

LANCASTER WATER RECLAMATION PLANT

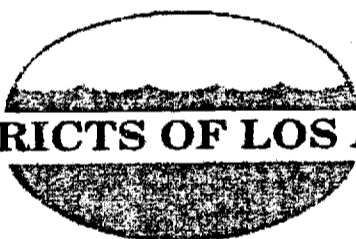
ANNUAL MONITORING REPORT

2002

RWQCB ORDER NO. R6V-2002-053

**MONITORING & REPORTING
PROGRAM NO. R6V-2002-053**

SANITATION DISTRICTS OF LOS ANGELES COUNTY



LANCASTER WATER RECLAMATION PLANT

CHAPTER 4

WASTEWATER MONITORING DATA

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2002 WASTEWATER MONITORING DATA

4.1 ORGANIZATION OF THE DATA

The monitoring programs at the Sanitation Districts wastewater treatment plants can be rather complex; consequently, the following explanation is provided to aid in interpreting the data.

Data are maintained in two databases:

1. An **operational database** for data which normally are monitored daily or weekly and are used for the day-to-day operation of the plants. These include flow, BOD, suspended solids, etc. Many of the parameters included in the operational database must be monitored and reported in accordance with the requirements listed in the NPDES permit, waste discharge requirements or reuse permit of each plant.

Monthly and annual averages are presented along with other descriptive statistics.

2. A **laboratory database** for data which normally are monitored monthly or less often. These include primarily metals and organic compounds. Separate data summaries are presented for:
 - **Influent monitoring**
 - **Effluent monitoring**

Each treatment plant has operation and laboratory data sets presented in its own annual report. One exception is the San Jose Creek WRP which consists of two independently operated units; San Jose Creek East (Stages I and II) and San Jose Creek West (Stage III). Separate data sets for each of these plants is presented in the San Jose Creek WRP annual report. The results of all samples are presented together with descriptive statistics. This data summary may contain results which were not reported in monthly monitoring reports. These additional data can result from sampling conducted for purposes other than routine monitoring. The additional sampling may be done by other agencies (Regional Water Quality Control Board or USEPA) or by the Sanitation Districts for a special study or as a sampling follow-up to a questionable sample.

4.2 LABORATORY TEST CODES

The Sanitation Districts use a unique 3-character code to identify each constituent in the laboratory database. Priority pollutants and other significant constituents are organized into the following groups:

Test Group	Test Code Series
Physical Properties and Solids	100
Nitrogens and Sulfurs	200
Miscellaneous	300
Carbons	400
Chlorinated Pesticides and PCBs	500
Volatile Organic Compounds	600
Metals	700
Base-Neutral/Acid Extractable	800
CompoundsDioxins	D00
Furans	F00

In the laboratory data summaries, the constituents are sorted in numerical order according to the test code. Both the constituent name and test code are given at the top of each column in the data summary. Table 4-1 is provided for assistance in finding specific constituents in the summaries. One can first look for the desired constituent in this table (arranged alphabetically) to find the test code. Then, knowing the test code, one can find the desired constituent and its data in the tables which follow Table 4-1 (arranged in numeric order).

Statistical summaries follow the influent and effluent data and effluent limits follow the effluent statistical summaries.

4.3 DETECTION LIMITS

Sample results below the method detection limits are indicated by the use of the less than symbol (<). A few parameters, such as DDT and PCBs are reported as sums. In those cases, we have chosen to report total detected DDT and total detected PCBs. Results which were below the detection limit were not included in the sum. Consequently, if none of the isomers were detected, the total is reported as zero.

4.4 PERMIT LIMITS

A single plant may have several permits and several sets of limits which, at a maximum, consist of the following:

- **NPDES Permit Limits** for discharge to navigable waterways.
- **Waste Discharge Requirements** for effluent disposal to sites other than those covered by NPDES requirements (e.g., Lancaster and Palmdale WRPs).
- **Reuse Permit Limits** for nonpotable use in irrigation, impoundments, etc.
- **Recharge Permit Limits** for groundwater replenishment in the Montebello Forebay.
- **California Drinking Water Standards** are included by reference in many reuse permits and in the recharge permit. Drinking Water Standards are specified in Title 22, Chapter 15, Article 3, Sections 64421-64473 of the California Code of Regulations. Note the following:
 1. Primary Drinking Water Standards are health-related.
 2. Secondary Drinking Water Standards are not health-related. They are concerned with palatability and aesthetic acceptance.
- **Radioactivity requirements** are included by reference in most permits. Radioactivity requirements are specified in Title 22, Chapter 15, Article 3, Sections 64441-64443 of the California Code of Regulations. The radioactivity standards are a subset of the drinking water standards; however, the permits use language which suggests that radioactivity should be treated separately from the drinking water standards. The permits have separate paragraphs requiring compliance with radioactivity standards and with drinking water standards. Furthermore, the permits require compliance only for trace constituents or other substances

in the drinking water standards, which suggests that radioactivity is not a substance, but, rather, is a quality.

- **Action Levels** of the California Department of Health Services (DHS) are included by reference in the recharge permit. Action levels are given in a letter dated October 24, 1990 from the DHS Office of Drinking Water.
- **Taste and Odor Thresholds** are listed in the DHS Action Levels for several constituents; however, these thresholds are not considered to be applicable to reclaimed water as it is not delivered directly to users for use as potable water.

The permits limits may be expressed in terms of an instantaneous maximum, daily maximum, 7-day average and/or 30-day average. Longer averaging periods have lower limits. In general then, the limits listed in Table 4-4 are 30-day averages (which have the lowest values).

The reuse permits require compliance with the Drinking Water Standards maximum contaminant levels that normally apply to 24-hour composite samples or grab samples. The Montebello Forebay permit, however, requires compliance with the Drinking Water Standards and action levels based on a running 12-month average.

TABLE 4-1
LABORATORY DATABASE
CONSTITUENTS IN ALPHABETICAL ORDER

TEST DESCRIPTION	TEST CODE
% MOISTURE	158
% ORGANIC MATTER	406
1,1,1,2-TETRACHLOROETHANE	6D5
1,1,1-TRICHLOROETHANE	603
1,1,2,2-TETRACHLOROETHANE	653
1,1,2-TRICHLOROETHANE	618
1,1-DICHLOROETHANE	616
1,1-DICHLOROETHENE	605
1,1-DICHLOROPROPENE	6C7
1,2,3,4-TETRAMETHYLBENZENE	686
1,2,3-TRICHLOROBENZENE	889
1,2,3-TRICHLOROPROPANE	6D6
1,2,4,5-TETRACHLOROBENZENE	8E7
1,2,4-TRICHLOROBENZENE	846
1,2-DIBROMO-3-CHLOROPROPANE	6C3
1,2-DIBROMOETHANE	673
1,2-DICHLOROBENZENE	819
1,2-DICHLOROETHANE	619
1,2-DICHLOROETHANE-D4	S10
1,2-DICHLOROPROPANE	650
1,2-DIPHENYLHYDRAZINE	829
1,3,5-TRICHLOROBENZENE	899
1,3,5-TRIMETHYLBENZENE	661
1,3-BUTADIENE	675
1,3-DICHLOROBENZENE	820
1,3-DICHLOROPROPANE	6C5
1,4-DICHLOROBENZENE	821
1,4-DICHLOROBENZENE-D4	I01
1,4-DICHLOROBENZENE-D4	S20
1,4-DICHLOROBUTANE	S08
1,4-DIOXANE	696
1,4-NAPHTHOQUINONE	8C7
1234678HEPCHLRDIBENZDIOXIN	D27
1234678HEPTCHLORDIBENZOFURAN	F23
1234789HEPTCHLORDIBENZOFURAN	F24
123478HEXCHLORDIBENZDIOXIN	D24
123478HEXCHLORODIBENZOFURAN	F19
1234TETRCHLORDIBENZDIOXIN	D18
123678HEXCHLORDIBENZDIOXIN	D25
123678HEXCHLORODIBENZOFURAN	F20
123789HEXCHLORDIBENZDIOXIN	D26
123789HEXCHLORODIBENZOFURAN	F22
12378PENCHLORDIBENZDIOXIN	D22
12378PENTACHLORODIBENZFURA	F17
123TRICHLORODIBENZDIOXIN	D14
123TRICHLORODIBENZOFURAN	F15
12478PENCHLORDIBENZDIOXIN	D23
124TRICHLORODIBENZDIOXIN	D15
1278TETRCHLORDIBENZDIOXIN	D19

TABLE 4-1
LABORATORY DATABASE
CONSTITUENTS IN ALPHABETICAL ORDER

TEST DESCRIPTION	TEST CODE
12DICHLORODIBENZOFURAN	F13
1378TETRCHLORDIBENZDIOXIN	D20
16DICHLORODIBENZODIOXIN	D11
178TRICHLORODIBENZODIOXIN	D16
1-BROMO-2-FLUOROETHANE	I05
1CHLORODIBENZODIOXIN	D09
1CHLORODIBENZOFURAN	F09
1-METHYLNAPHTHALENE	894
1-METHYLPHENANTHRENE	896
1-NAPHTHYLAMINE	8C8
1-PROPANOL	671
2,2-DICHLOROPROPANE	6C6
2,3,4,5-TETRACHLOROPHENOL	687
2,3,4,6-TETRACHLOROPHENOL	8E8
2,3,4-TRICHLOROPHENOL	693
2,3,5,6-TETRACHLOROPHENOL	688
2,3,5-TRICHLOROPHENOL	689
2,3,5-TRIMETHYLNAPHTHALENE	898
2,3,6-TRICHLOROPHENOL	690
2,3,7,8-TCDD	844
2,3-BENZOFUORENE	884
2,3-DICHLOROANILINE	864
2,4,5,6-TETRACHLORO-M-XYLENE	S13
2,4,5-T	5C1
2,4,5-TP(SILVEX)	518
2,4,5-TRICHLOROPHENOL	691
2,4,6-TRIBROMOPHENOL	S06
2,4,6-TRICHLOROPHENOL	664
2,4,6-TRICHLOROPHENOL	856
2,4-D(ACID)	517
2,4-DB	5C2
2,4-DICHLOROPHENOL	658
2,4-DICHLOROPHENOL	847
2,4-DIMETHYLPHENOL	626
2,4-DIMETHYLPHENOL	848
2,4-DINITROPHENOL	849
2,4-DINITROTOLUENE	826
2,6-DICHLOROPHENOL	8A9
2,6-DIMETHYLNAPHTHALENE	892
2,6-DINITROTOLUENE	827
2,4-DP (DICHLORPROP)	5B7
234678HEXCHLORODIBENZOFURAN	F21
23478PENTACHLORODIBENZOFURAN	F18
2378TETRACHLORODIBENZOFURAN	F16
2378TETRCHLORDIBENZDIOXIN	D21
237TRICHLORODIBENZODIOXIN	D17
23DICHLORODIBENZODIOXIN	D12
23DICHLORODIBENZOFURAN	F14
27DICHLORODIBENZODIOXIN	D13

