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PLATEAU MINING COMPANY

A Subsidiary of Getty Mining Company
P.O. Drawer PMC Price, Utah 84501
Telephone (801) 637-2875

RECEIVED

JUL 31 1984

DIVISION OF OIL GAS & MINING

July 27, 1984

Mr. Wayne Hedburg
Utah Division of Oil, Gas & Mining
4241 State Office Building
Salt Lake City, UT 84114

RE: Plateau Mining Company, Sediment Control Plan Decant Pipe Modification for Ponds #4, #5 and #6

Dear Mr. Hedburg:

In response to comments made by the UDOGM technical staff, Plateau Mining Company has refined the design calculations for sedimentation ponds 4, 5 and 6 at the Star Point Mine. Additional Division requirements, as expressed on page two of your letter dated June 21, 1984, have been reviewed and responded to as follows:

1. A complete inflow hydrograph with calculation for associated input parameters (i.e., area, CN, time of concentration, time to peak, and detention time calculations for each pond).

RESPONSE:

Inflow hydrograph data has been represented in tabular form on the attached Inflow-Outflow Calculations for each pond. Time increments have been adjusted to fit the 1/5 time to peak specified (see the attached Inflow-Outflow Calculations). Other information referred to above is tabulated on the attached Pond Design Summary.

2. An updated and corrected orifce rating table.

RESPONSE:

The values of head vs. discharge for the 1" orifice have been recalculated and tabulated on the attached Orifice Rating Table, and Riser Pipe Rating Curves.

3. Theoretical detention time calculations for variable flow rate inflow and outflow conditions.

RESPONSE:
Detention time was calculated as the time between the centroids of the inflow and outflow hydrographs. Centroids were determined by accumulating the volume of inflow and outflow in a iterative analysis, and picking out the time when one-half of the total runoff had passed. This analytical method, shown on the attached tables, is essentially the same as graphical methods for determining theoretical detention time.

4. Results of partical size analyses for undispersed samples.

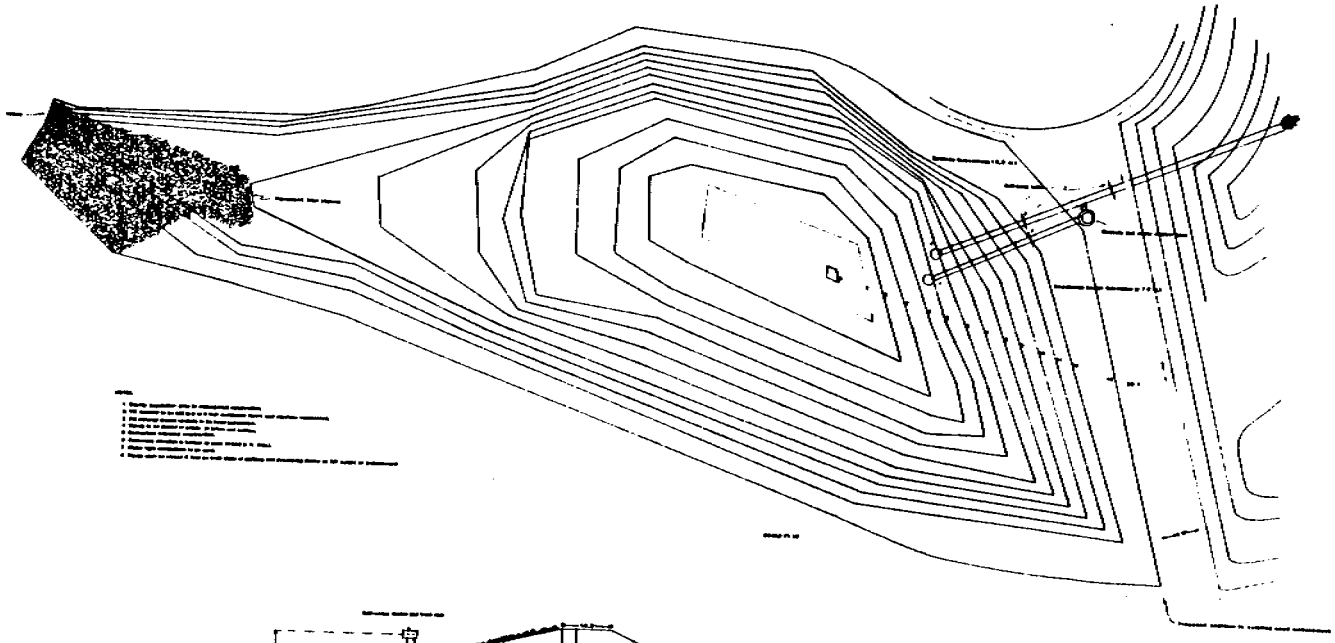
RESPONSE:
To our understanding, the sediment samples collected and analysed were undispersed samples. The method of sampling was to dredge a bedload sample from each pond, rather than to collect representative soil samples from the watershed. The samples were collected directly from and are representative of sediment actually entering each pond.

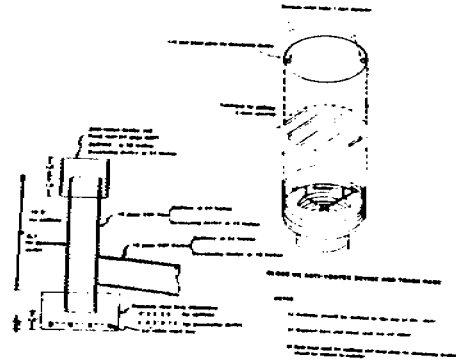
5. Determination of settling efficiencies of ponds under variable flow conditions.

RESPONSE:
Since the analysis performed utilized maximum "worst case" values of outflow, and the settling velocities calculated met effluent requirements, it was concluded that all other cases will meet effluent requirements.

6. Presentation of calculations for average effluent concentration, size distribution of effluent, and effluent settleable solids concentration for each pond.

