REF. DWG NO. 500-0007 REV. A 1594

DAILY LOG

DAY	DATE	TIME	CAUSTIC LEVEL	FLOC LEVEL	pH READING PROCESS MONITOR	pH READING OUTPUT MONITOR	pH PAPER PROCESS MONITOR	pH PAPER OUTPUT MONITOR	FLOWMETER	CYCLES	TEMP F° LARGE TANK	TEMP F° SMALL TANK	TEMP F° OAKITE TANK	REVETMENT LARGE RINSE	REVETMENT LARGE ACID	REVETMENT SMALL TANKS	COMMENTS, PROBLEMS, & REMARKS (W/O#)
MONDAY	4-27-09	7 AM	7.2	13	9.76	9.94	–	–	1015	23	79	72	132				16 Air bubbler making noise when it starts
		3 PM	7.1	12	10.87	9.95	–	–	468	Ø	106	96	125				
		11PM	6.1	10	9.87	9.92	–	–	896	10	117	104	111				
TUESDAY	4-28-09	7 AM	6.1	10	11.53	9.92	–	–	896	15	108	92	119				16
		3 PM	6.1	10	9.75	9.90	–	–	797	16	125	105	126				
		11PM	5.7	8	10.22	10.00	–	–	895	30	119	107	111				
WEDNESDAY	4-29-09	7 AM	6.1	7.5	11.20	10.10	–	–	895	31	108	92	125				16
		3 PM	6.1	6	10.28	10.14	–	–	499	6	101	86	129				
		11PM	6.1	5	9.79	10.16	–	–	884	11	117	99	119				
THURSDAY	4-30-09	7 AM	6.2	5	9.83	10.18	–	–	884	11	105	87	128				64
		3 PM	5.9	15	9.61	10.17	–	–	1344	6	121	99	124				
		11PM	5.9	13	10.37	10.14	–	–	2307	23	126	106	115				16
FRIDAY	5-1-09	7 AM	5.7	12	10.73	10.08	–	–	2307	27	108	91	129				16
		3 PM	5.5	10	10.07	10.02	–	–	514	39	123	105	128				
		11PM	5.1	7	9.88	9.96	–	–	1162	66	126	111	111				
SATURDAY May 2																	
SUNDAY May 3																	

\WOUT\500-0007, 03/04/99

AKC-0005595

REF. DWG NO. 500-0007 REV. A 1594

DAILY LOG

DAY	DATE	TIME	CAUSTIC LEVEL	FLOC LEVEL	pH READING PROCESS MONITOR	pH READING OUTPUT MONITOR	pH PAPER PROCESS MONITOR	pH PAPER OUTPUT MONITOR	FLOWMETER	CYCLES	TEMP F° LARGE TANK	TEMP F° SMALL TANK	TEMP F° OAKITE TANK	REVETMENT LARGE RINSE	REVETMENT LARGE ACID	REVETMENT SMALL TANKS	COMMENTS, PROBLEMS, & REMARKS (W/O#)
MONDAY	may 4 09	7 AM	4.1	5	7.86	9.82			1325	69	83	76	130				Air pump noise checked. Amperage draw checked when machine in motion.
		3 PM	4.1	13	9.92	9.78	-	-	1670	19	104	98	116				
		11PM	3.8	9	10.48	9.80	-	-	2015	29	117	101	109				16
TUESDAY	may 5 09	7 AM	3.1	9	11.11	9.83	-	-	2015	34	106	87	126				Aerator pump loud on start-up
		3 PM	3.6	6	9.60	9.81	-	-	1278	25	123	101	125				
		11PM	2.5	19	10.19	9.80	-	-	2029	58	127	106	110				16
WEDNESDAY	may 6	7 AM	2.2	17	12.12	9.81	-	-	2206	67	114	95	124				64
		3 PM	2.2	13	10.3	9.81	-	-	473	10	123	106	130				
		11PM	2.2	10	9.96	9.79	-	-	980	20	121	114	113				16
THURSDAY	may 7	7 AM	2.0	10	9.97	9.83	-	-	980	23	108	108	128				16
		3 PM	2.0	7	9.55	9.87	-	-	527	4	126	114	129				
		11PM	2.0	5	9.97	9.91	-	-	1221	15	123	115	113				
FRIDAY	may 8	7 AM	1.7	5	11.69	9.97	-	-	1221	18	107	99	129.				16
		3 PM	4.8	4	10.15	9.96	-	-	249	3	124	110	125				
		11PM	4.8	14	9.81	9.96	-	-	1121	12	120	119	113				
SATURDAY	may 9																
SUNDAY	may 10																

