

Avihu Burg

January 2015

Part I: CURRICULUM VITAE

Address:

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I. Personal

26/9/1959 Born in Petah Tiqwa, Israel.

1973-1977 High school education in Kalai School, Givatayim, Israel.

1978-1981 Military service, paratrooper.

Marital status: Married + 3 children.

II. University education and additional training

1983-1986 B.Sc. in Geology at the Hebrew University, Jerusalem.

1987-1990 M.Sc. in Geology (with distinction) at the Hebrew University, Jerusalem.
Title of thesis: "The geology of the Hatrurim Formation".
Supervision by: Prof. Y. Kolodny, Prof. A. Starinsky, Dr. Y. Bartov.

1991-1999 Ph.D. in Geology at the Hebrew University, Jerusalem.
Title of thesis: "Geochemistry and hydrology of perched carbonate aquifers in northern and central Israel".
Supervision by: Prof. A. Katz, Prof. A. Starinsky, Dr. A. Bein.

2009-2010 Sabbatical leave at Israel Energy Initiatives (IEI) Company. Research subject: Evaluation of the geology and hydrology of the oil shale unit in the Hashefela region of Israel.

III. Positions held and academic status

1990 Field geologist at the Geological Survey of Israel.

1996-1999 Hydrogeologist at Tahal Consulting Company.

1999 Appointed as Research Scientist at the Geological Survey of Israel.

2000 Promoted to grade C of the Israel Scientific Civil Service, equivalent to the academic grade of "Lecturer".

- 2003 Promoted to grade B of the Israel Scientific Civil Service, equivalent to the academic grade of "Senior Lecturer".
- 2006-2009 Head, Natural and Water Resource division, GSI.

IV. Training/Teaching experience

- 2008, 2010 Lecturer of a full course at the Kibbutzim College of Education. Title of course: Introduction to hydrology and water resources in Israel.

Guidance of M.Sc. Students

- Elad Dafny (2001-2003), Title of Thesis: "The hydrogeology of the basalt aquifer in the Golan Heights, Israel". Guidance with Prof. H. Gvirtzman, the Hebrew University of Jerusalem.
- Netta Shalev (2008-2010), Title of Thesis: "Sources of salinization and nitrate contamination in the Arava shallow aquifers". Guidance with Prof. B. Lazar, the Hebrew University of Jerusalem and Dr. I. Gavrieli, Geological Survey of Israel.
- Yona Geler (2008-2010), Title of Thesis: "The Mottled Zone event - system closure and isochemistry". Guidance with Prof. Y. Kolodny, the Hebrew University of Jerusalem.

Guidance of Ph.D. Students

- Orly Goren (2003-2009), Title of Thesis: "The chemical modification and Mn enrichment during recharge of reclaimed wastewater to a sandy aquifer: the Dan Region Reclamation Project (Israel)". Guidance with Prof. B. Lazar, the Hebrew University of Jerusalem and Dr. I. Gavrieli, Geological Survey of Israel.
- Elad Dafny (2004-2010), Title of Thesis: "Reconstruction of the hydrogeological regime of Israel western Mountain Aquifer since the Miocene". Guidance with Prof. H. Gvirtzman, the Hebrew University of Jerusalem.
- Avshalom Babbad (2013-in progress), Title of Thesis: "Water flow regime in the Hula Basin - qualitative and quantitative research". Guidance with Prof. E. Adar, Ben-Gurion University - Sede Boker Campus.

V. Membership in Scientific Committees

- 1999-2000 Member, Prevention of groundwater contamination by fuels, Israel Institute of Petroleum and Energy.
- 1999 to date Member, Drilling committee, Mekorot Water Co. Ltd.
- 1999 to date Member, Drilling committee, Israel Water Authority.
- 2000-2004 Member, Hydrological research review committee, Israel Water Commission.
- 2002 to date Member, Artificial groundwater recharge committee, Israel Water Authority.
- 2002 to date Member, steering committee - monitoring of the Yarkon-Taninim aquifer, the Hydrological Service.