As Built Designs





NOT TO SCALE

PLATE 7-12 DESIGN DETAILS OF SEDIMENTATION POND NO. 4

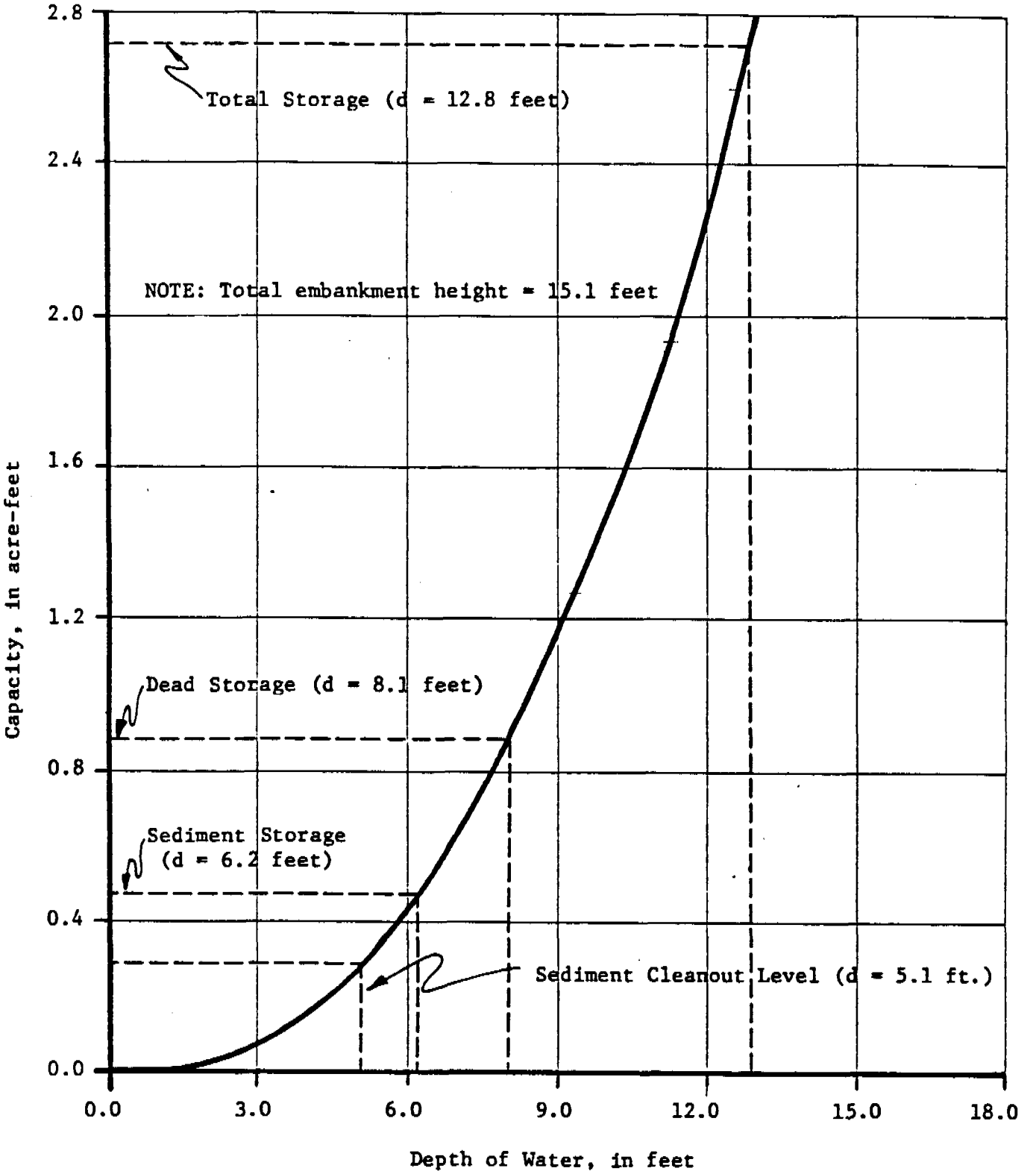
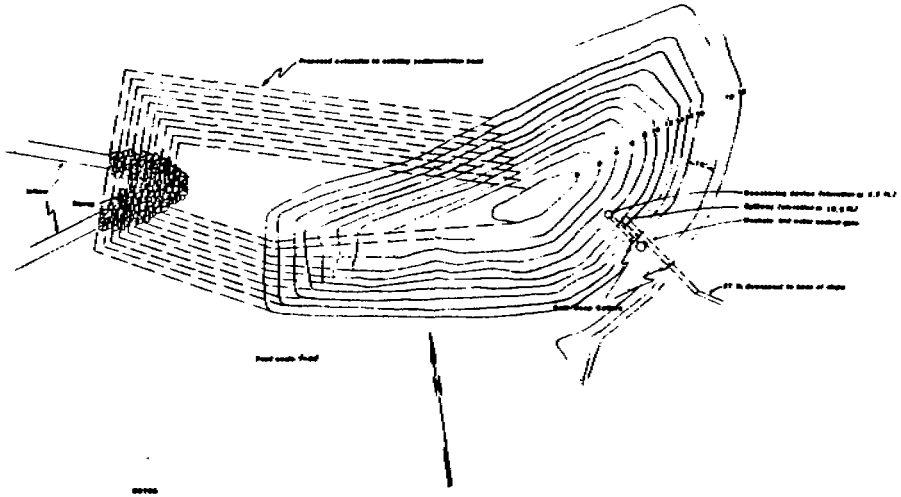
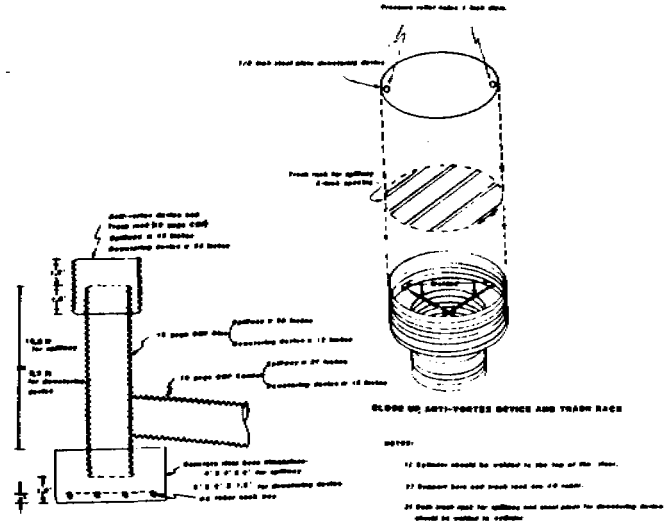
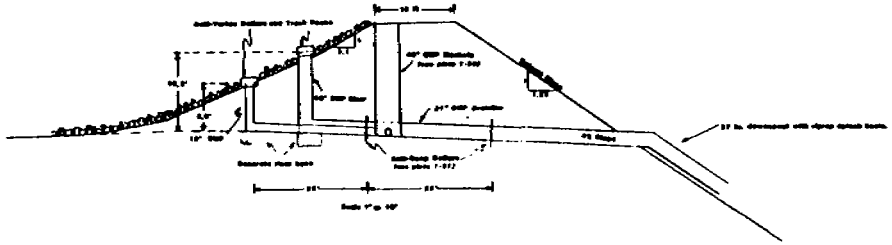


FIGURE 7-14. Stage-capacity curve for sedimentation Pond No. 4.







