ALASKA DEPARTMENT OF FISH AND GAME

DIVISION OF SPORT FISH

WATER ARC LAKE

WATER ANALYSIS

LOCATION T4N, R11W, SEC - 12

DATE	STATION	TIME	SNOW COVER	ICE COVER	SAMPLE DEPTH	TEMPERATURE WATER	TEMPERATURE AIR	DO	CO_2	pH	TOTAL ALKALI	REMARKS	BY
8/[illegible]/60		2:00 PM			0	65.5		7.3		7.2	20		SK
"					15	64.5		7.3		7.2	20		
3/22/65			0	22	5			9.5				COLORIMETER	LE
"					10			7.5					
"					14			5.9					
4/13/65			0	22	0			10.5				COLORIMETER	LE
"					6			9.4					
4/5/66			7	24	10			9.4			34	COLORIMETER	LE
"					15			6.0					
[illegible]/66			3	24	15			5.5				TITRATION	LE
"			3	24	15			6.2				COLORIMETER	LE
4/21/67			1	30	5			4.7		6.1	20	TITRATION	LE
"					10			5.3					
5/2/67			0	30	5			5.2		6.1	20	TITRATION	LE
"					10			4.5					

DEFINE LOCATION OF STATIONS ON REVERSE

2/69
FG-208

ALASKA DEPARTMENT OF FISH AND GAME

DIVISION OF SPORT FISH

WATER ARC LAKE

WATER ANALYSIS

LOCATION T4N, R11W, SEC - 12

DATE	STATION	TIME	SNOW COVER	ICE COVER	SAMPLE DEPTH	TEMPERATURE WATER	TEMPERATURE AIR	DO	CO_2	pH	TOTAL ALKALI	REMARKS	BY
4/16/70		1010	0	27	0	33	44	5.0		6.0	14		LH
"					6			5.0		6.0	14		
"					12			5.0		16.0	14		
3/12/71		1400	15	26	0	32	36	11.5			14 (5')		SH
					7	35		7.5					
					13	36		4.4					
3/23/76		1200	16	20	0	32		12.7			34.2	titration	SH
					7	34		12.7					
					13	36		7.6					
3/4/76		1600	12	30	0	32		11.0				(DO) DO meter	SH
					6	35		7.3					
					11	38		3.0					

DEFINE LOCATION OF STATIONS ON REVERSE

2/69
FG-208

WATER QUALITY DATA - SOLDOTNA LANDFILL
for Arc Lake
Inorganic Chemical Contaminants Testing

PARAMETER	MCL ppm	METHOD	7/28/97	7/13/98	METHOD	7/21/99	7/27/00	Method	7/17/01
Alkalinity		2320B	<1	4	EPA 310.1	<2.0	<2.0	EPA 310.1	<2.0
Calcium		3500-Ca-B	<1.0	<1.0	EPA 200.7	<0.5	0.43	EPA 200.7	0.42
Chloride	250.0	4500-Cl-B	1	1	EPA 300.0	2.67	2.12	EPA 300.0	2.86
COD		5200D	5	9	EPA 410.4	16	<10	EPA 410.4	21.1
Conductivity		2510B	18	20	EPA 120.1	16	17	EPA 120.1	17.7
Iron	0.3	EPA 236.1	0.14	0.03	EPA 200.7	<0.050	<0.005	EPA 200.7	<0.05
Magnesium		3500-Mg-B	<1.0	<1.0	EPA 200.7	<0.5	0.31	EPA 200.7	0.33
Manganese	0.05	EPA 243.2	0.02	0.01	EPA 200.7	0.033	<0.01	EPA 243.2	<0.01
Nitrate	10	4500-NO3-F	<0.05	<0.05	EPA 300.0	2.78	<0.10	EPA 300.0	<0.10
pH	6.5-8.5 su	4500-H	5.61	6.91	EPA 19.1	5.7	5.7	EPA 150.1	5.8
Phosphorous		4500 PF	<0.01	<0.01	EPA 365.2	<0.05	<0.05	EPA 365.2	<0.05
Sodium		3500-Na-B	1.2	2	EPA 200.7	1.34	<3.0	EPA 200.7	<3.0
Specific Conductivity		HORIBA	19	17	CORNING	19	15	Cyster	10
Sulfate	250	4500-SO4-E	<1	<1	EPA 300.0	3.91	<2.0	EPA 300.0	<2.0
Total Suspended Solids		2540D	3	1	EPA 160.2	<4.0	<4.0	EPA 160.2	<4.0
Antimony		EPA 204.2	<0.005	<0.005	EPA 204.2	<0.005	<0.005	SW6020	<0.005
Arsenic	0.05	EPA 206.2	<0.005	<0.005	EPA 206.2	<0.005	<0.0025	SW6020	<0.005
Barium	2.0	EPA 208.2	<0.02	<0.01	EPA 200.7	<0.5	<0.004	SW6020	<0.004
Beryllium	0.004	EPA 210.2	<0.001	<0.002	EPA 200.7	<0.001	<0.001	SW6020	<0.001
Cadmium	0.005	EPA 213.2	<0.0005	<0.0005	EPA 200.7	<0.0002	<0.005	SW6020	<0.0003
Chromium	0.1	EPA 218.2	<0.01	<0.01	EPA 200.7	<0.0002	<0.01	SW6020	0.000315
Cobalt	0.006	EPA 219.2	<0.02	<0.02	EPA 200.7	<0.010	<0.02	SW6020	<0.02
Copper	1	EPA 220.2	0.04	<0.01	EPA 200.7	<0.002	<0.005	SW6020	<0.002
Lead	0.015	EPA 239.2	0.005	<0.002	EPA 239.2	<0.001	<0.0015	SW6020	<0.001
Nickel	0.1	EPA 249.2	<0.03	<0.02	EPA 200.7	<0.010	<0.04	SW6020	<0.01
Selenium	0.05	EPA 270.2	<0.005	<0.005	EPA 270.2	<0.005	<0.003	EPA 270.2	<0.0025
Silver	0.18	EPA 272.2	<0.005	<0.01	EPA 200.7	<0.0005	<0.015	SW6020	<0.0002
Thallium		EPA 279.2	<0.002	<0.002	EPA 279.2	<0.001	<0.003	SW6020	<0.001
Vanadium		EPA 286.2	<0.01	<0.01	EPA 200.7	<0.010	<0.01	EPA 200.7	<0.005
Zinc	5	EPA 289.1	<0.02	0.02	EPA 200.7	<0.026	0.042	SW6020	<0.04