- 2004 to date Member, Water research committee, Mekorot Water Co. Ltd.
- 2004-2008 Member, steering committee - monitoring of the deep aquifers in the Golan Heights, the Hydrological Service.
- 2004-2012 Member, steering committee - development of groundwater production in Kalanit Basin, western Kinneret Lake, Israel Water Authority.
- 2005-2006 Member, special committee for investigation and analysis of hydrological studies, Israel Water Commission.
- 2007 Member, Impact of climate change on the Israeli water resources, Ministry of Environmental Protection

VI. Editorial Responsibilities

- 1993 Editor (with Dr. Y. Mimran, and Dr. Y., Gvirtzman), Field trips guidebook, Isr. Geol. Soc. Annu. Meet., Arad, 1993, 183p.
- 2002 Editor (with Dr. G. Weinberger), Abstracts of Workshop: the Coastal Plain Aquifer, Israel. Israel Association of Water Resources (IAWR), Ma'ale-HaHamisha, 2002, 50p.
- 2003 Editor (with A. Tal and S. Vitenberg), Abstracts of Workshop: Hydrology of arid areas - contaminants monitoring and environmental management of hydrogeographic, urbanic and industrial systems. IAWR and the Israeli Water Association (IWA), Ashqelon, 2003, 83p.
- 2003 Editor (with S. Vitenberg), Abstracts of the Annual Meeting of IAWR, Newe' Ilan, 2003, 113p.
- 2004 Editor, Abstracts of Workshop: Lake Kinneret, Israel. IAWR, The Hebrew University, 2004, 56p.

VII. Participation in International Meetings

- 2003 EGS-AGU-EUG joint meeting, Nice, France. **(Poster)**.
- 2004 2nd Second Israeli-Palestinian International Conference on "Water for Life in the Middle East" (IPCRI), Antalya, Turkey. Speaker. **Fully financed. (Participant)**.
- 2005 BMBF-MOS "Water is life" Conference, Jerusalem, Israel. **(Participant)**.
- 2006 EGU annual meeting, Vienna. **(Poster)**.
- 2006 26th Oil Shale Symposium, Colorado School of Mines, Golden, Colorado. **Invited presentation and Poster presenter, partly reimbursed for expenses.**
- 2007 6th International Scientific conference - "Resources of Natural Waters of Carpathian Region", Lvov, Ukraine. **(Fully financed)**.
- 2007 "Science for peace and security" (SPS), meeting of pilot study - NATO project - Minsk, Belarus. **(Fully financed)**.
- 2009 "Science for peace and security" (SPS), meeting of pilot study - NATO project - Jerusalem, Israel. **(Participant)**.

- 2010 In-situ thermal soil remediation, Rossmark. Ede, Holland, April. 2010. **(Participant)**.
- 2010 Environment and energy conference, France-Israel high council for research, scientific and technological cooperation, Nov. 2010, Ramat Rachel, Israel. **(Participant)**.
- 2010 “Science for peace and security” (SPS), meeting of pilot study - NATO project - Keiv, Ukraine. **(Fully financed)**.
- 2011 High council for research, scientific and technological cooperation, status seminar program “energy and environment”, Dec. 2011, Paris. **(Fully financed)**.
- 2012 “Hydrogeology of arid environments”. BGR, Hannover, Germany, March 2012 **(Poster)**.
- 2013 Water Rock Interaction (WRI-14), Avignon, France. **(Poster)**.

VIII. Membership in professional societies

- 1987 to date Geological Society of Israel.
- 1998 to date Israel Association for Water Resources - I.A.W.R.
- 2003, 2006 EGU - European Geosciences Union.
- 2013 to date IAH - International Association of Hydrogeologists.

IX. Contribution to the Scientific Community

- 1992-1993 Member, Executive committee, the Geological Society of Israel.
- 2002-2004 Member, executive committee of the Israel Association for Water Resources - IA.WR.
- 2004-2006 Member, Water Working Group, Israel/Palestine Center for Research and Information (IPCRI).

X. Consulting

- 1998 National Master Project for agriculture development in the republic of Botswana.
- 2002 Ministry of Education and Bar Ilan University. Development of a textbook on environmental issues for high schools - the water book.
- 2004-2005 Nature Campus, Tel Aviv University. The Israeli aspect in: Water in a changing world, Ecological Society of America (ESA) (in Hebrew).
- 2006 to date Ministry of Defense - hydrogeological and environmental aspects.
- 2007 to date NATO/EAPC (Euro-Atlantic Partnership Council) - Sustainable use and protection of groundwater resources - transboundary water management - Belarus, Poland, Ukraine. Teams meetings held in Lvov (Ukraine), Minsk (Belarus), Jerusalem (Israel) and Kiev (Ukraine).