\WOUT\500-0007, 03/04/99

AKC-0005596

REF. DWG NO. 500-0007 REV. A 1594

DAILY LOG

DAY	DATE	TIME	CAUSTIC LEVEL	FLOC. LEVEL	pH READING PROCESS MONITOR	pH READING OUTPUT MONITOR	pH PAPER PROCESS MONITOR	pH PAPER OUTPUT MONITOR	FLOWMETER	CYCLES	TEMP F° LARGE TANK	TEMP F° SMALL TANK	TEMP F° OAKITE TANK	REVETMENT LARGE RINSE	REVETMENT LARGE ACID	REVETMENT SMALL TANKS	COMMENTS, PROBLEMS, & REMARKS (W/O#)
MONDAY	may 11	7 AM	4.9	13	11.33	9.99	-	-	1121	16	82	78	132				16
		3 PM	4.9	11	9.88	9.98	-	-	201	2	110	104	124				
		11PM	4.6	10	9.84	9.94	-	-	949	22	124	106	115				
TUESDAY	may 12	7 AM	4.4	10	11.04	9.93	-	-	949	27	108	91	97				Pushed switch 7 upon entry, pH values came within range shortly after air pump started.
		3 PM	4.4	8	9.65	9.94	-	-	494	28	119	102	123				
		11PM	3.9	7	10.07	9.92	-	-	1347	77	121	106	108				16
WEDNESDAY	may 13	7 AM	3.9	7	9.95	9.94	-	-	1347	77	116	95	128				
		3 PM	3.6	4	9.65	9.92	-	-	778	29	125	107	120				
		11PM	2.3	16	10.87	9.93	-	-	1413	94	124	111	105				16
THURSDAY	may 14	7 AM	2.0	16	11.49	9.92	-	-	1413	100	113	98	128				
		3 PM	2.0	15	9.69	9.89	-	-	382	6	126	110	123				
		11PM	1.2	9	10.30	9.86	-	-	1725	57	123	106	106				16
FRIDAY	may 15	7 AM	1.2	8	10.92	9.84	-	-	1725	61	113	98	128				
		3 PM	30.4	5	9.71	9.81	-	-	466	21	125	112	122				
		11PM	30.1	2	9.58	9.75	-	-	1185	64	121	113	108				16
SATURDAY	may 16																
SUNDAY	may 17																

..\WOUT\500-0007, 03/04/99

AKC-0005597

REF. DWG NO. 500-0007 REV. A 1594

DAILY LOG

DAY	DATE	TIME	CAUSTIC LEVEL	FLOC. LEVEL	pH READING PROCESS MONITOR	pH READING OUTPUT MONITOR	pH PAPER PROCESS MONITOR	pH PAPER OUTPUT MONITOR	FLOWMETER	CYCLES	TEMP F° LARGE TANK	TEMP F° SMALL TANK	TEMP F° OAKITE TANK	REVETMENT LARGE RINSE	REVETMENT LARGE ACID	REVETMENT SMALL TANKS	COMMENTS,PROBLEMS,& REMARKS (W/O#)
MONDAY	may 18	7 AM	30.2	2	12.00	9.81	-	-	1185	73	86	82	132				64
		3 PM	30.1	10	10.87	9.75	-	-	571	[illegible]	106	96	120				
		11PM	29.7	5	9.67	9.24	-	-	1308	77	116	103	104				105 TILL FROWING TUMETRO
TUESDAY	may 19	7 AM	29.7	4	11.41	9.74	-	-	1390	81	106	94	128				14
		3 PM	28.7	15	9.59	9.79	-	-	823	12	107	105	121				
		11PM	28.1	13	9.75	9.88	-	-	1025	54	123	101	106				
WEDNESDAY	may 20	7 AM	27.9	12	10.48	9.86	-	-	1025	59	112	94	128				16
		3 PM	27.6	5	9.73	9.87	-	-	787	15	126	111	127				
		11PM	27.1	3	9.73	9.87	-	-	1406	52	120	112	108				
THURSDAY	may 21	7 AM	27.0	2	9.78	9.89	-	-	1406	53	111	98	128				16
		3 PM	26.5	12	9.52	9.86	-	-	485	18	126	107	121				
		11PM	26.2	8	9.78	9.82	-	-	1204	69	121	113	107				
FRIDAY	may 22	7 AM	26.2	8	9.78	9.81	-	-	1204	70	114	104	127				64
		3 PM	25.6	15	10.09	9.79	-	-	719	23	127	114	121				
		11PM	25.1	11	9.63	9.74	-	-	1305	59	118	119	107				16
SATURDAY																	
SUNDAY																	