TABLE 4-1
LABORATORY DATABASE
CONSTITUENTS IN ALPHABETICAL ORDER

TEST DESCRIPTION	TEST CODE
2-ACETYLAMINOFLUORENE	8A2
2-BUTANONE	680
2CHLORODIBENZODIOXIN	D10
2CHLORODIBENZOFURAN	F10
2-CHLOROETHYLVINYLEETHER	648
2-CHLORONAPHTHALENE	815
2-CHLOROPHENOL	657
2-CHLOROPHENOL	845
2-ETHYLTOLUENE	660
2-FLUOROBIPHENYL	S05
2-FLUOROPHENOL	S01
2-HEXANONE	699
2-METHYL FLUORANTHENE	887
2-METHYL-4,6DINITROPHENOL	850
2-METHYLNAPHTHALENE	895
2-METHYLNAPHTHALENE	8C6
2-NAPHTHYLAMINE	8C9
2-NITROPHENOL	851
2-PROPANOL	672
3,3'-DICHLOROBENZIDINE	822
3,3'-DIMETHYLBENZIDINE	8B3
3,4,5-TRICHLOROPHENOL	692
3,6-DIMETHYLPHENANTHRENE	893
3CHLORODIBENZOFURAN	F11
3-METHYLCHOLANTHRENE	8C4
4-AMINOBIHENYL	8A3
4-BROMOFLUOROBENZENE	S12
4-BROMOPHENYL PHENYLEETHER	813
4-CHLORO-3-METHYLPHENOL	656
4-CHLORO-3-METHYLPHENOL	853
4CHLORODIBENZOFURAN	F12
4-CHLOROPHENYLPHENYLEETHER	816
4-METHYL-2-PENTANONE	681
4-NITROPHENOL	852
5-NITRO-O-TOLUIDINE	8D9
7,12-DIMETHYLBENZ(A)ANTHRACENE	8B2
7,12DIMETHYLBENZ(A)ANTHRACENE	888
9,10-DIPHENYLANTHRACENE	883
90 FATHEAD ACUTE	B18
90 MENIDIA ACUTE	B19
ACENAPHTHENE	800
ACENAPHTHENE-D10	S22
ACENAPHTHYLENE	801
ACETIC ACID	639
ACETONE	676
ACETONITRILE	665
ACETOPHENONE	8A1
ACID CONC.	344
ACIDITY	318

TABLE 4-1
LABORATORY DATABASE
CONSTITUENTS IN ALPHABETICAL ORDER

TEST DESCRIPTION	TEST CODE
ACROLEIN	654
ACRYLONITRILE	655
ACTINOLITE FIBERS	CA1
ADA (ANTHRAQUINONE DSA)	329
AEROBIC PLATE COUNT	354
AIR (O2 + AR + N2)	331
ALDRIN	512
ALGAE COUNT	360
ALLYL CHLORIDE	6B8
ALPHA-BHC	508
ALUMINUM	707
AMMONIA NITROGEN	1S6
AMMONIA NITROGEN	201
AMOSITE FIBERS	CA2
ANAEROBIC PLATE COUNT	355
ANTHOPHYLLITE FIBERS	CA3
ANTHRACENE	802
ANTIMONY	725
ARGON (AR)	333
AROCLOR 1016	535
AROCLOR 1221	536
AROCLOR 1232	537
AROCLOR 1242	519
AROCLOR 1248	538
AROCLOR 1254	520
AROCLOR 1260	539
ARSENIC	705
ATRAZINE	550
AVAILABLE CALCIUM OXIDE	321
AVAILABLE CYANIDE	212
AVAILABLE PHOSPHORUS	339
BACTERIOPHAGE	382
BARIUM	706
BENZENE	620
BENZIDINE	803
BENZO(A)ANTHRACENE	804
BENZO(A)PYRENE	805
BENZO(B)FLUORANTHENE	806
BENZO(E)PYRENE	890
BENZO(G.H.I.)PERYLENE	807
BENZO(K)FLUORANTHENE	808
BENZYL ALCOHOL	8A4
BENZYL CHLORIDE	678
BERYLLIUM	726
BETA-BHC	523
BICARBONATE ALKALINITY	306
BIOLOGICAL EXAMINATION	X06
BIPHENYL	891
BIS(2-CHLOROETHYL)ETHER	810

TABLE 4-1
LABORATORY DATABASE
CONSTITUENTS IN ALPHABETICAL ORDER

TEST DESCRIPTION	TEST CODE
BIS(2-CL-ETHOXY)METHANE	809
BIS(2-CL-ISOPROPYL)ETHER	811
BISMUTH	727
BORON	314
BROMIDE	319
BROMOCHLOROMETHANE	6B9
BROMODICHLOROMETHANE	608
BROMOETHANE	694
BROMOFORM	610
BROMOMETHANE	646
BULK DENSITY	161
BUTANE	635
BUTYLBENZYL PHTHALATE	814
BUTYRIC ACID	642
C. PERFRINGENS	B51
CADMIUM	708
CALCIUM	703
CALCIUM-HARDNESS	701
CAM TEST	C01
CAMPYLOBACTER	386
CARBAZOLE	859
CARBON DIOXIDE (CO2)	336
CARBON DISULFIDE	285
CARBON DISULFIDE	698
CARBON MONOXIDE (CO)	337
CARBON TETRACHLORIDE	604
CARBONACEOUS BOD5 (CBOD5)	412
CARBONATE ALKALINITY	307
CARBONYL SULFIDE	284
CATION EXCH. CAPACITY	108
CCL4 ACTIVITY (CARBON)	121
CERIO. CHRONIC-SURVIVAL	B06
CERIO. CHRONIC-REPRODUCTION	B07
CERIUM	728
CESIUM	729
CHLORIDE	301
CHLORIDE MASS EMISS. RATE	973
CHLORINATED PESTICIDES	5B0
CHLORINE DEMAND	303
CHLORINE REQUIR.	304
CHLORINE RESIDUAL	302
CHLOROBENZENE	611
CHLOROBENZENE-D5	104
CHLOROBENZILATE	8A6
CHLOROETHANE	647
CHLOROFORM	602
CHLOROMETHANE	649
CHLOROPHYLL A	364
CHLOROPICRIN	6B3

TABLE 4-1
LABORATORY DATABASE
CONSTITUENTS IN ALPHABETICAL ORDER

TEST DESCRIPTION	TEST CODE
CHLOROPRENE	6C2
CHLORPYRIFOS	5D8
CHRYSENE	817
CHRYSENE-D12	S24
CHRYSOTILE FIBERS	CA4
CIS-1,2-DICHLOROETHYLENE	677
CIS-1,3-DICHLOROPROPENE	651
CIS-CHLORDANE	526
CIS-CHLORDENE	541
CIS-NONACHLOR	543
CLOSTRIDIUM PERFRINGENS	375
CN AMENABLE TO CHLORINE	210
COBALT	711
COLOR, APPARENT	104
COLOR, TRUE	132
CONDUCTIVITY	102
CONDUCTIVITY	1S4
COPPER	712
CROCIDOLITE FIBERS	CA5
CRYPTOSPORIDIUM	B53
DALAPON	5B5
DECACH3CYCLOPENTASILOXANE	6E0
DECACHLOROBIPHENYL	S14
DECAFLUOROBIPHENYL	S04
DECAMETHYLTETRASILOXANE	6G0
DELTA-BHC	524
DEMETON	5D3
DEPTH TO BOTTOM	901
DEPTH TO WATER	1S8
DEPTH TO WATER	900
DEUTERIUM	133
DIALATE	8A7
DIAZINON	5D9
DIBENZO(A,H)ANTHRACENE	818
DIBENZOFURAN	8A8
DIBROMOCHLOROMETHANE	609
DIBROMOFLUOROMETHANE	S09
DICAMBA	5B6
DICHLORODIBENZODIOXINS	D02
DICHLORODIBENZOFURANS	F02
DICHLORVOS	5B1
DICYCLOPENTADIENE	6B5
DIELDRIN	513
DIETHYL PHTHALATE	823
DIETHYL SULFIDE	290
DIETHYLAMINE	6E3
DIETHYLHEXYL PHTHALATE	812
DI-ISOPROPYL ETHER	6F4
DIMETHOATE	5C7

TABLE 4-1
LABORATORY DATABASE
CONSTITUENTS IN ALPHABETICAL ORDER

TEST DESCRIPTION	TEST CODE
DIMETHYL PHTHALATE	824
DIMETHYL SULFIDE	286
DIMETHYLDISULFIDE	291
DI-N-BUTYL PHTHALATE	825
DI-N-OCTYL PHTHALATE	828
DINOSEB	5C3
DIPHENYLAMINE	8B5
DIQUAT	5E1
DISSOLVED CARBON DIOXIDE	409
DISSOLVED ORGANIC CARBON	455
DISSOLVED OXYGEN	115
DISSOLVED OXYGEN	1S3
DISULFOTON	5C8
DIVERSITY INDEX	361
DODECACH3CYCLOHEXSILOXANE	6G3
DODECAMETHYLPENTASILOXANE	6G1
E. COLI	B50
ECE (SOIL SALINITY)	E01
EDTA	327
EDTA-IRON(I)	347
ENDOSULFAN I	531
ENDOSULFAN II	532
ENDOSULFAN SULFATE	533
ENDRIN	514
ENDRIN ALDEHYDE	534
ENTEROCOCCUS	359
ENTEROCOCCUS (MF)	357
ENTEROPATHOGENIC E. COLI	383
EPA EXTRACTION PROCEDURE	172
ETHANE	633
ETHANOL	623
ETHYL ACETATE	6E4
ETHYL BENZENE	624
ETHYL MERCAPTAN	260
ETHYL MERCAPTAN	283
ETHYL METHACRYLATE	6D8
ETHYL METHANESULFONATE	8B6
ETHYL PARATHION	5D1
ETHYL-TERT BUTYL ETHER	6F5
FAMPHUR	8B7
FATHEAD 96H-ACUTE-100%EFF	B02
FATHEAD 96H-ACUTE-CONC	B03
FATHEAD 96H-ACUTE-TITLE22	B01
FATHEAD CHRONIC-GROWTH	B05
FATHEAD CHRONIC-SURVIVAL	B04
FECAL COLIFORM	351
FECAL COLIFORM (MF)	356
FECAL STREPTOCOCCUS	353
FERRIC IRON	746

