

3.1 Elemental analysis by Inductively Coupled Plasma mass spectrometry (ICP):

Elemental analysis was conducted by inductively coupled plasma mass spectrometry (ICP). The concentrations of 15 metals Content (part per million - p.p.m) In 20 kidney stone samples (from 1 to 20). Result comparison with random samples of Tap water (21), black tea (22), and NaCl salt(23) and other 9 metals content (part per million - p.p.m) In samples 1,7,15,17, and 19, tabled below.

Table 3:1: Content of elements (ppm) in kidney stone samples, tap water, black tea, and table salt

samples	Gender	Age	Ba	Ca	Cr	Cu	Fe	K	Mg
Sample(1)	Female	4	0.0227	6402	0.0489	0.0587	0.3525	6.665	2.276
Sample (2)	Female	8	13.02	241000	0.056043	7.1514	0.027618	0.815553	0.65419
Sample (3)	Female	15	4.186	6401	2.006983	17.2626	0.36719	0.122407	N.D
Sample (4)	Female	24	3.5156	79917	0.973083	24.269	0.088834	0.472355	0.11881
Sample (5)	Female	26	5.514	34270	0.873013	28.6969	0.026167	1.651663	0.95783
Sample (6)	Female	40	14.22	18610	2.075823	13.7512	0.09244	0.385916	0.11794
Sample (7)	Male	4	0.0390	64600	0.0480	0.0628	0.4229	4.038	1.802
Sample (8)	Male	7	5.232	16240	0.0	13.5204	0.107413	3.475316	0.92486
Sample (9)	Male	10	5.1033	6352	3.831503	3.41871	0.129295	0.937953	0.14208
Sample(10)	Male	24	3.8775	4270	1.929883	8.77189	0.113398	.0133954	0.0
Sample (11)	Male	25	9.5524	283000	5.234373	11.4948	0.123486	0.462553	4.10785
Sample (12)	Male	30	9.460	265700	3.083063	19.6459	0.26099	0.614813	0.80688
Sample (13)	Male	33	4.2154	5332	1.918043	25.968	0.079143	0.0	0.05874
Sample (14)	Male	35	4.777	18430	1.887643	19.5482	0.10421	0.116608	0.10737
Sample (15)	Male	35	0.0161	102300	0.0437	0.1089	0.3114	8.511	0.7428
Sample (16)	Male	41	5.497	248600	2.198403	11.7887	0.132029	0.031855	0.47321
Sample (17)	Male	44	0.0340	57570	0.0456	0.5332	0.6255	5.086	0.5827
Sample (18)	Male	45	24.53	308000	6.357173	14.6733	0.195474	1.307313	22.7339
Sample (19)	Male	45	0.0218	2613	0.0481	0.1034	0.3181	3.155	0.3071
Sample (20)	Male	67	5.2656	8553	3.433523	12.2436	0.117299	0.264372	0.14737
Sample (21)	Tap water	-	0.1813	54.66	0.0	0.0	0.0344	5.326	18.05
Sample (22)	black tea	-	8.7847	2192	1.143	34.35	40.24	17042	1207
Sample (23)	NaCl salt	-	0.9478	4957	0.0	0.0	0.0	740	1743

Table 3:2: Content of elements (ppm) in kidney stone samples, tap water, black tea, and table salt

samples	Gender	Age	Mn	Mo	Na	P	pb	Se	Sr	Zn
Sample (1)	Female	4	0.0	0.0	0.0	50.02	0.0	-	0.0186	0.0668
Sample (2)	Female	8	5.8124	0.0	2.044576	8833	22.6192	27.65	116.4998	164.7232
Sample (3)	Female	15	12.45072	3.73672	0.633526	216.7	17.7006	6.854	7.34122	103.1232
Sample (4)	Female	24	12.67302	4.35501	1.007256	1265.8	15.2349	0.0	20.08216	90.4132
Sample (5)	Female	26	5.84484	3.64613	1.336206	14823	19.5185	0.0	46.81076	293.1372
Sample (6)	Female	40	10.79692	2.26141	0.500426	512.6	37.6022	11.2	9.95256	112.5262
Sample (7)	Male	4	0.0	0.0	0.0	2.537	0.4726	-	0.0640	0.1949
Sample (8)	Male	7	10.36185	3.16881	0.66625	799.0	9.8298	13.24	17.75932	61.9689
Sample (9)	Male	10	11.48772	0.0	0.257046	426.3	78.9263	11.94	7.59084	149.5192
Sample(10)	Male	24	7.66322	0.41483	0.258086	186.24	200.5109	15.754	5.5304	90.6152
Sample(11)	Male	25	12.81662	7.24348	2.401576	41457	74.7365	0.0	373.2248	784.2182
Sample(12)	Male	30	26.90512	6.45563	1.595876	9383	227.8979	0.0	66.81526	262.9652
Sample(13)	Male	33	13.65462	1.47409	0.510296	190.52	67.5369	0.0	5.46572	99.7462
Sample(14)	Male	35	21.09342	0.0	0.532536	495.8	49.8369	0.0	7.3027	70.6929
Sample(15)	Male	35	0.0	0.0	0.0	7.922	0.0424	-	0.0289	0.1155
Sample(16)	Male	41	17.16742	0.00146	1.045676	1881	113.5319	0.0	99.10576	108.0842
Sample(17)	Male	44	0.0	0.0	0.0	0.4504	0.0546	-	0.0	0.1371
Sample(18)	Male	45	18.73682	34.63798	10.2107	145064	216.1159	0.0	695.6238	165.8492
Sample(19)	Male	45	0.0	0.0	0.0	0.4065	0.0421	-	0.0359	0.0724
Sample(20)	Male	67	17.95262	2.0046	0.438316	1115.8	113.0339	8.6862	11.63086	75.9774
Sample(21)	Tap water	-	0.0	0.0	32.38	0.0	0.0	0.0	0.31814	0.0106
Sample(22)	black tea	-	648	0.0	700	1003	0.0	12.37	7.553	41.72
Sample(23)	NaCl salt	-	3.227	0.0	350000	0.0	o.o	o.o	87.85	0.5741