NOT TO SCALE

I, VAUGHN E. HANSEN, CERTIFY THAT THIS PLATE WAS PREPARED BY MYSELF OR UNDER MY DIRECT SUPERVISION AND THAT ALL INFORMATION, LOCATIONS, OR CONSTRUCTION DETAILS HEREIN ARE CORRECT.

SIGNATURE

UTAH ENG. REGISTRATION NO. 1290

DATE May 12, 1981

PLATE 7-13 DESIGN DETAILS OF SEDIMENTATION POND NO. 5

PLATEAU MINING COMPANY

Prepared by

VAUGHN HANSEN ASSOCIATES

Salt Lake City Utah

May, 1981

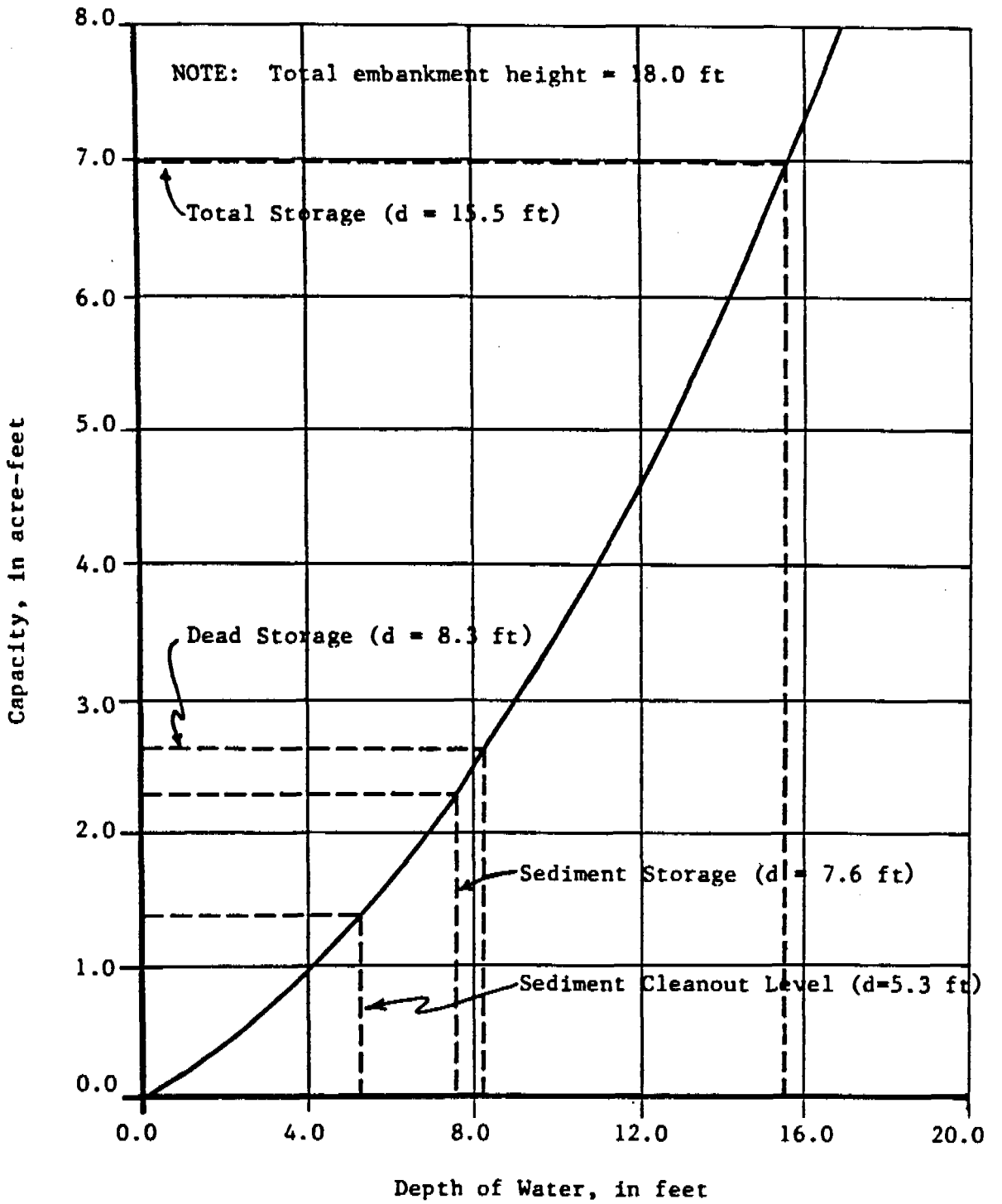
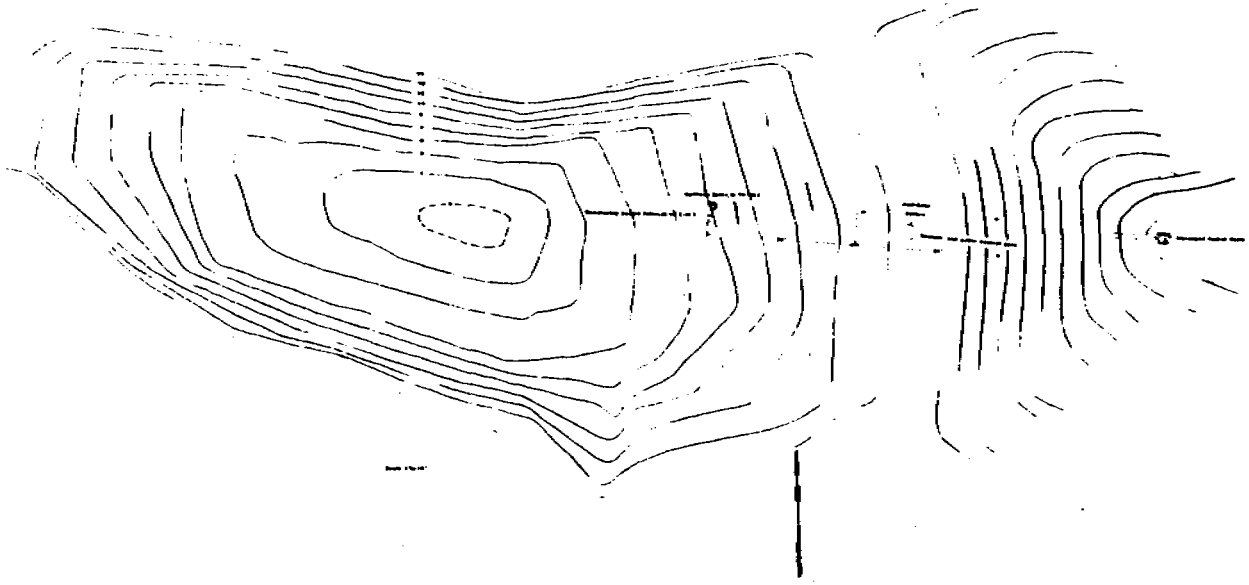
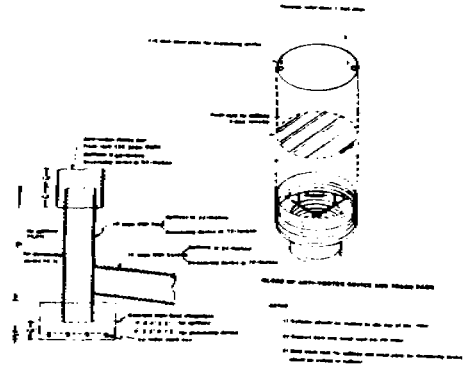


