

- 1) Graph per element
- 2) Count # of analyses
- 3) for Co, if $L_3, Co=0$

XXXXXXXXXXXXXXXXXXXX
 Co: 1 to 3 is from FCB

EDAX
 > SE7LI
 > ALL ... lines
 ↓

* 3% of Ag is Cd
 sign Ag

Rea
 RST

Fet. Analysis

Co A = analyze
 N = nrd for average
 A = average
 D = Delete

Samples - Lee says grains microporous
 No 1 - Kspar in Sulfides
 No 2 - Kspar, Q, NaCaSpur, NaSpur
 i.e. EDAX = KALSi
 KNaALSi
 NaCaALSi
 NaALSi

Joe
 Note this
 Key →

- AD gives average all but steel
 grain = calc ...
 No = # ...

Key #	Range 1	Range 2
#1	3160-3180	x9 2000-2020
x #2	3100-3620	10 1100-1200
x #3	3300-3320	10 1100-1200
x #4	3560-3570	x10 1100-1200
x #5	3520-3590	x11 4000-4080
x #6	3940-3960	
x #7	4900-4910	
x #8	3220-3240	
	29 126	Total 10' 38

No 6 gr. n = grain n of # 6
 = grain n of well #, 3940-3960

$\Delta = E$ $O = C$ $\square = Y_4$

For As + Co & etc

Look up analyses where $Cu > 5\%$
- these are chalcopyrite: Mark their points (of As + Co) on the graph

Look up analyses where $Zn > 3\%$
- these ^{are} sphalerite: Mark their As + Co points on the graph
Mark with $sph \rightarrow$ and $cp \rightarrow$

For $Zn > 3\%$ and $Cu > 5\%$ graph separately

Sphalerite = $FeZnS_2$

Chalcopyrite = $FeCuS_2$

<u>CP</u>	No. 1	3160-3180	gr. 1	Pg. 3
	No. 7	4400-4420	gr. 2	Pg. 20
	No. 9	2000-2020	gr. 2	Pg. 22
	No. 10	1180-1210	gr. 3, gr. 4, gr. 11	Pgs. 24, 25

<u>Sph</u>	No. 7	4400-4420	gr. 1	Pg. 19
	No. 10	1180-1210	gr. 1, gr. 2, gr. 3 gr. 4, gr. 5, gr. 7 gr. 15, gr. 16, gr. 17	Pg. 24

Lead = 0
No graph

No. 3 Missing Gram 3

No. 5 Missing Gram 1
" " 4

24

1180-1210
(360-369)

1

No. 10	31.1		31.2		31.3		31.3	
	E Sph	C Same	E Sph	C Same	Sph C	CP C		
As	0	.06	0	.03	0	0		
Hg	0	0	0	0	0	0		
S	32.84	33.02	32.77	32.88	32.57	34.11		
Pb	0	0	0	0	0	0		
Ag	0	0	0	0	0	0		
Cd	0	0	0	0	0	0		
Cr	.08	.06	.18	.11	.16	.05		
Fe	1.22	1.05	1.14	1.14	1.6	29.55		
Co	.09	.09	0	.06	0	.13		
Ni	.02	0	0	.01	0	0		
Cu	0	0	0	0	0	34.45		
Zn	67.07	68.32	67.62	67.67	66.58	0		
Wt. 10	101.32	102.6 101.11	101.74	101.9 101.5	100.91	98.29 98.7	98.8	98.9
As	0	0	.44	0	.02	0	.03	.01
Hg	0	.08	0	0	0	0	0	0
S	34.01	32.59	51.24	32.64	52.9	32.64	53.42	53.36
Pb	0	0	0	0	0	0	0	0
Ag	.02	0	0	.09	.04	.02	0	0
Cd	0	.03	0	.05	0	0	0	0
Cr	.07	.1	.08	.07	0	.14	.08	.06
Fe	29.77	1.23	43.12	1.57	45.52	1.31	46.64	45.9
Co	.04	0	.32	.05	.24	.04	.26	.08
Ni	.07	.11	0	.02	.02	0	.12	.05
Cu	34.08	.12	0	.13	.21	.16	.04	.23
Zn	.14	67.49	.41	67.35	0	67.23	0	.02
	98.2	101.75	95.61	101.07	98.95	102.54	100.59	99.11

