METRO
Municipality of Metropolitan Seattle
Industrial Waste • 130 Nickerson St., Suite 200 • Seattle, WA 98109-1658 • (206) 689-3000

June 2, 1992

James C. Brown
ALASKAN COPPER WORKS
Box 3546
SEATTLE, WA 98124

Dear James C. Brown:

The Industrial Waste Section of Metro has collected sample(s) of the waste water from your discharge for Total Toxic Organic (TTO) analysis. The purpose of this letter is to notify you of these analytical results with a determination of whether or not your discharge is in compliance with the TTO standard.

TOTAL TOXIC ORGANIC ANALYSIS FOR:

STATION: A4010
SITE DESCRIPTION: 6TH AVE SOUTH

Sampling Date	Total Toxic Organic (ppm)	Comment(s)
5/7/92	0.041	In Compliance

NOTE: TTO is based on the sum of the concentrations of priority pollutants that exceed 10 ppb.

If you have any questions, please call your Metro contact person: Christie True 689-3009; Jim Sifford 689-3008; Patricia Magnuson 689-3019; Michelle Dewey 689-3013; Denise Healy 689-3004; Horace Lee 689-3017; Malcolm Montgomery 689-3012; and Hillary Holt at 689-3011.

Very truly yours,

Christie J. True

Industrial Waste Investigator
Environmental Programs

GC/MS VOLATILES ORGANIC ANALYSIS REPORT

Sample No: 9208410 Batch No.: VM#81

Station: A4010 Sample ID: AK CU Date Sampled: 05-07-92
Project: B40120 Inst. ID: 4500C Matrix: WASTEWATER
Amount: 5.0 ML Dilution: 5.0 % Solids: 0.00

Priority Pollutants	Wet DL (ppb)	Wet Conc (ppb)
CHLOROMETHANE	10.00	ND
VINYLCHLORIDE	10.00	ND
BROMOMETHANE	10.00	ND
CHLOROETHANE	10.00	ND
TRICHLOROFLUOROMETHANE	10.00	ND
ACROLEIN	50.00	ND
1,1-DICHLOROETHYLENE	10.00	ND
METHYLENE CHLORIDE	50.00	ND
ACRYLONITRILE	50.00	ND
TRANS-1,2-DICHLOROETHYLENE	10.00	ND
1,1-DICHLOROETHANE	10.00	ND
CHLOROFORM	10.00	ND
1,1,1-TRICHLOROETHANE	10.00	ND
CARBON TETRACHLORIDE	10.00	ND
BENZENE	10.00	ND
1,2-DICHLOROETHANE	10.00	ND
1,1,2-TRICHLOROETHYLENE	10.00	ND
1,2-DICHLOROPROPANE	10.00	ND
BROMODICHLOROMETHANE	10.00	ND
2-CHLOROETHYLVINYLETHER	10.00	ND
TRANS-1,3-DICHLOROPROPENE	10.00	ND
TOLUENE	10.00	ND
CIS-1,3-DICHLOROPROPENE	10.00	ND
1,1,2-TRICHLOROETHANE	10.00	ND
TETRACHLOROETHYLENE	10.00	ND
CHLORODIBROMOMETHANE	10.00	ND
CHLOROBENZENE	10.00	ND
ETHYL BENZENE	10.00	ND
BROMOFORM	10.00	ND
1,1,2,2-TETRACHLOROETHANE	10.00	ND
Additional Compounds	**Wet DL (ppb)**	**Wet Conc (ppb)**
ACETONE	50.00	ND
CARBON DISULFIDE	10.00	ND
VINYL ACETATE	50.00	ND
2-BUTANONE (MEK)	50.00	ND
4-METHYL-2-PENTANONE (MIBK)	50.00	ND
2-HEXANONE	50.00	ND
TOTAL XYLENE	10.00	ND
STYRENE	10.00	ND

Note - DL means Sample Detection Limits (based on 100% recovery).
NA means Not Analyzed, ND means Not Detected.

VOLATILE TENTATIVELY IDENTIFIED COMPOUNDS

File No.: 9208410 Sample: AK COPPER
Method: EPA 624 Matrix: WASTEWATER
Init. Amt.: 5.0 ML Dilution: 5.0 % Solids: 0.0

No.	Compound Name	CAS#	Scan	Q	Est Conc

NONE FOUND

GC/MS SEMI-VOLATILES ORGANIC ANALYSIS REPORT

Sample No: 9208410 Batch No.: BL37

Station: A4010 Sample ID: AK CU Date Sampled: 05-07-92
Project: B40120 Inst. ID: 4500A Matrix: WASTEWATER
Amount: 500.0 ML Dilution: 1.0 % Solids: 0.00

