Geotechnical/Environmental Driller

CERTIFICATE OF QUALIFICATION EXAM BREAKDOWN

The following table shows the number of questions per General Area of Competency (GAC) and Competency on the *Geotechnical/ Environmental Driller Certificate of Qualification Exam.*

Number of questions on each exam: 80

Certificate of Qualification GAC/Competency		#
A.	**INDUSTRY OVERVIEW AND PROFESSIONAL WORK PRACTICES**	**3**
A1.	Describe the scope of the trade in BC	1
A2.	Describe the BC certification system	1
A3.	Apply trade math	1
B.	**WORKPLACE SAFETY**	**6**
B1.	Describe common safety hazards associated with the trade	2
B2.	Use safety equipment and procedures when dealing with hazards	1
B3.	Use the WHMIS system to practice safe care and control of hazardous products	0
B4.	Recognize and describe hazards to the environment associated with the trade	1
B5.	Recognize and comply with WorkSafeBC Regulations	1
B6.	Recognize and comply with the BC Groundwater Protection Regulations	0
B7.	Work safely on the drilling and ground water monitoring sites	0
B8.	State the safety considerations dealing with hazardous vapours	1
C.	**DRILLING METHODS**	**18**
C1.	Describe the different types of drillings methods applicable to the trade	8
C2.	Use drilling methods as applicable to the trade	10
D.	**GEOLOGY**	**8**
D1.	Use proper terminology to describe geological formations as it applies to the trade	8
E.	**GROUND WATER**	**5**
E1.	Describe the Hydrologic Cycle (Water Cycle)	1
E2.	Use proper terminology to describe various water-bearing zones	2
E3.	Use proper terminology to describe ground water formations	1
E4.	Describe different sources of water	1

Certificate of Qualification GAC/Competency		#
F.	**ARTESIAN WATER FLOW**	**4**
F1.	Describe the characteristics of artesian water flow	1
F2.	Describe the measures to contain/close artesian water flow	1
F3.	Recognize and prepare for the likelihood of encountering artesian water flow	1
F4.	Identify the potential hazards associated with artesian water flow	1
G.	**PUMP TYPES AND APPLICATIONS**	**4**
G1.	Identify different types of pumps used for drilling and their components and application	1
G2.	Use different types of pumps for drilling based on their capabilities and limitations	3
H.	**HYDRAULIC SYSTEMS**	**5**
H1.	Explain the principles of operation of different types of hydraulic systems applicable to the trade	1
H2.	Describe the functions of the basic components of hydraulic systems	1
H3.	Identify component and system failures of hydraulic systems and their causes	2
H4.	Explain the importance of maintenance schedules and required system servicing	1
I.	**MONITORING WELL/BOREHOLE RECLAMATION**	**5**
I1.	Identify the equipment required for closing a monitoring well and/or borehole	3
I2.	Close a monitoring well and/or borehole in accordance with the regulations	2
J.	**SAMPLING AND TESTING**	**14**
J1.	Identify different types of samples and tests and their purpose	7
J2.	Use specific devices to conduct sampling and testing	7
K.	**SOIL AND GROUND WATER MONITORING**	**8**
K1.	Describe the purpose and operating principles of various devices that are installed in monitoring wells	3
K2.	Install various types of monitoring devices	2
K3.	Identify ground water contamination sources	0
K4.	Describe containment movement	0
K5.	Construct ground water monitoring wells	3
	Total:	**80**