Table 3:3: Content of elements (ppm) in (1,7,15,17, 19) kidney stone samples, tap water, black tea, and table salt

sample s	Gender	Age	Ag	Al	As	B	Be	Cd	Co	Li	Ni	Si	Ti	V
Sample (1)	Female	4	0.0	0.3431	-	17.6	0.0	0.0	0.0	0.0	0.0261	147.2	0.0149	0.0
Sample (7)	Male	4	0.0	1.6607	-	-	0.0	0.0	0.0037	0.0	0.0255	-	0.0239	0.0
Sample (15)	Male	35	0.0	0.4134	-	-	0.0	0.0	0.0045	0.0	0.0330	-	0.0108	0.0
Sample (17)	Male	44	0.0	0.5332	-	-	0.0	0.0	0.0047	0.0	0.0308	-	0.0161	0.0
Sample (19)	Male	45	0.0	0.296	-	-	0.0	0.0	0.0	0.0	0.0289	-	0.0115	0.0
Sample (21)	Tap wate	-	0.0	0.0154	0.0	0.0	0.0	0.0	-	0.0	0.0	9.054	0.0	0.0
Sample (22)	black tea	-	2.454	287.3	0.0	17.6	0.011	0.15	-	0.14	7.576	147.2	2.737	0.0
Sample (23)	NaCl salt	-	0.0	0.0	0.0	0.0	0.008	0.1485	-	0.0	0.0	0.0	0.0	0.0

