

## ***Interactive comment on “Faulting patterns determining groundwater flow paths in the Lower Yarmouk Gorge” by Nimrod Inbar et al.***

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nice compilation of facts, except those on the Syrian side where it should be mentioned that there are no known seismic profiles available (for this it could be referred to BREW et al., 2010 (Tectonic and Geologic Evolution of Syria, GeoArabia, Vol. 6, No. 4); which has e.g. Bussra-1 borehole, also mentioned in Meiler's PhD). It should also be added that on the Jordanian side there are no seismic profiles in this area. The closest oilwell is NH-1. By the way, you might also want to refer to geol structure contour maps for Northern Jordan done by me in the mid 1990s (Margane & Hobler, 1994) and available by your team for the SMART project. In the abstract and later in the text it should be made clear that the new fault system was not inferred from remote sensing. In fact that's the disturbing part: "your" faults are not even located in the valleys/topo lows. So

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I am wondering how could they be inferred in areas where there is no geophysics like in NW Jordan ? Knowing how imprecise the fault system of Jordan was mapped by NRA in particular in the old days when satellite images where not used (until the 1990s) and when there was a lot of shifting in geological maps also due to the way mapping was conducted (we are speaking about hundreds of meters), I wouldn't dare using these as reference. 119-21: there is no proof for these faults. 123: relies Chapter 4: explain details of seismic data acquisition, e.g. spacing Text/graphics (Figures 2/3/4): text uses DS-3545, graphics use DS-3543; plz correct whichever is wrong Chapter 5: Would be good to add mentioned locations, like Hamat Gader spring and Meizar 2 well in Fig. 3 219: why should faults be a constraint for GW modelling ? Figure 1: you might want to add SF-Siwaqa Fault Figure 2: plz add in Figure 3 which part of that seismic profile is shown here Table 1: I have doubts Daisy is a valid reference. Can the described data be accessed by anyone (not being eligible) ? Figure 3/4: add that the cute green lines are adopted from NRA geological maps

MARGANE, A. & HOBLER, M. (1994): Groundwater Resources of Northern Jordan, Vol.3: Structural Features of the Main Hydrogeological Units in Northern Jordan. - Technical Cooperation Project 'Advisory Services to the Water Authority of Jordan', BGR & WAJ, BGR archive no. 118702:1-3, 57 p., 30 app., 38 ann.; Amman.

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