

Research Lab Sheet

Lab Name	Hydrogeological and Environmental Modeling Laboratory
Academic Year	2021-2022

Basic Information	
Department	Geology
Location	Building 1 -
Total area (m²)	30 m ²
Head of the Lab	Prof. Dr. Ayman Abdelhameed Ahmed
Establishment date	1/3/2008

Lab Members				
No. of Prof.	No. of Ass. Prof.	No. of Lect.	No. of Ass. Lect. & Demonstr.	No. of technicians
1	0	1	-	-

Staff members

#	Name	Scientific degree	e-mail	Specializations	C.V
1	Ayman Abdelhameed Ahmed	Prof.	ayman@science.sohag.edu.eg	Hydrogeology	C.V.
2	Ahmed Mohamed Ali Masoud	Lecturer	Geology_leader@yahoo.com	Hydrogeology	C.V.
3					
4					

Ass. Lecturers & Demonstrators

#	Name	Scientific degree	e-mail	Specializations	
1	-----	-----	-----	-----	-----

Theses produced by the Lab		
M Sc Thesis		
#	Title	Approval date
1	Abu Elmagd, S. A. (2008): Assessment of groundwater aquifer and land for reclamation around Sohag Governorate using Geographic Information Systems. M. Sc., Geology Department, Faculty of Science, Sohag University.	2008
2	Rizk, S. M. (2010): Assessment of the groundwater quality in Sohag Governorate, Egypt: A study in the environmental geochemistry. M. Sc., Geology Department, Faculty of Science, Sohag University.	2010
3	Ali, A. M. (2010): Assessment of Land and Water Resources along the Desert Road between Sohag and Aswan using Geographic Information Systems. M. Sc., Geology Department, Faculty of Science, Sohag University.	2010
4	Mohamed, H. M. (2010): Hydrochemistry and evaluation of processed water along the western side of Gulf of Suez, Egypt. M. Sc., Geology Department, Faculty of Science, Sohag University.	2010
	Abdelaal, W. A. (2018): Assessment of the effect of using modified clay on treating the agricultural drainage water and its impact on the soil's chemical and physical properties. M. Sc., Geology Department, Faculty of Science, Sohag University.	2018
Ph.D. Thesis		
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حاصلة على شهادة الاعتماد من الهيئة القومية
لضمان جودة التعليم والاعتماد في 2012/7/12م



Articles produced by Lab members	
#	Title
1)	Abdel-Moneim, A. A., Fahim, S. M., Ahmed, A. A. (1999): Quantitative analysis of geomorphologic characteristics and their hydrologic influence in the area southeast of Sohag, Egypt. Egyptian Journal of Geology, V. 43/2, pp. 377-394.
2)	LaBolle, E. M., Ahmed, A. A., Fogg, G. E. (2002): Investigation of Methods Used in the Integrated Groundwater and Surface-Water Model. Davis, California: Hydrologic Sciences, University of California, Davis.
3)	LaBolle, E. M., Ahmed, A. A., Fogg, G. E. (2003): Review of the Integrated Groundwater and Surface-Water Model (IGSM). Groundwater, Vol. 41, No. 2, pp. 238-246.
4)	Ahmed, A. A. (2009): Using lithologic modeling techniques for aquifer characterization and groundwater flow modeling of the Sohag area, Egypt. Hydrogeology Journal, Volume 17, Number 5 / July, 2009 , pp. 1189-1201, DOI 10.1007/s10040-009-0461-z.
5)	Abdel-Moneim, A. A, Youssef A. M., Ahmed, A. A., Abu El-Maged S. (2007): Impact of the development projects on the groundwater potentiality in the desert areas surrounding Sohag Governorate using remote sensing and GIS. The 5th Conference on the Geology of Africa, Assiut University.
6)	7) Ahmed, A. A., Fogg, G. E., Abdel-Moneim, A. A., Diab, M. S. (2007): Groundwater and the deterioration of Pharaonic Antiquities in Upper Egypt. Assiut Univ., J. of Geology, 36 (2), PP. 71-95.
8)	Abdel-Moneim, A. A, Youssef A. M., Ahmed, A. A., Abu El-Maged S. (2008): Land use suitability for development and aquifer potentiality in the low desert zone surrounding Sohag Governorate. The 1 st Arab conference "Nile River and its Protection from pollution". South Valley University, Aswan, Egypt, 2-4 Dec, 2008.

9)	Ahmed, A. A. (2009): Using Generic and Pesticide DRASTIC GIS-based models for vulnerability assessment of the Quaternary aquifer at Sohag, Egypt. Hydrogeology Journal, Volume 17, Number 5 / July, 2009, pp. 1203-1217, DOI 10.1007/s10040-009-0433-3.
10)	Ahmed, A. A. (2009): Land use change and deterioration of Pharaonic Monuments in Upper Egypt. Journal of Engineering Science, Assiut University, Vol. 37, No. 1, pp. 161-177, January 2009.
11)	12) Abdallah, F. A., Ahmed, A. A., Omer, A. A. (2009): Degradation of Groundwater Quality of Quaternary Aquifer at Qena, Egypt. Journal of Environmental Studies, Vol. 1, pp. 19-31.
13)	Omer, A., Ahmed, A. A., Yosef A., Rez, S. (2010): Nitrates, ammonia and phosphates in groundwater of Sohag Governorate, Egypt: sources and health impact. The 4th International Conference on Healthy Water in Arab World (Water for Healthy Arab Citizens), 21-22 June 2010, Semiramis Intercontinental - Cairo, Egypt, Corniche El Nil , Cairo, Egypt, Arab Healthy Water Association.
14)	Masoud, A. M., Abdel Moneim, A. A, Ahmed, A. A., Youssef, A. M. (2010): Evaluation of Hydrogeological Conditions in the desert area west of Armant, Upper Egypt. The 4th International Conference on Healthy Water in Arab World (Water for Healthy Arab Citizens), 21-22 June 2010, Semiramis Intercontinental - Cairo, Egypt, Corniche El Nil , Cairo, Egypt, Arab Healthy Water Association.
15)	Ahmed, A. A., Omer, A., Yosef A., Rezk, S. (2010): Lead in groundwater of Sohag Governorate, Egypt. The 15th Annual Conference on "Management of water crises and water resources", 11-12 December 2010, Ain Shams University, Egypt.
16)	Ahmed, A. A., Dahy, A. A. (2011): Meandering and bank erosion of the River Nile and its impact on the area between Sohag and El-Minia, Egypt. Arab J

