

LOG NO: 02-01	RD.
ACTION:	
FILE NO:	

Assessment Report  
Geochemistry  
TASK 9 Group  
(includes Task 9,10,11, 8, 6)

Clinton Mining Division

NTS 920/SE

Lat. 51 29' N  
Long. 123 35' W

Owner/Operator: Pioneer Metals Corporation

CLINTON MINING DIVISION  
ASSESSMENT REPORT

Vancouver, B.C.  
January 23, 1991

20,896

<b>SUB-RECORDER</b>	
RECEIVED	
JAN 24 1991	
M.R. #	S
VANCOUVER, B.C.	

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### Appendices

Geochemical Traverse Map	✓	
Geochemical Analyses	✓	
Statement of Costs		4 ✓
Statement of Qualifications		5 ✓

52

53

40' 54

55

56

57

58

59

35'

60

61

62

63

464000m E.

TASK 9

TASK 10

TASK 11

TASK 8

TASK 6

CU-AU

DN

DM

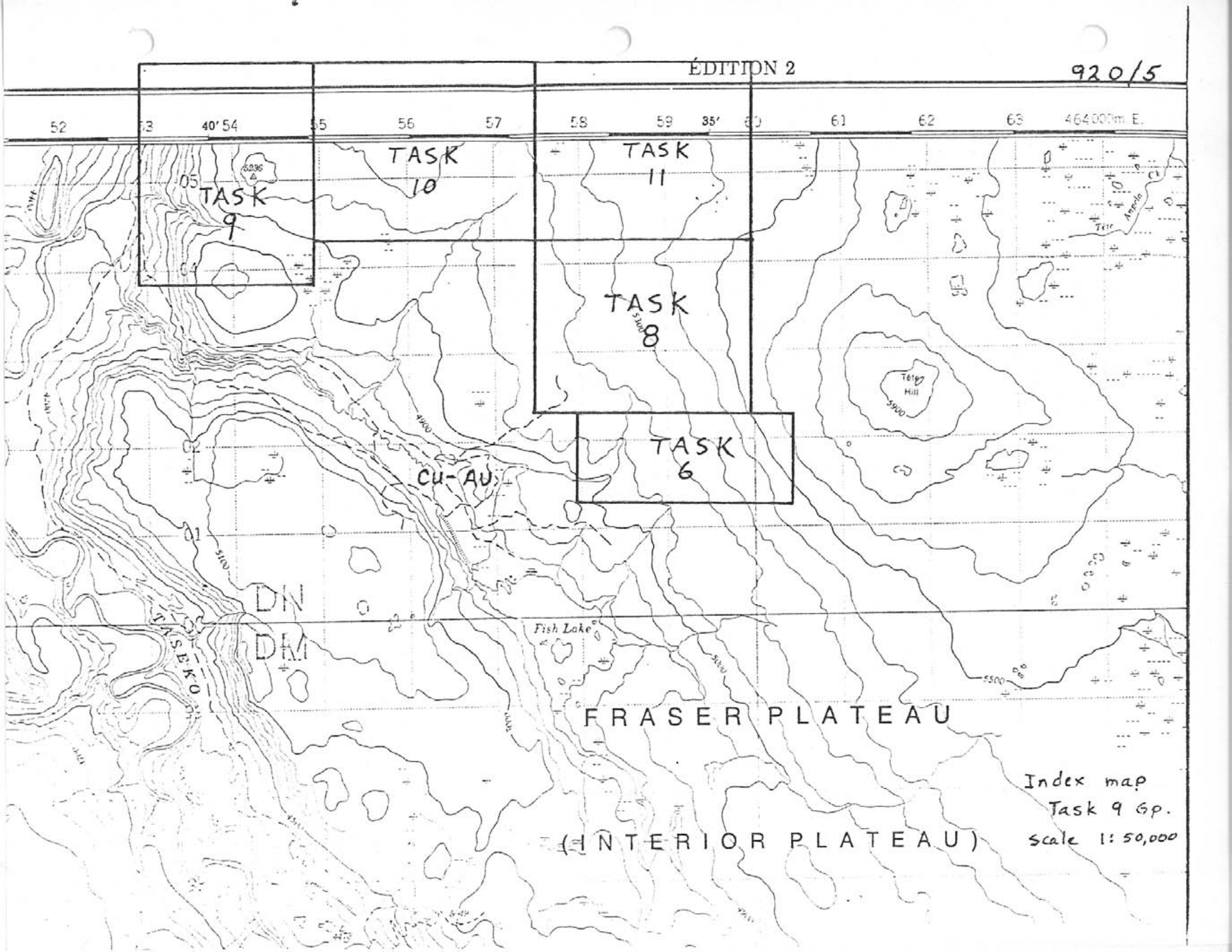
Fish Lake

Tetpy Hill

FRASER PLATEAU

(INTERIOR PLATEAU)

Index map  
Task 9 Gp.  
Scale 1:50,000



## Introduction

### Location and Access

The Task 9 group is adjacent to the Fish Lake property presently held by Cominco Ltd. The property is located about 250 Km north of Vancouver and 120 Km SW of Williams Lake. Access is provided by paved highway (No. 20) to Lee's corner, thence by the well maintained Taseko Lake gravel road to Fish Lake turn off, followed by 8 km of good dirt road to the Fish Lake campground. Four wheel drive vehicle may be required during spring breakup on the last few kilometres along Fish Creek. Float planes are easily accommodated by Fish Lake.

