

CUYAHOGA COUNTY DISTRICT BOARD OF HEALTH

ONE PLAYHOUSE SQUARE
1375 EUCLID AVENUE - 5th FLOOR
CLEVELAND, OHIO 44115-1882

John J. Lentz
U.S.N.R.C.
Materials Decommissioning Section
Division of Waste Management
Office of Nuclear Materials Safety
and Safeguards
2 Whiteflint North
Mailstop 7J9
Washington, D.C. 20555-0001

Dear Mr. Lentz:

Enclosed is the information you requested regarding groundwater information of Alcoa in Cuyahoga Hts, Ohio. Also enclosed are copies of maps pertaining to the old Ohio Canal property and how it relates to the existing landfill. If we can be of any further assistance please contact our office.

Sincerely



Todd T. Brady, R.T.E.S.
Environmental Control Unit

cc: J. Romano

9707080251 970708
PDR ADOCK 04000501
C PDR

TABLE 1.4-2

Ground-Water Elevations

Well	Measuring Point Elevation*	Water Level Elevation*				
		10/12/88	01/16/89	04/17/89	07/18/89	10/23/89
AL-1	612.46	576.54	569.88	589.44	589.51	589.74
AL-2	620.05	580.83	581.86	582.75	583.84	582.14
AL-3	624.70	595.12	595.56	595.87	595.88	595.80
AL-4	659.76	622.06	624.03	624.72	625.95	625.00
AL-5	599.67	583.15	587.24	587.91	585.82	586.99
AL-6	589.27	573.88	575.95	575.75	574.44	575.29
AL-7	588.61	573.81	575.90	576.07	574.62	575.30
AL-8	591.22	573.37	576.50	578.37	576.94	576.37
AL-9	591.40	573.92	576.08	577.45	576.54	575.87
River	578.31	--	--	--	573.61	574.95

* All elevations are in feet, amsl

TABLE 1.4-5

Ground-Water Investigation 1st Quarter (Oct 1988) Analytical Data

PARAMETER*	Detection Limits	AL-1	AL-2	AL-3	AL-4	AL-5	AL-6	AL-7	AL-8	AL-9	AL-6 Duplic.	Equip. Blank
Arsenic	.04	ND	ND	ND	ND	ND	ND	0.06	0.11	ND	ND	ND
Barium	.01	0.23	0.27	0.10	0.23	0.12	0.12	0.04	0.18	0.10	0.09	ND
Cadmium	.004	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloride	.5	291	98.6	80.7	7.81	47.9	229	46.6	170	22.6	225	ND
Chromium (Total)	.04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Copper	.05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cyanide	.01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluoride	NP	0.55	0.37	0.21	0.45	1.0	2.01	0.13	0.58	0.06	1.80	0.03
Iron	.007	0.10	0.04	0.03	0.07	0.13	4.20	20	62	23	0.54	0.32
Lead	.04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Manganese	.003	0.20	0.11	0.40	0.10	1.10	1.20	7.2	5.8	0.68	1.2	ND
Mercury	.001	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrate (as N)	1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Oil and Grease	1.0	2.0	1.0	2.0	1.0	2.0	3.0	1.0	ND	1.0	2.0	1.0
PCBs (ppb)	1-5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenols	.005	0.003	ND	ND	ND	0.005	0.016	ND	ND	ND	0.006	ND
Selenium	.002	0.003	ND	ND	ND	ND	0.004	ND	0.003	ND	ND	ND
Silver	.02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Sodium	.10	242	86	60	45	91	257	295	217	13	261	1.7
Sulfate	.5	48	85.6	189	27.3	438	914	2110	612	164	945	ND
Zinc	.05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Temperature (Deg C)		12	11.5	12	12	10	12	10.5	12	9.5	--	15
pH		7.79	7.51	7.00	7.56	6.71	7.21	6.16	6.41	5.96	--	7.00
		--	7.57	7.03	7.53	6.63	7.31	6.22	6.51	6.00	--	--
		--	7.58	7.06	7.56	6.68	7.29	6.22	6.50	6.08	--	--
		--	--	7.07	7.54	6.73	7.30	6.20	6.54	6.06	--	--
Specific Conductance		1680	960	1530	519	2020	4930	3980	3240	545	--	5
(umhos/cm)		--	970	1530	521	2020	4930	4030	3100	548	--	--
		--	960	1540	519	2040	5060	4050	3180	549	--	--
		--	950	1450	521	2020	5000	4090	3190	552	--	--
Total Organic Carbon (TOC)	NP	6	2.7	3.5	3.6	36.4	34.4	1.2	43.6	21.4	34.3	2.4
		6.1	2.7	3.4	3.9	38.2	35.1	1.2	42.2	22.0	34.9	2.3
		6.2	3.2	3.4	4.1	38.9	32.7	1.3	43.7	20.8	35.4	2.4
		6.3	3.2	3.4	4.1	37.0	35.0	1.4	42.5	22.3	34.6	2.6
Total Organic Halogen (TOX)		<40	<20	<20	<20	<20	<20	<20	<67	<20	<20	<20
(ppb)		<40	<20	<20	<20	<20	<20	<20	<67	<20	<20	<20
		<40	<20	23	<20	<20	<20	<20	<67	<20	<20	<20
		<40	<20	<20	<20	<20	<20	<20	<67	<20	<20	<20

