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Sulphurets

598-694

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GEOLOGICAL SURVEY OF CANADA
ECONOMIC GEOLOGY AND MINERALOGY DIVISION
ANALYTICAL CHEMISTRY SECTION
ICP - EMISSION SPECTROMETRY LABORATORY

* REPORT OF ANALYSIS *

DATE: 9 FEB. 88
REPORT NO. 151-87
SUBMITTED BY: BALLANTYNE B.
PROJECT NO. 790003
METHOD: DISSOLUTION F-HCl-10 ; ICP-TR1 , Ag & Pb BY AA.

ESTIMATE OF VALIDITY OF RESULTS

ELEMENT	+/-	(ABSOLUTE	+	RELATIVE)
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Be	+/-	(0.5 PPM	+	5% OF CONC.)
Co	+/-	(5 PPM	+	5% OF CONC.)
Cr	+/-	(10 PPM	+	5% OF CONC.)
Cu	+/-	(10 PPM	+	5% OF CONC.)
La	+/-	(10 PPM	+	5% OF CONC.)
Ni	+/-	(10 PPM	+	5% OF CONC.)
Pb	+/-	(20 PPM	+	10% OF CONC.)
V	+/-	(5 PPM	+	5% OF CONC.)
Yb	+/-	(0.5 PPM	+	5% OF CONC.)
Zn	+/-	(5 PPM	+	5% OF CONC.)

REPORT OF ANALYSIS

NAME: BALLANTYNE B.

PROJECT: 790003

REQN. NO: 151-87

LAB. NO.	1	2	3	4	5	6	7	8
SAMPLE NO:	104B 879 598	104B 879 599	104B 879 600	104B 879 601	104B 879 602	104B 879 603	104B 879 604	104B 879 605
BE ppm :	0.8	0.9	0.9	1.3	0.8	0.2	1.0	1.4
CO ppm :	15	28	17	13	9	2	15	15
CR ppm :	17	20	20	15	10	6	18	16
CU ppm :	34	52	27	30	19	49	8	23
LA ppm :	21	15	19	21	8	9	15	14
NI ppm :	21	16	17	0	0	3	0	0
V ppm :	88	240	140	100	76	17	100	100
YB ppm :	1.5	1.5	1.6	1.3	1.2	0.3	1.6	1.6
ZN ppm :	40	78	69	21	120	240	43	54

COMMENTS:

* ICP-TR1 DATA ARE OBTAINED ON 1.0 G OF SAMPLE (ACID + FUSION OF RESIDUE)
DISSOLVED IN 10% HCL AND DILUTED TO 100 ML.

ANALYTICAL CHEMISTRY SECTION
ICP-ES LABORATORY

DATE: 9 FEB. 88

LAB. NO.	9	10	11	12	13	14	15	16
SAMPLE NO:	104B 879 606	104B 879 607	104B 879 608	104B 879 609	104B 879 610	104B 879 612	104B 879 613	104B 879 614
BE ppm :	1.2	6.3	1.3	1.1	1.2	0.9	1.2	0.4
CD ppm :	16	42	16	16	12	14	18	11
CR ppm :	19	380	18	17	14	17	17	23
CU ppm :	17	66	23	26	10	10	10	14
LA ppm :	16	35	14	16	15	15	11	14
NI ppm :	0	310	4	0	0	3	0	24
V ppm :	97	130	110	100	87	100	110	10
YB ppm :	1.6	3.9	1.9	1.7	1.6	1.4	1.6	1.2
ZN ppm :	65	160	99	94	20	69	30	7

COMMENTS:

* ICP-TR1 DATA ARE OBTAINED ON 1.0 G OF SAMPLE (ACID + FUSION OF RESIDUE)
DISSOLVED IN 10% HCL AND DILUTED TO 100 ML.

