

~~Springer Pyroxenes~~
Allen

VERIFY OFFSETS

Spectrometer: 1 Crystal: TAP Peak Position: 27737
 Spectrometer: 2 Crystal: PET Peak Position: 38387
 Spectrometer: 3 Crystal: LIF Peak Position: 48083

Spectrometer: 1 peak found at: 27537
 Previously at: 27640 Difference: -3
 Spectrometer: 2 peak found at: 38330
 Previously at: 38324 Difference: 7
 Spectrometer: 3 peak found at: 48146
 Previously at: 48140 Difference: 7

CALIBRATION

Spec.	Element	Position	Peak Counts	Std. Devn.	Background
1	mg	38359	2943	0.25 %	21
3	fe	48126	444	0.53 %	5

CALIBRATION

Spec.	Element	Position	Peak Counts	Std. Devn.	Background
1	si	27647	6200	0.22 %	33
2	ca	38330	1244	0.31 %	9

4ELPX SPRINGER PYROXENES

El	Peak	B.G.	Ix/Istd	Wt% El	Wt% Ox
mg	246.421	13.867	0.0796	1.74	2.89
si	4401.407	33.069	0.7083	17.21	36.81
ca	85.014	11.467	0.0596	0.64	0.89
fe	1147.059	8.433	2.5906	29.70	38.21
					78.80

4ELPX

El	Peak	B.G.	Ix/Istd	Wt% El	Wt% Ox
mg	3643.390	24.301	1.2383	19.45	32.25
si	6809.082	33.002	1.0988	26.77	57.28
ca	47.238	7.233	0.0324	0.37	0.51
fe	325.178	5.200	0.7280	8.73	11.22
					101.26

4ELPX

El	Peak	B.G.	Ix/Istd	Wt% El	Wt% Ox
mg	3557.060	21.101	1.2099	19.09	31.66
si	6754.565	33.536	1.0898	26.54	56.77
ca	56.106	7.367	0.0395	0.45	0.63
fe	335.625	5.033	0.7522	9.01	11.59
					100.65

4ELPX

El	Peak	B.G.	Ix/Istd	Wt% El	Wt% Ox
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mg	3592.833	23.234	1.2214	19.24	31.91
si	6260.109	34.036	1.0096	24.77	52.99
ca	49.172	7.067	0.0341	0.39	0.54
fe	322.641	5.200	0.7223	8.65	11.13

96.57

1ELPX

	Peak	B.G.	Ix/Istd	Wt% E1	Wt% Ox
E1					
mg	3613.764	22.368	1.2288	19.29	31.98
si	6731.215	35.903	1.0857	26.47	56.63
ca	32.835	7.967	0.0201	0.23	0.32
fe	321.306	4.933	0.7198	8.63	11.10

100.03

1ELPX

	Peak	B.G.	Ix/Istd	Wt% E1	Wt% Ox
E1					
mg	3534.645	21.334	1.2021	18.93	31.39
si	6569.497	36.169	1.0594	25.84	55.28
ca	55.106	7.667	0.0384	0.44	0.61
fe	324.711	6.133	0.7248	8.68	11.17

98.45

4ELPX

	Peak	B.G.	Ix/Istd	Wt% E1	Wt% Ox
E1					
mg	3592.934	22.534	1.2217	19.26	31.93
si	6514.417	35.036	1.0507	25.69	54.95
ca	55.139	7.833	0.0383	0.43	0.61
fe	329.183	5.033	0.7375	8.83	11.36

98.86

4ELPX

	Peak	B.G.	Ix/Istd	Wt% E1	Wt% Ox
E1					
mg	3597.465	24.035	1.2227	19.27	31.96
si	6540.758	34.036	1.0551	25.79	55.17
ca	49.005	8.467	0.0328	0.37	0.52
fe	330.218	5.133	0.7396	8.86	11.40

99.05

4ELPX

	Peak	B.G.	Ix/Istd	Wt% E1	Wt% Ox
E1					
mg	3603.180	23.034	1.2250	19.28	31.98
si	6596.049	33.902	1.0641	25.99	55.60
ca	46.371	7.800	0.0312	0.35	0.50
fe	326.880	4.833	0.7327	8.78	11.29

99.36

4ELPX

	Peak	B.G.	Ix/Istd	Wt% E1	Wt% Ox
E1					
mg	3565.546	22.868	1.2122	19.11	31.69
si	6551.843	36.469	1.0565	25.80	55.20
ca	47.471	7.800	0.0321	0.36	0.51
fe	330.585	5.933	0.7387	8.85	11.38

98.78

4ELPX

	Peak	B.G.	Ix/Istd	Wt% E1	Wt% Ox
E1					
mg	3546.613	22.507	1.2058	19.06	31.60
si	6409.832	34.803	1.0337	25.29	54.11
ca	50.005	8.133	0.0339	0.38	0.54