TABLE 4-1
LABORATORY DATABASE
CONSTITUENTS IN ALPHABETICAL ORDER

TEST DESCRIPTION	TEST CODE
FERROUS IRON	745
FIELD CONDUCTIVITY	906
FIELD DISSOLVED CO2	908
FIELD DISSOLVED O2	907
FIELD HYDROGEN SULFIDE	910
FIELD PH	905
FIELD TOTAL ALKALINITY	909
FIELD WATER TEMPERATURE	904
FLASH POINT	105
FLOATABLE SOLIDS	157
FLOC/FILAMENT SURVEY	X10
FLOW	Z01
FLUORANTHENE	830
FLUORENE	831
FLUORIDE	313
FLUORIDE MASS EMISS. RATE	974
FLUOROBENZENE	103
FLUOROMETER READING	362
FORMALDEHYDE	697
FREE ALKALI	345
FREE CYANIDE	207
FREON 11 (CCL3F)	669
FREON 12 (CCL2F2)	668
FREON 21 (CHCL2F)	670
FREON TF	617
GAMMA RADIATION	372
GC/MS SCAN	X03
GIARDIA	B52
GOLD	730
GROSS ALPHA RADIOACTIVITY	370
GROSS BETA RADIOACTIVITY	371
GUTHION	5D4
HEAT OF COMBUSTION	112
HEATING VALUE OF GAS	338
HEPTACHLOR	510
HEPTACHLOR EPOXIDE	511
HEPTACHLORODIBENZODIOXINS	D07
HEPTACHLORODIBENZOFURANS	F07
HEXACH3CYCLOTTRISILOXANE	6G2
HEXACHLORO BENZENE	832
HEXACHLOROBUTADIENE	833
HEXACHLOROCYCLOPENTADIENE	834
HEXACHLORODIBENZODIOXINS	D06
HEXACHLORODIBENZOFURANS	F06
HEXACHLOROETHANE	835
HEXACHLOROPROPENE	8B8
HEXAMETHYLDISILOXANE	6F8
HEXANE	637
HEXAVALENT CHROMIUM	710

TABLE 4-1
LABORATORY DATABASE
CONSTITUENTS IN ALPHABETICAL ORDER

TEST DESCRIPTION	TEST CODE
HOLD FOR TEST ASSIGNMENT	170
HPLC SCAN	X09
HYDROCARBONS-METHOD 418.1	C18
HYDROCARBONS-MODIFIED8015	C15
HYDROGEN (H2)	340
HYDROGEN CYANIDE	209
HYDROGEN SULFIDE	261
HYDROGEN SULFIDE	281
HYDROSCAN	173
HYDROXIDE ALKALINITY	308
HYMENOLEPIS	392
INDENO(1,2,3-C,D)PYRENE	836
INFRARED SCAN	X02
ION CHROMATOGRAPHY SCAN	X08
IRON	713
ISOBUTYL ALCOHOL	6C9
ISOBUTYL MERCAPTAN	289
ISOBUTYRALDEHYDE	6E7
ISOBUTYRIC ACID	641
ISODRIN	8B9
ISOPHORONE	837
ISOPROPYL ACETATE	6E8
ISOPROPYL ETHER	6E9
ISOPROPYL MERCAPTAN	287
ISOPROPYLBENZENE	684
ISOSAFROLE	8C1
ISOVALERIC ACID	643
KEPONE	5C5
KEPONE	8C2
LANTHANUM	731
LAS	343
LEAD	714
LIMONENE	659
LINDANE (GAMMA-BHC)	509
LITHIUM	715
LOWER EXPLOSIVE LIMIT	1B0
M+P CRESOL	862
M+P-CRESOL	628
M+P-XYLENE	695
MACROCYSTIS-GERMINATION	B09
MACROCYSTIS-GERMTUBLENGTH	B10
MAGNESIUM	704
MAGNESIUM-HARDNESS	702
MALATHION	5D5
MANGANESE	716
MBAS	315
MCPA	5B9
MCPA	5B8
M-DICHLOROBENZENE	614

TABLE 4-1
LABORATORY DATABASE
CONSTITUENTS IN ALPHABETICAL ORDER

TEST DESCRIPTION	TEST CODE
M-DINITROBENZENE	8B4
MENIDIA ACUTE,%SURVIVAL	B17
MENIDIA-GROWTH	B15
MENIDIA-SURVIVAL	B14
MERCAPTANS	258
MERCURY	717
METALS SCAN	X05
METHACRYLONITRILE	6D1
METHANE	632
METHANE (CH4)	335
METHANOL	622
METHAPYRILENE	8C3
METHOXYCLOR	516
METHYL CELLOSOLVE	6F1
METHYL FORMATE	6F2
METHYL IODIDE	6D2
METHYL MERCAPTAN	259
METHYL MERCAPTAN	282
METHYL METHACRYLATE	6D7
METHYL METHANESULFONATE	8C5
METHYL PARATHION	5C9
METHYL PYRENE	886
METHYLCYCLOHEXANE	102
METHYLENE BROMIDE	6D3
METHYLENE CHLORIDE	601
METHYL-TERT-BUTYL-ETHER	662
MEVINPHOS	5B2
MICROSCOPIC EXAM	X04
MICROTOX-15	B32
MICROTOX-5	B31
MIREX	552
M-NITROANILINE	8D2
MOLYBDENUM	732
MONOCHLORODIBENZODIOXINS	D01
MONOCHLORODIBENZOFURANS	F01
M-XYLENE	666
MYSID-FECUNDITY	B12
MYSID-GROWTH	B13
MYSID-SURVIVAL	B11
NALED (DIBROM)	5B3
N-AMYL ACETATE	6E1
NAPHTHALENE	838
NAPHTHALENE-D8	S21
N-BUTYL ACETATE	6E2
N-BUTYL MERCAPTAN	295
N-DECANE	865
N-HEPTANE	6E5
N-HEXANE	6E6
NICKEL	718

TABLE 4-1
 LABORATORY DATABASE
 CONSTITUENTS IN ALPHABETICAL ORDER

TEST DESCRIPTION	TEST CODE
NID	316
NITRATE NITROGEN	1S7
NITRATE NITROGEN	204
NITRITE NITROGEN	205
NITROBENZENE	839
NITROBENZENE-D5	S03
NITROGEN (N2)	334
NITROMETHANE	6B0
N-NITROSODIETHYLAMINE	8D5
N-NITROSODIMETHYLAMINE	840
N-NITROSODI-N-BUTYLAMINE	8D4
N-NITROSODI-N-PROPYLAMINE	841
N-NITROSODIPHENYLAMINE	857
N-NITROSOMETHYLETHYLAMINE	8D6
N-NITROSOPIPERIDINE	8D7
N-NITROSOPYRROLIDINE	8D8
NO TEST REQUESTED	999
NOCARDIA	358
N-OCTADECANE	866
NONMETHANE ORGANICS (TCA)	415
NONMETHANE ORGANICS TO-12	416
NON-POLAR OIL AND GREASE	414
NONVOLATILE DISSOL SOLIDS	166
NOX (AS NO2)	211
N-PROPYL MERCAPTAN	293
N-PROPYLBENZENE	685
O,O,O-TRIETHYLPHOSPHOROTHIOATE	8F1
O+P DICHLOROBENZENE	674
O+P-XYLENE	667
OBJECTIONABLE INSOLUBLES	322
C-CRESOL	627
O-CRESOL	861
OCTACH3CYCLOTETRASILOXANE	6D9
OCTACHLORODIBENZODIOXIN	D08
OCTACHLORODIBENZOFURAN	F08
OCTAMETHYLTRISILOXANE	6F9
O-DICHLOROBENZENE	613
ODOR	109
ODOR CHARACTERIZATION	X07
OIL & GREASE	408
OIL & GREASE MASS EM.RATE	975
O-NITROANILINE	8D1
OP'-DDD	503
OP'-DDE	501
OP'-DDT	505
ORGANIC LEAD	7A1
ORGANIC NITROGEN	202
ORTHO PHOSPHATE	311
O-TOLUIDINE	8E9

TABLE 4-1
LABORATORY DATABASE
CONSTITUENTS IN ALPHABETICAL ORDER

TEST DESCRIPTION	TEST CODE
OXYCHLORDANE	529
OXYGEN (O2)	332
O-XYLENE	629
P(DIMETHYLAMINO)AZOBENZENE	8B1
PAINT FILTER TEST	127
PALLADIUM	M02
PARAQUAT	5E2
PCB CONGENER 101	567
PCB CONGENER 105	568
PCB CONGENER 110	569
PCB CONGENER 114	570
PCB CONGENER 118	571
PCB CONGENER 119	572
PCB CONGENER 123	573
PCB CONGENER 126	574
PCB CONGENER 128	575
PCB CONGENER 138	576
PCB CONGENER 149	577
PCB CONGENER 151	578
PCB CONGENER 153	579
PCB CONGENER 156	580
PCB CONGENER 157	581
PCB CONGENER 158	582
PCB CONGENER 167	583
PCB CONGENER 168	584
PCB CONGENER 169	585
PCB CONGENER 170	586
PCB CONGENER 177	587
PCB CONGENER 18	554
PCB CONGENER 180	588
PCB CONGENER 183	589
PCB CONGENER 187	590
PCB CONGENER 189	591
PCB CONGENER 194	592
PCB CONGENER 200	593
PCB CONGENER 201	594
PCB CONGENER 206	595
PCB CONGENER 28	555
PCB CONGENER 37	556
PCB CONGENER 44	557
PCB CONGENER 49	558
PCB CONGENER 52	559
PCB CONGENER 66	560
PCB CONGENER 70	561
PCB CONGENER 74	562
PCB CONGENER 77	563
PCB CONGENER 81	564
PCB CONGENER 87	565
PCB CONGENER 99	566

TABLE 4-1
LABORATORY DATABASE
CONSTITUENTS IN ALPHABETICAL ORDER

TEST DESCRIPTION	TEST CODE
P-CHLOROANILINE	8A5
PCNB(PENTACHLORONITROBENZENE)	5D7
P-CRESOL	863
P-DICHLOROBENZENE	615
PEAK FLOW	Z02
PENTACHLOROBENZENE	8E1
PENTACHLORODIBENZODIOXINS	D05
PENTACHLORODIBENZOFURANS	F05
PENTACHLORONITROBENZENE	8E2
PENTACHLOROPHENOL	663
PENTACHLOROPHENOL	854
PENTANE	636
PERCENT METHANE IN GAS	902
PERCENT OXYGEN IN GAS	903
PERCHLORATE	3B2
PERMANENT GASES, TOTAL	330
PERYLENE	897
PERYLENE-D12	S25
PH	101
PH	1S1
PHENACETIN	8E3
PHENANTHRENE	842
PHENANTHRENE-D10	S23
PHENOL	855
PHENOL(BY GC)	631
PHENOL-D5	S02
PHENOLS	312
PHENYLACETIC ACID	860
PHORATE	5D2
PHOSGENE	6B2
PHTHALATE ESTERS	6B4
PHYS/CHEM PROPERTIES	X01
PICLORAM	5C4
PLATINUM	M01
PLUTONIUM	128
P-NITROANILINE	8D3
POLYCHLORINATED PHENOLS	6B1
POTASSIUM	325
POTASSIUM	719
POTASSIUM-40	131
PP'-DDD	504
PP'-DDE	502
PP'-DDT	506
P-PHENYLENEDIAMINE	8E4
PRODUCTION DATA	PRD
PRONAMIDE	8E5
PROPANE	634
PROPIONIC ACID	640
PROPIONITRILE	6D4