Sph- 3

Sph Sph

1180-1210

No. 10	CP			E	E	E	E	E
	91.10	91.11	91.12	91.13	91.13	91.13	91.14	91.14
As	0.01	0	.23	1.03	1.75	.22	.23	.42
Hg	0	0	.03	0	.05	0	0	0
S	53.95	32.25	53.46	52.32	51.83	52.75	51.87	52.37
Pb	0	0	0	0	0	0	0	0
Ag	.08	.01	.01	0	0	.04	0	0
Cd	0	0	0	0	0	0	0	0
Cr	.06	.17	.07	.11	.12	.13	.05	.09
Fe	46.15	28.15	46.16	45.11	44.92	45.11	44.62	45.14
Co	.17	.24	.2	.27	.3	.32	.32	.29
Ni	0	.06	.14	.02	.05	.08	0	0
Cu	.16	34.07	.02	.16	.05	.33	.11	.72
Zn	0	.12	0	.08	.15	0	0	0
	100.58	95.07	100.32	99.15	99.22	99.98	97.2	99.03

~~As~~
~~Hg~~
~~S~~
~~Pb~~
~~Ag~~
~~Cd~~
~~Cr~~
~~Fe~~
~~Co~~
~~Ni~~
~~Cu~~
~~Zn~~

1180-1210

3

(24)

No. 10	Sph	Sph	Sph
As	91.15 .09	91.16 .05	91.17 .04
Hg	0	0	0
S	31.93	31.49	32.03
Pb	0	0	0
Ag	0	0	0
Cd	.07	.12	.42
Cr	.12	.03	.08
Fe	.75	.97	1.21
Co	.1	.09	0
Ni	0	0	0
Cu	0	0	.01
Zn	68.21	68.51	66.26
	111.27	111.22	100.7

2000-2020
(610-616)

~~28~~

~~29~~

4A

	1	2	3	4	5	6	7	
	6	6	6	6	6	6	6	
	No. 9						AV	
	Gr. 1		(E)		(E)		(E)	
	E	C	E	E	E	E	E	
As	.26	.34	0				.2	
Hg	0	0	0				0	
S	53.65	53.67	53.34				53.75	
Pb	0	0	0				0	
Ag	0	0	0				0	
Cd	0	0	0				0	
Cr	.04	.01	0				.02	
Fe	46.35	46.38	46.33				46.35	
Co	.04	.06	.03				.05	
Ni	.02	.15	0				.05	
Cu	0	0	.08				.03	
Zn	0	0	0				0	
	100.36	100.61	100.33				100.45	

(22)

2000-2020
(610-616)

(4B)

No. 9 G.P. 2	DE	$\frac{C}{C}$	EE	N	No. 9 G.P. 3 E	C	DE	N
As	.05	.11	.02	.06	.45	.28	.14	.29
Hg	0	0	0	0	0	0	0	0
S	34.97	35.4	35.8	35.15	53.75	53.75	53.55	53.69
Pb	0	0	0	0	0	0	0	0
Ag	0	0	0	0	.06	.07	.04	.06
Cd	0	0	0	0	0	0	0	0
Cu	.12	.07	0	.06	.07	.01	0	.02
Fe	30.4	30.15	29.41	29.98	46.46	46.82	47.42	46.9
Co	.05	.09	.04	.06	.17	.08	.16	.14
Ni	.23	.2	.14	$\frac{25.19}{27.78}$	.02	0	.08	.03
Cu	35.69	35.36	35.17	$\frac{35.41}{36}$	.16	.13	.04	.11
Zn	.07	.11	.22	$\frac{13}{7}$	.02	.31	0	.11
	101.58	101.47	100.08	101.04	101.16	101.45	101.43	101.35

(23)

2000-2020

(5)

No. 9

Gr. 4	F	C	OE	AV
-As	.05	.29	.67	.34
Hg	0	0	0	0
S	54.16	54.04	53.19	53.8
Pb	0	0	0	0
Ag	.02	.13	0	.05
Cd	0	0	0	0
Cr	.01	0	.07	.03
Fe	46.79	46.24	46.26	46.43
-Co	.05	.11	.02	.06
Ni	.15	.19	.02	.12
Cu	.43	.05	.09	.19
Zn	.11	.15	0	.08
	101.77	101.2	100.32	101.1

①
3160-3180
(963-969)

IF 70-73% plus separately Zn
& labal Sphalerite

Also: plot separately
if Cu is 75%
+ labal Chalcopite

Lead?