FIGURE 7-15. Stage-Capacity Curve for Sedimentation Pond 5





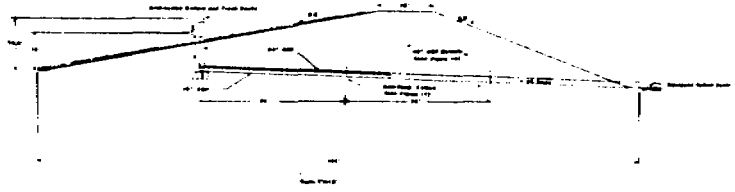


PLATE 7-14 DESIGN DETAILS OF SEDIMENTATION POND NO. 8

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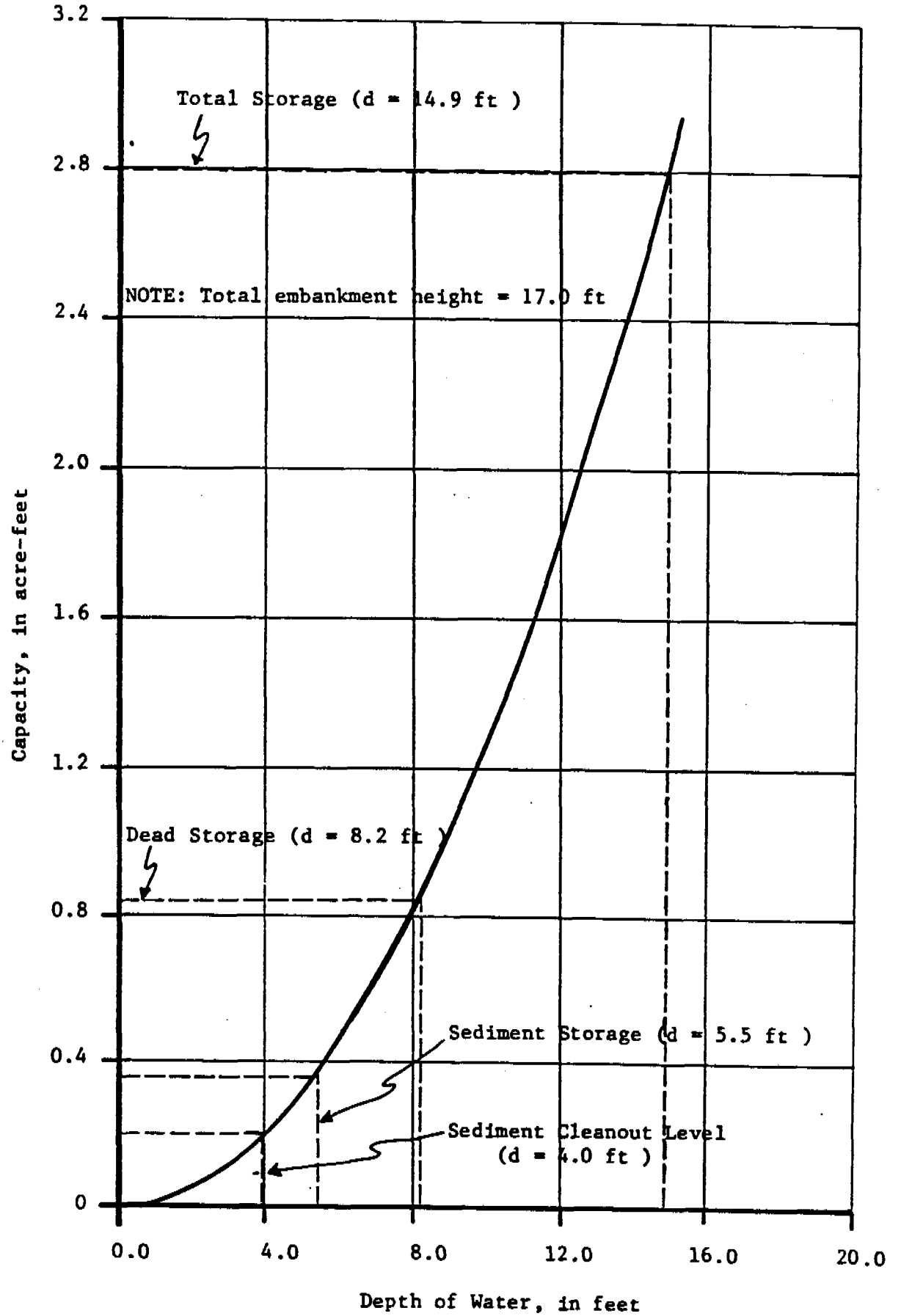