### Topography

The area is part of the Chilcotin plateau with subdued relief; elevations ranging from 1450 to 1600 meters above sea level. Vegetation is generally open with numerous meadows, lightly wooded grasslands and clumps of jackpine and alpine fir. Tributaries to Fish Creek are dry most of the year.

### Previous Work

In 1988 and 1989 back hoe trenching and overburden drilling was undertaken in proximity to the Fish Lake copper-gold porphyry deposit to check for overburden depths and look for alteration trends. It was encouraging to find that plateau basalt cover was much more limited than previous geologic mapping had suggested, and that altered granite rock was intersected in several places below shallow glacial cover. Sampling emphasized the heavy mineral fraction at or near bedrock but this method is time consuming and costly.

### Summary of Present Work

The glacial deposits which cover most of the area have a very strong unidirectional dispersion pattern, shaped and streamlined by the last glacial advance which was directed due north (see airphoto number BCC 274-094). With this in mind a detailed east-west geochemical transect was undertaken near the northern limit of the claim group. Ideally this would give reconnaissance geochemical coverage for the entire property as any glacial train intersected could easily be followed south to source. The key questions are how and what to sample to best pick up mineralized glacial trains which must exist northward from the known mineralization. As part of this program and as continuing research several different types of sample preparation and analyses are being run on these same samples to guide further field work.

### Procedure

Great care was taken during field sampling to obtain consistent samples, which consist typically of grey glacial clay and silt from 25 - 20 cm depth in the B horizon. All samples were from well drained sites and from the same contour on south facing (up glacial) slopes. All were sieved dry to 20 mesh in the field, so as to represent a larger than normal amount of material. Lab preparation consisted of sieving to 80 mesh and separation of the 2 micron clay fraction. Analyses were performed by Bondar-Clegg for 28 elements using ICP after aqua-regia digestion.

## Results and Interpretation

As seen by referring to sample numbers 1 - 76 and 97 - 119 in the appended analysis sheets the results of this method of sample preparation and analysis are disappointing. Not only are no samples anomalous in copper but even the well defined Fish Lake Cu - Au porphyry deposit was not detected by either copper or other pathfinder elements. The glacial train for this deposit should intersect the geochem traverse between samples 105 and 115. Clearly, the present conventional, cost effective approach to sample prep and analysis is not adequate. The clay fraction only will now be run through different digestion methods and analytical techniques before further field work is contemplated.



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SAMPLE NUMBER	FLUORINE UNITS	Ag PPM	Cu PPM	Pb PPM	Zn PPM	Mo PPM	Ni PPM	Co PPM	Cd PPM	Bi PPM	As PPM	Sb PPM
S1 1		11.7	31	6	65	2	38	12	<1	<5	10	<5
S1 2		0.6	28	8	89	3	38	12	<1	<5	6	<5
S1 3		11.5	14	7	116	4	28	10	<1	<5	11	<5
S1 4		0.7	23	6	99	2	43	13	<1	<5	<5	<5
S1 5		11.4	19	5	101	2	37	10	<1	<5	<5	<5
S1 6		0.5	35	8	50	3	46	13	<1	<5	7	<5
S1 7		11.5	16	<2	57	<1	33	9	<1	<5	9	<5
S1 8		0.5	14	6	103	<1	26	10	<1	<5	5	<5
S1 9		11.4	19	4	68	<1	37	11	<1	<5	<5	<5
S1 10		0.5	16	5	67	<1	31	9	<1	<5	7	<5
S1 11		0.5	28	5	47	2	42	11	<1	<5	16	<5
S1 12		0.5	39	5	45	2	32	10	<1	<5	9	<5
S1 13		0.5	24	3	71	1	34	11	<1	<5	<5	<5
S1 14		0.4	30	3	47	1	29	11	<1	<5	16	<5
S1 15		11.4	45	2	55	1	32	11	<1	<5	5	<5
S1 16		0.5	40	3	38	3	34	11	<1	<5	5	<5
S1 17		0.3	16	2	69	1	28	10	<1	<5	6	<5
S1 18		0.4	22	3	42	1	26	10	<1	<5	<5	<5
S1 19		0.3	21	3	27	<1	29	7	<1	<5	<5	<5
S1 20		0.3	32	21	35	6	26	9	<1	<5	7	<5
S1 21		0.4	43	9	36	3	31	10	<1	<5	7	<5
S1 22		0.3	31	10	35	4	28	11	<1	<5	<5	<5
S1 23		0.3	18	8	31	2	21	7	<1	<5	8	<5
S1 24		11.5	22	3	32	1	32	8	<1	<5	<5	<5
S1 25		11.4	43	4	45	1	35	11	<1	<5	8	<5
S1 26		0.5	35	<2	49	1	32	11	<1	<5	<5	<5
S1 27		11.4	38	3	234	1	22	11	<1	<5	80	<5
S1 28		0.3	40	5	80	2	31	12	<1	<5	<5	<5
S1 29		11.5	29	2	110	<1	25	12	<1	<5	<5	<5
S1 30		0.5	32	3	82	1	35	12	<1	<5	10	<5
S1 31		0.4	18	3	88	1	26	10	<1	<5	9	<5
S1 32		0.4	29	<2	38	<1	27	10	<1	<5	8	<5
S1 33		0.5	37	3	42	<1	27	11	<1	<5	18	<5
S1 34		0.3	42	3	87	<1	28	13	<1	<5	<5	<5
S1 35		0.4	36	3	63	2	34	12	<1	<5	10	<5
S1 36		0.3	30	4	48	<1	31	10	<1	<5	<5	<5
S1 37		0.5	56	8	64	3	45	13	<1	<5	15	<5
S1 39		0.5	31	4	83	<1	38	14	<1	<5	15	<5
S1 40		0.5	40	2	47	<1	34	13	<1	<5	15	<5
S1 41		0.4	31	4	75	<1	37	12	<1	<5	17	<5