Analyses

OE = other Edge
O = Off center
E = edge
C = center

No	gr. 1	gr. 2 (E)	gr. 2 (O)	gr. 2 (C)	(.50)	(.75)	(OE)
→ As	.36	.14	.1	.1	.08	.12	.12
Hg	0	0	0	0	0	0	0
S	51.25	53.39	53.71	54.72	53.2	54.8	53.7
Pb	0	0	0	0	0	0	0
Ag	0	0	0	.11	.09	0	0
Cd	0	0	0	0	0	0	0
Cr	.04	0	.01	0	.1	.07	.16
Fe	44.81	47.39	46.47	46.41	46.8	47.23	47.11
→ Co	.29	.15	(.33)	.22	.31	.19	.25
Ni	.07	.12	.11	.08	.15	.1	.01
Cu	.14	.16	0	.06	.07	0	.12
→ Zn	.19	.24	.48	.04	.3	.31	.25
Total	97.15	101.59	101.21	101.74	101.1	102.2	101.2

Do first

Average gr. 2

As .15
Hg 0
S 53.46
Pb 0
Ag .03
Cd 0
Cr .05
Fe 46.61
Co .25
Ni .1
Cu .08
Zn .26

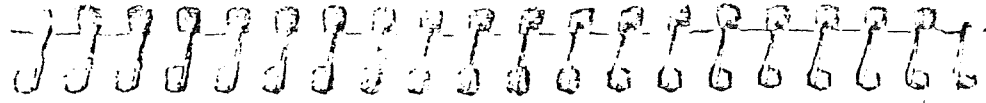
★ Fe K_B =
Co K_α →
FeS₂ w/No Co
gives range
of Co = .1 to .3
(x jumps diff
distance than Fe)

Total 100.39

②

3160-3180

⑦



No. 1				
	Gr. 3 (E)	(C)	(OE)	Average
As	.11	.09	.1	
Hg	0	0	0	0
S	53.17	53.48	53.55	53.55
Pb	0	0	0	0
Ag	.02	.01	.01	.01
Cd	0	0	0	0
Cr	.07	.03	.06	.06
Fe	45.75	46.66	46.46	46.46
Co	.29	.19	.23	.23
Mn	.19	.26	.15	.15
Cu	.02	0	.03	.03
Zn	0	.28	.14	.14
	99.62	101.2	100.73	100.73

3
3160-3180

8

00000000000000000000000000000000

CP

No	gr.	(E)	(C)	(OE)	Avg
As	.	.07	0	.02	.03
Hg		0	.06	.04	.03
S		33.97	34.52	34.47	34.32
Pb		0	0	0	0
Ag		0	0	.01	0
Cd		0	0	0	0
Cr		0	.04	.13	.06
Fe		30.21	30.72	29.41	30.11
Co		.26	(.34)	.28	.29
Ni		0	0	0	0
Cu		34.63	35.13	35.61	35.12
Zn		.13	.12	.09	.11
		99.27	100.93	100.06	100.07

grams

pyrite 3

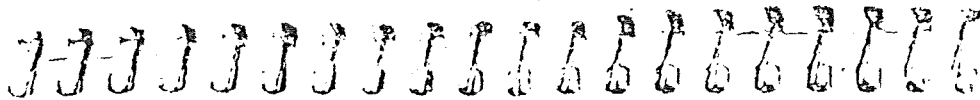
cp 1

3220-3240
(981-988)