98.78

4ELPX

E1	Peak	B.G.	Ix/Istd	Wt% E1	Wt% Ox
mg	3583.669	22.768	1.2184	19.23	31.89
si	6158.874	35.269	0.9930	24.40	52.19
ca	57.207	7.467	0.0403	0.46	0.64
fe	325.312	4.867	0.7291	8.73	11.23

97.78

4ELPX

E1	Peak	B.G.	Ix/Istd	Wt% E1	Wt% Ox
mg	3566.493	21.201	1.2131	19.16	31.77
si	6342.616	36.369	1.0226	25.05	53.59
ca	56.606	6.933	0.0402	0.46	0.64
fe	330.518	4.800	0.7411	8.87	11.42

95.95

4ELPX

E1	Peak	B.G.	Ix/Istd	Wt% E1	Wt% Ox
mg	3637.911	21.968	1.2372	19.47	32.29
si	6495.022	32.902	1.0479	25.66	54.89
ca	31.102	7.133	0.0194	0.22	0.31
fe	326.546	4.067	0.7337	8.79	11.31

97.42

4ELPX

E1	Peak	B.G.	Ix/Istd	Wt% E1	Wt% Ox
mg	3625.668	21.201	1.2333	19.40	32.17
si	6528.819	36.136	1.0528	25.75	55.09
ca	41.337	7.200	0.0276	0.31	0.44
fe	324.711	5.167	0.7270	8.71	11.21

98.79

4ELPX

E1	Peak	B.G.	Ix/Istd	Wt% E1	Wt% Ox
mg	3607.035	22.368	1.2265	19.33	32.05
si	6613.570	35.803	1.0666	26.06	55.74
ca	43.470	7.300	0.0293	0.33	0.47
fe	331.420	5.033	0.7426	8.90	11.44

98.90

4ELPX

E1	Peak	B.G.	Ix/Istd	Wt% E1	Wt% Ox
mg	3596.417	21.468	1.2232	19.24	31.91
si	6612.886	35.536	1.0665	26.04	55.70
ca	47.271	7.933	0.0319	0.36	0.51
fe	324.911	4.800	0.7283	8.73	11.23

99.70

4ELPX

E1	Peak	B.G.	Ix/Istd	Wt% E1	Wt% Ox
mg	3559.258	23.301	1.2099	19.05	31.59
si	6685.444	35.003	1.0784	26.27	56.19
ca	71.777	6.967	0.0525	0.60	0.83
fe	326.146	5.333	0.7299	8.75	11.25

99.34

99.87

	E1	Peak	B.G.	Ix/Istd	Wt% E1	Wt% Ox
11	mg	3473.734	23.535	1.1805	18.64	30.91
	si	6636.944	36.503	1.0703	26.01	55.64
	ca	141.473	7.967	0.1081	1.23	1.72
	fe	324.577	4.500	0.7283	8.73	11.23

						99.49

4ELPX

	E1	Peak	B.G.	Ix/Istd	Wt% E1	Wt% Ox
12	mg	3625.973	22.868	1.2329	19.38	32.13
	si	6688.559	34.436	1.0790	26.32	56.31
	ca	58.640	7.500	0.0414	0.47	0.66
	fe	323.976	4.700	0.7264	8.70	11.20

						100.30

4ELPX

	E1	Peak	B.G.	Ix/Istd	Wt% E1	Wt% Ox
13	mg	3621.441	23.635	1.2310	19.37	32.12
	si	6739.843	33.769	1.0874	26.52	56.72
	ca	50.405	7.567	0.0347	0.39	0.55
	fe	328.149	4.133	0.7372	8.83	11.36

						100.76

4ELPX

	E1	Peak	B.G.	Ix/Istd	Wt% E1	Wt% Ox
X	mg	3636.930	22.768	1.2366	19.50	32.34
	si	6800.006	36.436	1.0967	26.75	57.22
	ca	49.272	7.733	0.0336	0.38	0.53
	fe	339.564	4.933	0.7614	9.12	11.73

						101.82

4ELPX

	E1	Peak	B.G.	Ix/Istd	Wt% E1	Wt% Ox
X	mg	3636.863	21.401	1.2371	19.40	32.17
	si	6778.569	32.969	1.0938	26.66	57.03
	ca	45.504	7.567	0.0307	0.35	0.49
	fe	319.905	5.100	0.7163	8.59	11.04

						100.73

4ELPX

	E1	Peak	B.G.	Ix/Istd	Wt% E1	Wt% Ox
X	mg	3691.353	22.168	1.2555	19.92	33.02
	si	6335.130	33.969	1.0218	25.14	53.77
	ca	40.003	7.367	0.0264	0.30	0.42
	fe	352.582	4.400	0.7922	9.48	12.20