FIGURE 7-16. Stage-Capacity Curve for Sedimentation Pond 6

Outlet Works Design Modifications

POND DESIGN SUMMARY

	Pond No. 4	Pond No. 5	Pond No. 6
Drainage Area			
Disturbed (ac)	19.2	69.7	23.7
Undisturbed (ac)	7.7	26.9	7.3
Total (mi^2)	0.0420	0.1509	0.0484
Sediment Storage Volume (ac-ft)	0.48	2.27	0.76
Dead Storage Volume (ac-ft)	0.41	0.35	0.73
Curve Number	84	78	71
10 yr., 24 hr., rainfall (in)	2.1	2.1	2.1
10 yr., 24 hr., runoff (in.)	0.815	0.541	0.307
10 yr., 24 hr., runoff (ac-ft)	1.83	4.36	0.79
10 yr., 24 hr., inflow peak (cfs)	85.69	105.84	23.97
Time of Concentration (hrs)	0.29	0.56	0.45
Time of Peak (hrs)	0.19	0.37	0.30
Discharge Orifice Diameter (in)	1"	2"	1"
Peak Outflow 10 yr., 24 hr., (cfs)	0.058	0.283	0.047
Outflow Centroid (hrs)	217	109	124
Inflow Centroid (hrs)	0.2	0.4	0.3
Detention Time (hrs)	216.8	108.6	123.7

INFLOW - OUTFLOW CALCULATIONS
POND NO. 5. 2" DIAMETER ORIFICE

TIME (HRS)	INFLOW (CFS)	INFLOW (AC-FT)	CUM. INFLOW (AC-FT)	CUM. VOLUME (AC-FT)	TOTAL (AC-FT)	STAGE (FT)	HEAD (FT)	OUTFLOW (CFS)	CUM. OUTFLOW (AC-FT)
0.075	21.130	0.131	0.131	0.131	2.731	8.370	0.070	0.028	0.000
0.149	42.250	0.258	0.389	0.389	2.989	8.920	0.620	0.083	0.001
0.224	63.370	0.393	0.782	0.781	3.381	9.600	1.300	0.121	0.001
0.299	84.500	0.524	1.306	1.303	3.903	10.740	2.440	0.165	0.002
0.373	105.620	0.646	1.952	1.948	4.548	11.860	3.580	0.200	0.004
0.448	92.970	0.576	2.528	2.523	5.123	12.830	4.530	0.225	0.005
0.523	80.320	0.498	3.026	3.019	5.619	13.540	5.240	0.242	0.007
0.597	67.670	0.414	3.440	3.432	6.032	14.150	5.850	0.256	0.008
0.672	55.030	0.341	3.781	3.771	6.371	14.580	6.280	0.265	0.010
0.747	42.380	0.263	4.044	4.032	6.632	15.020	6.720	0.275	0.011
0.821	29.730	0.162	4.225	4.212	6.812	15.200	6.900	0.278	0.013
0.896	17.070	0.106	4.331	4.316	6.916	15.380	7.080	0.282	0.015
0.971	4.430	0.027	4.359	4.342	6.942	15.450	7.150	0.283	0.017
1.045	0.000	0.000	4.359	4.340	6.940	15.450	7.150	0.283	0.018
1.400	0.000	0.000	4.359	4.332	6.932	15.400	7.100	0.282	0.027
1.700	0.000	0.000	4.359	4.325	6.925	15.390	7.090	0.282	0.034
2.000	0.000	0.000	4.359	4.318	6.918	15.380	7.080	0.282	0.041
4.000	0.000	0.000	4.359	4.272	6.872	15.260	6.960	0.279	0.087
6.000	0.000	0.000	4.359	4.226	6.826	15.170	6.870	0.278	0.133
8.000	0.000	0.000	4.359	4.180	6.780	15.140	6.840	0.277	0.177
10.000	0.000	0.000	4.359	4.135	6.735	15.080	6.780	0.275	0.224
20.000	0.000	0.000	4.359	3.911	6.511	14.800	6.500	0.270	0.447
30.000	0.000	0.000	4.359	3.694	6.294	14.460	6.160	0.263	0.665
40.000	0.000	0.000	4.359	3.482	6.082	14.150	5.850	0.256	0.875
50.000	0.000	0.000	4.359	3.274	5.874	13.940	5.640	0.252	1.084
60.000	0.000	0.000	4.359	3.073	5.673	13.600	5.300	0.244	1.285
70.000	0.000	0.000	4.359	2.877	5.477	13.320	5.020	0.237	1.482
80.000	0.000	0.000	4.359	2.686	5.286	13.020	4.720	0.230	1.672
90.000	0.000	0.000	4.359	2.501	5.101	12.800	4.500	0.225	1.858
100.000	0.000	0.000	4.359	2.322	4.922	12.460	4.160	0.215	2.036
120.000	0.000	0.000	4.359	1.965	4.585	12.000	3.700	0.204	2.373
140.000	0.000	0.000	4.359	1.678	4.278	11.380	3.080	0.185	2.681
160.000	0.000	0.000	4.359	1.396	3.996	10.890	2.590	0.170	2.962
180.000	0.000	0.000	4.359	1.146	3.746	10.340	2.040	0.151	3.212
200.000	0.000	0.000	4.359	0.916	3.516	10.030	1.730	0.139	3.443
220.000	0.000	0.000	4.359	0.716	3.316	9.600	1.300	0.121	3.642
240.000	0.000	0.000	4.359	0.534	3.134	9.380	1.080	0.110	3.824
260.000	0.000	0.000	4.359	0.390	2.990	8.980	0.680	0.087	3.969
280.000	0.000	0.000	4.359	0.282	2.882	8.680	0.380	0.065	4.077
300.000	0.000	0.000	4.359	0.200	2.800	8.520	0.220	0.050	4.159
320.000	0.000	0.000	4.359	0.137	2.737	8.430	0.130	0.038	4.222
340.000	0.000	0.000	4.359	0.087	2.687	8.380	0.080	0.030	4.271
360.000	0.000	0.000	4.359	0.044	2.644	8.360	0.060	0.026	4.314
380.000	0.000	0.000	4.359	0.009	2.609	8.340	0.040	0.021	4.349
400.000	0.000	0.000	4.359	0.005	2.605	8.320	0.020	0.015	4.374
420.000	0.000	0.000	4.359	0.002	2.602	8.310	0.010	0.011	4.392
440.000	0.000	0.000	4.359	0.000	2.600	8.300	0.000	0.000	4.392