No 8	sp. 1	sp. 2	sp. 3	sp. 4	sp. 5	sp. 6	sp. 7
As	0	.08	0	1.14	.05	0	.04
Hg	.02	.03	0	0	.03	.12	0
S	53.02	53.32	53.49	52.51	50.19	53.4	52.89
Pb	0	0	0	0	0	0	0
Ag	0	0	0	0	0	0	0
cd	0	0	0	0	0	0	0
Cr	.12	.08	.11	.11	.11	.14	.11
Fe	45.46	45.36	45.28	45.37	42.63	45.37	44.37
Co	.17	.18	.15	.2	.19	.27	.11
Ni	0.31	.02	.04	.02	.09	.32	.14
Cu	.13	.11	.12	.1	.16	.27	.24
Zn	0	.06	0	.11	0	.13	.18
	99.23	99.24	99.19	99.66	93.5	100.02	98.08

3300-3320
(1006-1012)

10



No 3.

g7.1 (E)	C	guffe (E) (E) ^{1 report}		Nyelebe
		(E)	(E)	
As .48	0	3.7	3.58	1.95
Hg 0	0	0	0	0
S 53.45	53.38	52.13	51.06	52.51
Pb 0	0	0	0	0
Ag .11	.08	.11	.09	.11
Cd 0	0	0	0	0
Cr .07	.04	.03	.01	.04
Fe 46.92	47.35	46.23	45.48	46.49
Co .22	.26	.14	.38	.25
Ni .03	.13	.08	.05	.07
Cu .17	.1	0	.12	.1
Zn 0	.04	0	0	.01
<u>101.45</u>	<u>101.38</u>	<u>102.42</u>	<u>100.77</u>	<u>101.52</u>

3300-3320

J J

No. 3

gr. 2

	(E)	(C)	(G)	(F2)
As	.12	0	0	0
Hg	0	0	0	0
S	53.7	49.59	50.04	38.8
Pb	0	0	0	0
Ag	0	.02	0	0
Cd	0	0	0	0
Cr	.07	.02	.02	.02
Fe	46.31	44.36	43.82	24.69
Co	.1	.29	.2	0
Ni	.1	.06	0	0
Cu	.1	.09	0	0
Zn	0	0	0	0
	100.4	94.43	94.03	52.29

↑
↑
+M₃PS₇

↑
↑
+M₃CoSi

3306-3320

No. 3
97.4

	(E)	1/2	1/4	0 1/4	0 1/2	0 3/4	(0 1/2) ₄	(0 1/4) ₅	(OE) ₁
As	.05	0	1.57	0	3.48	2.55	1.41	0	.77
Hg	0	0	0	0	0	0	0	0	0
S	53.76	53.21	52.76	53.95	51.15	51.33	52.17	52.91	53.34
Pb	0	0	0	0	0	0	0	0	0
Ag	.06	.02	.1	0	.09	.13	0	0	.1
Cd	0	0	0	0	0	0	0	0	0
Ci	.11	.03	.07	0	0	0	0	.01	.01
Fe	46.55	44.4	45.53	47.37	46.03	46.12	45.53	46.63	46.25
Co	.21	.24	.25	.29	.28	.19	.18	.17	.18
Ni	.09	.11	.02	.13	.1	.14	.18	.15	0
Cu	.1	.13	.09	0	.12	.14	.28	.02	.16
Zn	0	0	0	0	0	0	0	0	0
	100.93	100.14	100.39	101.74	101.25	100.6	99.75	99.81	100.81

OE₁ .56
 As 0
 Hg 0
 S 52.47
 Pb 0
 Ag .09
 Cd 0
 Ci .09
 Fe 46.3
 Co .25
 Ni .11
 Cu .04
 Zn 0
 99.9

3300-3320

No. 5 Gr. 5					Gr. 6	Gr. 7
	E ₂	F ₁	E ₃	F ₄	C	C
As	.88	0	.11	.13	.71	.36
Hg	0	0	0	0	0	0
S	52.94	53.02	53.17	52.41	52.39	54.14
Pb	0	0	0	0	0	0
Ag	.05	0	0	0	0	0
Cd	0	0	0	0	0	0
Cr	.03	.04	.02	0	.01	.04
Fe	46.1	45.75	47.05	45.04	46.05	46.77
Co	.19	.17	.16	.14	.15	.15
Ni	.1	0	0	.02	.01	.06
Cu	.12	.05	.05	0	.03	0
Zn	0	0	.06	.09	.08	.15
	<u>100.21</u>	<u>99.93</u>	<u>100.22</u>	<u>99.2</u>	<u>99.93</u>	<u>101.69</u>