..\WOUT\500-0007, 03/04/99

AKC-0005598

REF. DWG NO. 500-0007 REV. A 1594

DAILY LOG

DAY	DATE	TIME	CAUSTIC LEVEL	FLOC. LEVEL	pH READING PROCESS MONITOR	pH READING OUTPUT MONITOR	pH PAPER PROCESS MONITOR	pH PAPER OUTPUT MONITOR	FLOWMETER	CYCLES	TEMP F° LARGE TANK	TEMP F° SMALL TANK	TEMP F° DAKITE TANK	REVETMENT LARGE RINSE	REVETMENT LARGE ACID	REVETMENT SMALL TANKS	COMMENTS,PROBLEMS,& REMARKS (W/O#)
MONDAY	memorial Day	7 AM															
		3 PM															
		11PM															
TUESDAY	5-26-9	7 AM	25.2	11	9.52	9.70	-	-	1305	63	81	77	127				16
		3 PM	24.9	8	10.01	9.64	-	-	405	22	103	103	121				
		11PM	24.9	7	9.67	9.60	-	-	569	22	125	121	108				
WEDNESDAY	5-27-9	7 AM	24.9	7	9.52	9.61	-	-	589	22	114	104	126				16 NOT RESET-FLOW
		3 PM	24.6	18	9.71	9.58	-	-	589	13	127	117	122				
		11PM	24.4	13	9.80	9.59	-	-	1360	61	124	124	106				FLOW RUNNING AT SHUT DOWN
THURSDAY	5-28-9	7 AM	24.2	13	11.65	9.57	-	-	1378	68	114	107	127				16
		3 PM	23.9	10	9.69	9.59	-	-	170	17	127	119	119				
		11PM	23.3	8	10.03	9.55	-	-	890	58	120	120	104				STILL FLOWING
FRIDAY	5-29-9	7 AM	23.4	8	11.64	9.58	-	-	1028	61	113	104	127				64
		3 PM	23.1	8	9.79	9.57	-	-	198	14	128	118	119				
		11PM	23.3	10	10.59	9.55			1262	55	119	123	104				16
SATURDAY																	
SUNDAY																	

\WOUT\500-0007, 03/04/99

AKC-0005599

Industrial Waste Monthly Self-Monitoring Report

Mail or FAX to: King County Industrial Waste
130 Nickerson Street, Suite 200
Seattle, WA 98109-1658
Phone 206-263-3000 / FAX 206-263-3001

AKC-0005600

Company Name: ALASKAN COPPER WORKS **Sample Site No.** A-4010 **Permit/DA No.:** 7238

Please Specify Month & Year: **Month** APRIL **2009**

This form is available at http://dnr.metrokc.gov/wlr/indwaste

All units are mg/l unless otherwise noted. Note: For cyanide circle test performed - amenable or total ▼

