

Table S1 Parameters, Laboratory Analytical procedures and Mexican Technical Standards, describing analytical methodologies and quality controls, considered for the analytical determination of arsenic, fluoride, pH and physicochemical parameters of water.

Parameter	Analytical procedure	Mexican Standard (NMX), Reference Method
Sampling	Water Analysis – Sampling of Groundwater	NMX-AA-152-SCFI-2009
Arsenic	Water analysis – measurement of metals by atomic absorption in natural waters, drinking, wastewaters and treated wastewaters – test method	NMX-AA-051-SCFI-2016
Fluoride	Waters analysis - determination of fluoride in natural, wastewaters and wastewaters treated - test method	NMX-AA-077-SCFI-2001
pH	Water analysis.-measurement of pH in natural waters, wastewaters and treated wastewaters.- test method	NMX-AA-008-SCFI-2016
Temperature (°C)	Water analysis - determination of temperature in natural waters, wastewaters and treated wastewaters – test method.	NMX-AA-007-SCFI-2013

Reference: <https://laboratorios.conagua.gob.mx:8446/LABORATORIOS/Pages/Laboratorios.aspx> (accessed on 9 December 2022);

Available online: <https://www.gob.mx/conagua/articulos/calidad-del-agua> (accessed on 9 December 2022).

Table S2. Water quality of major ions in groundwater samples collected in 2006 [26].

Well No.	Ca mg/L	Mg mg/L	Na mg/L	K mg/L	CO ₃ mg/L	HCO ₃ mg/L	Cl mg/L	SO ₄ mg/L	F mg/L
D139	278.6	24,0	317	5.7	0	205.6	132	820	0.8
D130	370.4	19,2	516	6.7	0	176.5	355	1360	0.8
D136	46.8	3.8	281	2.4	0	379.4	66	294	2.5
J15	134.8	13.4	238	11.6	0	13.2	94	770	4.1
J16	116.5	1.5	251	8.2	0	242.6	44	480	3.3
M6	30.9	1.3	345	0.8	0	215.7	128	304	3.2
M19	96.2	2.9	252	3.7	0	181.4	66	584	2.6
M24	67.0	7.5	153	1.9	0	179.9	42	268	2.4
M26	68.6	2.8	222	2.5	0	181.9	42	376	1.0
M27	142.1	8.5	281	4.6	0	245.1	46	740	1.5
M40	31.7	8.2	167	2.2	0	250.0	32	180	1.8
R2	89.1	8.2	118	1.9	0	240.2	48	190	1.5
S47	98.8	7.8	257	2.7	0	321.1	62	230	1.3
S54	107.9	9.7	120	2.2	0	250.0	34	272	1.3
S56-3	122.2	13.4	84	3.8	0	253.4	43	306	0.7
S56-8	179.7	15.3	284	1.5	0	252.0	84	1080	1.7
S57	49.3	5.6	132	4.9	0	208.3	22	2140	1.0
S98	46.9	5.3	199	2.9	0	223.0	40	206	2.4