						99.41

4ELPX

	E1	Peak	B.G.	Ix/Istd	Wt% E1	Wt% Ox
X	mg	3644.472	22.201	1.2394	19.52	32.36
	si	6678.016	35.136	1.0772	26.31	56.28
	ca	45.171	7.433	0.0306	0.35	0.49
	fe	331.553	4.633	0.7438	8.91	11.46

						100.59

4ELPX

	E1	Peak	B.G.	Ix/Istd	Wt% E1	Wt% Ox
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mg	356.138	23.034	1.2192	19.13	55.91
si	6639.168	35.736	1.0708	26.09	1.06
ca	88.916	6.833	0.0665	0.75	10.80
fe	312.695	4.867	0.7004	8.40	99.39

4ELPX

El	Peak	B.G.	Ix/Istd	Wt% El	Wt% Ox
mg	3563.314	22.134	1.2117	19.10	31.67
si	6648.443	33.002	1.0727	26.16	55.96
ca	50.038	7.767	0.0342	0.39	0.54
fe	330.351	4.733	0.7409	8.87	11.42
					99.60

4ELPX

El	Peak	B.G.	Ix/Istd	Wt% El	Wt% Ox
mg	3590.736	23.835	1.2205	19.23	31.88
si	6683.151	36.136	1.0778	26.29	56.23
ca	55.506	7.533	0.0397	0.45	0.63
fe	330.351	5.167	0.7399	8.86	11.40
					100.15

4ELPX

El	Peak	B.G.	Ix/Istd	Wt% El	Wt% Ox
mg	3604.634	22.768	1.2256	19.28	31.98
si	6576.819	36.003	1.0606	25.91	55.43
ca	42.937	6.900	0.0292	0.33	0.46
fe	325.211	4.833	0.7289	8.73	11.23
					99.11

4ELPX

El	Peak	B.G.	Ix/Istd	Wt% El	Wt% Ox
mg	344.421	13.851	0.6796	1.74	2.89
si	4401.407	37.388	0.7033	17.21	36.81
ca	85.012	11.467	0.0585	0.64	0.89
fe	1127.050	8.433	2.5806	23.76	39.21
					79.80

4ELPX

El	Peak	B.G.	Ix/Istd	Wt% El	Wt% Ox
mg	3643.290	24.301	1.2383	19.45	32.25
si	6808.092	38.000	1.0898	26.77	57.28
ca	47.788	7.233	0.0324	0.37	0.51
fe	325.178	5.203	0.7280	8.73	11.22
					101.26

4ELPX

El	Peak	B.G.	Ix/Istd	Wt% El	Wt% Ox
mg	3557.060	21.701	1.2098	19.09	31.88
si	6754.585	33.535	1.0898	26.54	56.97
ca	50.108	7.367	0.0395	0.45	0.63
fe	335.825	5.033	0.7512	8.01	11.50
					100.35

4ELPX

ET	Peak	B.G.	Ix/Istd	Wt% ET	Wt% Ox
SI	4408.836	31.402	0.9891	18.00	38.51
MG	3874.360	27.468	0.9991	25.08	43.25
FE	485.190	5.167	1.0043	12.07	15.58
Ca	8.067	7.723	0.0002	0.00	0.00
					98.65

4ELOL

ET	Peak	B.G.	Ix/Istd	Wt% ET	Wt% Ox
SI	6837.608	34.739	1.5372	28.03	55.69
MG	3624.383	21.868	0.7381	18.58	20.80
FE	326.212	4.693	0.6591	8.58	11.03
Ca	38.503	7.967	0.0219	0.29	0.41
					97.93

4ELOL

ET	Peak	B.G.	Ix/Istd	Wt% ET	Wt% Ox
SI	4437.062	29.568	0.9959	18.10	28.73
MG	4019.919	25.568	0.9823	25.09	42.93
FE	504.976	4.833	1.0250	13.23	17.02
Ca	8.567	7.767	0.0006	0.01	0.01
					98.69

4ELOL

Springer-olivines
Al-Ca

ET	Peak	B.G.	Ix/Istd	Wt% ET	Wt% Ox
SI	4467.836	30.702	1.0029	18.22	38.97
MG	4915.570	24.501	0.9817	25.92	42.99
FE	514.295	5.267	1.0433	13.45	17.32
Ca	8.667	8.533	0.0008	0.01	0.01
					99.29

1

4ELOL

ET	Peak	B.G.	Ix/Istd	Wt% ET	Wt% Ox
SI	4436.282	31.402	0.9953	18.09	38.56
MG	4760.008	25.868	0.9700	25.73	42.67
FE	525.919	5.157	1.0873	13.77	17.71
Ca	9.300	7.900	0.0011	0.01	0.02
					99.09