XI. Research grants

A. International competitive grants

- 2002 Ministry of Science and Bundesministerium fuer Bildung, Wissenschaft, Forschung und Technologie (BMBF). Title: Characterization of water and water resources in Israel by long-lived radionuclides using advanced mass spectrometric techniques. Co-PI, for 3 years.
Budget: Total: €125,000, Researcher's part: €30,000.
- 2009 Ministry of Science & technology of Israel, Ministère des Affaires Etrangères, Ministère de l'Enseignement Supérieur et de la Recherche, France. Title: Multi-isotope tracing of groundwater flow, solute transport and redox reactions in a large-scale water reclamation system. Co-PI, for 2 years.
Budget: Total: \$42,000, Researcher's part: \$10,000

B. National Competitive

- 1998 Belfer Research Fund. Title: The Isotopic Composition of Nitrogen in Water as a Tool for Solution of Environmental Questions. CI, for 2 years.
Budget: \$26,400. Researcher's part: \$20,000.
- 2001 Israel Water Commission. Title: Hydrological model for estimation of water potential in the Dan Spring area and the western slopes of the Golan Heights. Co-PI (all PI at the GSI), for 2.5 years.
Budget: \$324,000.
- 2008 Israel Science Foundation (ISF). Title: The Mottled Zone event - system closure and isochemistry. Co-PI (PI at the GSI and the Hebrew University), for 4 years.
Budget: \$260,000, Researcher's part: \$130,000.

C. Other Grants

- 2001 Mekorot Water Co. research fund. Title: Factors controlling the evolution of anoxic conditions and iron-sulfides precipitations in boreholes in central and southern Israel. Co-PI (all PI at the GSI), for 3 years.
Budget: \$75,000.
- 2001 Israel Water Commission research fund. Title: Hydrogeology of the Basalt aquifer in the Golan Heights, Israel. Co-PI (PI at the GSI and the Hebrew University), for 2 years.
Budget: Total: \$44,000; Researcher's part: \$15,000.
- 2003 The Hydrological Service of Israel. Title: Hydrogeology investigation and utilization of Enot Tsukim (En Fescha) springs. PI, for 2 years.
Budget: \$250,000.
- 2003 Mekorot Water Co. research fund. Title: Chemical modification and manganese enrichment during recharge of reclaimed wastewater to a sandy

- aquifer: the Dan Region Reclamation Project (Israel). Co-PI (PI at the GSI and the Hebrew University), for 3 years.
Budget: Total: \$66,000; Researcher's part: \$54,000.
- 2004 The Hydrological Service of Israel. Title: Chemical and isotopic analyses in observation wells in Yarkon-Taninim aquifer. PI, for 2 years.
Budget: \$17,500.
- 2005 The Hydrological Service of Israel. Title: The response of En Zahav spring to urban-industrial development in the Qiryat Shmona region - A sensitivity study. PI, for 1.5 years.
Budget: \$167,500.
- 2006 The Hydrological Service of Israel. Title: Formulation of a 3-D, two layered model to examine the hydrological impact of uncontrolled utilization and contamination on the Yarqon Taninim aquifer. PI, for 6 months.
Budget: \$37,250.
- 2006 The Hydrological Service of Israel. Title: Chemical and isotopic analyses in observation wells in Yarkon-Taninim aquifer. PI, for 3 years.
Budget: \$180,800.
- 2007 The Hydrological Service of Israel. Title: Geochemical survey of the Kane-Samar spring system, the Dead Sea shore. PI, for 1 year.
Budget: \$21,500.
- 2008 Israel Water Authority, Mei Golan and Upper Galilee water cooperations. Title: Shamir and Shunit wells - geology, hydrology and supervision during drilling. PI, for 4 year.
Budget: \$101,000.
- 2011 The Hydrological Service of Israel. Title: Chemical composition of groundwater in the Avdat Group in the Yarkon-Taninim hydrological basin. Co-PI (all PI at the GSI), for 1 year.
Budget: \$52,000.
- 2012 The Hydrological Service of Israel. Title: Chemical and isotopic analyses in observation wells in Yarkon-Taninim aquifer. PI, for 3 years.
Budget: \$168,500.
- 2012 Israel Water Authority - research unit. Title: Influence of water consumption from deep aquifers in the northern Hula Valley on the regional water budget and flow regime. Co-PI (PI at the GSI and the Ben Gurion University), for 3 years.
Budget: Total: \$102,500; Researcher's part: \$40,700.
- 2012 Israel Nature and Parks Authority. Title: Monitoring of groundwater in Fescha springs. PI, for 3 years.
Budget: \$18,000.