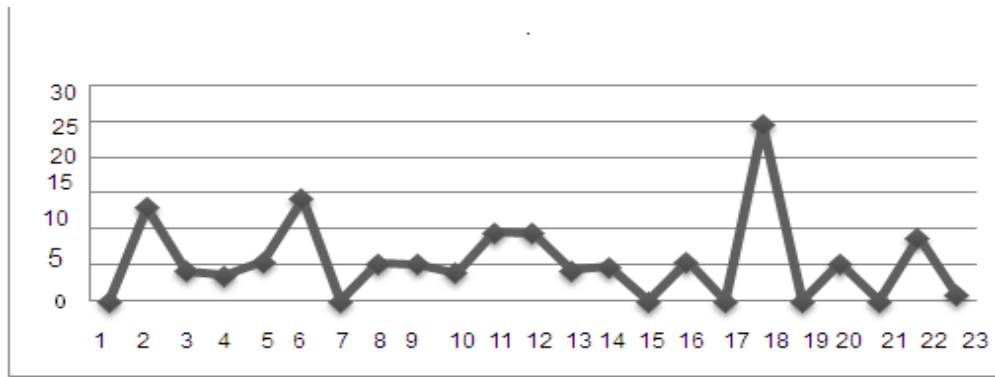


Figure 3:1: Ba content (ppm) in samples 1-23

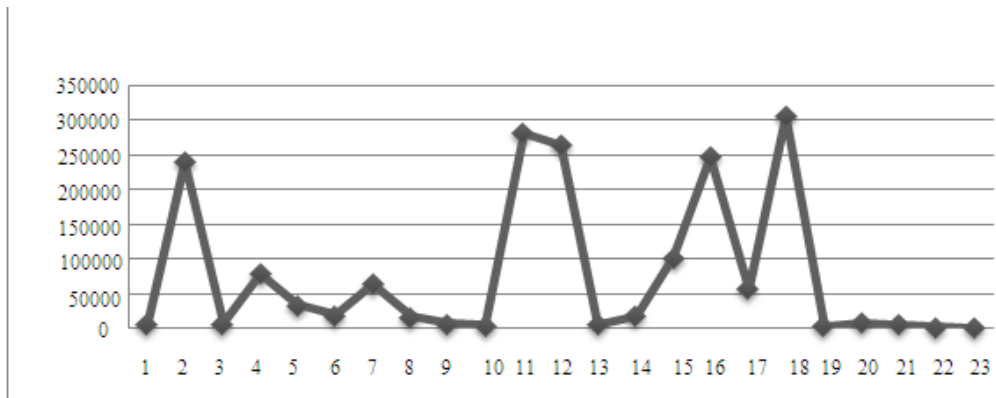


Figure 3:2: Ca content (ppm) in samples 1-23

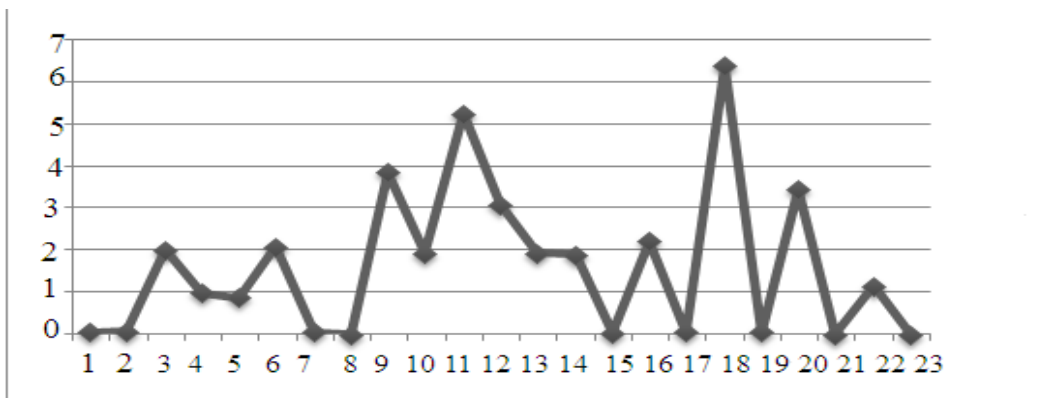


Figure 3:3: Cr content (ppm) in samples 1-23

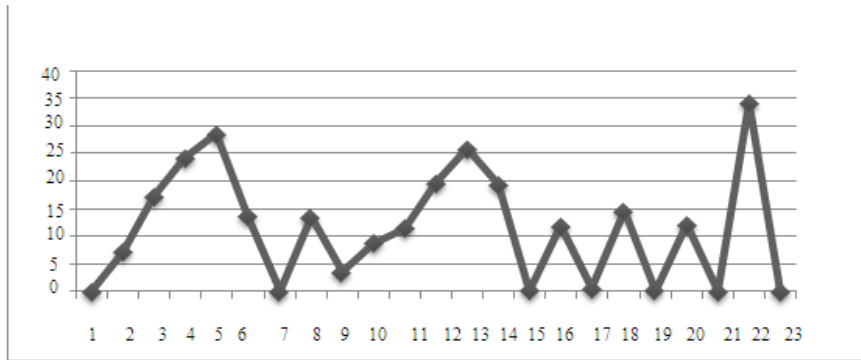


Figure 3:4: Cu content (ppm) in samples 1-23