Sample Date (circle)	Sample Type C (Composite) G (grab) BC (batch)	pH Min	pH Max	Cadmium, Cd	Chromium, Cr	Copper, Cu	Lead, Pb	Mercury, Hg	Nickel, Ni	Silver, Ag	Zinc, Zn	Cyanide (CN) Amenable (A) or Total (T)	NP Fats, Oils, and Grease (Average of 3 grabs)		Flow (GPD) Industrial	Notes (Indicate Batch Discharges)
1		9.9	10.0												2307	
2		---	---												---	
3		---	---												---	
4		9.7	9.8												1325	
5		9.8	9.8												2015	
6		9.7	9.8												2206	
(7)	C	9.8	9.9		.18	.31			.13		.01				980	
8		9.9	9.9												1221	
9		---	---													
10		---	---													
11		9.9	10.0												1121	
12		9.9	9.9												949	
13		9.9	9.9												1347	
(14)	C	9.8	9.9		.12	.24			.13		.03				1413	
15		9.7	9.8												1725	
16		---	---													
17		---	---													
18		9.7	9.8												1185	
19		9.7	9.9												1390	
20		9.8	9.8												1025	
(21)	C	9.8	9.9		.45	.79			.50		.06				1406	
22		9.5	9.8												1204	
23		---	---												---	
24		---	---													
25		---	---													MEMORIAL DAY
26		9.6	9.7												1305	
27		9.5	9.6												589	
28		9.5	9.6												1378	
29		9.5	9.6												1028	
30		---	---													
31		---	---													

Monthly Min pH 9.5 & Date 5-22
Monthly Max pH 10.0 & Date 5-1

Total Monthly Flow (gallons) 27119
Maximum Daily Flow 2307 & Date 5-1

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I further certify that all data requiring a laboratory analysis were analyzed by a Washington State Department of Ecology accredited laboratory for each parameter listed.

Signature of Principal Executive or Authorized Agent

6-11-09
Date

PLEASE CIRCLE ALL PERMIT VIOLATIONS

Due Date: **Monthly report is due by the 15th of each month.**

Industrial Waste Monthly Self-Monitoring Report

Mail or FAX to: King County Industrial Waste
130 Nickerson Street, Suite 200
Seattle, WA 98109-1658
Phone 206-263-3000 / FAX 206-263-3001

AKC-0005601

Company Name: ALASKAN COPPER WORKS **Sample Site No.** A-4009 **Permit/DA No.:** 7201

Please Specify Month & Year: **Month** APRIL **2009** **This form is available at** http://dnr.metrokc.gov/wlr/indwaste

All units are mg/l unless otherwise noted. Note: For cyanide circle test performed - amenable or total ▼

Sample Date (circle)	Sample Type C (Composite) G (grab) BC (batch)	pH Min	pH Max	Cadmium, Cd	Chromium, Cr	Copper, Cu	Lead, Pb	Mercury, Hg	Nickel, Ni	Silver, Ag	Zinc, Zn	Cyanide (CN) Amenable (A) or Total (T)	NP Fats, Oils, and Grease (Average of 3 grabs)		Flow (GPD) Industrial	Notes (Indicate Batch Discharges)
1																
2																
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																
16																
17																
18																
19																
20																
21																
22																
23																
24																
25																
26																
27																
28																
29																
30																
31																

NOT IN USE THIS MONTH

Monthly Min pH _____ & Date _____ Total Monthly Flow (gallons) _____

Monthly Max pH _____ & Date _____ Maximum Daily Flow _____ & Date _____

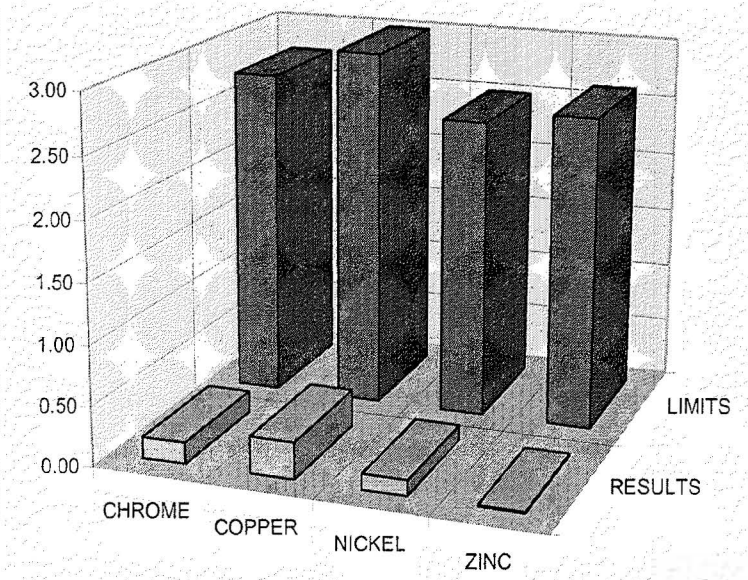
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I further certify that all data requiring a laboratory analysis were analyzed by a Washington State Department of Ecology accredited laboratory for each parameter tested.