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SAMPLE NUMBER	FI FNFNT UNITS	Fe PCT	Mn PCT	Te PPM	Ba PPM	Cr PPM	V PPM	Sn PPM	W PPM	La PPM	Al PCT	Mg PCT
S1 1		4.64	0.03	<10	72	58	81	<20	<10	5	2.45	0.71
S1 2		4.26	0.05	<10	83	51	70	<20	<10	6	2.36	0.62
S1 3		2.98	0.04	<10	61	33	54	<20	<10	5	1.82	0.38
S1 4		3.97	0.03	<10	80	39	64	<20	<10	3	2.73	0.51
S1 5		3.18	0.02	<10	62	33	51	<20	<10	3	2.07	0.45
S1 6		4.33	0.04	<10	63	67	74	<20	<10	5	2.18	0.66
S1 7		3.54	0.02	<10	61	41	62	<20	<10	2	2.18	0.44
S1 8		3.29	0.06	<10	80	32	54	<20	<10	2	1.90	0.45
S1 9		3.41	0.03	<10	69	35	54	<20	<10	2	2.31	0.44
S1 10		3.11	0.02	<10	45	38	49	<20	<10	2	1.89	0.43
S1 11		3.85	0.02	<10	69	49	70	<20	<10	3	2.40	0.57
S1 12		3.87	0.02	<10	59	52	70	<20	<10	3	2.23	0.50
S1 13		3.63	0.02	<10	78	41	64	<20	<10	3	2.49	0.41
S1 14		3.59	0.02	<10	59	42	68	<20	<10	4	1.96	0.65
S1 15		3.97	0.02	<10	69	45	72	<20	<10	3	2.17	0.57
S1 16		4.04	0.02	<10	55	45	70	<20	<10	3	1.98	0.70
S1 17		3.23	0.03	<10	54	36	60	<20	<10	2	1.76	0.35
S1 18		3.55	0.02	<10	57	41	66	<20	<10	3	1.62	0.58
S1 19		2.76	0.02	<10	47	35	50	<20	<10	4	1.08	0.59
S1 20		2.65	0.01	<10	61	33	54	<20	<10	6	1.59	0.38
S1 21		4.13	0.02	<10	65	50	78	<20	<10	5	2.02	0.56
S1 22		3.32	0.01	<10	89	36	63	<20	<10	4	2.16	0.43
S1 23		2.75	0.01	<10	38	31	51	<20	<10	3	1.55	0.34
S1 24		3.56	0.02	<10	51	44	64	<20	<10	4	1.52	0.68
S1 25		4.21	0.03	<10	55	48	75	<20	<10	4	1.79	0.75
S1 26		3.91	0.03	<10	62	43	75	<20	<10	3	1.99	0.66
S1 27		3.40	0.02	<10	69	25	64	<20	<10	4	2.23	0.62
S1 28		3.57	0.02	<10	63	33	55	<20	<10	2	2.18	0.49
S1 29		3.45	0.03	<10	57	30	57	<20	<10	2	2.12	0.40
S1 30		3.64	0.03	<10	52	33	56	<20	<10	2	2.29	0.41
S1 31		3.44	0.02	<10	51	28	58	<20	<10	2	1.82	0.35
S1 32		3.40	0.02	<10	45	37	61	<20	<10	3	1.91	0.49
S1 33		3.38	0.02	<10	42	26	53	<20	<10	3	2.17	0.60
S1 34		3.45	0.02	<10	53	30	57	<20	<10	3	2.47	0.48
S1 35		3.36	0.02	<10	53	29	53	<20	<10	2	2.18	0.43
S1 36		3.69	0.02	<10	63	41	62	<20	<10	2	2.44	0.45
S1 37		4.21	0.02	<10	83	48	71	<20	<10	5	3.05	0.65
S1 39		4.22	0.02	<10	81	38	66	<20	<10	3	3.10	0.49
S1 40		3.90	0.02	<10	92	38	67	<20	<10	3	2.98	0.56
S1 41		4.12	0.03	<10	60	40	64	<20	<10	2	2.69	0.53