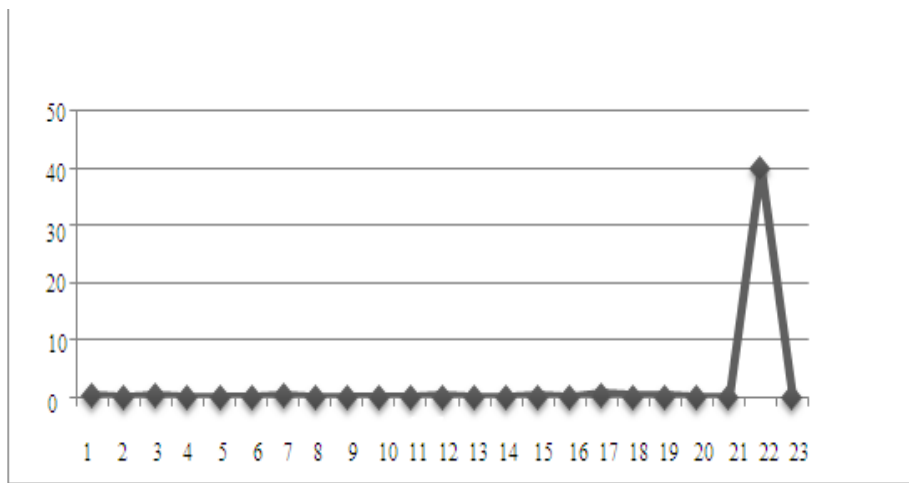


Figure 3:5: Fe content (ppm) in samples 1-23

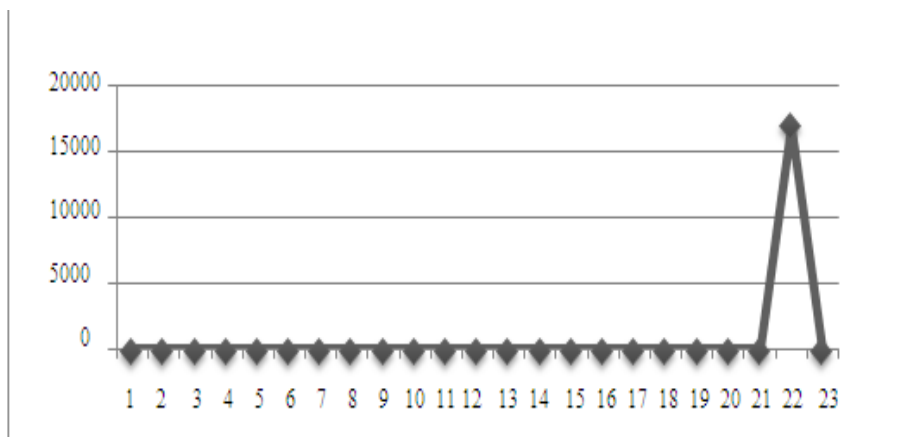


Figure 3:6: K content (ppm) in samples 1-23

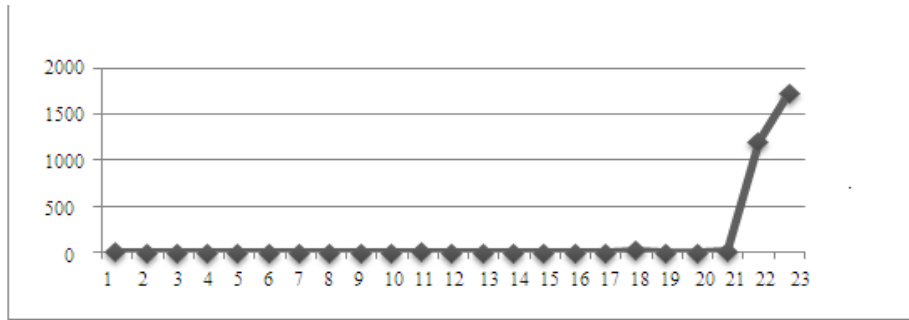


Figure 3:7: Mg content (ppm) in samples 1-23

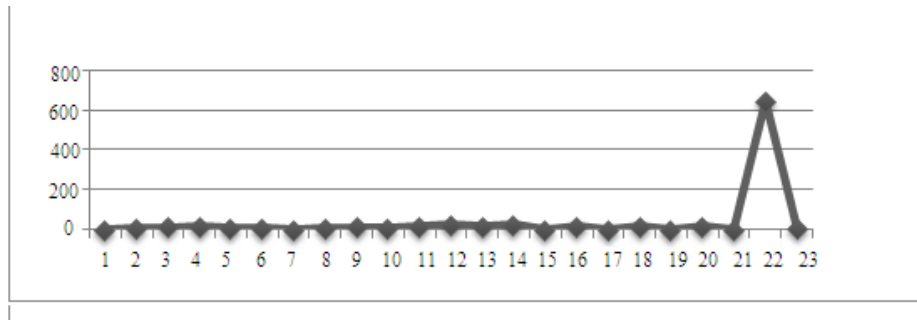


Figure 3:8: Mn content (ppm) in samples 1-23