TABLE 4-1
LABORATORY DATABASE
CONSTITUENTS IN ALPHABETICAL ORDER

TEST DESCRIPTION	TEST CODE
P-TERPHENYL-D14	S07
PURPLE URCHIN FERTILIZAT.	B23
P-XYLENE	630
PYRENE	843
PYRIDINE	858
RADIUM 226+228	126
RADON	123
RAINFALL	998
REDOX	1S5
RELATIVE % HUMIDITY	159
SAFROLE	8E6
SALINITY	317
SALMONELLA	385
SAMPLE VOLUME	165
SAR	107
SEC-BUTYL MERCAPTAN	288
SELENASTRUM CHRONIC-GROW'	B08
SELENIUM	720
SEMI-VOLATILE TTO	T10
SER	106
SETTLABLE SOLIDS	156
SIEVE ANALYSIS <#100SIEVE	379
SIEVE ANALYSIS >#10 SIEVE	176
SIEVE ANALYSIS >#100SIEVE	378
SIEVE ANALYSIS >#30 SIEVE	177
SIEVE ANALYSIS >#45 SIEVE	178
SIEVE ANALYSIS >#60 SIEVE	179
SIEVE ANALYSIS >3/4"SIEVE	376
SIEVE ANALYSIS >3/8"SIEVE	377
SILICON	721
SILVER	722
SIMAZINE	551
SLAKING RATE-40 DEG C INC	323
SLUDGE VOLUME (CYLINDER)	162
SLUDGE VOLUME INDEX	164
SLUDGE VOLUME-SETTLEOMETER	163
SODIUM	723
SODIUM POTASSIUM TARTRATE	346
SOLUBLE ALUMINUM	775
SOLUBLE ANTIMONY	757
SOLUBLE ARSENIC	755
SOLUBLE BARIUM	756
SOLUBLE BERYLLIUM	771
SOLUBLE BOD	402
SOLUBLE CADMIUM	758
SOLUBLE CALCIUM	753
SOLUBLE CALCIUM-HARDNESS	751
SOLUBLE CARBOHYDRATES	413
SOUBLE CARBONACEOUS BOD	462

TABLE 4-1
LABORATORY DATABASE
CONSTITUENTS IN ALPHABETICAL ORDER

TEST DESCRIPTION	TEST CODE
SOLUBLE CHLORIDE	341
SOLUBLE CHROMIUM	759
SOLUBLE COBALT	761
SOLUBLE COD	404
SOLUBLE COPPER	762
SOLUBLE IRON	763
SOLUBLE LEAD	764
SOLUBLE MAGNESIUM	754
SOLUBLE MAGNESIUM-HARDNESS	752
SOLUBLE MANGANESE	766
SOLUBLE MERCURY	767
SOLUBLE MOLYBDENUM	782
SOLUBLE NICKEL	768
SOLUBLE ORTHO-PHOSPHATE	342
SOLUBLE PHOSPHATE	320
SOLUBLE POTASSIUM	769
SOLUBLE SELENIUM	770
SOLUBLE SILICON	776
SOLUBLE SILVER	772
SOLUBLE SODIUM	773
SOLUBLE SULFATE	263
SOLUBLE SULFIDE	252
SOLUBLE THALLIUM	784
SOLUBLE TIN	785
SOLUBLE VANADIUM	787
SOLUBLE ZINC	774
SORBITOL	328
SPECIFIC GRAVITY	113
SPINDLE NO. (VISCOSITY)	118
STANDARD PLATE COUNT	352
STATIC FISH BIOASSAY	363
STICKLEBACK ACUTE,%SURVIVAL	B16
STRONTIUM	733
STRONTIUM-90	124
STYRENE	682
SULFATE	257
SULFATE MASS EMISS. RATE	972
SULFATE REDUCING BACTERIA	374
SULFITE	254
SULFUR DIOXIDE	292
SUSPENDED SOLIDS	151
SUSPENDED SOLIDS @ PH 7	150
SYM-TRINITROBENZENE	8F2
T. INTERMEDIUS/NOVELLUS	397
T. NEAPOLITANUS	398
T. THIOOXIDANS	399
T-1,4-DICHLORO-2-BUTENE	6C4
TANNIN & LIGNIN	407
TASTE	110

TABLE 4-1
LABORATORY DATABASE
CONSTITUENTS IN ALPHABETICAL ORDER

TEST DESCRIPTION	TEST CODE
TCLP EXTRACTION	174
TECHNICAL CHLORDANE	540
TEMPERATURE	111
TEMPERATURE	1S2
TEMPERATURE (VISCOSITY)	120
TERT AMYL METHYL ETHER	6F6
TERT BUTYL ALCOHOL	6F7
TERT-BUTYL MERCAPTAN	294
TETRACHLORODIBENZODIOXINS	D04
TETRACHLORODIBENZOFURANS	F04
TETRACHLOROETHYLENE	607
TETRAHYDROFURAN	679
THALLIUM	734
THERMOPHILIC FUNGI	381
THIOCYANATE	256
THIONAZIN	5C6
THIOSULFATE	253
THORIUM	129
TICH	522
TIN	735
TITANIUM	736
TOLUENE	621
TOLUENE-D8	S11
TOPSMELT ACUTE	B22
TOPSMELT CHRONIC GROWTH	B21
TOPSMELT CHRONIC SURVIVAL	B20
TOTAL ALKALINITY	305
TOTAL ASBESTOS	CA0
TOTAL ASCARIS	389
TOTAL BOD	401
TOTAL CARBAMATE PESTICIDES	5B4
TOTAL CHROMIUM	709
TOTAL COD	403
TOTAL COLIFORM	350
TOTAL COLIFORM (MF)	349
TOTAL CYANIDE	206
TOTAL DETECTABLE DDT	507
TOTAL DETECTABLE PCBS	521
TOTAL DETECTED CHLORDANES	530
TOTAL DETECTED PESTICIDES	549
TOTAL DISSOLVED SOLIDS	155
TOTAL ENTERIC BACTERIA	384
TOTAL ENTERIC VIRUSES	395
TOTAL FUNGI	380
TOTAL HARDNESS	309
TOTAL HCH	525
TOTAL HYDROCARBONS	417
TOTAL KJELDAHL NITROGEN	203
TOTAL LIPIDS	411

TABLE 4-1
LABORATORY DATABASE
CONSTITUENTS IN ALPHABETICAL ORDER

TEST DESCRIPTION	TEST CODE
TOTAL METALS	M03
TOTAL NITROG.MASS EM.RATE	971
TOTAL NITROGEN	208
TOTAL NITROGEN	326
TOTAL NO3 + NO2 NITROGEN	951
TOTAL ORGANIC CARBON	405
TOTAL ORGANIC HALOGEN(TOX)	410
TOTAL PARASITES	388
TOTAL PARTICULATES	160
TOTAL PHOSPHATE	310
TOTAL PHOSPHOROUS	324
TOTAL SOLIDS	153
TOTAL SULFIDE	251
TOTAL SULFUR	255
TOTAL SURFACTANTS	3B1
TOTAL THIOBACILLUS SP	396
TOTAL TOXIC ORGANICS	T01
TOTAL XYLENE ISOMERS	6B7
TOXAPHENE	515
TOXIC ORGANIC MGT PLAN	TMP
TOXOCARA	393
TRANS-1,2-DICHLOROETHYLENE	645
TRANS-1,3-DICHLOROPROPENE	652
TRANS-CHLORDANE	527
TRANS-CHLORDENE	542
TRANS-NONACHLOR	528
TRANSPARENCY (SECCHI DISK)	116
TREMOLITE FIBERS	CA6
TRIBUTYL TIN	553
TRICHLORODIBENZODIOXINS	D03
TRICHLORODIBENZOFURANS	F03
TRICHLOROETHYLENE	606
TRICHURIS	391
TRIETHYLAMINE	6F3
TRIPHENYLENE	885
TRITIUM	122
TTO FOR ALUMINUM FORMING	T11
TTO FOR COIL COATING	T02
TTO FOR COPPER FORMING	T03
TTO FOR E&EC SUBCAT A&B	T04
TTO FOR E&EC SUBCAT C	T05
TTO FOR ELECTROPL&METAL FINISHING	T06
TTO FOR INDUSTRIAL LAUNDRY	T12
TTO FOR METAL MOLD & CAST	T07
TTO FOR TRUCK WASHES	T08
TURBIDITY	103
URANIUM	125
UV ABSORBING ORGANICS	149
VALERIC ACID	644

TABLE 4-1
LABORATORY DATABASE
CONSTITUENTS IN ALPHABETICAL ORDER

TEST DESCRIPTION	TEST CODE
VANADIUM	737
VANADIUM-48	130
VAPAM (METAM-SODIUM)	5D6
VIABLE ASCARIS	390
VINYL ACETATE	625
VINYL CHLORIDE	612
VISCOMETER SPINDLE RPM	119
VISCOSITY	114
VISCOSITY(BROOKFIELD LVT)	117
VOLATILE ACIDS	638
VOLATILE DISSOLVED SOLIDS	168
VOLATILE SUSPENDED SOLIDS	152
VOLATILE TOTAL SOLIDS	154
VOLATILE TTO	T09
W.E.T. DI WATER	175
WASTE EXTRACTION TEST	171
YERSINIA	387
ZINC	724

TABLE 4-2
 OPERATIONAL DATA - REUSE
 LANCASTER WATER RECLAMATION PLANT

2002 MONITORING DATA
 OPERATIONS SUMMARY - MONTHLY AVERAGES
 WQCB ORDER NO. 6-93-75
 WQCB ORDER NO. R6V-2002-053
 MONITORING AND REPORTING PROGRAM NO. 93-75-A2
 MONITORING AND REPORTING PROGRAM NO. R6V-2002-053

MONTH	PLANT FLOWS (MGD)		
	TOTAL PLANT INFLUENT ¹	MAXIMUM INFLUENT ¹	TERTIARY PLANT INFLUENT
JAN	12.4	17.2	0.00
FEB	12.3	17.4	0.00
MAR	12.1	17.3	0.00
APR	12.3	17.5	0.18
MAY	12.6	17.8	0.33
JUN	12.9	17.9	0.43
JUL	13.1	18.2	0.49
AUG	13.3	18.8	0.46
SEP	13.3	18.5	0.33
OCT	13.1	18.2	0.40
NOV	12.7	18.2	0.00
DEC	13.1	18.7	0.00
MEAN	12.8	18.0	0.22
MAX	13.3	18.8	0.49
MIN	12.1	17.2	0.00
LIMITS:			
MEAN	16.0		
MAX		40.0	0.6
MIN			

NOTE: 1. Represents influent to secondary treatment.