XII. Awards and Scholarships

- 1989 Recipient of the Perez Grader award of the Geological Society of Israel - for outstanding scientific contribution of young scientists.
- 2002 Recipient of the Shiftan award of IAWR. - for excellent work in Hydrogeology of the Negev region, southern Israel.

Part II: LIST OF PUBLICATIONS

All publications have been classified into five major categories: The letter following each number indicates the appropriate category.

- a. Publication exclusively within the candidate's research group (including graduate and post-graduate students, technicians, associated scientists, etc.).
- b. Joint publication with other research group(s) in which the candidate plays the major primary role.
- c. Joint publications with other research groups in which the candidate's contribution is of comparable weight to that (those) of the other research groups.
- d. Joint publication with other research groups in which the candidate's group play a secondary role.

** Senior author is or was a student under the supervision of the candidate.

1. Articles in reviewed journals

- 1.a **Burg, A.**, Starinsky, A., Bartov, Y. and Kolodny, Y. (1991)
Geology of the Hatrurim formation ("Mottled Zone") in the Hatrurim basin.
Isr. J. Earth Sci., V. 40: 107-124.
- 2.b **Burg, A.** and Heaton, T.H.E. (1998)
The relationship between the nitrate concentration and hydrology of a small chalk spring; Israel.
J. Hydrology, V. 204: 68-82.
IF=2.964; Water Resources, Rank 5/80
- 3.a **Burg, A.**, Kolodny, Y. and Lyakhovsky, V. (1999)
Hatrurim - 2000: The "Mottled Zone" revisited, forty years later.
Isr. J. Earth Sci., V. 48: 209-223.
- 4.c Gavrieli I., **Burg, A.** and Guttman, Y. (2002)
Transition from Confined to Phreatic Conditions as the Factor Controlling Salinization and Change in Redox State, Upper Subaquifer of the Judea Group, Israel.
Hydrogeology Journal, V. 10(4): 483-494.
IF=1.675; Water Resources, Rank 30/80
- 5.d Amit, H., Lyakhovsky, V., Katz, A., Starinsky, A. and **Burg, A.** (2002)
Interpretation of spring recession curves.
GroundWater, V. 40: 543-551.
IF=2.132; Water Resources, Rank 17/80
- 6.a** Dafny, E., Gvirtzman, H., **Burg, A.** and Fleischer, L. (2003)
The hydrogeology of the Golan basalt aquifer, Israel.
Isr. J. Earth Sci., V. 52: 139-153.
- 7.d Halicz, L., Becker, J.S., Pickhardt, C., Gavrieli, I., **Burg, A.**, Nishri, A. and Platzner, I.T. (2006).
Characterization of natural water resources in Israel by inductively coupled plasma mass spectrometry.