	Geosci, Volume 4, Numbers 1-2 (2011), 1-11, DOI: 10.1007/s12517-009-0048-y.
17)	Ahmed, A. A., Ali, M. H. (2011): Hydrochemical evolution and variation of groundwater and its environmental impact at Sohag area, Egypt. Arab J Geosci, Volume 4, Numbers 3-4 (2011), 339-352, DOI: 10.1007/s12517-009-0055-z.
18)	Ahmed, A. A., Omer, A., Yosef A., Rez, S. (2012): Assessment of nitrates and their health impact in Quaternary groundwater aquifer of Sohag Governorate, Egypt. The International Journal of the Environment and Water, The Euro-Arab Organization for Environment, Water and Desert Researches, Vol. 1, Issue 1, p. 1-11.
19)	Ahmed, A. A., Diab, M. Sh, Abu El Ella, S. M., El-shater, A. (2013): Urbanization, agriculture and degradation of groundwater quality: Case study of Nile Valley, Luxor, Egypt. International Conference on Water Resources and Environment, Istanbul – Turkey, 24th-28th of November 2013.
20)	Ahmed, A. A. (2014): Fluoride in Quaternary groundwater aquifer, Nile Valley, Luxor, Egypt. Arab J Geosci, 7:3069-3083, DOI: 10.1007/s12517-013-0962-x.
21)	Ahmed, A. A., Fogg, G. E., Gameh, M. A. (2014): Water use at Luxor, Egypt: Consumption analysis and future demand forecasting. Environmental Earth Sciences, 72:1041-3021-8, DOI: 10.1007/s12665-013-3021-8.
22)	Ahmed, A. A. (2014): The Impact of Landuse Change and its consequences on the Archaeological Sites at Luxor, Egypt. The 11th International Conference of Egyptian Soil Science Society (ESSS), 5-7 May, Kafr El-Sheikh, Egypt.
23)	Ahmed, A. A., Fogg, G. E. (2014): The impact of groundwater and agricultural expansion on the archaeological sites at Luxor, Egypt. Journal of African Earth Sciences, Volume 95, July 2014, Pages 93–104, http://dx.doi.org/10.1016/j.jafrearsci.2014.02.007 .

24)	Ahmed, A. A., Fogg, G. E., Diab, M. Sh, Abu El Ella, S. M. (2014): Historical change of groundwater levels and its consequences on the archaeological sites at Luxor, Egypt. The 7th International Conference for Development and the Environment in the Arab World, Assiut University, Egypt, 23 – 25 March, 2014.
25)	Ahmed, A. A. (2015): Preliminary investigation of the impact of landuse change and the hydrogeological conditions on deterioration of the Temple of Medamud, Luxor, Egypt. The International Journal of the Environment and Water, Vol. 4, Issue 2.
26)	Ahmed, A. A., Abdelkareem, M., Asran, A. M., Mahran, T. M. (2017) Geomorphic and lithologic characteristics of Wadi Feiran basin, southern Sinai, Egypt, using remote sensing and field investigations. Journal of Earth System Science 126(6), DOI: 10.1007/s12040-017-0861-8.
27)	Abdelaal, W. A., Elsayed, M. E., Ahmed, A. A. (2017): The Influence of using treated drainage water by modified clay on some plant and soil properties. International Conference on Biological and Environmental Sciences & Applications (ICBESA-2017), Natural Sciences Publishing, 23-25 March 2017, Luxor, Egypt.
28)	Elsayed, M. E., Abdelaal, W. A., Ahmed, A. A. (2017): Effect of using treated drainage water by modified clay on some plant and soil properties. Nature and Science; 15 (12), pp. 17-25.
29)	Ahmed, A. A., Diab, M. S. (2018): Hydrologic analysis of the challenges facing water resources and sustainable development of Wadi Feiran basin, southern Sinai, Egypt. Hydrogeology Journal, Volume 26, Issue 7, 2018 , pp. 2475-2493.
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Evaluate the fulfillment of lab to appropriateness of areas, building installations, facilities and human resources standards

Areas of assessment		Indicators	Yes	Somewhat	No
Floor area and capacity	1	Adequacy of the total capacity of the lab for the number of researcher(1).	√		
Windows and doors	2	Availability of windows for adequate ventilations.	√		
	3	Ease of use of windows.	√		
	4	There are two exits (doors) at least (2).			√
	5	There are signs to locate directions of emergency exits	√		
Equipment	6	Appropriate temperature during the lectures (3).	√		
	7	Availability of good ventilation (4).	√		
	8	The existence of adequate lighting (4).	√		
	9	Lab is connected to the Internet	√		
	10	The existence of directions inside the Lab showing entrances and emergency exits.			√
Security and Safety	11	Existence of firefighting equipment near the hall (5).	√		
	12	Cleanliness of the room.	√		