* All values are in parts per million (ppm) unless otherwise noted. PCB's and TOX are reported as parts per billion (ppb).

ND - Not Detected Above Listed Detection Limit

NP - Detection Limit Not Provided

< - Not Detected Above Value Listed (Detection Limit)

umhos/cm - micromhos per centimeter at 25 Deg C

TABLE 1.4-6

Ground-Water Investigation 2nd Quarter (Jan 1989) Analytical Data

PARAMETER*	Detection Limits	AL-1	AL-2	AL-3	AL-4	AL-5	AL-6	AL-7	AL-8	AL-9	AL-6 Duplic.	Equip. Blank
Arsenic	.04	ND	ND	ND	ND	ND	0.06	ND	0.06	ND	ND	ND
Barium	.01	0.13	0.12	0.12	0.18	0.15	0.06	0.06	0.21	0.09	0.07	ND
Cadmium	.004	ND	ND	ND	ND	0.008	ND	0.006	0.01	0.004	ND	ND
Chloride	.5	301	138	72.4	8.63	45.3	231	61.5	180	22.9	231	ND
Chromium (Total)	.04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Copper	.05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cyanide	.01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluoride	.001	0.76	0.46	0.23	0.46	0.58	2.03	0.17	0.55	0.08	1.99	0.03
Iron	.007	0.05	0.03	0.02	0.44	28	0.42	23	60	22	0.34	ND
Lead	.04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Manganese	.003	0.01	ND	0.91	0.12	1.3	0.93	7.4	5.2	0.58	0.96	0.003
Mercury	.001	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrate (as N)	1.0	ND	ND	ND	ND	ND	7.29	ND	ND	ND	7.31	ND
Oil and Grease	1.0	1	ND	ND	2	2	2	1	ND	2	2	ND
PCBs (ppb)	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenols	.005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Selenium	.002	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Silver	.02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Sodium	.10	299	109	82	71	130	267	476	260	18	275	0.89
Sulfate	.5	38.2	123	180	30.4	428	847	235	624	164	845	ND
Zinc	.05	ND	ND	ND	ND	0.08	ND	ND	ND	0.06	ND	ND
Temperature (Deg C)			12	12.5	12	12	11.5	11.5	12	11		
pH		8.43	11.34	7.12	7.90	6.67	7.37	6.16	6.63	6.00		
		8.44	11.36	7.13	7.91	6.68	7.38	6.16	6.65	6.00		
		8.46	11.38	7.13	7.92	6.68	7.39	6.17	6.66	6.02		
		8.47	11.40	7.14	7.91	6.69	7.40	6.17	6.66	6.03		
Average		8.45	11.37	7.13	7.91	6.68	7.38	6.17	6.65	6.01		
Specific Conductance (umhos/cm)		1430	1090	1280	480	1830	3600	4000	2800	530		
		1430	1090	1280	480	1840	3600	4000	2800	530		
		1425	1090	1280	480	1840	3600	4000	2800	530		
		1425	1090	1280	480	1840	3600	4000	2800	530		
Average		1428	1090	1280	480	1838	3600	4000	2800	530		
Total Organic Carbon (TOC)		5.8	2.7	3.1	3.5	45.5	26	17.4	51.6	1.9	26.6	1.5
		5.8	2.8	3.2	3.5	44.2	24.8	16.6	49.2	2	25.2	1.4
		5.6	3.1	3.2	2.4	45.4	25.4	17.1	52.6	1.6	25.4	1.4
		5.6	3.1	3.2	2.4	43.3	24.2	16.1	50	1.7	24	1.3
Average		5.7	2.9	3.2	3.0	44.6	25.1	16.8	50.9	1.8	25.3	1.4
Total Organic Halogen (TOX) (ppb)		<20	<20	<20	<20	<20	<20	34	<50	<20	<20	<20
		<20	<20	<20	<20	<20	<20	28	<50	<20	<20	<20
		<20	<20	<20	<20	<20	<20	<20	<50	<20	<20	<20
		<20	<20	<20	<20	<20	<20	28	<50	<20	<20	<20
Average		0	0	0	0	0	0	23	0	0	0	0

* All values are in parts per million (ppm) unless otherwise noted. PCB's and TOX are reported as parts per billion (ppb).