All concentrations in parts per million (ppm) unless otherwise noted.
MCL = Alaska Maximum Contaminant Level or Secondary MCL
* = Federal Action Level (FAL)
SU = Standard Units
ƒ = Field Measurement
NTU = Nephelometric Turbidity Unit
<0.05 = Below Detection Limit of 0.05
NA = Not Analyzed
Shaded values exceed MCL, SMCL or FAL

Ginny Litchfield looked over data 11/30/01 + declared Arc Lake appeared healthy. No levels of metals appear in data. D.O. levels in 95 (May-Oct) by lab showed good levels of O2 - Pb

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To Patty Berkhahn	From Lanie Hughes
Co./Dept. ADF&G	Co. KPB SWD
Phone # 260-2943	Phone # 262-9667
Fax # 262-4709	Fax # 262-6090

Northern Test Lab
Soldotna, AK

CPBF ARC LAKE Inorganics

WATER QUALITY DATA - SOLDOTNA LANDFILL
for Arc Lake
. Volatile Organic Compounds Testing

PARAMETER	MCL ppb	METHOD	7/29/97	7/13/98	METHOD	7/27/99	7/27/00	7/17/01
1,1,1 Trichloroethane	200	601	<1.0	<1.0	SW8260B	<2.0	<2.0	<2.0
1,1,1,2-Tetrachloroethane		8260	<1.0	<1.0	SW8260B	<2.0	<2.0	<2.0
1,1,2 Trichloroethane	5	601	<1.0	<1.0	SW8260B	<2.0	<2.0	<2.0
1,1,2,2-Tetrachloroethane		601	<1.0	<1.0	SW8260B	<2.0	<2.0	<2.0
1,1 Dichloroethane		601	<1.0	<1.0	SW8260B	<2.0	<2.0	<2.0
1,1 Dichloroethylene	7	601	<1.0	<1.0	SW8260B	<2.0	<2.0	<2.0
1,1-Dichloroethene					SW8260B	<2.0	<2.0	<2.0
1,1-Dichloropropene					SW8260B	<2.0	<2.0	<2.0
1,2 Dichlorobenzene	600	602	<1.0	<1.0	SW8260B	<2.0	<2.0	<2.0
1,2 Dichloroethane	5	601	<1.0	<1.0	SW8260B	<2.0	<2.0	<2.0
1,2 Dichloropropane	5	601	<1.0	<1.0	SW8260B	<2.0	<2.0	<2.0
1,2,3-Trichlorobenzene					SW8260B	<2.0	<2.0	<2.0
1,2,3-Trichloropropane		8260	<1.0	<1.0	SW8260B	<2.0	<2.0	<2.0
1,2,4-Trichlorobenzene					SW8260B	<2.0	<2.0	<2.0
1,2,4-Trimethylbenzene					SW8260B	<2.0	<2.0	<2.0
1,2-Dibromo-3-Chloropropane	0.2	8260	<1.0	<1.0	SW8260B	<10	<10	<10
1,2-Dibromomethane		8260	<1.0	<1.0	SW8260B	<2.0	<2.0	<2.0
1,3 Dichlorobenzene	600	602	NA	NA	SW8260B	<2.0	<2.0	<2.0
1,3,5-Trimethylbenzene					SW8260B	<2.0	<2.0	<2.0
1,3-Dichloropropane					SW8260B	<2.0	<2.0	<2.0
1,4 Dichlorobenzene	75	602	<1.0	<1.0	SW8260B	<2.0	<2.0	<2.0
2,2-Dichloropropane					SW8260B	<2.0	<2.0	<2.0
2-Butanone					SW8260B	<50	<50	<50
2-Chloroethylvinylether		601	NA	NA	SW8260B	<10	<10	<10
2-Chlorotoluene					SW8260B	<2.0	<2.0	<2.0
2-Hexanone		8260	<10	<10	SW8260B	<20	<20	<20
4-Chlorotoluene					SW8260B	<2.0	<2.0	<2.0
4-Isopropyltoluene					SW8260B	<2.0	<2.0	<2.0
4-Methyl-2-Pentanone					SW8260B	<20	<20	<20
Acetone		8260	<20	<20	SW8260B	<50	<50	<50