2

4ELOL

ET	Peak	B.G.	Ix/Istd	Wt% ET	Wt% Ox
SI	4459.557	31.335	1.0006	18.17	38.86
MG	4785.605	25.468	0.9892	25.62	42.49
FE	513.794	5.433	1.0419	13.44	17.29
Ca	8.434	8.367	0.0008	0.01	0.01
					98.66

3

4ELOL

ET	Peak	B.G.	Ix/Istd	Wt% ET	Wt% Ox
SI	4323.037	30.736	0.9701	17.64	27.72
MG	4572.232	24.835	0.9317	25.10	41.62
FE	958.111	8.767	1.1525	14.64	19.05
Ca	10.200	9.500	0.0012	0.02	0.02
					96.42

4ELOL

4

MG	4753.775	28.888	0.9092	28.08	42.87
FE	532.145	4.633	1.0605	13.68	17.65
Ca	10.267	7.567	0.0010	0.02	0.02

99.05

4ELOL

5

E1	Peak	B.G.	Ix/Istd	Wt% E1	Wt% Ox
SI	4471.738	28.888	1.0040	18.23	29.01
MG	4774.721	25.268	0.9731	25.78	42.76
FE	524.984	5.000	1.0857	13.75	17.69
Ca	8.800	7.533	0.0009	0.01	0.02

99.47

4ELOL

6

E1	Peak	B.G.	Ix/Istd	Wt% E1	Wt% Ox
SI	4439.030	29.702	0.9263	18.11	28.75
MG	4808.227	25.168	0.9796	25.93	43.00
FE	521.042	4.933	1.0578	13.55	17.55
Ca	11.134	7.567	0.0026	0.03	0.05

99.25

4ELOL

7

E1	Peak	B.G.	Ix/Istd	Wt% E1	Wt% Ox
SI	4422.949	31.302	0.9923	18.03	28.57
MG	4740.014	24.435	0.9562	25.64	42.51
FE	525.487	6.100	1.0555	13.76	17.70
Ca	8.534	7.233	0.0017	0.02	0.03

98.82

4ELOL

E1	Peak	B.G.	Ix/Istd	Wt% E1	Wt% Ox
SI	4408.802	31.135	0.9892	17.88	28.45
MG	4770.043	25.935	0.9721	25.88	42.57
FE	510.020	6.033	1.0329	13.33	17.15
Ca	11.100	7.567	0.0025	0.03	0.05

98.23

4ELOL

E1	Peak	B.G.	Ix/Istd	Wt% E1	Wt% Ox
SI	4379.358	30.202	0.9827	17.87	28.23
MG	4768.922	25.235	0.9720	25.70	42.51
FE	511.957	5.400	1.0382	13.40	17.22
Ca	10.500	8.933	0.0028	0.03	0.05

98.12

4ELOL

springwater test

E1	Peak	B.G.	Ix/Istd	Wt% E1	Wt% Ox
SI	4425.154	29.902	0.9932	18.07	28.55
MG	4810.218	27.088	1.0005	26.20	43.44
FE	488.306	5.300	0.9888	12.73	16.38
Ca	8.757	7.033	0.0012	0.02	0.02

98.51

CALIBRATION

Spec: Element Position Peak Counts Std. Dev. Background

3 FE 48170 283 0.73 5

	E1	Peak	B.G.	Ix/Istd	Wt% E1	Wt% Ox
	SI	4433.587	28.635	0.9953	18.00	38.69
	MG	4768.854	25.901	0.9718	25.73	42.67
	FE	509.018	5.167	1.0543	13.60	17.50
	Ca	8.667	7.367	0.0009	0.01	0.02
						98.98

4ELOL

	E1	Peak	B.G.	Ix/Istd	Wt% E1	Wt% Ox
	SI	4452.092	29.068	0.9994	18.16	38.84
	MG	4777.585	25.468	0.9737	25.75	42.70
	FE	505.344	4.633	1.0479	13.52	17.39
	Ca	9.200	7.833	0.0010	0.01	0.02
						98.95

4ELOL

	E1	Peak	B.G.	Ix/Istd	Wt% E1	Wt% Ox
	SI	4371.421	28.635	0.9813	17.86	38.20
	MG	4785.399	24.901	0.9754	25.79	42.77
	FE	503.204	4.033	1.0420	13.44	17.29
	Ca	11.367	7.967	0.0024	0.03	0.04
						98.31

4ELOL

	E1	Peak	B.G.	Ix/Istd	Wt% E1	Wt% Ox
	SI	4273.516	30.402	0.9588	17.47	37.37
	MG	4728.057	27.525	0.9831	25.59	42.44
	FE	513.784	5.700	1.0624	13.71	17.64
	Ca	11.000	7.633	0.0024	0.03	0.04
						97.48

4ELOL

	E1	Peak	B.G.	Ix/Istd	Wt% E1	Wt% Ox
	SI	4410.261	30.269	0.9897	18.01	38.62
	MG	4817.813	27.688	0.9815	25.67	43.06
	FE	508.750	5.167	1.0538	13.60	17.49
	Ca	10.200	7.200	0.0022	0.03	0.04
						99.11