ND - Not Detected Above Listed Detection Limit
 < - Not Detected Above Value Listed (Detection Limit)
 umhos/cm - micromhos per centimeter at 25 Deg C

TABLE 1.4-7

Ground-Water Investigation 3rd Quarter (April 1989) Analytical Data

PARAMETER*	Detection Limits	AL-1	AL-2	AL-3	AL-4	AL-5	AL-6	AL-7	AL-8	AL-9	AL-6 Duplic.	Equip. Blank
Arsenic	.04	ND	ND	ND	ND	ND	ND	ND	0.07	ND	ND	ND
Barium	.01	0.24	0.12	0.1	0.24	0.12	0.04	0.05	0.17	0.08	0.04	ND
Cadmium	.004	ND	ND	ND	ND	0.006	ND	0.008	0.01	0.005	ND	ND
Chloride	.5	290	145	70.7	10.5	45.4	196	62.2	176	19.1	241	ND
Chromium (Total)	.04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Copper	.05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cyanide	.01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluoride	NP	0.55	0.48	0.28	0.48	0.39	1.91	0.21	0.58	0.11	2.13	0.06
Iron	.007	0.04	0.02	0.04	0.22	38	0.42	29	66	22	0.42	ND
Lead	.04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Manganese	.003	0.43	ND	0.8	0.16	1.3	1.1	7.1	5.8	0.52	1.1	ND
Mercury	.001	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrate (as N)	.5	ND	ND	ND	ND	ND	4.27	ND	ND	ND	1.09	ND
Oil and Grease	1.0	2	2	ND	1	2	ND	1	ND	ND	ND	ND
PCB's (ppb)	.1-.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenols	.005	ND	ND	ND	ND	ND	ND	ND	0.006	ND	0.01	0.005
Selenium	.002	ND	ND	ND	ND	0.002	0.002	0.002	ND	ND	0.002	ND
Silver	.02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Sodium	.10	249	101	70	48	103	264	471	230	12	266	0.52
Sulfate	.5	34.1	150	172	48.6	412	771	2650	594	163	884	ND
Zinc	.05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Temperature (Deg C)		11	13	13.5	14	13	9.5	10	10	9.5		
pH		7.53	11.83	7.12	7.77	6.34	7.00	6.21	6.68	5.87		
		7.52	11.86	7.14	7.58	6.35	7.01	6.21	6.70	5.91		
		7.52	11.86	7.16	7.30	6.37	7.01	6.22	6.68	5.92		
		7.52	11.86	7.16	7.33	6.37	7.01	6.22	6.67	5.93		
Average		7.53	11.85	7.15	7.49	6.36	7.01	6.21	6.68	5.91		
Specific Conductance (umhos/cm)		1500	1570	1210	475	1840	3500	4300	2600	530		
		1500	1570	1210	460	1850	3500	4300	2600	530		
		1500	1580	1210	460	1840	3500	4250	2600	530		
		1500	1575	1210	460	1840	3500	4250	2600	530		
Average		1500	1574	1208	464	1843	3500	4275	2600	530		
Total Organic Carbon (TOC)		5.8	4.0	3.6	2.4	45.4	28.7	19.6	51.3	3.8	28.5	0.4
		5.7	4.0	3.8	2.3	45.9	29.0	19.8	51.0	3.8	28.7	0.4
		5.7	3.8	3.6	2.0	45.2	29.4	19.3	51.5	3.4	29.0	0.4
		5.9	3.8	3.7	2.0	46.9	29.4	19.5	51.6	3.4	29.0	0.4
Average		5.8	3.9	3.7	2.2	45.9	29.1	19.6	51.4	3.6	28.8	0.4
Total Organic Halogen (TOX) (ppb)		<20	<20	110.0	<20	<20	<20	59.0	<20	<20	360.0	<20
		<20	<20	150.0	<20	<20	<20	59.0	<20	<20	360.0	<20
		<20	<20	110.0	<20	<20	<20	32.0	<20	<20	340.0	<20
		<20	<20	120.0	<20	<20	30.0	40.0	<20	<20	360.0	<20
Average		<20	<20	122.5	<20	<20		47.5	<20	<20	355.0	<20

* All values are in parts per million (ppm) unless otherwise noted. PCB's and TOX are reported as parts per billion (ppb).