- Int. J. Mass Spectrom.*, V. 249-250: 296-302.
IF=2.142; Spectroscopy, Rank 16/43
- 8.a** Dafny, E., **Burg, A.** and Gvirtzman, H. (2006)
Deduction of groundwater flow regime in a basaltic aquifer using geochemical and isotopic data: The Golan Heights, Israel case study.
J. Hydrology, V. 330: 506-524.
IF=2.964; Water Resources, Rank 5/80
- 9.a** Oren, O., Gavrieli, I., **Burg, A.**, Guttman, Y. and Lazar, B. (2007)
Manganese mobilization and enrichment during soil aquifer treatment (SAT) of effluents, the Dan Region Sewage Reclamation project (Shafdan), Israel.
Environ. Sci. & Technol., V. 41: 766-772.
IF=5.257; Environmental Sciences, Rank 7/210
- 10.d Halicz, L., Yang, L., Teplyakov, N., **Burg, A.**, Sturgeon, R. and Kolodny, Y. (2008)
High precision determination of chromium isotope ratios in geological samples by MC-ICP-MS.
J. Anal. At. Spectrom., V. 23: 1622-1627.
IF=3.155; Spectroscopy, Rank 7/43
- 11.a** Dafny, E., **Burg, A.** and Gvirtzman, H (2010)
Effects of karst and geological structure on groundwater flow: the case of Yarkon-Taninim aquifer. Israel.
J. Hydrology, V. 389: 260-275.
IF=2.964; Water Resources, Rank 5/80
- 12.a** Goren, O., Gavrieli, I., **Burg, A.** and Lazar, B. (2011)
Cation exchange and CaCO₃ dissolution during artificial recharge of effluent to a calcareous sandstone aquifer.
J. Hydrology, V. 400(1-2): 165-175.
IF=2.964; Water Resources, Rank 5/80
- 13.a** Dafny, E., **Burg, A.**, Sheffer, N., Weinberger, G. and Gvirtzman, H. (2011)
The dynamic groundwater flow field at the central Yarkon-Taninim basin, Israel: A 3D geological-based numerical model.
Isr. J. Earth Sci., V. 58: 99-111. DOI: 1560/IJES.58.2.99
- 14.a** Goren, O., Lazar, B., **Burg, A.** and Gavrieli, I., (2012)
Mobilization and retardation of reduced manganese in sandy aquifers: Column experiments, modeling and implications.
Geochim. Cosmochim. Acta, V. 96: 259-271.
IF=3.884; Geochemistry & Geophysics, Rank 6/76
- 15.a** Geller, Y.I., **Burg, A.**, Halicz, L. and Kolodny, Y. (2012)
System closure during the combustion metamorphic “Mottled Zone” event, Israel.
Chem. Geol., V. 334: 25-36.
IF=3.154; Geochemistry & Geophysics, Rank 12/76

- 16.c Kolodny, Y., **Burg, A.** and Sneh, A. (2013)
 Comment on “Combustion metamorphism (CM) in the Nabi Musa dome: new implications for a mud volcanic origin of the Mottled Zone, Dead Sea area”, by: E. Sokol, I. Novikov, S. Zateeva, Ye. Vapnik, R. Shagam and O. Kozmenko, *Basin Research* (2010) **22**, 414–438”.
Basin Research, V. 25: 112-114.
 IF=2.912; Geosciences, Multidisciplinary, Rank 30/172
- 17.a** Dafny, E., Gvirtzman, H. and **Burg, A.** (2013)
 Identifying watershed-scale groundwater flow barriers: the Yoqne'am Fault in Israel. *Hydrogeology Journal*, V. 21: 1035-1051. DOI 10.1007/s10040-013-0982-3.
 IF=1.675; Water Resources, Rank 30/80
- 18.c Wang, H.W., Anovitz, L.M., **Burg, A.**, Cole, D.R., Allard, L.F., Jackson, A.J., Stack, A.G. and Rother, G. (2013)
 Multi-scale characterization of pore evolution in a combustion metamorphic complex, Hatrurim basin, Israel: Combining (ultra) small-angle neutron scattering and image analysis.
Geochim. Cosmochim. Acta, V. 121: 339-362.
 IF=3.884; Geochemistry & Geophysics, Rank 6/76
- 19.b **Burg, A.**, Zilberbrand, M. and Yechieli, Y. (2013)
 Radiocarbon variability in groundwater in an extremely arid zone - the Arava Valley, Israel.
RADIOCARBON, V. 55(2-3): 963-978.
 IF=1.065; Geochemistry & Geophysics, Rank 49/76
- 20.c Goren, O., **Burg, A.**, Gavrieli, I., Negev, I., Guttman, Y., Kraitzer, T., Kloppmann, W. and Lazar, B. (2014)
 Biogeochemical processes in infiltration basins and their impact on the recharging effluent, the soil aquifer treatment (SAT) system of the Shafdan plant, Israel.
Applied Geochemistry, V. 48: 58-69.
 IF=2.021; Geochemistry & Geophysics, Rank 29/77.
- 21.c Kolodny, Y., **Burg, A.**, Geller, Y.I., Halicz., L. and Zakon, Y. (2014)
 Veins in the combusted metamorphic rocks, Israel; weathering or a retrograde event?
Chem. Geol., V. 385: 140-155.
 IF=3.154; Geochemistry & Geophysics, Rank 12/76