4ELOL

	E1	Peak	B.G.	Ix/Istd	Wt% E1	Wt% Ox
	SI	4409.582	28.702	0.9892	18.02	38.62
	MG	4800.858	25.525	0.9785	25.90	42.94
	FE	508.884	5.100	1.0538	13.60	17.45
	Ca	10.667	7.067	0.0026	0.03	0.05
						89.00

4ELOL

	E1	Peak	B.G.	Ix/Istd	Wt% E1	Wt% Ox
	SI	4423.196	29.458	0.9928	18.05	38.62
	MG	4804.527	28.402	0.9790	25.88	42.91
	FE	505.444	5.967	1.0460	13.50	17.36
	Ca	9.334	7.593	0.0019	0.02	0.02
						98.02

4ELOL

	E1	Peak	B.G.	Ix/Istd	Wt% E1	Wt% Ox
	SI					

4ELOL

MO	4795.853	28.485	0.9762	25.81	42.08
SI	412.851	3.750	1.0635	13.72	17.81
Ca	0.938	8.433	0.0010	0.01	0.02

99.12

4ELOL

14

E1	Peak	B.G.	Ix/Istd	Wt% E1	Wt% OX
SI	4445.103	30.735	0.9975	18.12	38.77
MG	4757.806	26.735	0.9593	25.73	42.66
FE	518.270	5.867	1.0724	13.83	17.78
Ca	10.134	8.267	0.0013	0.02	0.02

99.25

4ELOL

15

E1	Peak	B.G.	Ix/Istd	Wt% E1	Wt% OX
SI	4467.904	29.002	1.0030	18.22	38.97
MG	4792.432	27.735	0.9763	25.80	42.78
FE	504.843	5.300	1.0655	13.49	17.36
Ca	10.000	8.067	0.0014	0.02	0.03

99.14

4ELOL

X

E1	Peak	B.G.	Ix/Istd	Wt% E1	Wt% OX
SI	236.445	29.202	0.0468	0.75	1.51
MG	338.285	15.500	0.0651	2.08	3.45
FE	305.854	5.500	0.6255	8.04	10.34
Ca	3112.995	13.134	2.2222	27.43	38.37

53.78

4ELOL

16

E1	Peak	B.G.	Ix/Istd	Wt% E1	Wt% OX
SI	4443.983	30.635	0.9973	18.16	38.78
MG	4804.596	26.458	0.9790	25.93	42.99
FE	513.193	5.700	1.0521	13.70	17.63
Ca	0.200	8.267	0.0007	0.01	0.01

99.42

4ELOL

17

E1	Peak	B.G.	Ix/Istd	Wt% E1	Wt% OX
SI	4466.275	30.088	1.0024	18.22	38.97
MG	4816.672	26.235	0.9818	25.84	43.01
FE	506.045	5.533	1.0475	13.52	17.39
Ca	0.967	7.767	0.0016	0.02	0.03

99.40

4ELOL

18

E1	Peak	B.G.	Ix/Istd	Wt% E1	Wt% OX
SI	4463.223	30.302	1.0017	18.18	38.91
MG	4737.568	23.301	0.9659	25.65	42.53
FE	518.604	4.787	1.0754	13.87	17.84
Ca	10.300	8.000	0.0015	0.02	0.03

99.31

4ELOL

X

E1	Peak	B.G.	Ix/Istd	Wt% E1	Wt% OX
SI	4433.941	30.035	0.9951	18.09	38.70
MG	4891.721	25.101	0.9828	25.91	43.37
FE	495.027	5.987	1.0282	13.37	17.07
Ca	0.000	0.000	0.0000	0.00	0.00

98.77

4ELOC

7

E1	Peak	B.G.	Ix/Istd	Wt% E1	Wt% Ox
SI	4392.791	30.802	0.9858	17.92	38.33
MG	4764.098	26.168	0.9708	25.64	42.52
FE	497.428	4.967	1.0307	13.30	17.11
Ca	8.967	7.967	0.0007	0.01	0.01

97.97

4ELOC

19

E1	Peak	B.G.	Ix/Istd	Wt% E1	Wt% Ox
SI	4457.589	29.402	1.0006	18.18	38.90
MG	4783.361	26.435	0.9749	25.98	42.92
FE	521.042	5.233	1.0795	13.92	17.91
Ca	9.000	7.433	0.0011	0.01	0.02

99.75

4ELOC

20

E1	Peak	B.G.	Ix/Istd	Wt% E1	Wt% Ox
SI	4466.716	30.835	1.0023	18.21	38.95
MG	4799.248	25.335	0.9769	25.64	42.85
FE	508.416	5.667	1.0522	13.58	17.46
Ca	9.834	7.367	0.0018	0.02	0.03

