

Faculty of Science
Chemistry Department

Site Evaluation for Waste Disposal Site in Eastern Cairo using Hydrogeochemical Techniques

A Dissertation

Present to

Chemistry Department

Faculty of Ain Shams University

By

Kamilia Hamed Hagagg Hamed

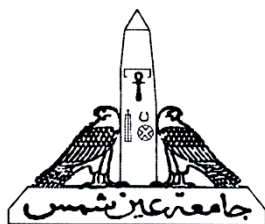
B.Sc. (2003), M.Sc. (2009) (Cairo University), Nuclear radiological
Regulatory Authority.

For

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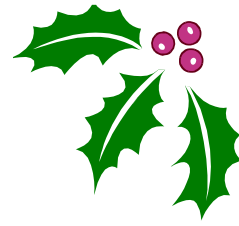
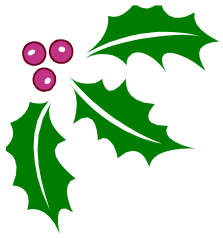
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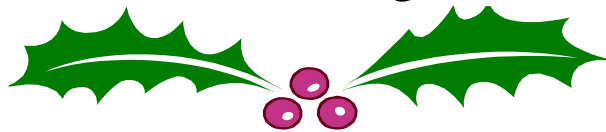
صدق الله العظيم

IN THE NAME OF GOD THE MOST MERCIFUL THE
MOST COMPASSIONATE

I BEGIN THIS THESIS



To
My Parents, My Dear
Husband and My Little
Family



List of Symbols and Abbreviations

$\delta\%$	Permil deviation of the ratio of heavy isotope to light isotope from a reference sample.
a.m.s.l.	above mean sea level.
EC	Electrical conductivity.
ppm	part per million.
epm	equivalent part per million.
WHO	World Health Organization.
IAEA	International Atomic Energy Agency.
EAEA	Egyptian Atomic Energy Authority
Na%	The division of sodium by the total cations in epm.
SAR	Sodium Adsorption Ratio.
TDS	Total Dissolved Solids.
TU	Tritium Unit.
pmc	percentage modern carbon.
GIS	Geographic Information System.
CCME WQI	Canadian Council of Ministers of the Environment.
MPC	Maximum Permissible Concentration.
ICRP	International Commission on Radiation Protection.
NCRP	National Council on Radiation Protection and Measurements.



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CONTENTS

Contents	Page
Contents	I
Abstract	V
List of Tables	VI
List of Figures	X
Chapter 1: Introduction	1
1.1 General outline	1
1.2 Problem formulation and motivation	2
1.3 Objective, approach and activities conducted	2
1.4 Thesis structure	4
Chapter 2: Literature Review and Background Information	6
2.1 Literature review	6
2.2 Physical setting of the study area	8
2.2.1 Location	8
2.2.2 Geomorphology	9
2.2.3 General hydrological settings	10
2.2.4 Hydrogeologic setting	12
2.3 Radioactive waste	14
2.3.1 Sources and types of radioactive waste in Egypt	14
2.3.2 Near surface disposal	16
2.3.3 Siting processes of waste disposal facility	16
2.3.3.1 Area survey stage	17
2.3.3.2 Site characterization stage	18
2.3.3.3 Site confirmation stage	18
2.4 Hydrochemical aspects	19

2.4.1 Total dissolved salts (TDS)	19
2.4.2 Major cations	20
2.4.2.1 Sodium and Potassium	20
2.4.2.2 Calcium	20
2.4.2.3 Magnesium	21
2.4.3 Major anions	21
2.4.3.1 Bicarbonate	21
2.4.3.2 Chloride	22
2.4.3.3 Sulphate	22
2.4.4 Trace elements	22
2.4.4.1 Iron	22
2.4.4.2 Copper	22
2.4.4.3 Lead	23
2.4.4.4 Boron	23
2.4.4.5 Manganese	23
2.4.4.6 Zinc	24
2.4.4.7 Nickel	24
2.5 Water quality index	24
2.6 Environmental isotopes in hydrology	25
2.7 Groundwater vulnerability to contamination	27
2.8 Hydrological and contaminant transport modeling	28
2.8 Simulating groundwater flow	29
2.8.2 Contaminant transport simulation	30
2.8.3 Types of model	30
2.8.4 Probabilistic safety analysis model of a radioactive disposal release.	32