ND - Not Detected Above Listed Detection Limit

NP - Detection Limit Not Provided

< - Not Detected Above Value Listed (Detection Limit)

umhos/cm - micromhos per centimeter at 25 Deg C

TABLE 1.4-8

Ground-Water Investigation 4th Quarter (July 1989) Analytical Data

PARAMETER*	Detection Limits	AL-1	AL-2	AL-3	AL-4	AL-5	AL-6	AL-7	AL-8	AL-9	AL-6 Duplic.	Equip. Blank
Arsenic	.002-.003	0.003	0.003	ND	ND	0.021	0.006	0.014	0.059	ND	0.005	ND
Barium	.035	0.24	0.09	0.079	0.089	0.089	0.067	0.046	0.18	0.089	0.05	ND
Cadmium	.001	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloride	NP	380	150	150	11	47	250	68	170	61	140	0.23
Chromium (Total)	.050	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Copper	.005	ND	0.012	0.006	0.006	0.009	0.007	0.011	0.011	ND	ND	ND
Cyanide	.010	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluoride	NP	0.48	0.38	0.24	0.52	0.61	1.4	1.8	1.2	0.1	1.2	0.088
Iron	.025	0.041	0.091	0.059	0.325	39.7	0.34	13	54	23	0.38	ND
Lead	.002	0.015	0.004	ND	0.006	ND	ND	ND	0.009	0.002	ND	0.024
Manganese	.005	0.28	0.007	0.38	0.12	1.1	1.5	5	4.5	0.55	1.5	ND
Mercury	.0002	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrate (as N)	.10	ND	ND	0.1	ND	ND	0.24	0.2	0.2	0.22	1.4	0.29
Oil and Grease	2.0-3.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB's (ppb)	1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenols	.010	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Selenium	.001	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Silver	.005	ND	0.002	ND	ND	0.002	0.003	ND	0.002	ND	0.002	ND
Sodium	NP	280	97.3	66.6	41.4	89.2	72	470	320	12	330	0.82
Sulfate	NP	29	110	370	46	460	1200	2600	810	400	740	0.77
Zinc	.015	ND	0.042	0.03	0.028	0.067	0.027	0.05	0.052	0.052	0.027	0.018
Temperature (Deg C)		15	15	15	15	13	13	14	15	11.5		
pH		7.18	11.03	6.95	7.45	6.04	7.13	5.99	6.53	5.61		
		7.34	11.08	6.96	7.45	6.07	7.14	6.02	6.53	5.60		
		7.41	11.17	6.96	7.44	6.08	7.15	6.03	6.54	5.60		
		7.42	11.20	6.95	7.40	6.08	7.15	6.04	6.55	5.63		
Average		7.34	11.12	6.96	7.44	6.07	7.15	6.02	6.54	5.61		
Specific Conductance (umhos/cm)		1194	1270	1529	711	2420	3890	3450	2860	497		
		1194	1280	1546	713	2400	3920	3460	2860	500		
		1195	1286	1560	724	2400	3910	3460	2870	500		
		1195	1290	1572	728	2390	3900	3460	2880	500		
Average		1195	1282	1552	719	2403	3905	3458	2868	499		
Total Organic Carbon (TOC) (ppm)		12.0	11.0	13.0	12.0	63.0	39.0	20.0	61.0	3.8	5.5	0.19
		12.0	11.0	13.0	13.0	59.0	39.0	20.0	59.0	3.5	5.2	0.18
		12.0	11.0	12.0	12.0	60.0	38.0	20.0	59.0	3.5	5.3	0.17
		12.0	10.0	12.0	11.0	60.0	39.0	21.0	57.0	3.5	5.7	0.17
Average		12.0	10.8	12.5	12.0	60.5	38.8	20.3	59.0	3.6	5.4	0.18
Total Organic Halogen (TOX) (ppb)		<20	<20	<20	<20	10.0	30.0	40.0	20.0	<20	20.0	<20
		<20	<20	<20	<20	20.0	30.0	40.0	20.0	<20	30.0	<20
		<20	<20	<20	<20	30.0	30.0	40.0	20.0	<20	30.0	<20
		<20	<20	<20	<20	20.0	20.0	40.0	20.0	<20	30.0	<20
Average		<20	<20	<20	<20	25.0	27.5	40.0	20.0	<20	27.5	<20

* All values are in parts per million (ppm) unless otherwise noted. PCB's and TOX are reported as parts per billion (ppb).