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SAMPLE NUMBER	FILAMENT UNITS	Ca PCT	Na PCT	K PCT	Sr PPM	Y PPM
S1 1		0.51	<0.05	0.08	49	5
S1 2		0.51	<0.05	0.12	46	5
S1 3		0.36	<0.05	0.11	28	3
S1 4		0.31	<0.05	0.08	25	3
S1 5		0.33	<0.05	0.08	25	3
S1 6		0.46	<0.05	0.08	43	5
S1 7		0.36	<0.05	0.07	28	2
S1 8		0.38	<0.05	0.11	30	2
S1 9		0.30	<0.05	0.05	30	2
S1 10		0.36	<0.05	<0.05	27	3
S1 11		0.33	<0.05	0.06	40	4
S1 12		0.33	<0.05	<0.05	30	3
S1 13		0.26	<0.05	<0.05	24	2
S1 14		0.39	<0.05	<0.05	32	3
S1 15		0.31	<0.05	0.09	30	3
S1 16		0.46	<0.05	0.07	38	3
S1 17		0.27	<0.05	<0.05	20	2
S1 18		0.36	<0.05	0.06	27	3
S1 19		0.54	0.07	<0.05	43	5
S1 20		0.27	<0.05	<0.05	35	3
S1 21		0.41	0.05	<0.05	47	4
S1 22		0.27	<0.05	<0.05	33	3
S1 23		0.43	<0.05	<0.05	28	3
S1 24		0.62	0.08	<0.05	41	6
S1 25		0.44	0.05	0.07	35	4
S1 26		0.45	0.05	0.09	41	5
S1 27		0.42	<0.05	0.12	28	5
S1 28		0.27	<0.05	<0.05	27	3
S1 29		0.22	<0.05	0.06	19	3
S1 30		0.23	<0.05	0.06	19	2
S1 31		0.25	<0.05	0.07	18	2
S1 32		0.31	<0.05	0.07	45	4
S1 33		0.25	<0.05	0.06	38	4
S1 34		0.24	<0.05	0.05	37	3
S1 35		0.22	<0.05	<0.05	25	2
S1 36		0.22	<0.05	<0.05	25	2
S1 37		0.28	<0.05	0.06	33	3
S1 39		0.27	<0.05	<0.05	29	4
S1 40		0.21	<0.05	0.05	30	4
S1 41		0.21	<0.05	<0.05	21	3

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SAMPLE NUMBER	FI FHFNT UNITS	Ag PPM	Cu PPM	Pb PPM	Zn PPM	Mo PPM	Ni PPM	Co PPM	Cd PPM	Bi PPM	As PPM	Sb PPM
S1 42		0.4	20	3	55	<1	40	11	<1	<5	7	<5
S1 43		0.3	17	7	79	<1	43	12	<1	<5	<5	<5
S1 44		0.7	23	6	99	<1	55	15	<1	<5	<5	<5
S1 45		0.6	26	5	116	<1	56	16	<1	<5	10	<5
S1 46		0.5	23	3	53	<1	44	12	<1	<5	5	<5
S1 47		0.5	22	7	177	<1	46	9	<1	<5	<5	<5
S1 48		0.5	19	11	77	1	29	11	<1	<5	11	<5
S1 49		0.5	20	11	77	2	34	10	<1	<5	12	<5
S1 50		0.5	21	7	52	1	49	13	<1	<5	7	<5
S1 51		0.4	17	5	94	1	37	12	<1	<5	11	<5
S1 52		0.4	14	8	88	<1	31	9	<1	<5	8	<5
S1 53		0.4	17	6	62	<1	36	10	<1	<5	<5	<5
S1 54		0.4	17	9	80	1	33	11	<1	<5	13	<5
S1 55		0.3	14	7	34	<1	27	10	<1	<5	7	<5
S1 56		0.3	13	8	71	<1	27	9	<1	<5	11	<5
S1 57		0.4	16	13	210	3	23	9	<1	<5	15	<5
S1 58		0.4	20	10	129	3	44	13	<1	<5	6	<5
S1 59		0.4	15	6	86	1	33	7	<1	<5	<5	<5
S1 60		0.4	19	7	56	1	44	13	<1	<5	13	<5
S1 61		0.6	24	8	91	1	58	15	<1	<5	6	<5
S1 62		0.5	19	6	178	1	59	13	<1	<5	8	<5
S1 63		0.3	15	7	106	<1	42	13	<1	<5	<5	<5
S1 64		0.3	18	9	65	<1	46	11	<1	<5	<5	<5
S1 65		0.3	13	7	132	1	39	13	<1	<5	6	<5
S1 66		0.3	6	5	18	<1	12	4	<1	<5	6	<5
S1 67		0.3	15	9	82	3	39	12	<1	<5	9	<5
S1 68		0.4	18	9	131	2	35	11	<1	<5	8	<5
S1 69		0.6	16	8	89	2	45	12	<1	<5	10	<5
S1 70		0.3	26	9	55	1	49	12	<1	<5	9	<5
S1 71		0.5	21	8	78	<1	56	16	<1	<5	<5	<5
S1 72		0.4	25	9	60	<1	40	12	<1	<5	9	<5
S1 73		0.3	17	8	49	<1	23	8	<1	<5	15	<5
S1 74		0.6	18	10	132	1	36	12	<1	<5	24	<5
S1 75		0.6	28	8	111	2	67	19	<1	<5	10	<5
S1 76		0.4	19	9	44	<1	45	19	<1	<5	9	<5
S1 77		0.4	18	8	228	<1	29	8	<1	<5	12	<5
S1 78		0.6	33	7	54	<1	45	16	<1	<5	7	<5
S1 79		0.5	31	8	46	1	40	13	<1	<5	22	<5
S1 80		0.5	25	6	54	<1	36	16	<1	<5	16	<5
S1 81		0.6	53	5	67	<1	43	18	<1	<5	26	<5