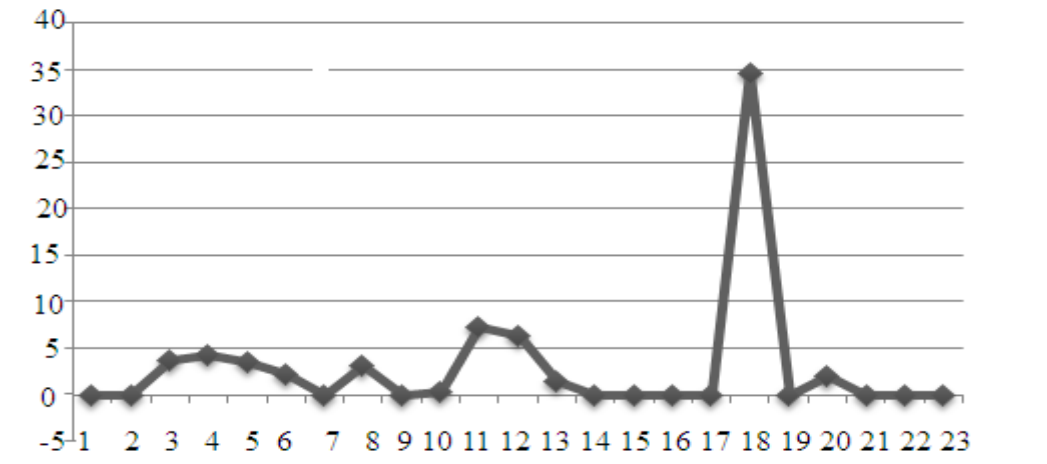


Figure 3:9: Mo content (ppm) in samples 1-23

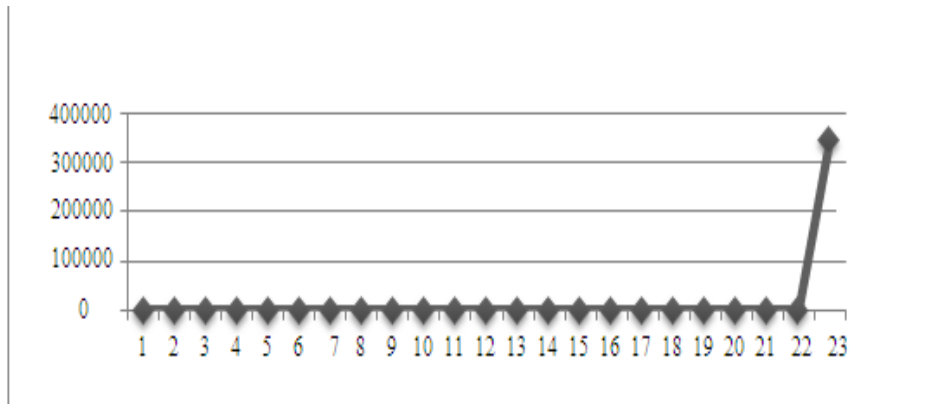


Figure 3:10: Na content (ppm) in samples 1-23

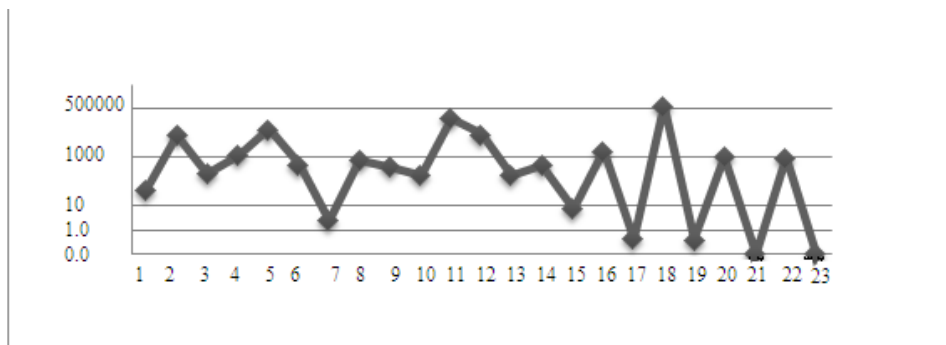


Figure 3:11: P content (ppm) in samples 1-23

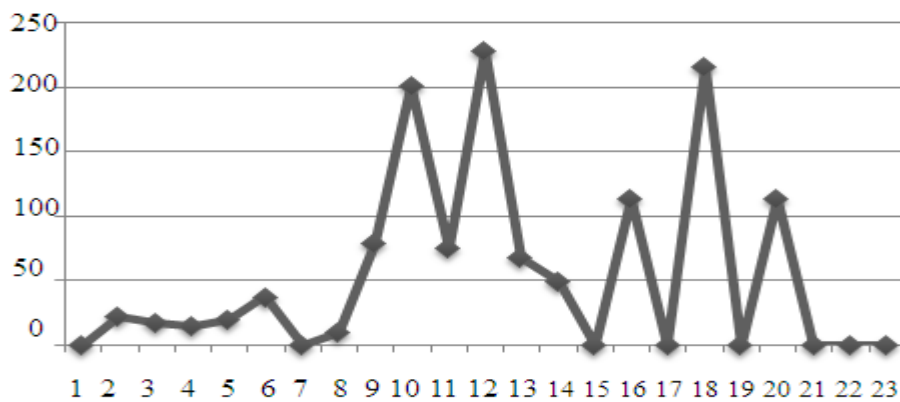


Figure 3:12: Pb content (ppm) in samples 1-23