Signature of Principal Executive or Authorized Agent — Date 6-11-09

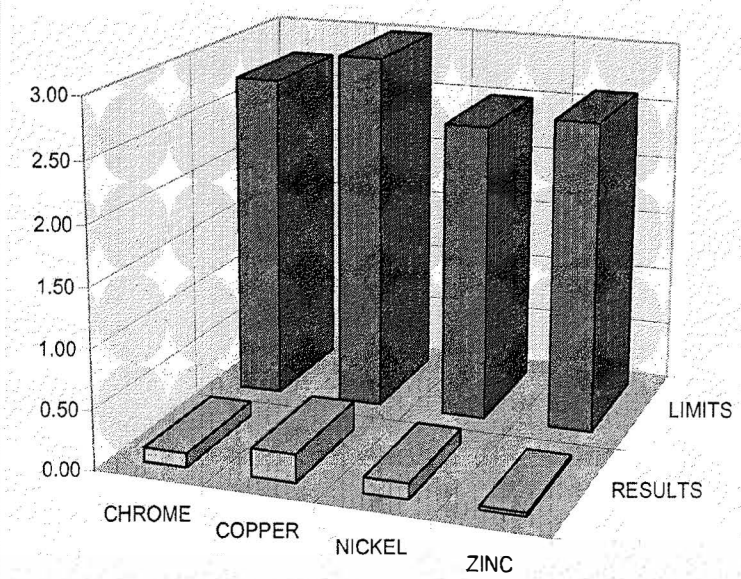
PLEASE CIRCLE ALL PERMIT VIOLATIONS

Due Date: Monthly report is due by the 15th of each month.