2. Confidential reviewed reports

- 1.c Bein, A. and **Burg, A.** (2000)
 Hydrological model for estimation of water potential in the Dan Spring area and the western slopes of the Golan Heights, phase I.
Geol. Surv. Isr., Rep GSI/19/2000, 31p. (in Hebrew).
- 2.d Gardosh, M., Bruner, I., Rybakov, M., **Burg, A.** and Bein, A. (2001)
 Seismic survey in northeastern Hula Valley - final report.
Geol. Surv. Isr., Rep GSI/4/2001; Geophys. Inst. Isr., Rep. 452/90/01, 23p. + appendices (in Hebrew).
- 3.c **Burg, A.** and Bein, A. (2001)
 Planning of test wells on the margins of the Golan Heights. Summary of geophysical and hydrogeological findings.
Geol. Surv. Isr., Rep GSI/11/2001, 14p. + appendices (in Hebrew).

- 4.a **Burg, A.** (2001)
Hydrogeology of the Hasbani basin, south Lebanon.
Geol. Surv. Isr., Rep GSI/39/2001, 11p. + appendices (in Hebrew).
- 5.c **Burg, A.** and Bein, A. (2002)
Hydrological model for estimation of water potential in the Dan Spring area and the western slopes of the Golan Heights, Phase IIa: The geological structure of the Mt. Hermon - Golan Heights - Ajlun anticline.
Geol. Surv. Isr., Rep GSI/13/2001, 19p. + appendices (in Hebrew).
- 6.c Gavrieli, I. and **Burg, A.** (2002)
Hydrological model for estimation of water potential in the Dan Spring area and the western slopes of the Golan Heights, Phase IIb: The geochemistry of the major aquifers in the Golan Heights as an hydrological tool.
Geol. Surv. Isr., Rep GSI/3/2002, 23p. (in Hebrew).
- 7.c Bein, A., **Burg, A.** (2003)
Hydrological model for estimation of water potential in the Dan Spring area and the western slopes of the Golan Heights, Phase III: Conceptual hydrogeological model and setting up of a mathematical model (together with Y. Ben-Shabat).
Geol. Surv. Isr., Rep GSI/1/2003, 48p. (in Hebrew).
- 8.c **Burg, A.**, Bein, A., Gev, I. and Ahipaz, Z., (2004)
Hydrological model for estimation of water potential in the Dan Spring area and the western slopes of the Golan Heights: Shamir borehole - results of drilling, summary of hydrogeological and geochemical findings and recommendations for future operation.
Geol. Surv. Isr., Rep GSI/4/2004, 43p. + appendices (in Hebrew).
- 9.c **Burg, A.**, Bein, A., Ben-Shabat, Y. and Lyakhovskiy, V., (2004)
Hydrological model for estimation of water potential in the Dan Spring area and the western slopes of the Golan Heights, Phase IV: Setting up and calibration of a 3-D mathematical flow model and examination of pumping scenarios in the Shamir area.
Geol. Surv. Isr., Rep GSI/3/2004, 27p. + appendices (in Hebrew).
- 10.a **Burg, A.**, (2011)
Initial geochemical survey of water resources in north-eastern Hula Valley.
Geol. Surv. Isr., Rep GSI/4/2011, 21p. (in Hebrew).
- 11.a **Burg, A.**, Gev, I., Merdler, A., Grossowicz, L., Moshkovitz, S., Lewy, Z., Ashkenazy, S., Gotlib, M. and Amon, Y. (2011)
Shamir 1 and 2 wells - drilling process and rehabilitation, summary of hydrogeological and geochemical findings and recommendations for operation.
Geol. Surv. Isr., Rep GSI/24/2011, 35 p. + appendices (in Hebrew).
- 12.a **Burg, A.**, Gev, I., Merdler, A., Grossowicz, L., Ashkenazy, S., Gotlib, M. and Amon, Y. (2011)
Shunit-1 well - drilling process, summary of geological, hydrogeological and geochemical findings.
Geol. Surv. Isr., Rep GSI/16/2012, 19 p. + appendices (in Hebrew).
- 13.a **Burg, A.**, Wollman, S., Gev, I. and Ashkenazy, S. (2012)
Shamir and Shunit wells - pumping tests results - July 2012.
Geol. Surv. Isr., Rep GSI/24/2012, 9 p. + tabs and figs (in Hebrew).