TABLE 4-2
 OPERATIONAL DATA - REUSE
 LANCASTER WATER RECLAMATION PLANT

2002 MONITORING DATA
 OPERATIONS SUMMARY - MONTHLY AVERAGES
 WQCB ORDER NO. 6-93-75
 WQCB ORDER NO. R6V-2002-053
 MONITORING AND REPORTING PROGRAM NO. 93-75-A2
 MONITORING AND REPORTING PROGRAM NO. R6V-2002-053

MONTH	PLANT FLOWS (MGD)				PAIUTE POND OVERFLOW	EVAPORATION*
	SECONDARY EFFLUENT TO PAIUTE POND	SECONDARY EFFLUENT TO NEBEKER RANCH	TERTIARY EFFLUENT TO APOLLO LAKES	TOTAL PLANT EFFLUENT		
					INCHES	INCHES/MONTH
JAN	14.1	0.0	0.00	14.1	6.0	2.44
FEB	13.3	3.7	0.00	17.0	5.8	3.29
MAR	8.9	4.5	0.00	13.4	4.8	6.30
APR	0.6	5.2	0.10	5.9	0.1	11.75
MAY	3.1	4.7	0.19	8.0	0.0	14.25
JUN	3.2	5.8	0.35	9.4	0.0	16.25
JUL	4.7	5.8	0.38	10.9	0.0	19.00
AUG	3.5	5.4	0.37	9.2	0.0	16.50
SEP	4.9	5.3	0.25	10.5	0.0	12.00
OCT	3.8	4.8	0.32	8.9	0.0	7.50
NOV	7.4	1.9	0.00	9.3	1.9	5.46
DEC	14.8	1.1	0.00	15.8	5.2	3.06
MEAN	6.9	4.0	0.16	11.0	2.0	9.82
MAX	14.8	5.8	0.38	17.0	6.0	19.00
MIN	0.6	0.0	0.00	5.9	0.0	2.44
LIMITS:						
MAX					R	
MIN						

* Evaporation rates from evaporation gauge are adjusted to reflect effects from rainfall on gauge readings.
 This value is multiplied by a factor of 0.7 (for type A gauges), by the estimated area of the Paiute Pond (400 acres), and by the appropriate conversion factors to estimate average monthly evaporation in Paiute Ponds in MGD.

TABLE 4-2
 OPERATIONAL DATA - REUSE
 LANCASTER WATER RECLAMATION PLANT

2002 MONITORING DATA
 OPERATIONS SUMMARY - MONTHLY AVERAGES
 WQCB ORDER NO. 6-93-75
 MONITORING AND REPORTING PROGRAM NO. 93-75-A2

MONTH	OXIDATION POND FREEBOARD									
	POND 1	POND 2	POND 3	POND 4	POND 5	POND 6	POND 7	POND 8	POND 9	POND 10
	INCHES	INCHES	INCHES	INCHES	INCHES	INCHES	INCHES	INCHES	INCHES	INCHES
JAN	26	29	30	30	41	36	31	29	30	30
FEB	26	29	30	30	41	35	33	31	29	28
MAR	26	29	30	30	45	40	41	33	30	26
APR	26	29	30	30	44	40	37	28	32	25
MAY	26	29	30	30	36	32	32	29	32	27
JUN	26	29	30	30	41	37	37	32	29	28
JUL	26	29	30	30	43	40	35	29	25	25
AUG	26	29	30	30	39	34	31	30	26	25
SEP	26	29	30	30	35	31	35	35	28	27
OCT	26	29	27	30	32	30	32	31	31	29
NOV	25	29	25	30	37	33	28	25	34	30
DEC	24	29	34	30	45	40	30	26	29	27
MEAN	26	29	30	30	40	35	33	30	29	27
MAX	26	29	34	30	45	40	41	35	34	30
MIN	24	29	25	30	32	30	28	25	25	25
LIMITS:										
MAX										
MIN	24	24	24	24	24	24	24	24	24	24

TABLE 4-2
 OPERATIONAL DATA - REUSE
 LANCASTER WATER RECLAMATION PLANT

2002 MONITORING DATA
 OPERATIONS SUMMARY - MONTHLY AVERAGES
 WQCB ORDER NO. 6-93-75
 WQCB ORDER NO. R6V-2002-053
 MONITORING AND REPORTING PROGRAM NO. 93-75-A2
 MONITORING AND REPORTING PROGRAM NO. R6V-2002-053

MONTH	INFLUENT					
	BOD	COD	MBAS	NITROGEN		
				NITRATE	AMMONIA	KJELDAHL
MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	
JAN	312	691	12.2	<0.01	24.4	35.8
FEB	293	648	14.3	<0.01	24.1	38.8
MAR	246	678	12.8	<0.01	23.4	39.5
APR	282	585	13.1	<0.01	23.8	40.3
MAY	260	548	13.8	0.05	23.2	39.4
JUN	263	529	10.9	<0.01	23.2	31.9
JUL	255	563	12.9	0.01	22.8	37.2
AUG	250	564	11.9	0.03	23.5	35.6
SEP	293	649	11.3	0.01	23.2	36.4
OCT	302	609	9.4	<0.01	23.0	39.5
NOV	322	755		<0.01	26.2	41.4
DEC	259	618		<0.04	26.6	40.2
MEAN	278	620	12	< .02	24.0	38.0
MAX	322	755	14	0.05	26.6	41.4
MIN	246	529	9	< .01	22.8	31.9
LIMITS:						
MAX						
MIN						

TABLE 4-2
 OPERATIONAL DATA - REUSE
 LANCASTER WATER RECLAMATION PLANT

2002 MONITORING DATA
 OPERATIONS SUMMARY - MONTHLY AVERAGES
 WQCB ORDER NO. R6V-2002-053
 MONITORING AND REPORTING PROGRAM NO. R6V-2002-053

MONTH	INFLUENT		
	SOLUBLE BOD	SOLUBLE COD	SOLUBLE CARBONACEOUS BOD (CBOD)
	MG/L	MG/L	MG/L
JAN			
FEB			
MAR			
APR			
MAY			
JUN			
JUL			
AUG			
SEP			
OCT			
NOV	88	197	87
DEC	89	190	79
MEAN	88	194	83
MAX	89	197	87
MIN	88	190	79
LIMITS:			
MAX			
MIN			

TABLE 4-2
OPERATIONAL DATA - REUSE
LANCASTER WATER RECLAMATION PLANT

2002 MONITORING DATA
OPERATIONS SUMMARY - MONTHLY AVERAGES
WQCB ORDER NO. 6-93-75
WQCB ORDER NO. R6V-2002-053
MONITORING AND REPORTING PROGRAM NO. 93-75-A2
MONITORING AND REPORTING PROGRAM NO. R6V-2002-053

MONTH	EFFLUENT TO PAIUTE PONDS							
	SOLUBLE CARBONACEOUS BOD (SCBOD)	SOLUBLE CARBONACEOUS BOD 7-DAY AVERAGE	SOLUBLE CARBONACEOUS BOD 30-DAY AVERAGE	SOLUBLE BOD	SOLUBLE COD	pH	DISSOLVED OXYGEN	TOTAL DISSOLVED SOLIDS
	mg/L	mg/L	mg/L	mg/L	mg/L	pH Unit	mg/L	mg/L
JAN	<8			16	67	7.6	8.0	529
FEB	5			12	74	7.7	8.5	644
MAR	8			17	79	8.2	8.8	487
APR	<5			26	84	8.1	8.1	595
MAY	6			42	79	8.0	9.0	591
JUN	<5			23	61	8.3	8.9	628
JUL	<4			17	51	8.5	8.3	573
AUG	<4			21	57	8.5	8.1	596
SEP	<3	<3.3	<3.7	22	51	8.5	8.3	559
OCT	<4	<3.3	<3.1	33	57	7.8	7.8	870
NOV	<4	<3.9	<3.3	20	61	7.8	2.6	574
DEC	<3	<3	<3.3	11	50	7.5	2.6	510
MEAN	<5	<3.4	<3.4	22	64	8.0	7.4	588
MAX	8	<3.9	<3.7	42	84	8.5	9.0	870
MIN	<3	<3	<3.1	11	50	7.5	2.6	487
LIMITS:								
MEAN		60 ¹	40 ¹	30 ²				
MAX				45 ²		9.0		
MIN						6.0	1.0	

¹WQCB Order No. R6V-2002-053

²WQCB Order No. 6-93-75. Not applicable after September 2002.

TABLE 4-2
 OPERATIONAL DATA - REUSE
 LANCASTER WATER RECLAMATION PLANT

2002 MONITORING DATA
 OPERATIONS SUMMARY - MONTHLY AVERAGES
 WQCB ORDER NO. 6-93-75
 WQCB ORDER NO. R6V-2002-053
 MONITORING AND REPORTING PROGRAM NO. 93-75-A2
 MONITORING AND REPORTING PROGRAM NO. R6V-2002-053

MONTH	EFFLUENT TO NEBEKER RANCH					
	SOLUBLE CARBONACEOUS BOD (SCBOD)	SOLUBLE BOD	SOLUBLE COD	pH	DISSOLVED OXYGEN	TOTAL DISSOLVED SOLIDS
	mg/L	mg/L	mg/L	pH Unit	mg/L	mg/L
JAN						
FEB	6	12	79	7.7	8.3	566
MAR	18 ¹ > SCBOD > 11 ²	18	75	8.2	7.9	495
APR	10	17	93	8.1	8.6	557
MAY	6	20	91	8.0	8.8	546
JUN	6	34	70	8.1	8.4	560
JUL	<5	9	57	8.1	8.0	618
AUG	5	9	56	8.1	8.4	523
SEP	7	24	63	8.4	8.5	521
OCT	8	27	75	7.6	7.3	530
NOV	4	19	67			
DEC	<3	9	58			
MEAN	7 > MEAN > 5	18	71	8.0	8.2	546
MAX	18 > MAX > 10	34	93	8.4	8.8	618
MIN	<3	9	56	7.6	7.3	495
LIMITS:						
MEAN		30 ³				
MAX		45 ³		9.0		
MIN				6.0	1.0	

¹Inhibited soluble BOD cannot exceed soluble BOD.

²Estimated value due to error in analysis.