INFLOW - OUTFLOW CALCULATIONS
POND No. 4, 1" DIAMETER ORIFICE

TIME (HRS)	INFLOW (CFS)	INFLOW (AC-FT)	CUM. INFLOW (AC-FT)	CUM. VOLUME (AC-FT)	TOTAL (AC-FT)	STAGE (FT)	HEAD (FT)	OUTFLOW (CFS)	CUM. OUTFLOW (AC-FT)
0.039	17.110	0.055	0.055	0.055	0.955	8.150	0.050	0.006	0.000
0.077	34.210	0.107	0.163	0.162	1.052	8.390	0.290	0.014	0.000
0.116	51.310	0.165	0.328	0.328	1.228	9.190	1.090	0.028	0.000
0.155	68.410	0.220	0.548	0.548	1.448	9.910	1.810	0.036	0.000
0.193	85.520	0.269	0.817	0.816	1.716	10.650	2.560	0.042	0.000
0.232	75.270	0.243	1.060	1.059	1.959	11.250	3.150	0.047	0.001
0.271	65.040	0.210	1.269	1.268	2.168	11.770	3.670	0.051	0.001
0.309	54.790	0.172	1.441	1.440	2.340	12.140	4.040	0.053	0.001
0.348	44.530	0.144	1.585	1.584	2.484	12.400	4.300	0.055	0.001
0.387	34.310	0.111	1.695	1.694	2.594	12.660	4.560	0.057	0.001
0.425	24.070	0.076	1.771	1.769	2.669	12.840	4.740	0.058	0.001
0.464	13.820	0.045	1.816	1.814	2.714	12.870	4.770	0.058	0.002
0.503	3.590	0.012	1.827	1.825	2.725	12.860	4.780	0.058	0.002
0.541	0.000	0.000	1.827	1.825	2.725	12.860	4.780	0.058	0.002
1.000	0.000	0.000	1.827	1.823	2.723	12.860	4.780	0.058	0.004
1.500	0.000	0.000	1.827	1.820	2.720	12.860	4.780	0.058	0.007
2.000	0.000	0.000	1.827	1.818	2.718	12.870	4.770	0.058	0.009
2.500	0.000	0.000	1.827	1.816	2.716	12.870	4.770	0.058	0.011
3.000	0.000	0.000	1.827	1.813	2.713	12.870	4.770	0.058	0.014
4.000	0.000	0.000	1.827	1.808	2.708	12.860	4.760	0.058	0.019
5.000	0.000	0.000	1.827	1.804	2.704	12.840	4.740	0.058	0.023
10.000	0.000	0.000	1.827	1.780	2.680	12.750	4.650	0.057	0.047
15.000	0.000	0.000	1.827	1.757	2.657	12.700	4.600	0.057	0.070
20.000	0.000	0.000	1.827	1.733	2.633	12.650	4.550	0.056	0.094
30.000	0.000	0.000	1.827	1.687	2.587	12.630	4.530	0.056	0.140
40.000	0.000	0.000	1.827	1.641	2.541	12.520	4.420	0.055	0.186
50.000	0.000	0.000	1.827	1.595	2.495	12.450	4.350	0.055	0.232
60.000	0.000	0.000	1.827	1.550	2.450	12.330	4.230	0.054	0.277
70.000	0.000	0.000	1.827	1.505	2.405	12.270	4.170	0.054	0.322
80.000	0.000	0.000	1.827	1.461	2.361	12.210	4.110	0.054	0.366
90.000	0.000	0.000	1.827	1.417	2.317	12.090	3.990	0.053	0.410
100.000	0.000	0.000	1.827	1.374	2.274	12.000	3.900	0.052	0.453
120.000	0.000	0.000	1.827	1.290	2.190	11.810	3.710	0.051	0.537
140.000	0.000	0.000	1.827	1.207	2.107	11.630	3.530	0.050	0.619
160.000	0.000	0.000	1.827	1.127	2.027	11.480	3.380	0.049	0.700
180.000	0.000	0.000	1.827	1.049	1.949	11.290	3.190	0.047	0.778
200.000	0.000	0.000	1.827	0.974	1.874	11.060	2.960	0.046	0.853
220.000	0.000	0.000	1.827	0.901	1.801	10.880	2.780	0.044	0.925
240.000	0.000	0.000	1.827	0.831	1.731	10.640	2.540	0.042	0.995
260.000	0.000	0.000	1.827	0.763	1.663	10.510	2.410	0.041	1.064
280.000	0.000	0.000	1.827	0.698	1.598	10.310	2.210	0.039	1.129
300.000	0.000	0.000	1.827	0.635	1.535	10.130	2.030	0.038	1.192
320.000	0.000	0.000	1.827	0.576	1.476	9.940	1.840	0.036	1.251
340.000	0.000	0.000	1.827	0.520	1.420	9.760	1.660	0.034	1.307
360.000	0.000	0.000	1.827	0.466	1.366	9.590	1.490	0.032	1.361
380.000	0.000	0.000	1.827	0.416	1.316	9.420	1.320	0.030	1.411
400.000	0.000	0.000	1.827	0.368	1.268	9.330	1.230	0.029	1.459
420.000	0.000	0.000	1.827	0.322	1.222	9.160	1.060	0.027	1.505
440.000	0.000	0.000	1.827	0.280	1.180	9.050	0.950	0.026	1.547
460.000	0.000	0.000	1.827	0.240	1.140	8.930	0.830	0.024	1.587
480.000	0.000	0.000	1.827	0.204	1.104	8.770	0.670	0.022	1.623
500.000	0.000	0.000	1.827	0.181	1.081	8.390	0.290	0.014	1.646
520.000	0.000	0.000	1.827	0.159	1.059	8.340	0.240	0.013	1.658
540.000	0.000	0.000	1.827	0.139	1.039	8.300	0.200	0.012	1.670
560.000	0.000	0.000	1.827	0.120	1.020	8.300	0.200	0.012	1.707
580.000	0.000	0.000	1.827	0.101	1.001	8.290	0.190	0.012	1.725
600.000	0.000	0.000	1.827	0.082	0.982	8.260	0.180	0.011	1.745
640.000	0.000	0.000	1.827	0.055	0.955	8.200	0.100	0.008	1.772
680.000	0.000	0.000	1.827	0.046	0.946	8.110	0.010	0.003	1.781
720.000	0.000	0.000	1.827	0.000	0.900	8.100	0.000	0.000	1.827