99.30

4ELOC

E1	Peak	B.G.	Ix/Istd	Wt% E1	Wt% Ox
SI	4447.444	31.969	0.9977	18.12	38.76
MG	4743.172	26.268	0.9665	25.63	42.49
FE	511.924	4.400	1.0622	13.70	17.63
Ca	9.567	8.033	0.0011	0.01	0.02

98.90

EI	Peak	B.G.	Ix/Istd	Wt% EI	Wt% Ox
SI	4408.836	31.402	0.9891	18.00	38.51
MG	4874.360	27.468	0.9931	26.08	43.25
FE	495.190	5.167	1.0043	12.97	16.68
Ca	8.067	7.733	0.0002	0.00	0.00

98.45

4ELOL

EI	Peak	B.G.	Ix/Istd	Wt% EI	Wt% Ox
SI	6837.508	34.736	1.5372	26.03	55.69
MG	3624.383	21.868	0.7381	18.58	30.80
FE	326.213	4.633	0.6591	8.58	11.03
Ca	38.503	7.967	0.0219	0.29	0.41

97.93

4ELOL

EI	Peak	B.G.	Ix/Istd	Wt% EI	Wt% Ox
SI	4437.062	29.568	0.9959	18.10	38.73
MG	4819.919	25.568	0.9823	25.89	42.99
FE	504.976	4.833	1.0250	13.23	17.02
Ca	8.567	7.767	0.0006	0.01	0.01

98.69

4ELOL

Att-11

EI	Peak	B.G.	Ix/Istd	Wt% EI	Wt% Ox
SI	4467.836	30.702	1.0026	18.22	38.97
MG	4815.570	24.601	0.9817	25.92	42.99
FE	514.295	5.267	1.0433	13.46	17.32
Ca	9.667	8.533	0.0008	0.01	0.01

99.29

4ELOL

EI	Peak	B.G.	Ix/Istd	Wt% EI	Wt% Ox
SI	4436.282	31.402	0.9953	18.09	38.69
MG	4760.089	25.868	0.9700	25.73	42.67
FE	525.919	5.167	1.0673	13.77	17.71
Ca	9.300	7.800	0.0011	0.01	0.02

99.09

4ELOL

EI	Peak	B.G.	Ix/Istd	Wt% EI	Wt% Ox
SI	4459.557	31.335	1.0006	18.17	38.86
MG	4755.605	25.468	0.9692	25.62	42.49
FE	513.794	5.433	1.0419	13.44	17.29
Ca	9.434	8.367	0.0008	0.01	0.01

98.66

4ELOL

EI	Peak	B.G.	Ix/Istd	Wt% EI	Wt% Ox
SI	4323.837	30.735	0.9701	17.64	37.73
MG	4572.232	24.935	0.9317	25.10	41.62
FE	568.111	5.767	1.1525	14.84	19.09
Ca	10.200	8.500	0.0012	0.02	0.02

98.45

4ELOL

EI	Peak	B.G.	Ix/Istd	Wt% EI	Wt% Ox
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MG	4753.975	23.868	0.9692	25.68	42.59
FE	522.145	4.633	1.0606	13.68	17.60
Ca	10.257	7.567	0.0019	0.02	0.03

					99.05

4ELOL

E1	Peak	B.G.	Ix/Istd	Wt% E1	Wt% Ox
SI	4471.738	28.668	1.0040	18.23	39.01
MG	4774.731	25.368	0.9731	25.79	42.76
FE	524.984	5.000	1.0657	13.75	17.69
Ca	8.800	7.533	0.0009	0.01	0.02

					99.47

4ELOL

E1	Peak	B.G.	Ix/Istd	Wt% E1	Wt% Ox
SI	4439.030	29.702	0.9963	18.11	38.75
MG	4806.227	25.168	0.9796	25.93	43.00
FE	521.042	4.933	1.0578	13.65	17.56
Ca	11.134	7.567	0.0026	0.03	0.05

					99.35

4ELOL

E1	Peak	B.G.	Ix/Istd	Wt% E1	Wt% Ox
SI	4422.949	31.302	0.9923	18.03	38.57
MG	4740.014	24.435	0.9662	25.64	42.51
FE	526.487	6.100	1.0665	13.76	17.70
Ca	9.634	7.233	0.0017	0.02	0.03

					98.82

4ELOL

E1	Peak	B.G.	Ix/Istd	Wt% E1	Wt% Ox
SI	4408.902	31.135	0.9892	17.98	38.46
MG	4770.043	25.935	0.9721	25.68	42.57
FE	510.020	6.033	1.0329	13.33	17.15
Ca	11.100	7.567	0.0025	0.03	0.05