³WQCB Order No. 6-93-75

TABLE 4-2
 OPERATIONAL DATA - REUSE
 LANCASTER WATER RECLAMATION PLANT

2002 MONITORING DATA
 OPERATIONS SUMMARY - MONTHLY AVERAGES
 WQCB ORDER NO. 6-93-75
 WQCB ORDER NO. R6V-2002-053
 MONITORING AND REPORTING PROGRAM NO. 93-75-A2
 MONITORING AND REPORTING PROGRAM NO. R6V-2002-053

MONTH	SECONDARY EFFLUENT TO PAIUTE PONDS TOTAL COLIFORM		EFFLUENT
	DAILY GRAB SAMPLE	7-DAY MEDIAN	MBAS
	MPN/100 ML	MPN/100 ML	mg/L
JAN	<2	<2	0.40
FEB	<2	<2	0.50
MAR	<2	<2	0.20
APR	<2	<2	0.20
MAY	<2	<2	0.20
JUN	<2	<2	0.10
JUL	<2	<2	0.15
AUG	<2	<2	<0.1
SEP	<2	<2	0.10
OCT	<2	<2	0.10
NOV	<2	<2	
DEC	<2	<2	
MEAN	<4	<2	0.22
MAX	<20	<2	0.50
MIN	<2	<2	0.10
LIMITS:			
MEAN			
MAX	231	2.2S	2.0 ¹
MIN			1.0 ¹

¹WQCB Order No. 6-93-75

TABLE 4-2
 OPERATIONAL DATA - REUSE
 LANCASTER WATER RECLAMATION PLANT

2002 MONITORING DATA
 OPERATIONS SUMMARY - MONTHLY AVERAGES
 WQCB ORDER NO. 6-93-75
 WQCB ORDER NO. R6V-2002-053
 MONITORING AND REPORTING PROGRAM NO. 93-75-A2
 MONITORING AND REPORTING PROGRAM NO. R6V-2002-053

MONTH	EFFLUENT TO PAIUTE PONDS			EFFLUENT TO NEBEKER RANCH		
	NITROGEN			NITROGEN		
	KJELDAHL	NITRATE	AMMONIA	KJELDAHL	NITRATE	AMMONIA
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
JAN	31.4	0.24	20.5			
FEB	28.4	0.14	20.0	30.5	0.04	20.1
MAR	36.1	0.16	20.3	41.2	0.01	21.8
APR	34.4	0.46	19.7	36.4	0.39	21.8
MAY	19.8	5.56	10.1	32.5	0.13	20.2
JUN	17.1	7.56	6.9	23.5	1.33	15.0
JUL	14.3	4.51	0.4	12.0	0.59	0.6
AUG	14.8	2.15	3.2	9.8	0.69	0.8
SEP	14.3	2.13	5.8	11.2	1.50	0.5
OCT	14.0	5.22	2.8	17.9	1.69	8.1
NOV	21.3	3.30	9.9	23.0	2.70	14.0
DEC	23.4	0.84	15.9	31.9	0.05	21.6
MEAN	22.4	2.69	11.3	24.5	0.83	13.1
MAX	36.1	7.56	20.5	41.2	2.70	21.8
MIN	14.0	0.14	0.4	9.8	0.01	0.5
LIMITS:			NE			
MEAN						
MAX						
MIN						

NE: Limit not established (WQCB Order No. R6V-2002-053, Provision II.B.2).

TABLE 4-2
 OPERATIONAL DATA - REUSE
 LANCASTER WATER RECLAMATION PLANT

2002 MONITORING DATA
 OPERATIONS SUMMARY - MONTHLY AVERAGES
 WQCB ORDER NO. 6-93-75
 WQCB ORDER NO. R6V-2002-053
 MONITORING AND REPORTING PROGRAM NO. 93-75-A2
 MONITORING AND REPORTING PROGRAM NO. R6V-2002-053

MONTH	TERTIARY EFFLUENT TO APOLLO LAKES					
	TOTAL COLIFORM		TURBIDITY			MBAS
	DAILY GRAB	7-DAY MEDIAN	24-HOUR COMPOSITE	30-DAY MEAN	TIME > 5 NTU	
	MPN/100 ML	MPN/100 ML	NTU	NTU	MINUTES	mg/L
JAN	L	L	L	L	L	L
FEB	L	L	L	L	L	L
MAR	L	L	L	L	L	L
APR	<1	<1	1.4	1.6	0	0.10
MAY	<1	<1	1.1	1.2	0	0.10
JUN	<1	<1	0.9	1.0	0	<0.1
JUL	<1	<1	0.7	0.7	0	0.10
AUG	<1	<1	0.9	0.8	0	0.10
SEP	<1	<1	1.3	1.1	0	0.10
OCT	<1	<1	0.8	1.1	0	0.10
NOV	L	L	L	L	L	L
DEC	L	L	L	L	L	L
MEAN	<1	<1	1.0	1.1	0	0.10
MAX	<1	<1	1.4	1.6	0	0.10
MIN	<1	<1	0.7	0.7	0	0.10
LIMITS:						
MEAN						
MAX	1 23	2.2		2	72	2
MIN						

TABLE 4-2
 OPERATIONAL DATA - REUSE
 LANCASTER WATER RECLAMATION PLANT

2002 MONITORING DATA
 OPERATIONS SUMMARY - MONTHLY AVERAGES

WQCB ORDER NO. 6-93-75

WQCB ORDER NO. R6V-2002-053

MONITORING AND REPORTING PROGRAM NO. 93-75-A2

MONITORING AND REPORTING PROGRAM NO. R6V-2002-053

MONTH	TERTIARY EFFLUENT TO APOLLO LAKES				
	SOLUBLE BOD	SOLUBLE COD	NITROGEN		
			NITRATE-N	AMMONIA-N	KJELDAHL
	mg/L	mg/L	mg/L-N	mg/L-N	mg/L-N
JAN	L	L	L	L	L
FEB	L	L	L	L	L
MAR	L	L	L	L	L
APR	<2	23	1.97	1.8	3.1
MAY	<3	25	5.76	<0.01	<0.81
JUN	4	41	8.16	<0.1	0.2
JUL	5	28	4.53	<0.1	0.2
AUG	4	22	1.88	<0.1	<0.4
SEP	<2	23	0.80	0.1	0.2
OCT	<3	24	1.37	<0.1	0.2
NOV	L	L	L	L	L
DEC	L	L	L	L	L
MEAN	< 3	26	3.50	< .3	<0.7
MAX	5	41	8.16	1.8	3.1
MIN	< 2	22	0.80	< .01	0.2
LIMITS:					
MEAN	30 ¹				
MAX	45 ¹				
MIN					

¹WQCB Order No. 6-93-75

TABLE 4-2
 OPERATIONAL DATA - REUSE
 LANCASTER WATER RECLAMATION PLANT

2002 MONITORING DATA
 OPERATIONS SUMMARY - MONTHLY AVERAGES
 WQCB ORDER NO. 6-93-75
 WQCB ORDER NO. R6V-2002-053
 MONITORING AND REPORTING PROGRAM NO. 93-75-A2
 MONITORING AND REPORTING PROGRAM NO. R6V-2002-053

SYMBOL	EXPLANATION
*	NO DISCHARGE UNDER THIS BOARD ORDER ON THIS MONTH. THE SUMMARY REFLECTS ALL DATA SHOWN.
A	PARTIAL OR NO SAMPLE OBTAINED DUE TO SAMPLER MALFUNCTION.
B	ERROR IN TESTING PROCEDURE. INVALID RESULTS OBTAINED.
C	INSUFFICIENT SAMPLE VOLUME FOR PERFORMING ALL TESTS.
D	HOLIDAY WORK SCHEDULE. INSUFFICIENT MANPOWER TO PERFORM ALL TESTS.
E	INSUFFICIENT MANPOWER TO PERFORM ALL TESTS.
F	NECESSARY TESTING EQUIPMENT OUT OF SERVICE.
G	FLOW METER OUT OF SERVICE.
H	TURBIDITY VALUES ARE ROUNDED TO THE NEAREST WHOLE NUMBER (E.G., 2.5=2, 2.6=3) FOR THE PURPOSE OF DETERMINING COMPLIANCE WITH THE TURBIDITY LIMIT.
I	THE NO. OF COLIFORMS MUST NOT EXCEED 23/100 ML IN MORE THAN ONE SAMPLE DURING ANY 30-DAY PERIOD.
J	AVERAGE VALUE.
K	VALUE CALCULATED FROM AVERAGE VALUE.
L	PLANT SHUT DOWN - APOLLO LAKES AT CAPACITY.
M	PLANT SHUT DOWN - DUE TO VARIOUS OPERATIONAL PROBLEMS
N	NO DISCHARGE.
Q	CHLORINATED SAMPLE.
R	EFFLUENT TO PAIUTE PONDS NOT TO EXCEED EVAPORATION RATE WHEN PONDS ARE OVERFLOWING.
S	GEESE HUNTING SEASON RUNS FROM OCT. 15, 2002 TO JAN 26, 2003 DUCK HUNTING SEASON RUNS FROM NOV. 2, 2002 TO JAN. 26, 2003 THE 7-DAY MEDIAN NUMBER OF COLIFORMS MUST NOT EXCEED 2.2 MPN/100 ml DURING PERIODS WHEN THE PONDS ARE ACTIVELY BEING USED FOR DUCK HUNTING AND DURING THE 30 DAYS PRECEDING SUCH PERIODS.
T	INSUFFICIENT DATA TO CALCULATE 30 DAY AVERAGE.