Chapter 3: Techniques and Methodologies	33
3.1 Hydrochemical work	33
3.1.1 Sampling for hydrochemical analysis	34
3.1.2 Sampling for trace elements	34
3.1.3 Analytical work	34
3.1.3.1 Electrical Conductivity (EC)	34
3.1.3.2 Hydrogen ion concentration (pH)	35
3.1.3.3 Determination of Bicarbonate (HCO_3^-)	35
3.1.3.4 Major ions and trace element concentrations	36
3.2 Geographic Information System (GIS) applications	38
3.2.1 Groundwater vulnerability to contamination (DUPIT)	38
3.2.2 Water quality index	39
3.3 Probabilistic Risk Assessment (PRA) modeling	41
3.4 Capture zone delineation for pump and treat remediation	44
Chapter 4: Results and Discussion	47
4.1 Site survey stage	47
4.1.2 Verification of DUPIT index results	52
4.1.2.1 Isotopes Verification	52
4.1.2.2 Transit time verification	54
4.2 Site evaluation stage	57
4.2.1 Hydrochemical characterization and salinization processes of the preferred potential site	57
4.2.1.1 Ion distribution	60
4.2.1.2 Ion dominance and water chemical type	64
4.2.1.3 Piper Diagram	65
4.2.1.4 Major ions relations	68

4.2.1.5 Ion exchange reactions	71
4.2.1.6 Saturation indices	72
4.2. 2 Water quality and usability	74
4.2.2.1 Water Quality Index (WQI) for human drinking and domestic uses	74
4.2.2.2 Water quality for livestock and poultry drinking	77
4.2.2.3 Evaluation of groundwater for irrigation purposes	78
4.2.2.4 Evaluation of groundwater for industrial purposes	81
4.2.3 Groundwater Contamination Risk Assessment (Probabilistic Risk Analysis Model)	82
4.2.3.1 Source term and repository failure component	83
4.2.3.2 Geosphere model component and groundwater contamination hazard	84
4.2.3.3 Radiological model component	94
4.2.3.4 Sensitivity analysis of some model parameters	96
4.3 Proposed scenario for contaminated groundwater remediation	99
Summary and Conclusion	102
References	108
Arabic Abstract	

LIST OF FIGURES

Figure	Page
Figure (1): Location map of the study area.	8
Figure (2): Topography of the study area using Digital Elevation Model (3DEM).	9
Figure (3): The main geomorphic units of the study area (after Hefney, 1983).	10
Figure (4): Geological Map of the study area (after El-Shazly et al, 1975a).	11
Figure (5): Generalized stratigraphic column of the study area (modified after El-Shazly, 1975a).	12
Figure (6): Conceptual illustration of the waste classification system and relevant disposal options (IAEA, 2009).	14
Figure (7): An overview of the ICP components.	37
Figure (8): Illustrative figure of the DUPIT methodology.	39
Figure (9): Flow Chart of the adopted WQI methodology in conjugation with GIS.	40
Figure (10): Illustrative figure of multibarrier system in a waste disposal facility	44
Figure (11): Illustrative figure of capture zone analysis (Julie, 2005).	46
Figure (12): Rating map of the Five parameters of DUPIT.	51
Figure (13): DUPIT suitability map of the study area.	51
Figure (14): ^{14}C vs DUPIT index.	54
Figure (15): ^3H vs DUPIT index.	54
Figure (16): $\delta^{18}\text{O}$ vs DUPIT index.	54

Figure (17): Travel Time of ^3H vs DUPIT index.	55
Figure (18): Travel Time of ^{14}C vs DUPIT index.	55
Figure (19): Travel Time of ^{60}Co vs DUPIT index.	55
Figure (20): Travel Time of ^{59}Ni vs DUPIT index.	56
Figure (21): Travel Time of ^{99}Tc vs DUPIT index.	56
Figure (22): Travel Time of ^{90}Sr vs DUPIT index.	56
Figure (23): Spatial distribution of TDS for all groundwater	61
Figure (24): The relationship between TDS and EC for the two aquifers in the studied area.	61
Figure (25): Spatial Distribution of Ca^{2+} in the study area using Super GIS.	62
Figure (26): Spatial Distribution of Mg^{2+} in the study area using Super GIS.	62
Figure (27): Spatial Distribution of Na^{+} in the study area using Super GIS.	63
Figure (28): Spatial Distribution of K^{+} in the study area using Super GIS.	63
Figure (29): Spatial Distribution of SO_4^{2-} in the study area using Super GIS.	64
Figure (30): Spatial Distribution of HCO_3^{-} in the study area using Super GIS.	64
Figure (31): Piper plot for geochemical classification of groundwater.	66
Figure (32): Piper Diagram for groundwater samples of Miocene aquifer in the study area.	67