INPUT - OUTPUT COMPUTATIONS
POND NO. 6. 1" DIAMETER ORIFICE

TIME (HRS)	INFLOW (CFS)	INFLOW (AC-FT)	CUM. INFLOW (AC-FT)	CUM. VOLUME (AC-FT)	TOTAL (AC-FT)	STAGE (FT)	HEAD (FT)	OUTPUT (CFS)	CUM. OUTFLOW (AC-FT)
0.060	4.790	0.024	0.024	0.024	0.854	8.220	0.020	0.004	0.000
0.120	9.570	0.047	0.071	0.071	0.901	8.410	0.210	0.012	0.000
0.180	14.360	0.071	0.142	0.142	0.972	8.690	0.490	0.019	0.000
0.240	19.140	0.095	0.237	0.237	1.067	9.070	0.870	0.025	0.000
0.300	23.920	0.119	0.356	0.355	1.185	9.560	1.360	0.031	0.000
0.360	21.060	0.104	0.460	0.460	1.290	10.060	1.860	0.036	0.001
0.420	18.190	0.090	0.551	0.550	1.380	10.380	2.180	0.039	0.001
0.480	15.330	0.076	0.627	0.626	1.456	10.690	2.490	0.042	0.001
0.540	12.460	0.062	0.688	0.687	1.517	10.940	2.740	0.044	0.001
0.600	9.600	0.048	0.736	0.735	1.565	11.060	2.860	0.045	0.001
0.660	6.730	0.033	0.769	0.768	1.598	11.250	3.050	0.045	0.002
0.720	3.870	0.019	0.789	0.787	1.617	11.310	3.110	0.047	0.002
0.780	1.000	0.005	0.793	0.791	1.621	11.350	3.150	0.047	0.002
0.840	0.000	0.000	0.793	0.791	1.621	11.350	3.150	0.047	0.002
0.900	0.000	0.000	0.793	0.791	1.621	11.350	3.150	0.047	0.003
1.000	0.000	0.000	0.793	0.790	1.620	11.350	3.150	0.047	0.003
2.000	0.000	0.000	0.793	0.787	1.617	11.310	3.110	0.047	0.007
4.000	0.000	0.000	0.793	0.779	1.609	11.260	3.060	0.046	0.015
6.000	0.000	0.000	0.793	0.771	1.601	11.250	3.050	0.046	0.022
8.000	0.000	0.000	0.793	0.764	1.594	11.220	3.020	0.046	0.030
10.000	0.000	0.000	0.793	0.756	1.586	11.190	2.990	0.046	0.037
20.000	0.000	0.000	0.793	0.719	1.549	11.030	2.830	0.045	0.074
30.000	0.000	0.000	0.793	0.683	1.513	10.920	2.720	0.044	0.110
40.000	0.000	0.000	0.793	0.648	1.478	10.750	2.550	0.042	0.145
50.000	0.000	0.000	0.793	0.581	1.411	10.590	2.390	0.041	0.213
60.000	0.000	0.000	0.793	0.519	1.349	10.190	1.990	0.037	0.275
100.000	0.000	0.000	0.793	0.461	1.291	9.940	1.740	0.035	0.332
120.000	0.000	0.000	0.793	0.408	1.238	9.660	1.460	0.032	0.385
140.000	0.000	0.000	0.793	0.358	1.188	9.500	1.300	0.030	0.435
160.000	0.000	0.000	0.793	0.312	1.142	9.340	1.140	0.028	0.482
180.000	0.000	0.000	0.793	0.267	1.097	9.250	1.050	0.027	0.527
200.000	0.000	0.000	0.793	0.226	1.056	9.060	0.860	0.025	0.567
220.000	0.000	0.000	0.793	0.189	1.019	8.910	0.710	0.022	0.604
240.000	0.000	0.000	0.793	0.157	0.987	8.750	0.550	0.020	0.637
260.000	0.000	0.000	0.793	0.128	0.958	8.630	0.430	0.017	0.665
280.000	0.000	0.000	0.793	0.103	0.933	8.530	0.330	0.015	0.691
300.000	0.000	0.000	0.793	0.083	0.913	8.410	0.210	0.012	0.711
320.000	0.000	0.000	0.793	0.068	0.898	8.310	0.110	0.009	0.725
340.000	0.000	0.000	0.793	0.059	0.889	8.250	0.050	0.005	0.735
360.000	0.000	0.000	0.793	0.059	0.830	8.200	0.000	0.000	0.735

DETENTION TIME CALCULATIONS

		Pond 4	Pond 5	Pond 6
(1)	10-yr. 24-hr. runoff, ac-ft	1.83	4.36	0.79
(2)	Total runoff/2, ac-ft.	0.915	2.18	0.395
(3)	Time of inflow centriod*, hrs.	0.2	0.4	0.3
(4)	Time of outflow centriod**, hrs.	217	109	124
(5)	Detention Time (4-3), hrs.	216.8	108.6	123.7

*From Inflow-Outflow Calculations, cum. inflow (ac-ft)