					98.23

4ELOL

E1	Peak	B.G.	Ix/Istd	Wt% E1	Wt% Ox
SI	4379.358	30.202	0.9827	17.87	38.23
MG	4768.922	25.235	0.9720	25.70	42.61
FE	511.957	5.400	1.0382	13.40	17.23
Ca	10.500	6.933	0.0026	0.03	0.05

					98.12

4ELOL

springwater test

E1	Peak	B.G.	Ix/Istd	Wt% E1	Wt% Ox
SI	4425.154	29.902	0.9932	18.07	38.66
MG	4910.218	27.068	1.0005	26.20	43.44
FE	486.306	5.300	0.9858	12.73	16.38
Ca	8.767	7.033	0.0012	0.02	0.02

					98.51

CALIBRATION

Spec. Element Position Peak Counts Std. Devn. Background

.3 FE 48120 483 0.73 % 5

E1	Peak	B.G.	Ix/Istd	Wt% E1	Wt% Ox
SI	4433.567	28.635	0.9953	18.09	38.69
MG	4769.854	25.901	0.9718	25.73	42.67
FE	509.018	5.167	1.0545	13.60	17.50
Ca	8.667	7.367	0.0009	0.01	0.02

					98.88

4ELOL

E1	Peak	B.G.	Ix/Istd	Wt% E1	Wt% Ox
SI	4452.092	29.068	0.9994	18.16	38.84
MG	4777.585	25.468	0.9737	25.75	42.70
FE	505.344	4.633	1.0479	13.52	17.39
Ca	9.200	7.933	0.0010	0.01	0.02

					98.95

4ELOL

E1	Peak	B.G.	Ix/Istd	Wt% E1	Wt% Ox
SI	4371.421	28.635	0.9813	17.86	38.20
MG	4785.399	24.901	0.9754	25.79	42.77
FE	502.204	4.333	1.0420	13.44	17.29
Ca	11.367	7.967	0.0024	0.03	0.04

					98.31

4ELOL

E1	Peak	B.G.	Ix/Istd	Wt% E1	Wt% Ox
SI	4273.516	30.402	0.9588	17.47	37.37
MG	4728.057	27.535	0.9631	25.59	42.44
FE	513.794	5.700	1.0634	13.71	17.64
Ca	11.000	7.633	0.0024	0.03	0.04

					97.49

4ELOL

E1	Peak	B.G.	Ix/Istd	Wt% E1	Wt% Ox
SI	4410.261	30.269	0.9897	18.01	38.52
MG	4817.813	27.668	0.9815	25.97	43.06
FE	508.750	5.167	1.0539	13.60	17.49
Ca	10.200	7.200	0.0022	0.03	0.04

					99.11

4ELOL

E1	Peak	B.G.	Ix/Istd	Wt% E1	Wt% Ox
SI	4409.582	28.702	0.9899	18.00	38.52
MG	4800.858	25.535	0.9785	25.90	42.94
FE	508.684	5.100	1.0539	13.60	17.49
Ca	10.667	7.067	0.0026	0.03	0.05

					99.00

4ELOL

E1	Peak	B.G.	Ix/Istd	Wt% E1	Wt% Ox
SI	4423.186	29.468	0.9928	18.05	38.62
MG	4804.527	26.402	0.9790	25.88	42.91
FE	505.444	5.667	1.0460	13.50	17.36
Ca	9.334	7.533	0.0013	0.02	0.02

					98.92

4ELOL

E1	Peak	B.G.	Ix/Istd	Wt% E1	Wt% Ox
SI	4410.261	30.269	0.9897	18.01	38.52

MG	4790.903	26.568	0.9762	25.87	42.90
FE	513.861	5.700	1.0635	13.72	17.65
Ca	9.834	8.433	0.0010	0.01	0.02

					99.12

4ELOL

14

	Peak	B.G.	Ix/Istd	Wt% E1	Wt% Ox
SI	4445.103	30.735	0.9975	18.12	38.77
MG	4757.406	26.735	0.9693	25.73	42.66
FE	518.270	5.867	1.0724	13.83	17.79
Ca	10.134	8.267	0.0013	0.02	0.02

					99.25

4ELOL

15

	Peak	B.G.	Ix/Istd	Wt% E1	Wt% Ox
SI	4467.904	29.002	1.0030	18.22	38.97
MG	4792.432	27.735	0.9763	25.80	42.78
FE	504.843	5.300	1.0455	13.49	17.36
Ca	10.000	8.067	0.0014	0.02	0.03

					99.14

4ELOL

X

	Peak	B.G.	Ix/Istd	Wt% E1	Wt% Ox
SI	236.445	29.202	0.0468	0.75	1.61
MG	338.295	15.500	0.0661	2.08	3.45
FE	305.854	6.500	0.6265	8.04	10.34
Ca	3112.995	13.134	2.2222	27.43	38.37