MAY
METRO LIMITS



ALASKAN COPPER WORKS
3200 FACILITY
MAY 7, 2009
COMPOSITE M122531



ALASKAN COPPER WORKS
3200 FACILITY
MAY 14, 2009
COMPOSITE M04112

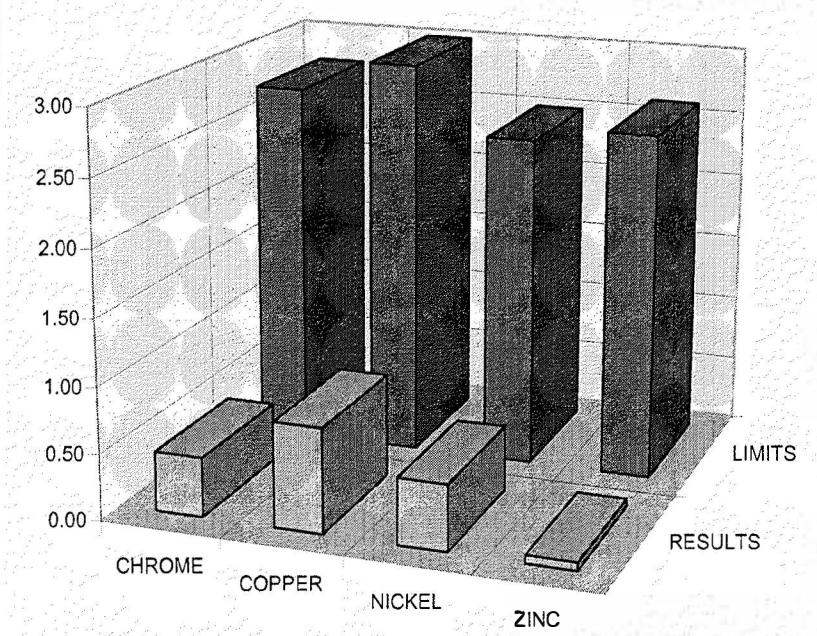
VISUAL REPRESENTATION OF THE LAB RESULTS

NOTE: ALL LABORATORY RESULTS HAVE BEEN CHANGED FROM **ppb** TO **ppm** FOR REPORTING PURPOSES

	CHROME	COPPER	NICKEL	ZINC
RESULTS	0.18	0.31	0.13	0.01
LIMITS	2.75	3.00	2.50	2.61

	CHROME	COPPER	NICKEL	ZINC
RESULTS	0.12	0.24	0.13	0.03
LIMITS	2.75	3.00	2.50	2.61

MAY
METRO LIMITS



ALASKAN COPPER WORKS
3200 FACILITY
MAY 21, 2009
COMPOSITE M122664

VISUAL REPRESENTATION OF THE LAB RESULTS

NOTE: ALL LABORATORY RESULTS HAVE BEEN CHANGED FROM **ppb** TO **ppm** FOR REPORTING PURPOSES

	CHROME	COPPER	NICKEL	ZINC
RESULTS	0.45	0.79	0.50	0.06
LIMITS	2.75	3.00	2.50	2.61

Analysis For Total Metals By EPA Method 200.8

Client ID:	M04188	Client:	Alaskan Copper Works
Date Received:	06/04/09	Project:	PO M04188, F&BI 906052
Date Extracted:	06/05/09	Lab ID:	906052-01 x10
Date Analyzed:	06/05/09	Data File:	906052-01 x10.049
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	87	60	125

Analyte:	Concentration ug/L (ppb)
Chromium	183
Nickel	229
Copper	372
Zinc	388

DRAFT

Analysis For Total Metals By EPA Method 200.8

Client ID:	M122778	Client:	Alaskan Copper Works
Date Received:	06/11/09	Project:	PO M122778, F&BI 906105
Date Extracted:	06/12/09	Lab ID:	906105-01 x10
Date Analyzed:	06/12/09	Data File:	906105-01 x10.021
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	106	60	125

Analyte:	Concentration ug/L (ppb)
Chromium	332
Nickel	391
Copper	574
Zinc	53.3

DRAFT

Analysis For Total Metals By EPA Method 200.8

Client ID:	M122434	Client:	Alaskan Copper Works
Date Received:	04/24/09	Project:	Abrasive Saw, PO M122434
Date Extracted:	04/28/09	Lab ID:	904256-01 x100
Date Analyzed:	04/28/09	Data File:	904256-01 x100.049
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	hr

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Indium	92	60	125
Holmium	103	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	114,000
Arsenic	<100
Selenium	<100
Silver	<100
Cadmium	<100
Barium	<100
Lead	<100

DRAFT

Analysis For Total Metals By EPA Method 200.8

Client ID:	M122531	Client:	Alaskan Copper Works
Date Received:	05/07/09	Project:	PO M122531, F&BI 905064
Date Extracted:	05/12/09	Lab ID:	905064-01 x10
Date Analyzed:	05/12/09	Data File:	905064-01 x10.040
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	81	60	125

Analyte:	Concentration ug/L (ppb)
Chromium	184
Nickel	131
Copper	317
Zinc	19.6

DRAFT

Analysis For Total Metals By EPA Method 200.8

Client ID:	M-04112	Client:	Alaskan Copper Works
Date Received:	05/14/09	Project:	PO M-04112, F&BI 905130
Date Extracted:	05/15/09	Lab ID:	905130-01 x10
Date Analyzed:	05/18/09	Data File:	905130-01 x10.052
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	BTB

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	97	60	125

Analyte:	Concentration ug/L (ppb)
Chromium	122
Nickel	134
Copper	248
Zinc	36.5

DRAFT

Analysis For Total Metals By EPA Method 200.8

Client ID:	M122664	Client:	Alaskan Copper Works
Date Received:	05/21/09	Project:	PO M122664, F&BI 905211
Date Extracted:	05/26/09	Lab ID:	905211-01 x10
Date Analyzed:	05/27/09	Data File:	905211-01 x10.033
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	103	60	125

Analyte:	Concentration ug/L (ppb)
Chromium	457
Nickel	508
Copper	791
Zinc	61.6

DRAFT