Priority Pollutants	Wet DL (ppb)	Wet Conc (ppb)
N-NITROSODIMETHYLAMINE	6.00	ND
PHENOL	6.00	9.50
BIS(2-CHLOROETHYL)ETHER	1.00	ND
2-CHLOROPHENOL	4.00	ND
1,3-DICHLOROBENZENE	1.00	ND
1,4-DICHLOROBENZENE	1.00	ND
1,2-DICHLOROBENZENE	1.00	ND
BIS(2-CHLOROISOPROPYL)ETHER	4.00	ND
N-NITROSODI-N-PROPYLAMINE	2.00	ND
HEXACHLOROETHANE	2.00	ND
NITROBENZENE	2.00	ND
ISOPHORONE	2.00	ND
2-NITROPHENOL	2.00	ND
2,4-DIMETHYLPHENOL	2.00	ND
BIS(2-CHLOROETHOXY)METHANE	2.00	ND
2,4-DICHLOROPHENOL	2.00	ND
1,2,4-TRICHLOROBENZENE	1.00	ND
NAPHTHALENE	3.00	ND
HEXACHLOROBUTADIENE	2.00	ND
4-CHLORO-3-METHYLPHENOL	4.00	ND
HEXACHLOROCYCLOPENTADIENE	2.00	ND
2,4,6-TRICHLOROPHENOL	8.00	ND
2-CHLORONAPHTHALENE	1.00	ND
ACENAPHTHYLENE	1.00	ND
DIMETHYL PHTHALATE	0.60	ND
2,6-DINITROTOLUENE	0.80	ND
ACENAPHTHENE	0.80	ND
2,4-DINITROPHENOL	4.00	41.00
4-NITROPHENOL	4.00	ND
2,4-DINITROTOLUENE	0.80	ND
FLUORENE	1.00	ND
DIETHYL PHTHALATE	2.00	ND
4-CHLOROPHENYL PHENYL ETHER	1.00	ND
4,6-DINITRO-O-CRESOL	4.00	ND
N-NITROSODIPHENYLAMINE *	2.00	ND
1,2-DIPHENYLHYDRAZINE **	4.00	ND
4-BROMOPHENYL PHENYL ETHER	0.60	ND
HEXACHLOROBENZENE	1.00	ND
PENTACHLOROPHENOL	2.00	ND
PHENANTHRENE	1.00	ND
ANTHRACENE	1.00	ND

Sample No: 9208410 Batch No.: BL37

Priority Pollutants	Wet DL (ppb)	Wet Conc (ppb)
DI-N-BUTYLPHTHALATE	2.00	ND
FLUORANTHENE	1.20	ND
BENZIDINE	48.00	ND
PYRENE	1.00	ND
BENZYL BUTYL PHTHALATE	1.00	ND
BENZO(A)ANTHRACENE	1.00	ND
CHRYSENE	1.00	ND
3,3'-DICHLOROBENZIDINE	2.00	ND
BIS(2-ETHYLHEXYL)PHTHALATE	1.00	ND
DI-N-OCTYL PHTHALATE	1.00	ND
BENZO(B)FLUORANTHENE	3.00	ND
BENZO(K)FLUORANTHENE	3.00	ND
BENZO(A)PYRENE	2.00	ND
INDENO(1,2,3-CD)PYRENE	2.00	ND
DIBENZO(A,H)ANTHRACENE	3.00	ND
BENZO(G,H,I)PERYLENE	2.00	ND
Additional Compounds	**Wet DL (ppb)**	**Wet Conc (ppb)**
ANILINE	4.00	ND
BENZYL ALCOHOL	2.00	ND
2-METHYLPHENOL	2.00	ND
4-METHYLPHENOL	2.00	ND
BENZOIC ACID	6.00	44.00
4-CHLOROANILINE	4.00	ND
2-METHYLNAPHTHALENE	3.00	ND
2,4,5-TRICHLOROPHENOL	8.00	ND
2-NITROANILINE	6.00	ND
3-NITROANILINE	6.00	ND
DIBENZOFURAN	2.00	ND
4-NITROANILINE	6.00	ND
CARBAZOLE	2.00	ND
COPROSTANOL	6.00	ND

* - Compound detected as Diphenylamine
** - Compound detected as Azobenzene

Note - DL means Sample Detection Limits (based on 100% recovery).
NA means Not Analyzed, ND means Not Detected.

SEMIVOLATILE TENTATIVELY IDENTIFIED COMPOUNDS

File No.: 9208410 Sample: A K CU (IW TTO)
Method: EPA 625 Matrix: WASTEWATER
Init. Amt.: 500.0 ML Dilution: 1.0 % Solids: 0.0

No.	Compound Name	CAS#	Scan	Q	Est Conc
1	GLYCOL ETHERS	XXXX-XX-X	MULTI	2	360ppb