3440 - 3460
(1049-1055)

No. 6 (7/100) <u>(21.1)</u>	Repeat			No. 6, 8-1 (10/100, different)		
	C ₁	E ₁	E ₂	C ₂	E ₁	C
As	0	0	.05	.02	0	.06
Hg	0	0	0	0	0	0
S	53.8	54.19	53.4	53.5	52.84	53.19
Pb	0	0	0	0	0	0
Ag	0	0	.03	.01	.02	0
Cd	0	0	0	0	0	0
Cr	.05	0	.01	.02	.07	.05
Fe	46.61	47.33	46.62	46.86	47.15	46.82
Co	.14	.27	.15	.19	.34	.25
Ni	0	.09	.02	.03	.21	0
Cu	.25	.22	1.42	.63	.22	.26
Zn	.04	.19	.17	.13	.28	.08
	100.89	102.29	101.87	101.69	101.13	100.71

(1P.)
3440-3460

No. 6 gr. 2	E ₁	C	E ₂	No. 6 gr. 3	E ₁	C	E ₂
As	0	.02	0	.01	.07	.07	
Hg	0	0	0	0	0	0	
S	52.5	52.84	54.01	53.39	53.39	53.39	
Pb	0	0	0	0	0	0	
Ag	0	.01	0	0	0	0	
Cd	0	0	.05	.01	0	0	
Cr	0	.04	0	.01	0	0	
Fe	46.69	46.89	47.31	46.68	46.94	46.94	
Co	.18	.26	.4	.24	.16	.16	
Ni	0	.07	.07	.16	0	0	
Cu	.26	.25	.29	.14	.25	.25	
Zn	.74	.36	.38	.15	.17	.17	
	100.37	100.74	102.51	100.79	100.98	100.98	

No. 6 Gr 4	E ₁	C	E ₂	Avg E	Averg.
As	.05	.19	.49	.01	.25
Hg	0	0	0	0	0
S	52.54	53.81	53.87	54.27	54.07
Pb	0	0	0	0	0
Ag	.11	0	.05	0	.03
Cd	0	0	0	0	0
Cr	.09	.07	.05	.06	.05
Fe	46.06	45.66	46.01	45.35	45.68
Co	0	.23	.08	.22	.15
Ni	.14	.09	0	.16	.08
Cu	.18	.06	.15	.00	.12
Zn	0	0	.17	.19	.18
	99.17	100.11	100.87	100.35	100.61

3520-3550
(1073-1079)

No. 5

Gr.	Z	E ₁	C ₁	E ₂	AV
As	0	.03	.13	.05	
Hg	0	0	0	0	
S	53.48	53.56	53.74	53.59	
Pb	0	0	0	0	
Ag	0	0	0	0	
Cd	0	0	0	0	
Cu	0	0	0	0	
Fe	46.28	46.66	46.55	46.5	
Co	.22	.29	.22	.24	
Ni	.05	.09	.13	.09	
Cu	.01	.11	.1	.07	
Zn	.14	.11	.15	.13	
	100.18	100.25	101.02	100.67	

15)

3520-3550

17

No. 5
91.3

	F_1	F_2	C_1	AV
As	.07	.08	.05	.07
Hg	0	0	0	0
S	53.81	53.59	53.21	53.53
Pb	0	0	0	0
Hg	0	0	0	0
Cd	0	0	0	0
Cc	0	0	0	0
Fe	45.27	45.84	45.58	45.56
Co	.24	.22	.24	.23
Ni	.15	0	.12	.09
Cu	0	0	.08	.03
Zn	.12	.03	.09	.08
	99.66	99.76	99.37	99.59

3520-3550

7 7 7 7 7 7 7 7 7
0 0 0 0 0 0 0 0 0

G.P. 5 (No. 5)

	E ₁	F ₂	E ₃
As	.03	.09	.03
Hg	0	0	0
S	53.86	53.43	53.83
Pb	0	0	0
Ag	0	0	0
Cd	0	0	0
Cr	0	.01	0
Fe	45.61	45.97	45.93
Co	.27	.25	.21
Ni	.42	.43	.11
Cu	.08	.02	.19
Zn	.19	0	.19
	100.46	100.2	100.49

3560-3580
(1085-1091)