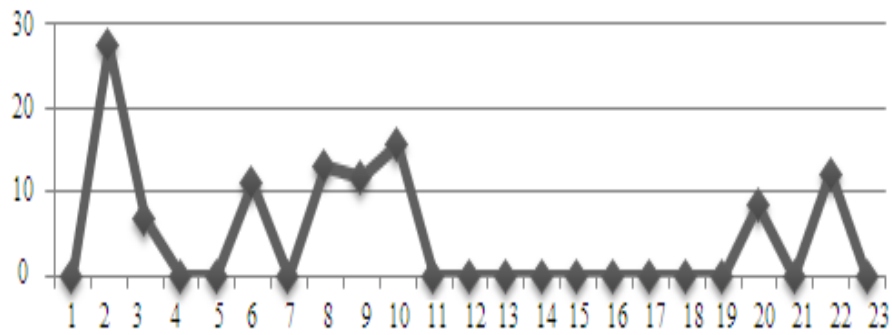


Figure 3:13: Se content (ppm) in samples 1-23

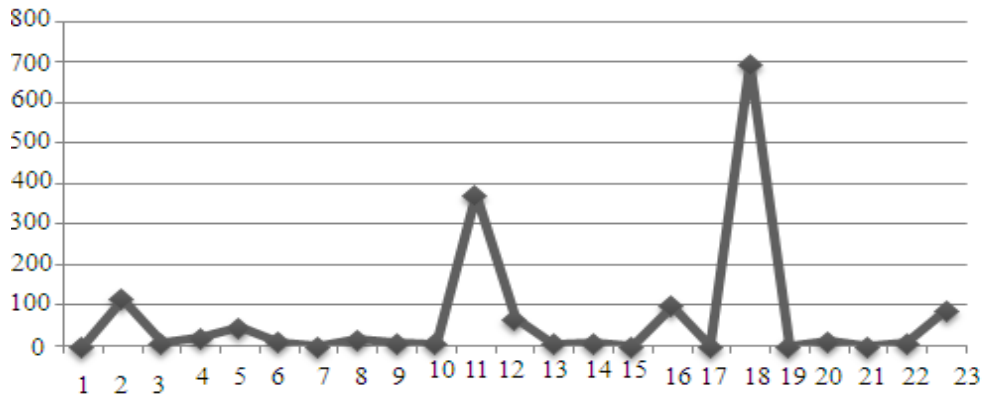


Figure 3:14: Sr content (ppm) in samples 1-23

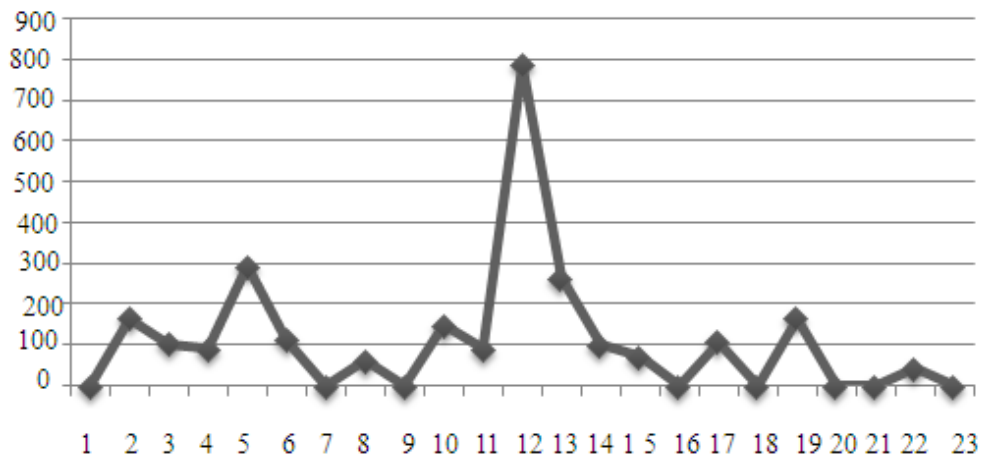


Figure 3:15: zn content (ppm) in samples 1-23

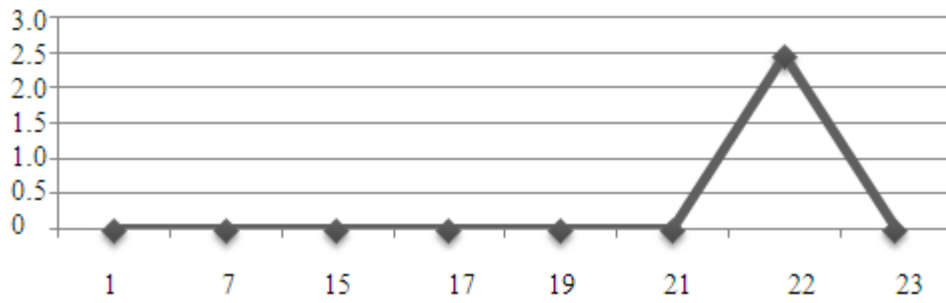


Figure 3:16: Ag content (ppm) in samples(1,7,15,17, 19,21, 22,and 23)