TABLE 4-3
LANCASTER WATER RECLAMATION PLANT
2002 INFLUENT MONITORING LABORATORY DATA

TEST CODE	CONSTITUENT	UNIT	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL		
															AVERAGE	MAXIMUM	MINIMUM
151	SUSPENDED SOLIDS	MG/L	430	380	276	345	334	228	330	264	452	313	418	356	344	452	228
201	AMMONIA NITROGEN	MG/L	24.4	24.1	23.4	23.8	23.2	23.2	22.8	23.5	23.2	23	26.2	26.6	24	26.6	22.8
203	TOTAL KJELDAHL NITROGEN (Calculated)	MG/L	35.8	38.8	39.5	40.3	39.4	31.9	37.2	35.6	36.4	39.5	41.4	40.2	38.0	41.4	31.9
204	NITRATE NITROGEN	MG/L	< 0.01	< 0.01	< 0.01	< 0.01	0.05	< 0.01	0.01	0.03	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.05	< 0.01
206	TOTAL CYANIDE	MG/L						< 0.01							< 0.01		< 0.01
312	PHENOLS	MG/L						0.037							0.037		0.037
315	MBAS	MG/L	12.2	14.3	12.8	13.1	13.8	10.9	12.9	11.9	11.3	9.4			12.3	14.3	9.4
502	PP-DDE	UG/L						< 0.01							< 0.01		< 0.01
504	PP-DDD	UG/L						< 0.01							< 0.01		< 0.01
506	PP-DDT	UG/L						< 0.01							< 0.01		< 0.01
508	ALPHA BHC	UG/L						< 0.01							< 0.01		< 0.01
509	LINDANE (GAMMA-BHC)	UG/L						< 0.01							< 0.01		< 0.01
510	HEPTACHLOR	UG/L						< 0.01							< 0.01		< 0.01
511	HEPTACHLOR EPOXIDE	UG/L						< 0.01							< 0.01		< 0.01
512	ALDRIN	UG/L						< 0.01							< 0.01		< 0.01
513	DIELDRIN	UG/L						< 0.01							< 0.01		< 0.01
514	ENDRIN	UG/L						< 0.01							< 0.01		< 0.01
515	TOXAPHENE	UG/L						< 0.01							< 0.01		< 0.01
519	AROCLOR 1242	UG/L						< 0.01							< 0.01		< 0.01
520	AROCLOR 1254	UG/L						< 0.01							< 0.01		< 0.01
523	BETA-BHC	UG/L						< 0.01							< 0.01		< 0.01
524	DELTA-BHC	UG/L						< 0.01							< 0.01		< 0.01
531	ENDOSULFAN I	UG/L						< 0.01							< 0.01		< 0.01
532	ENDOSULFAN II	UG/L						< 0.01							< 0.01		< 0.01
533	ENDOSULFAN SULFATE	UG/L						< 0.01							< 0.01		< 0.01
534	ENDRIN ALDEHYDE	UG/L						< 0.01							< 0.01		< 0.01
535	AROCLOR 1016	UG/L						< 0.01							< 0.01		< 0.01
536	AROCLOR 1221	UG/L						< 0.01							< 0.01		< 0.01
537	AROCLOR 1232	UG/L						< 0.01							< 0.01		< 0.01
538	AROCLOR 1248	UG/L						< 0.01							< 0.01		< 0.01
539	AROCLOR 1260	UG/L						< 0.01							< 0.01		< 0.01
540	TECHNICAL CHLORDANE	UG/L						< 0.01							< 0.01		< 0.01
601	METHYLENE CHLORIDE	UG/L						< 0.05							< 0.05		< 0.05
602	CHLOROFORM	UG/L						1							1		1
603	1,1,1-TRICHLOROETHANE	UG/L						7							7		7
604	CARBON TETRACHLORIDE	UG/L						< 0.5							< 0.5		< 0.5
605	1,1-DICHLOROETHENE	UG/L						< 0.5							< 0.5		< 0.5
606	TRICHLOROETHYLENE	UG/L						< 0.5							< 0.5		< 0.5
607	TETRACHLOROETHYLENE	UG/L						4							4		4
608	BROMODICHLOROMETHANE	UG/L						0.9							0.9		0.9
609	DIBROMOCHLOROMETHANE	UG/L						1							1		1
610	BROMOFORM	UG/L						< 0.5							< 0.5		< 0.5
611	CHLOROBENZENE	UG/L						< 0.5							< 0.5		< 0.5
612	VINYL CHLORIDE	UG/L						< 0.5							< 0.5		< 0.5
613	O-DICHLOROBENZENE	UG/L						< 0.5							< 0.5		< 0.5
614	M-DICHLOROBENZENE	UG/L						< 0.5							< 0.5		< 0.5
615	P-DICHLOROBENZENE	UG/L						< 0.5							< 0.5		< 0.5
616	1,1,2-TRICHLOROETHANE	UG/L						6							6		6
618	1,1,2-TRICHLOROETHANE	UG/L						< 0.5							< 0.5		< 0.5
619	1,2-DICHLOROETHANE	UG/L						< 0.5							< 0.5		< 0.5
620	BENZENE	UG/L						1							1		1
621	TOLUENE	UG/L						< 0.5							< 0.5		< 0.5
624	ETHYL BENZENE	UG/L						< 0.5							< 0.5		< 0.5
645	TRANS-1,2-DICHLOROETHYLENE	UG/L						< 0.5							< 0.5		< 0.5
646	BROMOMETHANE	UG/L						< 0.5							< 0.5		< 0.5
647	CHLOROETHANE	UG/L						< 0.5							< 0.5		< 0.5
648	2-CHLOROETHYL VINYL ETHER	UG/L						< 0.5							< 0.5		< 0.5
649	CHLOROMETHANE	UG/L						< 0.5							< 0.5		< 0.5
650	1,2-DICHLOROPROPANE	UG/L						< 0.5							< 0.5		< 0.5
651	CIS-1,3-DICHLOROPROPENE	UG/L						< 0.5							< 0.5		< 0.5
652	TRANS-1,3-DICHLOROPROPENE	UG/L						< 0.5							< 0.5		< 0.5
653	1,1,2,2-TETRACHLOROETHANE	UG/L						< 0.5							< 0.5		< 0.5

TABLE 4-3
LANCASTER WATER RECLAMATION PLANT
2002 INFLUENT MONITORING LABORATORY DATA

TEST CODE	CONSTITUENT	UNIT	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL		
															AVERAGE	MAXIMUM	MINIMUM
845	2-CHLOROPHENOL	UG/L						< 10							0	< 10	< 10
846	1,2,4-TRICHLOROBENZENE	UG/L						< 10							0	< 10	< 10
847	2,4-DICHLOROPHENOL	UG/L						< 10							0	< 10	< 10
848	2,4-DIMETHYLPHENOL	UG/L						< 20							0	< 20	< 20
849	2,4-DINITROPHENOL	UG/L						< 50							0	< 50	< 50
850	2-METHYL-4-6DINITROPHENOL	UG/L						< 50							0	< 50	< 50
851	2-NITROPHENOL	UG/L						< 10							0	< 10	< 10
852	4-NITROPHENOL	UG/L						< 10							0	< 10	< 10
853	4-CHLORO-3-METHYLPHENOL	UG/L						< 10							0	< 10	< 10
854	PENTACHLOROPHENOL	UG/L						< 10							0	< 10	< 10
855	PHENOL	UG/L						< 10							0	< 10	< 10
856	2,4,6-TRICHLOROPHENOL	UG/L						< 10							0	< 10	< 10
857	N-NITROSODIPHENYLAMINE	UG/L						< 10							0	< 10	< 10

¹Average Value

TABLE 4-4
LANCASTER WATER RECLAMATION PLANT
2002 EFFLUENT MONITORING LABORATORY DATA

TEST CODE	CONSTITUENT	UNIT	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL		
															AVERAGE	MAXIMUM	MINIMUM
206	TOTAL CYANIDE	MG/L						0.022							0.022		0.022
309	TOTAL HARDNESS	MG/L						143							143		143
310	TOTAL PHOSPHATE	MG/L						12.5							12.5		12.5
312	PHENOLS	MG/L						< 0.006							< 0.006		< 0.006
313	FLUORIDE	MG/L						0.57							0.57		0.57
314	BORON	MG/L						0.58							0.58		0.58
405	TOTAL ORGANIC CARBON	MG/L						55.8							55.8		55.8
502	PP-DDE	UG/L						< 0.01							< 0.01		< 0.01
504	PP-DDD	UG/L						< 0.01							< 0.01		< 0.01
506	PP-DDT	UG/L						< 0.01							< 0.01		< 0.01
508	ALPHA-BHC	UG/L						< 0.01							< 0.01		< 0.01
509	LINDANE (GAMMA-BHC)	UG/L						< 0.01							< 0.01		< 0.01
510	HEPTACHLOR	UG/L						< 0.01							< 0.01		< 0.01
511	HEPTACHLOR EPOXIDE	UG/L						< 0.01							< 0.01		< 0.01
512	ALDRIN	UG/L						< 0.01							< 0.01		< 0.01
513	DELDRIN	UG/L						< 0.01							< 0.01		< 0.01
514	ENDRIN	UG/L						< 0.01							< 0.01		< 0.01
515	TOXAPHENE	UG/L						< 0.01							< 0.01		< 0.01
519	AROCLOR 1242	UG/L						< 0.5							< 0.5		< 0.5
520	AROCLOR 1254	UG/L						< 0.1							< 0.1		< 0.1
523	BETA-BHC	UG/L						< 0.05							< 0.05		< 0.05
524	DELTA-BHC	UG/L						< 0.01							< 0.01		< 0.01
531	ENDOSULFAN I	UG/L						< 0.01							< 0.01		< 0.01
532	ENDOSULFAN II	UG/L						< 0.01							< 0.01		< 0.01
533	ENDOSULFAN SULFATE	UG/L						< 0.1							< 0.1		< 0.1
534	ENDRIN ALDEHYDE	UG/L						< 0.04							< 0.04		< 0.04
535	AROCLOR 1016	UG/L						< 0.1							< 0.1		< 0.1
536	AROCLOR 1221	UG/L						< 0.1							< 0.1		< 0.1
537	AROCLOR 1232	UG/L						< 0.1							< 0.1		< 0.1
538	AROCLOR 1248	UG/L						< 0.1							< 0.1		< 0.1
539	AROCLOR 1260	UG/L						< 0.1							< 0.1		< 0.1
540	TECHNICAL CHLORDANE	UG/L						< 0.05							< 0.05		< 0.05
601	METHYLENE CHLORIDE	UG/L						0.5							0.5		0.5
602	CHLOROFORM	UG/L						7							7		7
603	1,1,1-TRICHLOROETHANE	UG/L						< 0.5							< 0.5		< 0.5
604	CARBON TETRACHLORIDE	UG/L						< 0.5							< 0.5		< 0.5
605	1,1-DICHLOROETHENE	UG/L						< 0.5							< 0.5		< 0.5
606	TRICHLOROETHYLENE	UG/L						< 0.5							< 0.5		< 0.5
607	TETRACHLOROETHYLENE	UG/L						< 0.5							< 0.5		< 0.5
608	BROMODICHLOROMETHANE	UG/L						< 0.5							< 0.5		< 0.5
609	DIBROMOCHLOROMETHANE	UG/L						< 0.5							< 0.5		< 0.5
610	BROMOFORM	UG/L						< 0.5							< 0.5		< 0.5
611	CHLOROBENZENE	UG/L						< 0.5							< 0.5		< 0.5
612	VINYL CHLORIDE	UG/L						< 0.5							< 0.5		< 0.5
613	O-DICHLOROBENZENE	UG/L						< 0.5							< 0.5		< 0.5
614	M-DICHLOROBENZENE	UG/L						< 0.5							< 0.5		< 0.5
615	P-DICHLOROBENZENE	UG/L						< 0.5							< 0.5		< 0.5
616	1,1-DICHLOROETHANE	UG/L						< 0.5							< 0.5		< 0.5
618	1,1,2-TRICHLOROETHANE	UG/L						< 0.5							< 0.5		< 0.5
619	1,2-DICHLOROETHANE	UG/L						< 0.5							< 0.5		< 0.5
620	BENZENE	UG/L						0.5							0.5		0.5
621	TOLUENE	UG/L						1							1		1
624	ETHYL BENZENE	UG/L						< 0.5							< 0.5		< 0.5
645	TRANS-1,2-DICHLOROETHYLENE	UG/L						< 0.5							< 0.5		< 0.5
646	BROMOMETHANE	UG/L						< 0.5							< 0.5		< 0.5
647	CHLOROETHANE	UG/L						< 0.5							< 0.5		< 0.5
648	2-CHLOROETHYL VINYL ETHER	UG/L						< 0.5							< 0.5		< 0.5
649	CHLOROMETHANE	UG/L						< 0.5							< 0.5		< 0.5
650	1,2-DICHLOROPROPANE	UG/L						< 0.5							< 0.5		< 0.5
651	CIS-1,3-DICHLOROPROPENE	UG/L						< 0.5							< 0.5		< 0.5
652	TRANS-1,3-DICHLOROPROPENE	UG/L						< 0.5							< 0.5		< 0.5
653	1,1,2,2-TETRACHLOROETHANE	UG/L						< 0.5							< 0.5		< 0.5

