

MICROPROBE ANALYSIS 0

MAY 9, 1974

SUBMITTED BY: R BUTTERS

DESCRIPTION: ANVIL APR 73

ELEMENT	WEIGHT PERCENT	ATOMIC PERCENT	K-RATIO	INTENSITIES		BACKGROUNDS		ITER
				UNKN	STD	UNKN	STD	
ZN KA	55.01	39.45	0.5074	57863	114029	268	268	
FE KA	8.40	7.05	0.0824	12506	151855	158	158	
S *	36.59	53.50						3
ZN KA	54.72	39.16	0.5045	57528	114029	268	268	
FE KA	8.41	7.04	0.0824	12506	151855	158	158	
S *	36.88	53.80						3
ZN KA	56.39	40.51	0.5220	59529	114029	268	268	
FE KA	7.01	5.89	0.0689	10467	151855	158	158	
S *	36.59	53.59						3
ZN KA	56.61	40.69	0.5243	59780	114029	268	268	
FE KA	6.86	5.77	0.0675	10245	151855	158	158	
S *	36.54	53.54						3
ZN KA	53.46	38.20	0.4913	56021	114029	268	268	
FE KA	9.68	8.10	0.0946	14366	151855	158	158	
S *	36.87	53.71						3
ZN KA	56.42	40.45	0.5224	59571	114029	268	268	
FE KA	6.69	5.61	0.0657	9983	151855	158	158	
S *	36.90	53.93						3
ZN KA	54.12	38.79	0.4981	56795	114029	268	268	
FE KA	9.36	7.85	0.0917	13921	151855	158	158	
S *	36.52	53.36						3
ZN KA	55.11	39.43	0.5086	57999	114029	268	268	
FE KA	7.93	6.64	0.0777	11799	151855	158	158	
S *	36.97	53.93						3
ZN KA	55.86	40.10	0.5164	58879	114029	268	268	
FE KA	7.54	6.33	0.0740	11244	151855	158	158	
S *	36.61	53.57						3
ZN KA	54.81	39.18	0.5055	57643	114029	268	268	
FE KA	8.14	6.81	0.0797	12102	151855	158	158	
S *	37.06	54.01						3
ZN KA	57.10	41.39	0.5289	60305	114029	268	268	
FE KA	7.59	6.44	0.0749	11375	151855	158	158	
S *	35.31	52.17						3
ZN KA	57.40	41.55	0.5322	60683	114029	268	268	
FE KA	7.02	5.95	0.0693	10517	151855	158	158	
S *	35.58	52.51						3

ZN KA	52.77	37.53	0.4844	55238	114029	268	268
FE KA	9.73	8.10	0.0949	14416	151855	158	158
S *	37.50	54.37					

3

* DETERMINED BY DIFFERENCE

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ELEMENT	WEIGHT PERCENT	ATOMIC PERCENT	K-RATIO	INTENSITIES		BACKGROUNDS		ITER
				UNKN	STD	UNKN	STD	
ZN KA	54.20	38.75	0.4991	56910	114029	268	268	
FE KA	8.88	7.43	0.0869	13193	151855	158	158	
S *	36.92	53.82						3
ZN KA	50.60	35.47	0.4629	52784	114029	268	268	
FE KA	9.95	8.16	0.0963	14629	151855	158	158	
S *	39.45	56.37						3
ZN KA	53.43	38.28	0.4908	55969	114029	268	268	
FE KA	10.11	8.48	0.0989	15024	151855	158	158	
S *	36.45	53.24						3
ZN KA	53.84	38.41	0.4954	56492	114029	268	268	
FE KA	8.97	7.49	0.0877	13314	151855	158	158	
S *	37.20	54.10						3
ZN KA	56.68	40.97	0.5245	59812	114029	268	268	
FE KA	7.68	6.50	0.0756	11486	151855	158	158	
S *	35.65	52.53						3
ZN KA	52.44	37.37	0.4808	54820	114029	268	268	
FE KA	10.46	8.73	0.1021	15499	151855	158	158	
S *	37.10	53.90						3

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SUBMITTED BY: R BUTTERS

DESCRIPTION: ANVIL APR 73

MEAN CHEMICAL COMPOSITION AND TWO
SIGMA LIMITS BASED ON 19 ANALYSES

ELEMENT	WEIGHT PERCENT	ATOMIC PERCENT
ZN	54.79 ± 0.82	39.25 ± 0.71
FE	8.44 ± 0.55	7.07 ± 0.45
S *	36.77 ± 0.40	53.68 ± 0.40

$\left(\frac{\text{Fe wt}}{\text{Zn wt}}\right) = 6.52$

* DETERMINED BY DIFFERENCE

MEAN INTENSITY RATIOS AND TWO SIGMA LIMITS

ELEMENT	K
ZN KA	0.5052 ± 0.0085
FE KA	0.0827 ± 0.0052

ACCELERATING VOLTAGE 25.0 KEV

X-RAY EMERGENCE ANGLE 20.0 DEGREES

PEAK-TO-BACKGROUND RATIOS (P/B), SENSITIVITIES
(SENS), AND MINIMUM DETECTABILITY LIMITS (MDL)

ELEMENT	P/B	SENS	MDL
ZN	425/1	0.27 %	128 PPM
FE	961/1	0.08 %	63 PPM

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CORRECTIONS

ELEMENT	BACKSCATTER	IONIZATION- PENETRATION	ABSORPTION	FLUORESCENCE	TOTAL
ZN KA	0.968	1.086	1.031	1.000	1.084
FE KA	0.989	1.040	1.071	0.927	1.020

EXECUTION TERMINATED

\$SIG