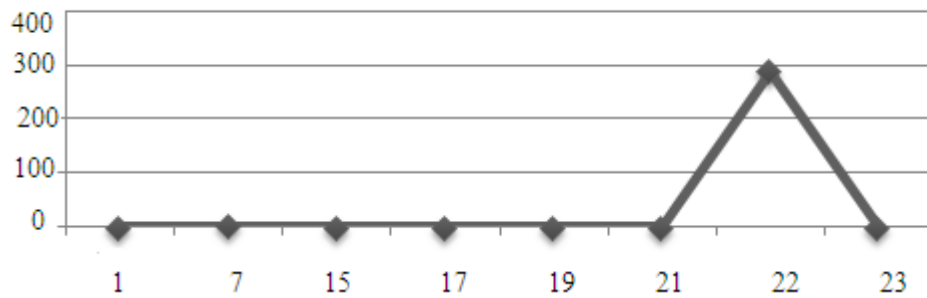


Figure 3:17: Al content (ppm) in samples (1,7,15,17, 19,21, 22,and 23)

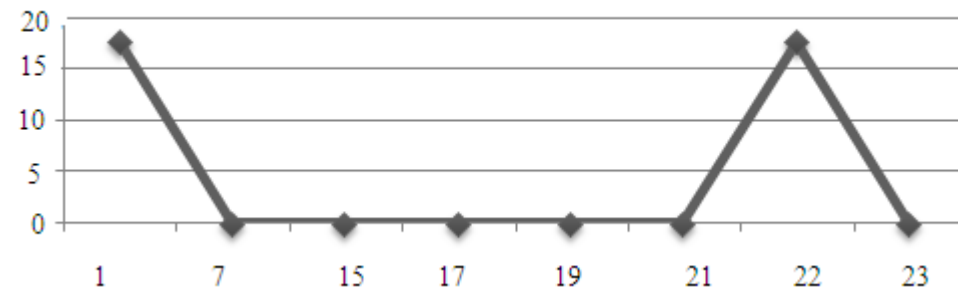


Figure 3:18: B content (ppm) in samples (1,7,15,17, 19,21, 22,and 23)

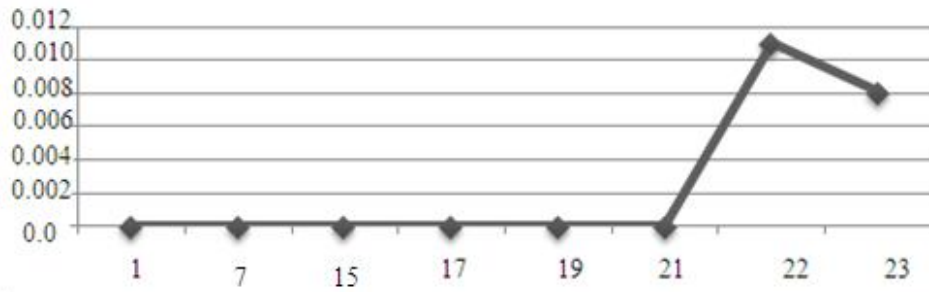


Figure 3:19: Be content (ppm) in samples (1,7,15,17, 19,21, 22,and 23)

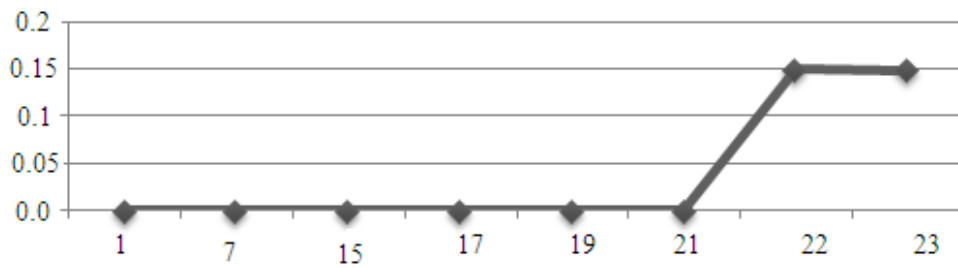


Figure 3:20: Cd content (ppm) in samples (1,7,15,17, 19,21, 22,and 23)