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SAMPLE NUMBER	ELEMENT UNITS	Fe PCT	Mn PCT	Te PPM	Ba PPM	Cr PPM	V PPM	Sn PPM	W PPM	La PPM	Al PCT	Hg PCT
S1 42		3.66	0.02	<10	87	50	68	<20	<10	4	2.59	0.58
S1 43		3.54	0.02	<10	66	39	52	<20	<10	2	2.90	0.39
S1 44		4.45	0.03	<10	62	44	55	<20	<10	2	3.80	0.38
S1 45		4.89	0.02	<10	54	47	59	<20	<10	2	4.00	0.34
S1 46		4.06	0.02	<10	78	59	60	<20	<10	2	3.46	0.45
S1 47		3.70	0.06	<10	69	59	48	<20	<10	6	4.68	0.42
S1 48		3.82	0.04	<10	64	38	68	<20	<10	3	3.32	0.49
S1 49		3.63	0.04	<10	61	42	62	<20	<10	3	2.85	0.48
S1 50		4.16	0.02	<10	71	62	58	<20	<10	2	3.32	0.49
S1 51		3.68	0.02	<10	56	42	55	<20	<10	2	3.07	0.41
S1 52		3.15	0.02	<10	41	39	44	<20	<10	1	2.15	0.29
S1 53		3.45	0.05	<10	48	42	55	<20	<10	2	2.30	0.41
S1 54		3.22	0.02	<10	65	40	51	<20	<10	3	2.84	0.51
S1 55		3.11	0.03	<10	33	43	46	<20	<10	3	1.58	0.39
S1 56		3.15	0.04	<10	58	30	56	<20	<10	3	2.16	0.40
S1 57		2.62	0.25	<10	248	28	55	<20	<10	4	2.56	0.39
S1 58		3.98	0.06	<10	80	59	61	<20	<10	4	3.50	0.43
S1 59		2.94	0.02	<10	56	56	40	<20	<10	3	3.30	0.36
S1 60		4.21	0.03	<10	87	68	64	<20	<10	3	3.78	0.40
S1 61		4.38	0.03	<10	71	60	55	<20	<10	3	3.60	0.37
S1 62		3.55	0.03	<10	56	61	46	<20	<10	2	4.22	0.38
S1 63		4.10	0.03	<10	83	50	55	<20	<10	2	3.02	0.31
S1 64		4.19	0.02	<10	50	76	55	<20	<10	2	3.24	0.40
S1 65		3.69	0.03	<10	61	43	57	<20	<10	2	2.76	0.27
S1 66		1.31	<0.01	<10	27	40	22	<20	<10	1	1.28	0.22
S1 67		4.10	0.04	<10	52	59	67	<20	<10	3	2.44	0.44
S1 68		3.18	0.02	<10	58	34	58	<20	<10	5	2.77	0.36
S1 69		3.49	0.04	<10	64	49	50	<20	<10	2	3.11	0.30
S1 70		3.99	0.02	<10	84	61	68	<20	<10	4	3.26	0.55
S1 71		4.09	0.03	<10	64	53	47	<20	<10	2	2.96	0.91
S1 72		3.84	0.03	<10	85	44	70	<20	<10	3	2.65	0.55
S1 73		3.15	0.02	<10	53	40	62	<20	<10	3	1.90	0.48
S1 74		3.95	0.03	<10	94	38	59	<20	<10	3	2.67	0.48
S1 75		5.20	0.03	<10	85	41	49	<20	<10	2	3.68	0.92
S1 76		4.55	0.05	<10	78	44	54	<20	<10	4	1.87	0.69
S1 77		3.47	0.03	<10	92	40	41	<20	<10	3	2.39	0.53
S1 78		4.64	0.05	<10	79	47	62	<20	<10	5	1.84	0.92
S1 79		4.40	0.04	<10	74	46	64	<20	<10	5	1.83	0.78
S1 80		4.80	0.05	<10	99	44	67	<20	<10	5	1.89	0.73
S1 81		5.63	0.06	<10	95	42	76	<20	<10	7	2.28	1.03