					53.78

4ELOL

16

	Peak	B.G.	Ix/Istd	Wt% E1	Wt% Ox
SI	4443.983	30.635	0.9973	18.13	38.78
MG	4804.596	26.469	0.9790	25.93	42.99
FE	513.193	5.700	1.0621	13.70	17.63
Ca	9.200	8.267	0.0007	0.01	0.01

					99.42

4ELOL

17

	Peak	B.G.	Ix/Istd	Wt% E1	Wt% Ox
SI	4466.275	30.068	1.0024	18.22	38.97
MG	4815.672	24.235	0.9818	25.94	43.01
FE	506.045	5.533	1.0475	13.52	17.39
Ca	9.967	7.767	0.0016	0.02	0.03

					99.40

4ELOL

18

	Peak	B.G.	Ix/Istd	Wt% E1	Wt% Ox
SI	4463.222	30.302	1.0017	18.19	38.91
MG	4737.568	23.301	0.9659	25.65	42.53
FE	518.604	4.767	1.0754	13.87	17.84
Ca	10.300	8.000	0.0016	0.02	0.03

					99.31

4ELOL

19

	Peak	B.G.	Ix/Istd	Wt% E1	Wt% Ox
SI	4433.941	30.035	0.9951	18.09	38.70
MG	4821.721	25.101	0.9828	25.91	42.97
FE	496.827	5.567	1.0282	13.27	17.07
Ca	9.024	7.300	0.0010	0.02	0.02

					99.31

4ELOL

	Peak	B.G.	Ix/Istd	Wt% E1	Wt% OX
SI	4400.325	31.422	0.9857	18.00	38.51
MG	4714.350	27.358	0.9931	25.28	42.25
E1	Peak	B.G.	Ix/Istd	Wt% E1	Wt% OX
SI	4392.791	30.802	0.9856	17.92	38.33
MG	4764.098	26.168	0.9708	25.64	42.52
FE	497.428	4.967	1.0307	13.30	17.11
Ca	8.967	7.967	0.0007	0.01	0.01

4ELOL

	Peak	B.G.	Ix/Istd	Wt% E1	Wt% OX
SI	4437.300	34.730	1.0312	26.27	38.33
MG	4724.195	21.853	0.9981	25.58	42.84
E1	Peak	B.G.	Ix/Istd	Wt% E1	Wt% OX
SI	4457.589	29.402	1.0006	18.18	38.90
MG	4783.361	25.435	0.9749	25.88	42.92
FE	521.042	5.233	1.0795	13.92	17.91
Ca	9.000	7.433	0.0011	0.01	0.02

4ELOL

	Peak	B.G.	Ix/Istd	Wt% E1	Wt% OX
SI	4417.082	29.586	0.9950	18.10	38.72
MG	4810.910	25.561	0.9823	25.89	42.37
E1	Peak	B.G.	Ix/Istd	Wt% E1	Wt% OX
SI	4466.716	30.835	1.0023	18.21	38.95
MG	4793.248	25.335	0.9769	25.84	42.85
FE	508.416	5.667	1.0522	13.58	17.46
Ca	9.834	7.367	0.0018	0.02	0.03

4ELOL

	Peak	B.G.	Ix/Istd	Wt% E1	Wt% OX
SI	4457.835	30.702	1.0026	18.22	38.97
MG	4815.570	24.801	0.9817	25.85	42.50
E1	Peak	B.G.	Ix/Istd	Wt% E1	Wt% OX
SI	4447.444	31.969	0.9977	18.12	38.76
MG	4743.172	26.268	0.9665	25.63	42.49
FE	511.924	4.400	1.0622	13.70	17.63
Ca	9.567	8.033	0.0011	0.01	0.02

4ELOL

	Peak	B.G.	Ix/Istd	Wt% E1	Wt% OX
SI	4438.282	31.422	0.9953	18.09	38.49
MG	4755.059	26.888	0.9708	25.73	42.81
FE	529.319	5.147	1.0873	13.77	17.71
Ca	9.300	7.900	0.0011	0.01	0.02

4ELOL

	Peak	B.G.	Ix/Istd	Wt% E1	Wt% OX
SI	4450.851	31.333	1.0008	18.17	38.80
MG	4768.505	25.482	0.9882	25.82	42.45
FE	513.734	5.333	1.0419	13.44	17.29
Ca	9.434	8.357	0.0008	0.01	0.01

4ELOL

	Peak	B.G.	Ix/Istd	Wt% E1	Wt% OX
SI	4323.897	30.735	0.9701	17.84	37.73
MG	4877.227	24.801	0.9317	25.10	41.82
FE	488.175	4.787	1.1825	14.88	18.09
Ca	9.000	8.500	0.0012	0.02	0.02

4ELOL

	Peak	B.G.	Ix/Istd	Wt% E1	Wt% OX
E1	Peak	B.G.	Ix/Istd	Wt% E1	Wt% OX