ANALYTICAL CHEMISTRY SECTION
ICP-ES LABORATORY

DATE: 9 FEB. 88

LAB. NO.	17	18	19	20	21	22	23	24
SAMPLE NO:	104B 879 615	104B 879 616	104B 879 617	104B 879 618	104B 879 619	104B 879 620	104B 879 621	104B 879 622
BE ppm :	1.4	1.5	6.3	1.5	0.9	1.3	0.5	1.1
CD ppm :	15	15	43	15	16	19	11	20
CR ppm :	20	18	400	17	49	60	12	26
CU ppm :	34	29	74	34	23	59	81	100
LA ppm :	24	19	36	16	14	15	5	12
NI ppm :	0	0	350	3	29	27	0	10
V ppm :	110	94	150	95	110	120	120	290
YB ppm :	1.4	2.1	4.2	1.9	0.8	1.0	0.2	1.1
ZN ppm :	24	26	160	61	67	78	23	65

COMMENTS:

* ICP-TR1 DATA ARE OBTAINED ON 1.0 G OF SAMPLE (ACID + FUSION OF RESIDUE)
DISSOLVED IN 10% HCL AND DILUTED TO 100 ML.

ANALYTICAL CHEMISTRY SECTION

DATE: 9 FEB. 88

ICP-ES LABORATORY

LAB. NO.	25	26	27	28	29	30	31	32
SAMPLE NO:	104B 879	104B 879	104B 879	104B 879	104B 879	104B 879	104B 879	104B 879
	623	624	625	626	627	628	629	630

BE ppm :	1.6	2.0	1.6	1.1	5.9	0.5	1.4	0.5
CO ppm :	15	26	12	17	41	11	9	8
CR ppm :	21	49	19	23	390	11	45	21
CU ppm :	21	27	17	9	70	75	520	19
LA ppm :	20	51	18	15	34	5	11	6
NI ppm :	8	21	4	7	320	0	22	0
V ppm :	110	120	120	130	140	120	120	190
YB ppm :	1.8	0.8	1.5	1.5	4.0	0.1	0.8	0.4
ZN ppm :	62	130	59	73	160	21	380	9

COMMENTS:

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DISSOLVED IN 10% HCL AND DILUTED TO 100 ML.

ANALYTICAL CHEMISTRY SECTION
ICP-ES LABORATORY

DATE: 9 FEB. 88

LAB. NO.	33	34	35	36	37	38	39	40
SAMPLE NO:	104B 879 632	104B 879 633	104B 879 634	104B 879 635	104B 879 636	104B 879 637	104B 879 638	104B 879 639
BE ppm :	0.6	0.2	0.4	1.4	1.1	6.2	0.8	0.8
CO ppm :	8	3	7	10	7	41	14	20
CR ppm :	20	6	15	16	37	300	44	21
CU ppm :	21	81	21	32	11	69	34	65
LA ppm :	5	2	10	24	10	33	8	10
NI ppm :	0	5	0	0	14	310	15	0
V ppm :	180	39	160	110	62	130	92	270
YB ppm :	0.5	0.4	0.7	2.6	0.6	3.8	0.6	0.8
ZN ppm :	20	5400	56	52	18	160	32	54

COMMENTS:

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DISSOLVED IN 10% HCL AND DILUTED TO 100 ML.

ANALYTICAL CHEMISTRY SECTION
ICP-ES LABORATORY

DATE: 9 FEB. 88

LAB. NO:	41	42	43	44	45	46	47	48
SAMPLE NO:	104B 879 640	104B 879 641	104B 879 642	104B 879 643	104B 879 644	104B 879 645	104B 879 646	104B 879 747
BE ppm :	1.1	0.9	1.0	2.1	0.8	0.0	0.8	6.3
CD ppm :	9	23	6	24	13	6	32	40
CR ppm :	41	24	21	41	21	5	180	370
CU ppm :	6	140	5	90	59	65	44	69
LA ppm :	15	12	6	21	6	1	7	32
NI ppm :	11	2	9	38	0	9	17	320
V ppm :	69	210	60	210	160	9	280	130
YB ppm :	0.7	1.0	0.5	1.3	0.6	0.0	0.6	3.7
ZN ppm :	35	72	22	200	290	490	420	150

COMMENTS:

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DISSOLVED IN 10% HCL AND DILUTED TO 100 ML.