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SAMPLE NUMBER	FI FNFNT UNITS	Ca PCT	Na PCT	K PCT	Sr PPM	Y PPM
S1 42		0.35	<0.05	<0.05	40	5
S1 43		0.30	<0.05	<0.05	22	3
S1 44		0.20	<0.05	<0.05	14	3
S1 45		0.16	<0.05	<0.05	12	4
S1 46		0.30	<0.05	0.05	35	3
S1 47		0.80	<0.05	0.05	49	16
S1 48		0.29	<0.05	0.07	23	3
S1 49		0.31	<0.05	0.06	31	2
S1 50		0.32	<0.05	<0.05	36	2
S1 51		0.22	<0.05	<0.05	18	2
S1 52		0.36	<0.05	0.09	23	1
S1 53		0.31	<0.05	<0.05	22	2
S1 54		0.36	<0.05	<0.05	32	3
S1 55		0.49	<0.05	<0.05	35	4
S1 56		0.36	<0.05	0.06	26	3
S1 57		0.52	<0.05	<0.05	51	3
S1 58		0.30	<0.05	<0.05	25	3
S1 59		0.31	<0.05	<0.05	25	3
S1 60		0.26	<0.05	0.06	28	3
S1 61		0.22	<0.05	<0.05	17	3
S1 62		0.22	<0.05	0.07	14	2
S1 63		0.25	<0.05	<0.05	21	3
S1 64		0.30	<0.05	<0.05	27	4
S1 65		0.25	<0.05	<0.05	18	1
S1 66		0.34	<0.05	<0.05	24	2
S1 67		0.33	<0.05	0.09	24	3
S1 68		0.27	<0.05	<0.05	23	5
S1 69		0.28	<0.05	0.08	21	2
S1 70		0.33	<0.05	0.06	40	4
S1 71		0.38	<0.05	0.06	36	3
S1 72		0.28	<0.05	0.06	34	3
S1 73		0.47	<0.05	<0.05	37	4
S1 74		0.27	<0.05	0.05	26	2
S1 75		0.32	<0.05	0.05	32	4
S1 76		0.31	<0.05	0.09	25	5
S1 77		0.57	0.06	0.17	36	4
S1 78		0.69	0.07	0.16	53	7
S1 79		0.66	0.07	0.12	51	7
S1 80		0.51	0.05	0.16	43	6
S1 81		0.55	<0.05	0.11	47	7



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SAMPLE NUMBER	FLUORINE UNITS	Ag PPM	Cu PPM	Pb PPM	Zn PPM	Mo PPM	Ni PPM	Co PPM	Cd PPM	Ri PPM	As PPM	Sb PPM
S1 82		0.4	38	9	57	<1	36	17	<1	<5	42	<5
S1 83		0.5	39	7	64	<1	29	21	<1	<5	155	26
S1 84		0.9	91	11	66	4	30	20	<1	<5	67	<5
S1 85		0.7	32	8	57	4	35	15	<1	<5	41	<5
S1 86		0.6	37	4	50	2	35	13	<1	<5	28	<5
S1 87		0.7	35	5	49	<1	30	12	<1	<5	21	<5
S1 88		0.7	33	3	67	<1	33	15	<1	<5	32	<5
S1 89		0.7	36	2	46	<1	39	13	<1	<5	27	<5
S1 90		0.5	32	6	49	<1	33	12	<1	<5	21	<5
S1 91		0.5	34	<2	48	<1	48	14	<1	<5	15	<5
S1 92		0.7	19	3	51	<1	30	12	<1	<5	20	<5
S1 93		0.8	21	4	116	<1	45	13	<1	<5	12	<5
S1 94		0.9	33	6	59	<1	47	13	<1	<5	20	<5
S1 95		0.8	25	3	68	<1	36	12	<1	<5	10	<5
S1 96		1.8	48	7	54	<1	53	15	<1	<5	28	<5
S1 97		0.6	44	5	58	<1	38	14	<1	<5	21	<5
S1 98		0.7	26	3	144	<1	33	13	<1	<5	14	<5
S1 99		0.7	34	5	93	1	33	16	<1	<5	16	<5
S1 100		0.8	31	5	81	<1	43	15	<1	<5	21	<5
S1 101		0.9	58	6	56	1	48	16	<1	<5	41	<5
S1 102		0.7	20	6	105	2	29	11	<1	<5	34	<5
S1 103		0.6	32	3	40	1	40	10	<1	<5	13	<5
S1 104		0.6	40	5	56	1	36	10	<1	<5	23	<5
S1 105		0.9	35	3	57	1	30	9	<1	<5	8	<5
S1 106		0.8	29	7	55	2	45	12	<1	<5	19	<5
S1 107		0.4	21	3	34	<1	31	9	<1	<5	11	<5
S1 108		0.4	12	4	79	1	16	7	<1	<5	10	5
S1 109		0.6	24	<2	37	<1	43	11	<1	<5	10	<5
S1 110		0.7	30	8	45	5	33	10	<1	<5	19	<5
S1 111		0.6	21	9	121	5	49	13	<1	<5	6	<5
S1 112		0.6	16	6	80	3	33	9	<1	<5	16	<5
S1 113		0.7	15	4	91	2	37	10	<1	<5	11	<5
S1 114		0.7	20	<2	33	<1	38	8	<1	<5	10	<5
S1 115		0.7	13	5	66	<1	35	10	<1	<5	18	<5
S1 116		0.5	19	2	33	<1	24	6	<1	<5	8	<5
S1 117		0.7	27	3	50	<1	37	9	<1	<5	30	<5
S1 118		0.5	16	5	72	<1	30	9	<1	<5	11	<5
S1 119		0.6	11	4	113	1	26	9	<1	<5	14	<5
S1 120		0.7	29	<2	124	3	53	19	<1	<5	11	<5
S1 121		0.7	23	4	75	2	51	18	<1	<5	<5	<5