19

No. 4

Gr. 1

	E ₁	E ₂	E ₃	E ₄
As	.11	.06	.06	.01
Hg	0	0	.1	0
S	54.22	54.1	54.09	53.88
Pb	0	0	0	0
Ag	0	0	0	0
Cd	0	0	0	0
Cr	.05	0	0	0
Fe	46.48	45.35	46.49	46.72
Co	.23	(1.43)	(.34)	.29
Ni	.11	.1	.19	.04
Cu	.04	.18	.04	.07
Zn	.09	.05	.29	.24
	101.33	101.27	101.8	101.25

No. 4

	Gr. 2 (E)	(C)		Gr. 3 (C)	C2
As	.13	.06		.07	0
Hg	0	0		0	0
S	54.03	53.68		54.24	53.82
Pb	0	0		0	0
Ag	0	0		0	0
cd	0	0		0	0
Cr	0	0		.02	0
Fe	46.87	46.9		46.89	47.43
Co	.23	.26		.18	.28
Ni	.08	.11		.11	.17
Cu	.05	.18		.01	0
Zn	.1	.08		.23	.15
	101.49	101.27		101.75	101.85

3560-3580

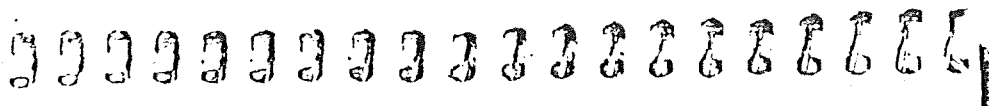
(16)

(21)

0000000000000000

No. 4 Gr. 4	C ₁	C ₂	E ₂
As	.07	.25	.07
Hg	0	0	0
S	52.65	52.69	53.12
Pb	0	0	0
Ag	0	0	0
Cd	0	0	0
Cu	.03	0	0
Fe	46.65	47.1	46.74
Co	.29	.17	.26
Ni	.04	.05	.15
Cu	106	.16	0
Zn	.09	0	.16
	99.88	100.42	100.5

3600-3620
(1097-1103)



No. 2 gr. 1

	(E)	(C)	(OE)	Average
As	.54	.01	.51	.35
Hg	0	0	0	0
S	52.73	53.17	53.24	53.04
Pb	0	0	0	0
Ag	.08	0	0	.03
Cd	0	0	0	0
Cr	.12	.06	.04	.07
Fe	46.9	46.46	46.14	46.5
Co	.25	.06	.14	.15
Ni	0	0	.02	.01
Ca	.06	.01	0	.02
Zn	.01	0	.01	0
	100.69	99.77	100.1	100.17

3600-2620

No. 2 gr. 2	Deloite				Average
	(F)	(C)	(C)	(OF)	
As 1.13	0	0	.02	0	.34
Hg 0	0	0	0	0	0
S 52.11	23.49	53.45	52.77	52.78	
Pb 0	0	0	0	0	0
Ag .07	0	.03	.06	.05	
cd 0	0	0	0	0	0
cr .06	0	.03	.06	.05	
Fe 46.44	37.81	46.64	47.28	46.79	
Co .23	.12	.26	.2	.23	
Ni 0	0	0	.01	0	
Cu 0	0	0	.01	0	
Zn .03	0	0	.18	.07	
<u>100.07</u>	<u>61.42</u>	<u>100.43</u>	<u>100.57</u>	<u>100.35</u>	

3600-3620

No. 2	(C)	(E)	(A)verage
As 51.3	3.01	0	1.01
Hg 0	0	0	0
S 52.93	51.45	53.94	52.78
Pb 0	0	0	0
Hg Ag 0	0	.05	.02
S Cd 0	0	0	0
Cr .11	.14	.08	.11
Fe 47.57	46.5	46.24	46.77
Co .16	.08	.21	.15
Ni 0	0	0	0
Fe Cu 0	0	0	0
Co 21.15	.21	.01	.13
100.92	101.39	100.53	100.97
Zn			