ANALYTICAL CHEMISTRY SECTION
ICP-ES LABORATORY

DATE: 9 FEB. 88

LAB. NO.	49	50	51	52	53	54	55	56
SAMPLE NO:	104B 879 648	104B 879 649	104B 879 650	104B 879 652	104B 879 653	104B 879 654	104B 879 655	104B 879 656
BE ppm :	0.9	0.1	0.9	0.8	1.0	1.0	1.1	0.9
CD ppm :	31	6	23	32	23	21	21	21
CR ppm :	36	6	83	43	27	23	25	20
CU ppm :	53	540	82	93	150	180	94	160
LA ppm :	8	1	9	6	12	11	10	10
NI ppm :	0	9	17	0	5	0	4	2
V ppm :	250	20	360	310	220	220	250	260
YB ppm :	0.8	0.1	1.0	1.0	1.1	1.0	0.9	0.7
ZN ppm :	100	29000	78	100	75	62	97	68

COMMENTS:

* ICP-TR1 DATA ARE OBTAINED ON 1.0 G OF SAMPLE (ACID + FUSION OF RESIDUE)
DISSOLVED IN 10% HCL AND DILUTED TO 100 ML.

ANALYTICAL CHEMISTRY SECTION

DATE: 9 FEB. 88

ICP-ES LABORATORY

LAB. NO.	57	58	59	60	61	62	63	64
SAMPLE NO:	104B 879 657	104B 879 658	104B 879 659	104B 879 660	104B 879 661	104B 879 662	104B 879 663	104B 879 664
BE ppm :	5.9	1.4	1.5	0.8	1.9	1.5	0.9	1.0
CD ppm :	39	14	13	10	33	24	35	29
CR ppm :	370	15	14	23	110	48	35	38
CU ppm :	64	37	21	27	230	54	18	92
LA ppm :	31	14	16	7	10	20	14	10
NI ppm :	310	0	0	9	4	21	4	15
V ppm :	130	110	110	64	240	220	190	310
YB ppm :	3.7	2.2	2.4	0.4	1.1	1.8	2.7	1.1
ZN ppm :	150	230	77	17	45	76	170	82

COMMENTS:

* ICP-TR1 DATA ARE OBTAINED ON 1.0 G OF SAMPLE (ACID + FUSION OF RESIDUE)
DISSOLVED IN 10% HCL AND DILUTED TO 100 ML.

ANALYTICAL CHEMISTRY SECTION
 ICP-ES LABORATORY

DATE: 9 FEB. 88

LAB. NO.	65	66	67	68	69	70	71	72
SAMPLE NO:	104B 879 665	104B 879 666	104B 879 667	104B 879 668	104B 879 669	104B 879 670	104B 879 672	104B 879 673
BE ppm :	1.4	1.1	5.9	1.5	1.5	1.6	1.7	1.4
CO ppm :	16	17	39	21	18	19	18	32
CR ppm :	48	73	380	23	20	21	24	60
CU ppm :	110	83	67	86	37	38	120	120
LA ppm :	16	16	31	11	17	18	16	14
NI ppm :	20	39	330	6	4	0	0	13
V ppm :	160	160	140	180	180	170	150	230
YB ppm :	1.3	1.5	3.8	1.0	1.7	1.7	1.7	0.8
ZN ppm :	89	99	150	70	79	80	64	47

COMMENTS:

* ICP-TR1 DATA ARE OBTAINED ON 1.0 G OF SAMPLE (ACID + FUSION OF RESIDUE)
 DISSOLVED IN 10% HCL AND DILUTED TO 100 ML.

