assessment and Level of Attainment				Comments
		A	K	E	C	
	Recognising limited accuracy of geotechnical design calculations					
	Applying Geotechnical Risk Registers					
	Passing on of information					

Training Objectives		Date of Assessment and Level of Attainment				Comments
		A	K	E	C	
P	**PROFESSIONAL AND GENERAL**					
P1	Explain the role, purpose and functions of the Geological Society					
P2	Describe engineering geological procedures through statutory, technical, financial and commercial developments					
P3	Apply and advance knowledge and methods of engineering geological procedures					
P4	Maintain a commitment to the profession and its institutions, clients, employers and the public					

Training Objectives		Date of Assessment and Level of Attainment				Comments
		A	K	E	C	
M	**BUSINESS MANAGEMENT AND COMMERCIAL**					
M1	Detail the Employer's Business Strategy and its key objectives					
M2	Describe Quality Systems and apply Quality Systems and the management of Project Plans					
M3	Manage and apply safe systems of work with reference to the Safety Management Systems and be able to operate safety equipment					
M4	Describe how projects are promoted and financed: how funds are obtained and managed					
M5	Plan, manage and monitor human and physical resources in the implementation of a project					
M6	Detail the project and quality management systems for budgeting, registering and monitoring project costs and for the maintenance of project profitability					
M7	Detail the procedures that relate to the preparation and checking of drawings, calculations and reports					

Training Objectives		Date of Assessment and Level of Attainment				Comments
		A	K	E	C	
L	**LEGISLATION AND CONTRACTS**					
L1	Describe the duties and responsibilities of the parties in a contract and the role of the participants in the work (the Engineer, Supervisor, etc)					
L2	Explain the components, purpose and practical application of tender documents, the tendering process and award of contract					
L3	Explain the use of technical specifications for geotechnical activities such as ground investigation, quarry workings, grouting of mine workings and earthworks					
L4	Take off quantities and prepare bills of quantities using appropriate methods of measurement					
L5	Explain the system for recording data issued to and received from the contractor					
L6	Describe the contractor's organisation and the main duties of the contractor's staff					
L7	Detail the procedures for measurement, valuation and certification of payments					
L8	Describe the circumstances that may lead to variation in contract cost or construction period and the need for procedures to maintain site records on which to evaluate these circumstances					
L9	Define the problems involved in the practical application of design and theoretical studies to construction					

Training Objectives		Date of Assessment and Level of Attainment				Comments
		A	K	E	C	
L	**LEGISLATION AND CONTRACTS**					
L10	Supervise geotechnical operations (which may be investigation or construction) on site, including their organisation, control, monitoring and conformance with the specification					

Training Objectives		Date of Assessment and Level of Attainment				Comments
		A	K	E	C	
H	**HEALTH AND SAFETY**					
H1	Construct health and safety risk assessments for site visits, for design and construction					
H2	Obtain CSCS certification or similar					
H3	Implement health and safety regulations into work					