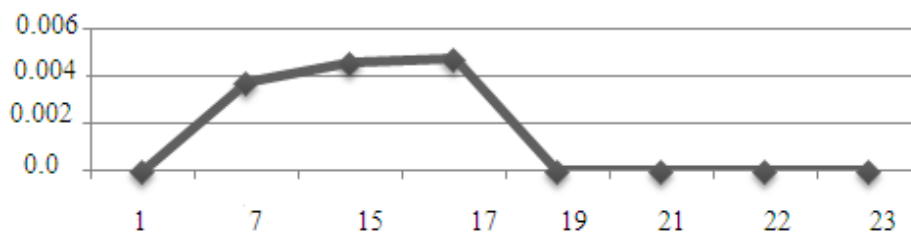


Figure 3:21: Co content (ppm) in samples (1,7,15,17, 19,21, 22,and 23)

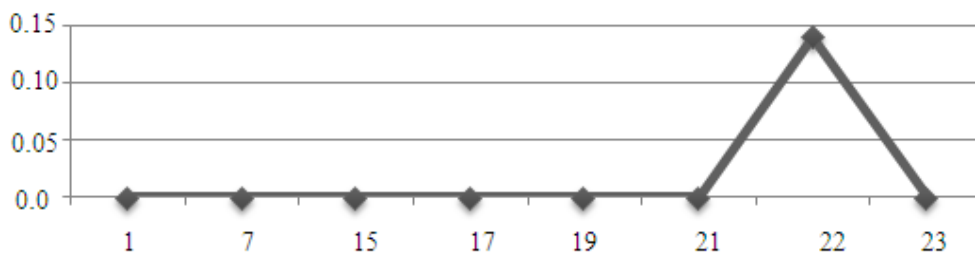


Figure 3:22: Li content (ppm) in samples (1,7,15,17, 19,21, 22,and 23)

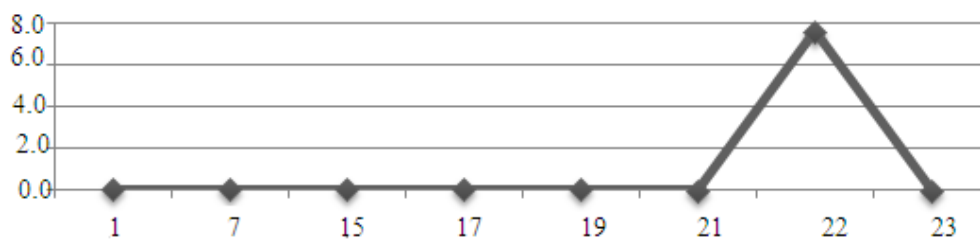


Figure 3:23: Ni content (ppm) in samples (1,7,15,17, 19,21, 22,and 23)

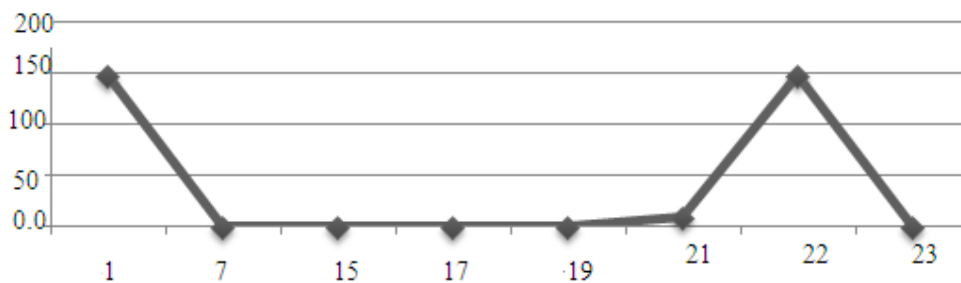


Figure 3:24: Si content (ppm) in samples (1,7,15,17, 19,21, 22,and 23)

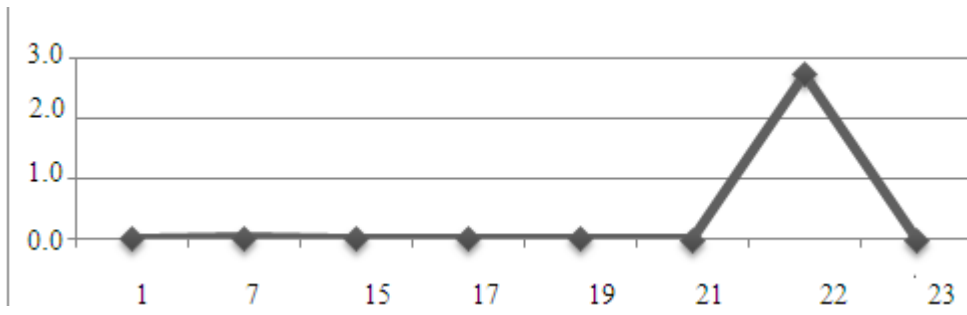


Figure 3:25: Ti content (ppm) in samples (1,7,15,17, 19,21, 22,and 23)