TABLE 4-4
LANCASTER WATER RECLAMATION PLANT
2002 EFFLUENT MONITORING LABORATORY DATA

TEST CODE	CONSTITUENT	UNIT	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	AVERAGE	ANNUAL MAXIMUM	MINIMUM
654	ACROLEIN	UG/L	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	0	< 5	< 5
655	ACRYLONITRILE	UG/L	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	0	< 5	< 5
662	METHYL-TERT-BUTYL-ETHER	UG/L	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0	< 0.5	< 0.5
703	CALCIUM	MG/L	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3
704	MAGNESIUM	MG/L	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7
705	ARSENIC	MG/L	0.0033	0.0033	0.0033	0.0033	0.0033	0.0033	0.0033	0.0033	0.0033	0.0033	0.0033	0.0033	0.0033	0.0033	0.0033
706	BARIUM	MG/L	0.024	0.024	0.024	0.024	0.024	0.024	0.024	0.024	0.024	0.024	0.024	0.024	0.024	0.024	0.024
708	CADMIUM	MG/L	< 0.0004	< 0.0004	< 0.0004	< 0.0004	< 0.0004	< 0.0004	< 0.0004	< 0.0004	< 0.0004	< 0.0004	< 0.0004	< 0.0004	0	< 0.0004	< 0.0004
709	TOTAL CHROMIUM	MG/L	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0	< 0.01	< 0.01
712	COPPER	MG/L	0.028	0.028	0.028	0.028	0.028	0.028	0.028	0.028	0.028	0.028	0.028	0.028	0.028	0.028	0.028
714	LEAD	MG/L	0.026	0.026	0.026	0.026	0.026	0.026	0.026	0.026	0.026	0.026	0.026	0.026	0.026	0.026	0.026
716	MANGANESE	MG/L	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
717	MERCURY	MG/L	< 0.00004	< 0.00004	< 0.00004	< 0.00004	< 0.00004	< 0.00004	< 0.00004	< 0.00004	< 0.00004	< 0.00004	< 0.00004	< 0.00004	0	< 0.00004	< 0.00004
718	NICKEL	MG/L	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	0	< 0.02	< 0.02
720	SELENIUM	MG/L	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0	< 0.001	< 0.001
722	SILVER	UG/L	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	0	< 25	< 25
723	SODIUM	MG/L	149	149	149	149	149	149	149	149	149	149	149	149	149	149	149
724	ZINC	MG/L	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
725	ANTIMONY	MG/L	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
726	BERYLLIUM	MG/L	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0	< 0.0005	< 0.0005
734	THALLIUM	MG/L	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0	< 0.001	< 0.001
800	ACENAPHTHENE	UG/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	0	< 10	< 10
801	ACENAPHTHYLENE	UG/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	0	< 10	< 10
802	ANTHRACENE	UG/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	0	< 10	< 10
803	BENZIDINE	UG/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	0	< 10	< 10
804	BENZO(A)ANTHRACENE	UG/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	0	< 10	< 10
805	BENZO(A)PYRENE	UG/L	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	0	< 2	< 2
806	BENZO(B)FLUORANTHENE	UG/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	0	< 10	< 10
807	BENZO(G,H,I)PERYLENE	UG/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	0	< 10	< 10
808	BENZO(K)FLUORANTHENE	UG/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	0	< 10	< 10
809	BIS(2-CL-ETHOXY)METHANE	UG/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	0	< 10	< 10
810	BIS(2-CHLOROETHYL)ETHER	UG/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	0	< 10	< 10
811	BIS(2-CL-ISOPROPYL)ETHER	UG/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	0	< 10	< 10
812	DIETHYLHEXYL PHTHALATE	UG/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	0	< 10	< 10
813	4-BROMOPHENYL PHENYLETHER	UG/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	0	< 10	< 10
814	BUTYLBENZYL PHTHALATE	UG/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	0	< 10	< 10
815	2-CHLORONAPHTHALENE	UG/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	0	< 10	< 10
816	4-CHLOROPHENYLETHER	UG/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	0	< 10	< 10
817	CHRYSENE	UG/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	0	< 10	< 10
818	DIBENZO(A,H)ANTHRACENE	UG/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	0	< 10	< 10
819	1,2-DICHLOROBENZENE	UG/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	0	< 10	< 10
820	1,3-DICHLOROBENZENE	UG/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	0	< 10	< 10
821	1,4-DICHLOROBENZENE	UG/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	0	< 10	< 10
822	3,3'-DICHLOROBENZIDINE	UG/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	0	< 10	< 10
823	DIETHYL PHTHALATE	UG/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	0	< 10	< 10
824	DIMETHYL PHTHALATE	UG/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	0	< 10	< 10
825	DI-N-BUTYL PHTHALATE	UG/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	0	< 10	< 10
826	2,4-DINITROTOLUENE	UG/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	0	< 10	< 10
827	2,6-DINITROTOLUENE	UG/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	0	< 10	< 10
828	DI-N-OCTYL PHTHALATE	UG/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	0	< 10	< 10
829	1,2-DIPHENYLHYDRAZINE	UG/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	0	< 10	< 10
830	FLUORANTHENE	UG/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	0	< 10	< 10
831	FLUORENE	UG/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	0	< 10	< 10
832	HEXACHLOROBENZENE	UG/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	0	< 10	< 10
833	HEXACHLOROBUTADIENE	UG/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	0	< 10	< 10
834	HEXACHLOROCYCLOPENTADIEN	UG/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	0	< 10	< 10
835	HEXACHLORDETHANE	UG/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	0	< 10	< 10
836	INDENO(1,2,3-C)PYRENE	UG/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	0	< 10	< 10
837	ISOPHORONE	UG/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	0	< 10	< 10
838	NAPHTHALENE	UG/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	0	< 10	< 10
839	NITROBENZENE	UG/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	0	< 10	< 10
840	N-NITROSODIMETHYLAMINE	UG/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	0	< 10	< 10

TABLE 4-4
LANCASTER WATER RECLAMATION PLANT
2002 EFFLUENT MONITORING LABORATORY DATA

TEST CODE	CONSTITUENT	UNIT	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL		
															AVERAGE	MAXIMUM	MINIMUM
841	N-NITROSODI-N-PROPYLAMINE	UG/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
842	PHENANTHRENE	UG/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
843	PYRENE	UG/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
844	2,3,7,8-TCDD	NG/L	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37
845	2-CHLOROPHENOL	UG/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
846	1,2,4-TRICHLOROBENZENE	UG/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
847	2,4-DICHLOROPHENOL	UG/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
848	2,4-DIMETHYLPHENOL	UG/L	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
849	2,4-DINITROPHENOL	UG/L	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
850	2-METHYL-4-NITROPHENOL	UG/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
851	2-NITROPHENOL	UG/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
852	4-NITROPHENOL	UG/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
853	4-CHLORO-3-METHYLPHENOL	UG/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
854	PENTACHLOROPHENOL	UG/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
855	PHENOL	UG/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
856	2,4,6-TRICHLOROPHENOL	UG/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
857	N-NITROSODIPHENYLAMINE	UG/L	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10

TABLE 4.4
LANCASTER WATER RECLAMATION PLANT
2002 EFFLUENT MONITORING LABORATORY DATA
PAIUTE PONDS (PIPD)

TEST CODE	CONSTITUENT	UNIT	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL		
															AVERAGE	MAXIMUM	MINIMUM
111	TEMPERATURE (Average)	DEGC															
151	SUSPENDED SOLIDS (Average)	MGL	90	89	80	75	64	100	117	120	91	94	102	81	9.2	10.2	8.1
257	SULFATE	MGL									67	79	61	53	86	120	53
301	CHLORIDE (Average)	MGL									142	158			73	79	67
315	MBAS (Average)	MGL	0.4	0.5	0.2	0.2	0.2	0.1	0.2	< 0.1	0.1	0.1			0.2	0.5	< 0.1
408	OIL & GREASE (Average)	MGL	8.7	10.5	4.1	6.3	< 4.7	5.9	7.7	5.5	< 5	< 4			4.9	10.5	< 4

TABLE 4.4
LANCASTER WATER RECLAMATION PLANT
2002 EFFLUENT MONITORING LABORATORY DATA
AGRICULTURE/NEBEKER (AGST)

TEST CODE	CONSTITUENT	UNIT	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL		
																AVERAGE	MAXIMUM
151	SUSPENDED SOLIDS (Average)	MGL															
257	SULFATE	MGL															
301	CHLORIDE (Average)	MGL															
315	MBAS (Average)	MGL															
408	OIL & GREASE (Average)	MGL															

**TABLE 4-5
EFFLUENT TOXICITY DATA
LANCASTER WRP**

FINAL EFFLUENT CHRONIC TOXICITY RESULTS 2002

TEST SPECIES ENDPOINT	%NOEC ^a	TUc ^a (NOEC)	%EC/IC25 ^b (95% CI)	% EFFECT IN 100% SAMPLE ^c
<i>Pimephales promelas</i>	OCTOBER 2002			
Survival	100	1.0	>100 (N/A)	5.0 (-0.7 - 10.7)
Growth	40	2.5	57.6 (49.5 - 98.8)	32.4 (26.1 - 38.8)

a- NOEC (No Observed Effect Concentration) calculated using flow charts contained in the U.S. EPA method (EPA/600/4-91/002). TUc (NOEC) calculated as 100 / NOEC. The NOEC and associated TUc provides an incomplete and, in some cases, inaccurate estimate of toxicity, and results should not be averaged or used for evaluating multiple tests or samples.

b- EC/IC25 and associated 95% confidence intervals (95% CI) calculated using flow charts contained in the U.S. EPA method (EPA/600/4-91/002). TUc - (EC/IC25) calculated as 100 / EC/IC25. Provided that the estimates do not exceed the highest concentration tested (100%), the result is amicable to averaging and for evaluation of multiple tests and samples.

c- % effect in 100% sample calculated as the mean effect in 100% sample relative to the control using the formula: effect = $[(\text{mean}_{\text{control}} - \text{mean}_{100\% \text{ sample}}) / \text{mean}_{\text{control}}] \times 100$. A negative result (-) indicates an enhancement relative to the control. This measurement is most useful for evaluating multiple tests and samples, particularly when point estimate results exceed the highest concentration tested.

N/A: Not applicable