

### APPENDIX 3

#### Trace element compositions [in ppm] for the sandstone and shale samples from the Shemshak Group

Sample	V	Sc	Co	Ni	Cr	Sr	Rb	Ba	Zr	Hf	Th	U	Y	Nb
SF8	39	5	8.9	24	62	97.2	30.3	113	131.8	3.5	5.4	1.6	15.8	5.7
SF11	43	5	11.2	34	48	63.4	30.9	92	100.3	2.7	5.2	1.4	14.1	5.8
SF27	48	6	12.2	39	62	79.0	32.7	110	116.3	3.0	5.3	1.3	14.9	6.7
SF31	31	4	6.0	22	48	222.1	23.1	72	77.8	2.2	3.7	1.5	17.9	5.1
SF35	45	6	8.2	24	62	153.8	37.2	227	149.1	3.9	6.3	1.8	15.0	6.8
SF41	30	4	5.8	20	41	150.7	23.5	88	81.7	2.1	3.8	1.0	17.9	4.5
SF45	49	6	9.4	28	68	124.8	39.3	130	244.6	6.5	7.6	2.2	18.4	7.8
SF48	40	5	8.3	23	55	117.7	24.9	77	82.0	2.3	4.2	2.2	15.1	5.4
SF49	41	5	8.3	28	55	139.6	31.9	85	112.8	2.9	4.8	1.3	13.9	5.8
SF50	35	4	8.3	22	62	106.2	28.8	93	88.1	2.2	4.4	1.4	13.8	5.6
SF53	63	6	11.1	36	68	63.0	38.5	110	105.4	3.0	6.1	1.4	14.3	7.3
SF55	48	5	9.2	36	62	65.9	32.8	113	84.0	2.2	4.6	1.3	12.1	5.9
SF58	51	7	8.2	23	62	58.2	43.3	160	128.4	3.5	5.5	1.6	19.9	7.0
SF60	33	4	6.3	20	55	204.7	28.3	85	122.4	3.1	4.3	1.1	12.4	5.5
SF68	46	6	7.7	26	48	214.8	31.3	128	106.6	2.8	5.1	1.7	14.9	6.8
SF73	75	9	12.8	36	75	172.3	59.4	177	163.8	4.4	8.3	2.2	19.5	10.0
SF80	69	9	9.3	27	89	57.5	50.5	192	258.8	6.5	7.9	2.1	27.6	11.6
SF83	58	6	4.3	20	75	85.1	30.5	116	206.8	5.3	6.3	1.4	14.5	6.9
SF87	64	7	10.3	30	96	63.9	45.7	186	141.1	3.6	6.6	1.2	20.9	14.4
<b>Mean (n=19)</b>	<b>48</b>	<b>6</b>	<b>8.7</b>	<b>27</b>	<b>63</b>	<b>117.8</b>	<b>34.8</b>	<b>126</b>	<b>131.6</b>	<b>3.4</b>	<b>5.5</b>	<b>1.5</b>	<b>16.4</b>	<b>7.08</b>
MF14	119	16	15.8	46	89	167.6	122.9	348	174.5	4.8	12.6	3.2	31.1	12.1
MF13	124	17	13.6	53	130	114.7	94.1	358	240.2	6.5	12.0	2.9	30.3	16.9
MF24	106	14	11.2	38	89	130.6	71.1	236	173.5	4.7	11.3	2.9	23.7	12.4
MF65	60	8	10.0	29	82	158.8	55.9	165	305.5	8.0	9.4	2.7	28.0	10.5
MF82	88	11	16.6	47	103	79.8	79.7	215	362.5	9.0	9.7	2.7	24.6	16.3
MF86	86	10	13.4	40	75	135.6	70.5	184	167.7	4.5	10.0	2.3	22.6	11.2
<b>Mean (n=6)</b>	<b>97</b>	<b>13</b>	<b>13</b>	<b>42</b>	<b>95</b>	<b>131</b>	<b>82</b>	<b>251</b>	<b>237</b>	<b>6</b>	<b>11</b>	<b>3</b>	<b>27</b>	<b>13</b>