⑦

3600-3620

25

No. 2 gr. 4

	(E)	(C)	(OE)	Avg
As	.98	.16	1.5	.88
Hg	0	0	0	0
S	52.47	52.94	52.43	52.62
Pb	0	0	0	0
Ag	0	1.03	.13	1.05
Cd	0	0	0	0
Cr	.11	0	.1	1.07
Fe	45.99	46.21	46.63	46.28
Co	.18	.15	.12	.15
Ni	0	0	0	0
Cu	0	0	0	0
Zn	0	0	.08	.13
	<u>99.73</u>	<u>99.49</u>	<u>100.99</u>	<u>100.08</u>

4060-4080
(1237-1244)

~~21~~
21

11 11 11 11 11 11 11 11 11 11 11

No. 11

	fl. L F	C	OE		
As	.01	.04	.13		
Hg	.02	.03	0		
S	54.13	51.76	52.95		
Pb	0	0	0		
Ag	0	0	0		
Cd	0	0	0		
Cr	.04	.08	.03		
Fe	46.57	46.72	47.45		
Co	.15	.14	.16		
Ni	.02	.14	.09		
Cu	.07	.14	.08		
Zn	.02	0	0		
	101.03	99.05	100.89		

(19)

4400-4420
(1391-1397)

~~26~~
27

No. 7								in %
Gri	E ₁	C	F ₂	Al	C ₂	C ₃	(S _{PA})	
As	.06	0	0	.02	.05	.03	0	
Hg	0	0	0	0	0	0	0	
S	53.48	53.33	53.89	53.57	54.24	53.97	32.53	
Pb	0	0	0	0	0	0	0	
Ag	0	0	.03	.01	.13	0	0	
Cd	0	0	0	0	.11	0	.21	
Cr	0	0	0	0	0	.08	.03	
Fe	46.28	46.02	46.23	46.19	46.44	46.03	3.86	
Co	.27	.2	.22	.23	.11	0	.07	
Ni	0	0	.24	.08	0	.08	0	
Cu	.16	.14	.13	.14	.26	.17	.61	
Zn	.2	.27	.03	.17	.33	0	(62.17)	
	100.45	99.96	100.77	100.4	101.67	100.33	99.48	

PY 1
Sph 1

4460-4420

28

No. 7 Gr. 2	CP				No. 7 Gr. 3	E			
	E	C	E	Average	0.25	.25	E	E	
As	.05	.01	.14	.07	0	.04	.06	.03	
Hg	0	0	.02	.01	0	0	0	0	
S	34.58	34.52	33.82	34.3	52.97	53.74	53.63	53.45	
Pb	0	0	0	0	0	0	0	0	
Ag	0	0	0	0	.05	.01	.02	.03	
Cd	0	0	0	0	0	0	0	0	
Cr	.03	.01	.06	.03	.09	.04	0	.04	
Fe	29.87	29.39	28.6	29.28	45.79	46.04	46.09	45.98	
Co	.15	.12	.15	.14	.21	.22	.12	.18	
Ni	0	.1	.14	.08	.08	0	.12	.07	
Cu	34.73	35.33	34.85	34.97	.16	.09	.18	.14	
Zn	.12	.07	.37	.18	0	0	0	0	
	99.53	99.55	98.15	99.06	99.35	100.18	100.22	99.92	

CP

py 1

(21)

A400-4420

28
29

No. 7

Gr. 4

.25

C

.25

E

AV

No. 8

Gr. 1

(E)

(C)

(E)

As

.159

0

.75

.01

.37

.26

.34

0

.2

Hg

0

0

0

0

0

0

0

0

0

S

53.56

53.16

52.76

53.47

53.36

53.65

53.67

53.34

53.75

Pb

0

0

0

0

0

0

0

0

0

Ag

0

0

0

0

0

0

0

0

0

Cd

0

0

0

0

0

0

0

0

0

Cr

0

0

.04

.1

.03

.04

.01

0

.02

Fe

42.66

45.4

44.16

45.46

44.47

46.35

46.38

46.33

46.35

Co

(2.08)

.04

(1.67)

.2

1.

.04

.06

.03

.05

Ni

0

.06

0

.01

.02

.02

.15

0

.05

Cu

0

.08

.12

0

.05

0

0

.08

.03

Zn

0

0

0

0

0

0

0

0

0

99.99

99.24

99.47

99.45

99.27

100.36

100.41

100.33

100.45

pg 1