ND - Not Detected Above Listed Detection Limit

NP - Detection Limit Not Provided

< - Not Detected Above Value Listed (Detection Limit)

umhos/cm - micromhos per centimeter at 25 Deg C

ALCOA LANDFILL GROUNDWATER MONITORING RESULTS
08/05/93 SAMPLING EVENT SUMMARY

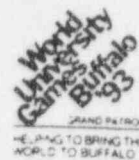
Constituent	Units	1	2	3	4	5	6	7	8	9	MCL
Acetone	mg/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Alkalinity	mg/l	0.76	0.69	0.17	0.56	3.0	49.0	0.41	6.8	0.26	
Chloride	mg/l	(294)	150	150	18	73	138	64	116	16	250 S
Specific Conductance	umhos /cm	1562	877	1330	560	1824	3660	3520	2790	533	
Iron	mg/l	(0.32)	ND	0.06	ND	(22)	(0.98)	(9.2)	(99)	(16.1)	0.3 S
Manganese	mg/l	(0.18)	ND	(0.20)	(0.10)	(0.91)	(5.1)	(3.6)	(5.3)	(0.46)	0.05 S
Methylene Chloride	mg/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	
pH	standard	7.10	7.29	7.05	7.37	6.46	6.74	6.5	6.57	6.85	6.5-8.5 S
TDS	mg/l	(730)	492	(902)	338	(1290)	(2120)	(3500)	(2240)	372	500 S
TOC	mg/l	20.2	19	36.1	6.8	171	69.6	53	118	11	
Ammonia	mg/l	0.25	0.23	0.24	0.18	0.24	0.28	0.26	0.42	0.48	
Arsenic	mg/l	0.013	ND	ND	ND	0.029	0.008	0.0066	0.10	0.005	0.05 P
Sulfate	mg/l	35	41	131	28	162	(592)	(1450)	(1770)	82	250 S

P = Primary Drinking Water Standard 40CFR141

S = Secondary Drinking Water Standard 40CFR143



RECRA
ENVIRONMENTAL
INC.



Chemical and Environmental Analysis Services

August 20, 1993

~~Mr. J. R. Palffy~~
~~Aluminum Company of America~~
~~1600 Harvard Avenue~~
~~Cleveland, Ohio 44105~~

LISA D'AGOSTINO

RE: Analytical Results

Dear Mr. Palffy:

Please find enclosed results concerning the analyses of the samples recently submitted by your firm. The Pertinent Information regarding these analysis is listed below:

Quote #: MI93-039

Matrix: Aqueous

Samples Received: 08/05/93

Sample Dates: 08/05/93

If you have any questions concerning these data, please contact Ms. Verl Preston, Director Customer Service, at (716) 691-2600 and refer to the I.D. number listed below. It has been our pleasure to provide Aluminum Company of America with Environmental Testing Services. We look forward to serving you in the future.

Sincerely,

RECRA ENVIRONMENTAL, INC.

Robert K. Wyeth
Laboratory Director

EJB/RKW/ejb
Enclosure

I.D. #93-2472
#OH93-0403
#MI3C4676

ANALYTICAL RESULTS

Prepared For

Aluminum Company of America
1600 Harvard Avenue
Cleveland, Ohio 44105

Prepared By

Recra Environmental, Inc.
10 Hazelwood Drive, Suite 106
Amherst, New York 14228-2298

METHODOLOGY

The specific methodologies employed in obtaining the enclosed analytical results is indicated on the specific data table. The method numbers presented refer to the following U.S. Environmental Protection Agency reference.

- * 40 CFR Part 136 "Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act" October 26, 1984 (Federal Register) U.S. Environmental Protection Agency.

COMMENTS

Comments pertain to data on one or all pages of this report.

The enclosed data has been reported utilizing data qualifiers (Q) as defined on the Organic and Inorganic Data Comment Pages.

VOLATILE DATA

When analyzed by method 624, a quantitation limit of 0.80 micrograms per liter for target compound 1,1,2-Trichloroethane was achieved. In order to meet the required quantitation limit of 0.20 micrograms per liter, all samples were additionally analyzed for 1,1,2-Trichloroethane by method 601. 1,1,2-Trichloroethane was not detected in any of the samples.



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METALS DATA

No deviations from protocol were observed during analytical procedures.

WATER QUALITY DATA

As denoted by asterisk (*) on the data pages, units of measure for Total Alkalinity are milligrams per liter as Calcium Carbonate (mg/l as CaCO₃).



DATE _____

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