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SAMPLE NUMBER	FI FNFNT UNITS	Fe PCT	Mn PCT	Te PPM	Ba PPM	Cr PPM	V PPM	Sn PPM	W PPM	La PPM	Al PCT	Hg PCT
S1 82		4.93	0.05	<10	89	42	71	<20	<10	6	1.99	0.77
S1 83		4.71	0.05	<10	116	28	59	<20	<10	7	1.86	0.77
S1 84		5.30	0.08	<10	133	33	76	<20	<10	11	2.56	0.94
S1 85		4.86	0.05	<10	92	38	74	<20	<10	8	1.63	0.84
S1 86		5.29	0.04	<10	70	42	88	<20	<10	6	1.65	0.88
S1 87		5.17	0.04	<10	74	38	84	<20	<10	5	1.68	0.78
S1 88		5.51	0.05	<10	82	37	77	<20	<10	5	1.77	0.88
S1 89		4.95	0.04	<10	60	40	74	<20	<10	5	1.62	0.89
S1 90		4.48	0.04	<10	74	36	67	<20	<10	5	1.59	0.81
S1 91		4.49	0.04	<10	71	40	56	<20	<10	4	1.53	1.17
S1 92		4.26	0.05	<10	72	43	61	<20	<10	2	1.91	0.56
S1 93		4.65	0.06	<10	93	46	60	<20	<10	3	2.43	0.67
S1 94		5.27	0.04	<10	63	62	68	<20	<10	4	2.68	0.73
S1 95		4.73	0.04	<10	69	54	68	<20	<10	4	2.21	0.57
S1 96		5.94	0.04	<10	71	68	86	<20	<10	5	2.81	0.94
S1 97		4.94	0.03	<10	84	46	68	<20	<10	3	3.26	0.63
S1 98		4.65	0.02	<10	61	34	62	<20	<10	3	2.73	0.44
S1 99		4.90	0.04	<10	67	30	64	<20	<10	3	3.49	0.55
S1 100		5.36	0.02	<10	102	40	75	<20	<10	2	3.45	0.52
S1 101		6.03	0.03	<10	87	52	76	<20	<10	3	3.67	0.80
S1 102		4.50	0.03	<10	58	34	65	<20	<10	3	2.33	0.33
S1 103		4.83	0.03	<10	63	50	75	<20	<10	4	2.07	0.79
S1 104		4.88	0.02	<10	55	43	75	<20	<10	4	2.14	0.64
S1 105		3.89	0.03	<10	55	38	46	<20	<10	3	2.35	0.39
S1 106		4.68	0.03	<10	41	40	52	<20	<10	2	2.63	0.69
S1 107		3.69	0.02	<10	55	35	49	<20	<10	3	1.47	0.60
S1 108		2.55	0.02	<10	51	22	53	<20	<10	3	1.97	0.48
S1 109		4.58	0.02	<10	52	52	66	<20	<10	4	1.79	0.72
S1 110		4.36	0.03	<10	95	48	83	<20	<10	8	2.59	0.71
S1 111		4.04	0.02	<10	77	42	56	<20	<10	6	2.84	0.45
S1 112		3.13	0.02	<10	55	39	46	<20	<10	5	2.23	0.36
S1 113		3.66	0.04	<10	47	32	52	<20	<10	3	1.90	0.39
S1 114		3.51	0.02	<10	53	44	46	<20	<10	4	1.74	0.57
S1 115		3.37	0.02	<10	44	33	47	<20	<10	2	2.17	0.41
S1 116		2.76	0.01	<10	53	37	44	<20	<10	3	2.18	0.44
S1 117		4.22	0.02	<10	69	47	62	<20	<10	3	2.28	0.61
S1 118		3.22	0.03	<10	56	36	48	<20	<10	2	2.28	0.53
S1 119		3.16	0.06	<10	68	27	52	<20	<10	2	1.91	0.30
S1 120		5.04	0.07	<10	140	67	66	<20	<10	7	2.24	0.87
S1 121		4.87	0.07	<10	75	64	69	<20	<10	5	2.25	0.95



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SAMPLE NUMBER	F I L E M E N T UNITS	Ca PCT	Na PCT	K PCT	Sr PPM	Y PPM
S1 82		0.52	<0.05	0.12	40	6
S1 83		0.43	<0.05	0.10	34	7
S1 84		0.86	<0.05	0.16	56	11
S1 85		0.49	<0.05	0.13	39	6
S1 86		0.57	<0.05	0.07	40	7
S1 87		0.62	<0.05	0.08	42	8
S1 88		0.59	<0.05	0.12	40	8
S1 89		0.69	<0.05	0.12	41	8
S1 90		0.70	<0.05	0.12	44	7
S1 91		0.87	0.08	0.09	56	8
S1 92		0.55	<0.05	0.20	30	5
S1 93		0.48	<0.05	0.19	32	4
S1 94		0.49	<0.05	0.11	42	7
S1 95		0.51	<0.05	0.13	39	6
S1 96		0.53	<0.05	0.06	51	10
S1 97		0.24	<0.05	0.05	31	4
S1 98		0.23	<0.05	0.06	21	2
S1 99		0.21	<0.05	<0.05	33	3
S1 100		0.29	<0.05	0.07	34	4
S1 101		0.28	<0.05	0.07	50	4
S1 102		0.22	<0.05	0.07	18	2
S1 103		0.44	<0.05	<0.05	41	5
S1 104		0.34	<0.05	<0.05	32	5
S1 105		0.58	<0.05	0.13	35	6
S1 106		0.49	0.06	<0.05	35	4
S1 107		0.62	0.08	<0.05	42	5
S1 108		0.35	<0.05	<0.05	26	3
S1 109		0.40	<0.05	0.09	37	6
S1 110		0.52	<0.05	0.05	56	6
S1 111		0.28	<0.05	0.06	25	3
S1 112		0.33	<0.05	<0.05	27	3
S1 113		0.27	<0.05	0.06	19	4
S1 114		0.49	0.06	<0.05	39	5
S1 115		0.22	<0.05	<0.05	17	2
S1 116		0.32	<0.05	<0.05	29	3
S1 117		0.37	<0.05	<0.05	39	4
S1 118		0.30	<0.05	<0.05	25	3
S1 119		0.23	<0.05	0.06	17	2
S1 120		0.81	0.08	0.43	54	8
S1 121		0.73	0.08	0.29	49	7