Acrylonitrile					SW8260B	<10	<10	<10
Benzene	5	602	<1.0	<1.0	SW8260B	<2.0	<2.0	<2.0
Bromobenzene					SW8260B	<2.0	<2.0	<2.0
Bromochloromethane		8260	<1.0	<1.0	SW8260B	<2.0	<2.0	<2.0
Bromodichloromethane	100	601	<1.0	<1.0	SW8260B	<2.0	<2.0	<2.0
Bromoform	100	601	<1.0	<1.0	SW8260B	<2.0	<2.0	<2.0
Bromomethane		601	<1.0	<1.0	SW8260B	<5.0	<5.0	<5.0
Carbon Disulfide		8260	<1.0	<1.0	SW8260B	<2.0	6.3	<2.0
Carbontetrachloride	5	601	<1.0	<1.0	SW8260B	<2.0	<2.0	<2.0
Chlorobenzene		601	<1.0	<1.0	SW8260B	<2.0	<2.0	<2.0
Chloroethane		601	<10	<10	SW8260B	<5.0	<5.0	<5.0
Chloroform	100	601	<1.0	<1.0	SW8260B	<2.0	<2.0	<2.0
Chloromethane		601	<1.0	<1.0	SW8260B	<5.0	<5.0	<5.0
Cis-1,3 Dichloropropene		601	<1.0	<1.0	SW8260B	<2.0	<2.0	<2.0
Cis-1,2-Dichloroethene					SW8260B	<2.0	<2.0	<2.0
Dibromochloromethane	100	601	<1.0	<1.0	SW8260B	<2.0	<2.0	<2.0
Dibromomethane		8260	<1.0	<1.0	SW8260B	<2.0	<2.0	<2.0
Dichlorodifluoromethane		8260	<1.0	<1.0	SW8260B	<5.0	<5.0	<5.0
Ethylbenzene	700	602	<1.0	<1.0	SW8260B	<2.0	<2.0	<2.0
Hexachlorobutadiene					SW8260B	<2.0	<2.0	<2.0
Isobutylene		8260	<1.0	<1.0	SW8260B	<2.0	<2.0	<2.0
Isopropylbenzene					SW8260B	<2.0	<2.0	<2.0
Methylene Chloride	5	601	<1.0	<1.0	SW8260B	<10	<10	<10
Naphthalene					SW8260B	<2.0	<2.0	<2.0
N-Butylbenzene					SW8260B	<2.0	<2.0	<2.0
N-Propylbenzene					SW8260B	<2.0	<2.0	<2.0
O-Xylene	10,000 T	602	<1.0	<1.0	SW8260B	<2.0	<2.0	<2.0
P & M Xylene	10,000 T	602	<1.0	<1.0	SW8260B	<2.0	<2.0	<2.0
Sec-Butylbenzene					SW8260B	<2.0	<2.0	<2.0
Styrene					SW8260B	<2.0	<2.0	<2.0
Tert-Butyl Methyl Ether					SW8260B	<2.0	<2.0	<2.0
Tert-Butylbenzene					SW8260B	<2.0	<2.0	<2.0
Tetrachloroethene	5	601	<1.0	<1.0	SW8260B	<2.0	<2.0	<2.0
Toluene	1000	602	<1.0	<1.0	SW8260B	<2.0	<2.0	<2.0
Trans-1,3-Dichloropropene		601	<1.0	<1.0	SW8260B	<2.0	<2.0	<2.0
Trans-1,2-Dichloroethene					SW8260B	<2.0	<2.0	<2.0
Trans-1,4-Dichloro-2-Butene		8260	<1.0	<1.0	SW8260B	<10	<10	<10
Trichlorofluoromethane		601	<1.0	<1.0	SW8260B	<2.0	<2.0	<2.0
Trichloroethene					SW8260B	<2.0	<2.0	<2.0
Trichloroethylene	5	601	<1.0	<1.0	SW8260B	<2.0	<2.0	<2.0
Trichlorotrifluoroethane					SW8260B	<2.0	<2.0	<2.0
Vinyl Acetate		8260	<1.0	<1.0	SW8260B	<5.0	<5.0	<5.0
Vinyl Chloride	2	601	<1.0	<1.0	SW8260B	<2.0	<2.0	<2.0

All concentrations in parts per billion (ppb) unless otherwise noted
NA = Not Analyzed
ND = Not Detected
<1.0 = Below Detection Limit of 1.0 ppb
MCL = Maximum Contaminant Level
T = Total
* = Present but less than the Practical Quantitation Limit