ANALYTICAL CHEMISTRY SECTION
ICP-ES LABORATORY

DATE: 9 FEB. 88

LAB. NO.	73	74	75	76	77	78	79	80
SAMPLE NO:	104B 879 674	104B 879 675	104B 879 676	104B 879 677	104B 879 768	104B 879 679	104B 879 680	104B 879 681
BE ppm :	2.0	2.1	2.4	6.1	1.2	1.3	1.4	1.7
CD ppm :	34	20	16	41	7	10	25	15
CR ppm :	100	110	77	390	13	13	45	17
CU ppm :	230	120	280	69	13	13	650	25
LA ppm :	11	15	15	33	16	16	10	31
NI ppm :	1	0	0	320	0	0	0	2
V ppm :	240	290	220	140	74	80	230	73
YB ppm :	1.1	1.4	1.8	3.9	1.9	1.8	1.6	8.5
ZN ppm :	46	40	39	150	19	21	58	120

COMMENTS:

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DISSOLVED IN 10% HCL AND DILUTED TO 100 ML.

ANALYTICAL CHEMISTRY SECTION
ICP-ES LABORATORY

DATE: 9 FEB. 88

LAB. NO.	81	82	83	84	85	86	87	88
SAMPLE NO:	104B 879	104B 879	104B 879	104B 879	104B 879	104B 879	104B 879	104B 879
	682	683	684	685	686	687	688	689
	-----	-----	-----	-----	-----	-----	-----	-----
RE ppm :	2.1	1.3	1.2	1.4	1.8	6.7	1.4	0.6
CO ppm :	15	15	14	12	14	42	15	10
CR ppm :	100	70	15	16	17	380	18	44
CU ppm :	190	370	450	13	400	71	1300	71
LA ppm :	14	15	17	18	20	35	25	9
NI ppm :	0	0	0	6	0	330	5	28
V ppm :	210	180	170	85	190	140	170	200
YB ppm :	1.6	1.6	1.6	1.7	1.7	4.0	1.8	1.8
ZN ppm :	34	24	17	56	38	160	81	300

COMMENTS:

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DISSOLVED IN 10% HCL AND DILUTED TO 100 ML.

ANALYTICAL CHEMISTRY SECTION
ICP-ES LABORATORY

DATE: 9 FEB. 88

LAB. NO.	89	90	91	92	93	94	95	96
SAMPLE NO:	104B 879 690	104B 879 692	104B 879 693	104B 879 694	151-87-9 3 #5	151-87-9 4 #19	151-87-9 5 #43	151-87-9 6 #65
BE ppm :	0.9	0.9	1.1	0.9	0.9	6.1	1.1	1.5
CD ppm :	21	48	39	38	11	42	8	17
CR ppm :	78	96	36	49	15	380	22	49
CU ppm :	27	71	31	63	25	73	8	110
LA ppm :	12	13	19	13	11	34	8	18
NI ppm :	11	58	22	40	0	330	13	23
V ppm :	170	330	180	300	82	140	63	160
YB ppm :	1.6	2.5	3.0	2.5	1.4	4.0	0.8	1.5
ZN ppm :	120	89	150	120	140	150	26	93

COMMENTS:

* ICP-TR1 DATA ARE OBTAINED ON 1.0 G OF SAMPLE (ACID + FUSION OF RESIDUE)
DISSOLVED IN 10% HCL AND DILUTED TO 100 ML.

ANALYTICAL CHEMISTRY SECTION

DATE: 9 FEB. 88

ICP-ES LABORATORY

LAB. NO. 97

SAMPLE NO: 151-87-9

7 #83

BE	ppm :	1.2
CD	ppm :	14
CR	ppm :	15
CU	ppm :	470
LA	ppm :	17
NI	ppm :	0
V	ppm :	140
YB	ppm :	1.6
ZN	ppm :	23

COMMENTS:

* ICP-TR1 DATA ARE OBTAINED ON 1.0 G OF SAMPLE (ACID + FUSION OF RESIDUE)
DISSOLVED IN 10% HCL AND DILUTED TO 100 ML.