Cost Statement

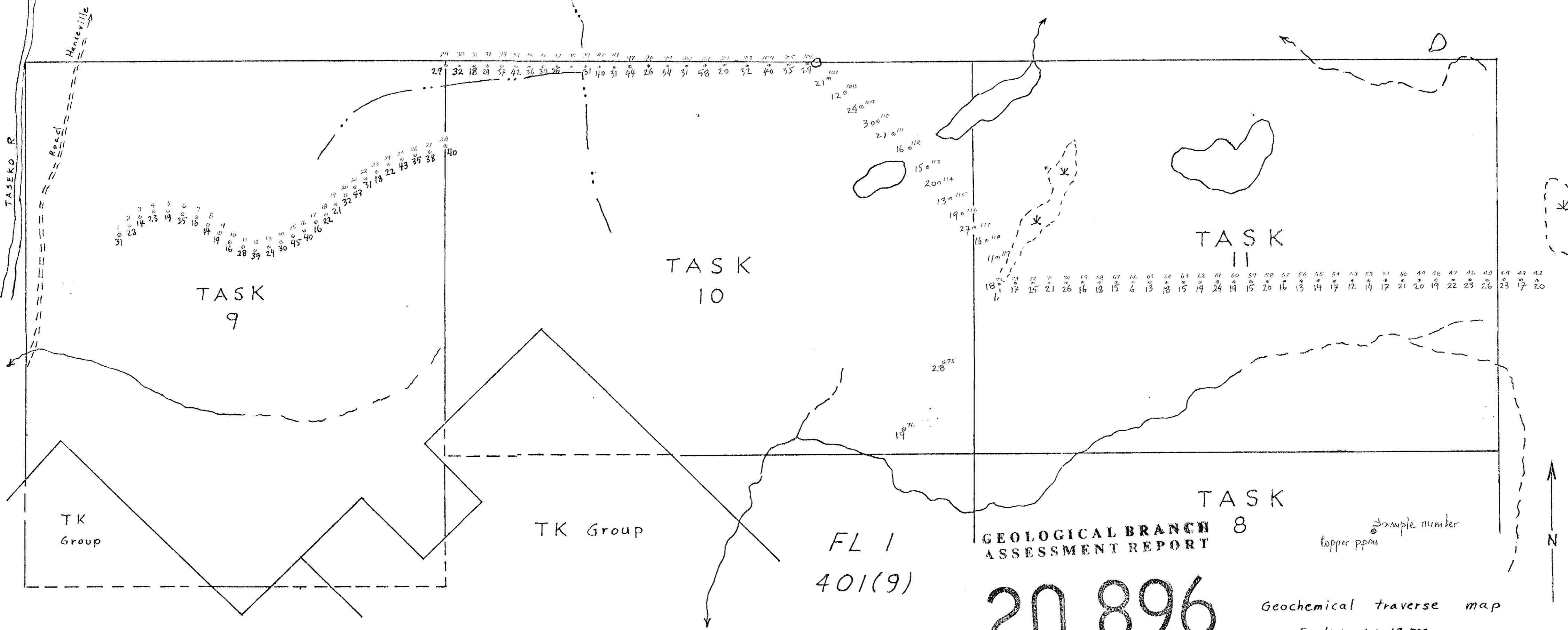
		Task Group
Wages S. Blusson @ \$600/day for	4.5 days	\$2,700
Food & Lodging @ \$75/day	4.5	338
Vehicle \$60/day	4.5	270
\$0.30/km	1400 km	420
Quad Bike Rented 50/day	4.5	225
Sample Prep. 2 micron clay fraction		
\$15/sample	99 samples	1485
Geochem analysis 28 el + prep @ \$10	99 samples	990
Fuel		180
Sample bags and misc. supplies		40
Report Writing		450
		<u>\$7,368</u>



STATEMENT OF QUALIFICATIONS

Dr. S.L. Blusson is a graduate of the University of B.C. (B.Sc. Geology) and of the University of California Berkely (Ph.D. Geology and Geochemistry). Between 1965 and 1981 Dr. Blusson worked as a research geologist for the Geological Survey of Canada and is presently Vice-President of Exploration for Pioneer Metals Corporation.

A handwritten signature in cursive script, appearing to read "Stewart Blusson", is located in the lower right quadrant of the page.



GEOLOGICAL BRANCH  
ASSESSMENT REPORT

20,896

sample number  
Copper ppm

Geochemical traverse map  
Scale: 1:12,500  
0 500  
meters