3. Geological maps

- 1.c Mor, U. and **Burg, A.** (2000)
Geological map of Israel, 1:50,000, Sheet 12-III - Mizpe Shalem.
Geol. Surv. Isr.
- 2.c Hirsch, F., **Burg, A.** and Avni, Y. (2008)
Geological map of Israel, 1:50,000, Sheet 15-IV - Arad.
Geol. Surv. Isr.
- 3.c Roth, Y., **Burg, A.** and Sneh, A. (2008)
Geological map of Israel, 1:50,000, Sheet 12-I,II.- Qalya.
Geol. Surv. Isr.

4. Research reports

- 1.c **Burg, A.** and Hirsch, F. (1989)
Explanatory notes to the geological and structural maps, 1:25,000 Hatrurim - Har Ye'elim.
Geol. Surv. Isr., Rep GSI/5/89, 16p.
- 2.a **Burg, A.** (1992)
Radon: sources and uses in the geological research
Geol. Surv. Isr., Rep. TR-GSI/13/92, 31p. (in Hebrew).
- 3.d Michelson, H., Simon, E., **Burg, A.** and Babai, L. (1996)
Disappearing water in the Dan River - final report.
Tahal, Report IL6104-d96.302, 45p. + appendices (in Hebrew).
- 4.c Naor, H. and **Burg, A.** (1998)
Qetura 15 well - sources of pollution and recommendations for future operation.
Tahal, Report 6703-d98.098, 5p. (in Hebrew).
- 5.b **Burg, A.** and Naor, H. (1998)
Karkom Graben: New hydrogeological perspectives and proposals for development.
Tahal, Report 6711-d98.289, 23p. (in Hebrew).
- 6.c Naor, H., **Burg, A.** and Zukerman, H. (1998)
Arava Valley, Proposed new production wells in sovereign Jordanian territory.
Tahal, Report 6112-R98-037.
- 7.c Guttman, Y., **Burg, A.**, Lifshitz, A. and Zukerman, H. (1998)
Hydrological model for estimation of water potential in the Arava aquifers - conceptual model.
Tahal, Report 6127-d98.222, 21p. (in Hebrew).
- 8.c Guttman, Y., **Burg, A.**, Lifshitz, A., Lumelsky, S. and Zukerman, H. (1998)
Hydrological model for estimation of water potential in the Arava aquifers - update of conceptual hydrogeological model and setting up of flow model.
Tahal, Report 6127-d98.372, 26p. (in Hebrew).
- 9.c Guttman, Y., **Burg, A.**, Lifshitz, A., Lumelsky, S. and Zukerman, H. (1999)
Hydrological model for estimation of water potential in the Arava aquifers - final report.
Tahal, Report 6127-d99.201, 52p. (in Hebrew).
- 10.b **Burg, A.**, Lifshitz, A., Lumelsky, S., Shahar, H. and Zukerman, H. (2000)

- Hydrological survey of the water potential in the northern Arava and southern Dead Sea basin. Report No. 2: 'En Ofarim-Tamar fields.
Tahal, Report 7407-d00.459, 46p. + appendices (in Hebrew).
- 11.b **Burg, A.**, Lifshitz, A., Lumelsky, S., Shahar, H. and Zukerman, H. (2000)
Hydrological survey of the water potential in the northern Arava and southern Dead Sea basin. Report No. 3: Admon-'Ammi'az-Hemar-Zohar fields.
Tahal, Report 7407-d00.312, 53p. + appendices (in Hebrew).
- 12.b **Burg, A.**, Lifshitz, A., Lumelsky, S., Shahar, H. and Zukerman, H. (2000)
Hydrological survey of the water potential in the northern Arava and southern Dead Sea basin. Report No. 4: Kikkar Sedom-Nahal Amazyahu-Zin-Ye'elim fields.
Tahal, Report 7407-d00.442, 33p. + appendices (in Hebrew).
- 13.b **Burg, A.**, Lifshitz, A., Lumelsky, S., Shahar, H. and Zukerman, H. (2000)
Hydrological survey of the water potential in the northern Arava and southern Dead Sea basin. Final Report.
Tahal, Report 7407-d00.484, 17p. (in Hebrew).
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