Figure (33): Piper Diagram for groundwater samples of Quaternary aquifer in the study area.	68
Figure (34): Relation between Na^+ and Cl^- for the groundwater samples in the two aquifers.	69
Figure (35): Relation between Ca^{2+} and Cl^- for the groundwater samples in the study.	70
Figure (36): Relation between Ca^{2+} and Mg^{2+} for the groundwater samples in the study.	70
Figure (37): relationship between $(\text{Ca}^{2+} + \text{Mg}^{2+}) - (\text{SO}_4^{2-} + \text{HCO}_3^-)$ vs $(\text{Na}^+ - \text{Cl}^-)$.	71
Figure (38): Groundwater quality map for the study area.	77
Figure (39): Willcox classification for Quaternary aquifer in the studied area.	79
Figure (40): Classification of Quaternary water samples of the studied area based on U.S. Salinity Laboratory.	81
Figure (41): $C_{\text{max}}/\text{MPC}$ vs. Distance from release point for ^3H in four scenarios.	86
Figure (42): $C_{\text{max}}/\text{MPC}$ vs. Distance from release point for ^{14}C in four scenarios.	87
Figure (43): $C_{\text{max}}/\text{MPC}$ vs. Distance from release point for ^{99}Tc in four scenarios.	88
Figure (44): $C_{\text{max}}/\text{MPC}$ vs. Distance from release point for ^{90}Sr in four scenarios.	89
Figure (45): Safety distance and the mass in inventory for each radioisotope and for each scenario.	90
Figure (46): Variation of the plume duration (y) and contaminated area of (km^2) of each radio isotopes with the distance (m) from the	93

release point in the four scenarios.

- Figure (47):** Time history of the annual effective dose of ^3H , ^{99}Tc , and ^{14}C in groundwater at 50m flow distance from the release point in the 1st scenario. 94
- Figure (48):** Relation between Safety Distance and dispersion coefficient for ^3H 98
- Figure (49):** Relation between Safety Distance and Seepage velocity for ^3H . 98
- Figure (50):** Relation between Safety Distance and the initial mass in inventory for ^3H . 98
- Figure (51):** Required pumping rate vs contaminated area in case of ^3H plume. 100
- Figure (52):** Required pumping rate vs contaminated area in case of ^{14}C plume. 100
- Figure (53):** Required pumping rate vs contaminated area in case of ^{99}Tc plume. 101
- Figure (54):** The geometry curves describing the capture zone of ^3H , ^{14}C , and ^{99}Tc in the 4th scenario. 103

LIST OF TABLES

Table	Page
Table (1): Radioactive waste types arise from the various activities in Egypt (IAEA, 1994a).	15
Table (2) Stable isotopes of hydrogen and oxygen in the hydrological cycle, (Bradley <i>et al.</i> , 1972).	26
Table (3): Use of one, two, and three dimensional models (Wang and Anderson, 1982).	31
Table (4): Positions of the studied groundwater	33
Table (5): Barriers and failure scenarios used in the model, (Nair 1999).	43
Table (6): DUPIT index parameters and their classification (Simsek, 2005).	50
Table (7): DUPIT index Classification (Simsek <i>et al.</i> , 2005).	50
Table (8): Results of $\delta^{18}\text{O}$, D, ^3H , and ^{14}C for some boreholes in the study area, (Attia, 2009)	52
Table (9a): Results of major ions of groundwater samples in the Miocene aquifer in the study area.	57
Table (9b): Results of trace elements of groundwater samples in the Miocene aquifer in the studied area.	58
Table (10a): Results of chemical analyses of groundwater samples in the Quaternary aquifer in the studied area.	58
Table (10b): Results of trace elements of groundwater samples in the Quaternary aquifer in the studied area.	59
Table (11): Statistical analysis of major cations for groundwater samples in both aquifers.	59