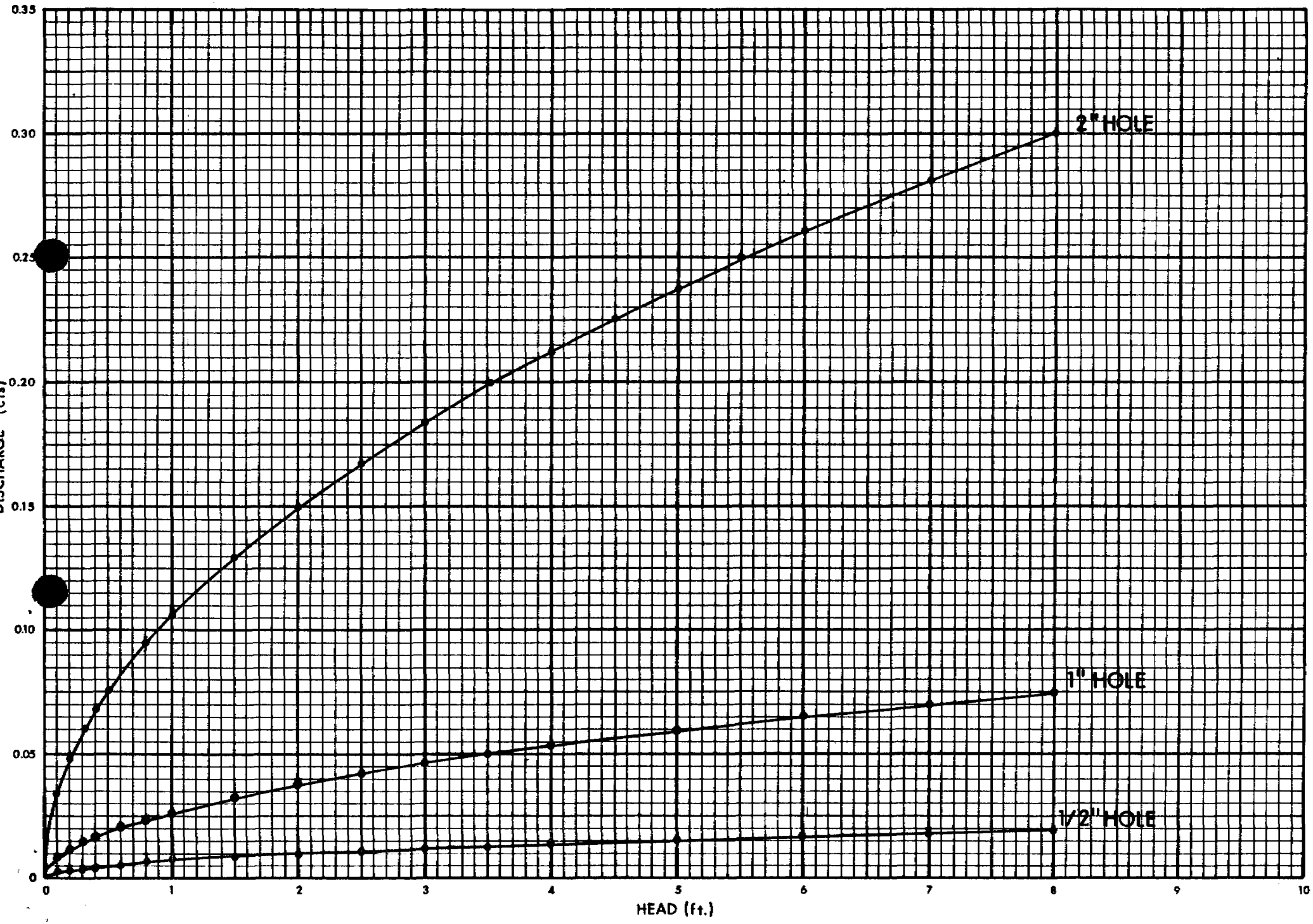
**From Inflow-Outflow Calculations, cum. outflow (ac-ft)

ORIFICE EQUATION: Q=.6*A*@SQRT(64.4*H)
FOR 1/2" HOLE, A =.0014
FOR 1" HOLE, A =.0055
FOR 2" HOLE, A =.022
FOR 3" HOLE, A =.049
FOR 4" HOLE, A =.087
FOR 5" HOLE, A =.136

ORIFICE RATING TABLE

HEAD	1/2"HOLE	1"HOLE	2"HOLE	3"HOLE	4"HOLE	5"HOLE
0.1000	0.0021	0.0084	0.0335	0.0746	0.1325	0.2071
0.2000	0.0030	0.0118	0.0474	0.1055	0.1873	0.2929
0.3000	0.0037	0.0145	0.0580	0.1292	0.2294	0.3587
0.4000	0.0043	0.0167	0.0670	0.1492	0.2649	0.4142
0.6000	0.0052	0.0205	0.0821	0.1828	0.3245	0.5072
0.8000	0.0060	0.0237	0.0947	0.2110	0.3747	0.5857
1.0000	0.0067	0.0265	0.1059	0.2359	0.4189	0.6548
1.5000	0.0083	0.0324	0.1297	0.2890	0.5130	0.8020
2.0000	0.0095	0.0375	0.1498	0.3337	0.5924	0.9261
2.5000	0.0107	0.0419	0.1675	0.3730	0.6623	1.0354
3.0000	0.0117	0.0459	0.1835	0.4086	0.7256	1.1342
3.5000	0.0126	0.0495	0.1982	0.4414	0.7837	1.2251
4.0000	0.0135	0.0530	0.2119	0.4719	0.8378	1.3097
5.0000	0.0151	0.0592	0.2369	0.5276	0.9367	1.4643
6.0000	0.0165	0.0649	0.2595	0.5779	1.0261	1.6040
7.0000	0.0178	0.0701	0.2803	0.6242	1.1083	1.7325
8.0000	0.0191	0.0749	0.2996	0.6673	1.1848	1.8522

RISER PIPE RATING CURVES



PARTICLE SIZE ANALYSIS

POND NO. 4

Microns	mm	% Count	Weight %	% Finer
0-10	0-.010	65.01%	88.41	34.99%
10-25	.010-.025	22.54%	30.65	77.46%
25-50	.025-.050	6.50%	8.84%	93.50%
50-100	.050-.100	4.77%	6.49	95.23%
100-150	.100-.150	1.08%	1.47	98.92%
150 & up	.150 & up	0.10%	0.14	99.90%

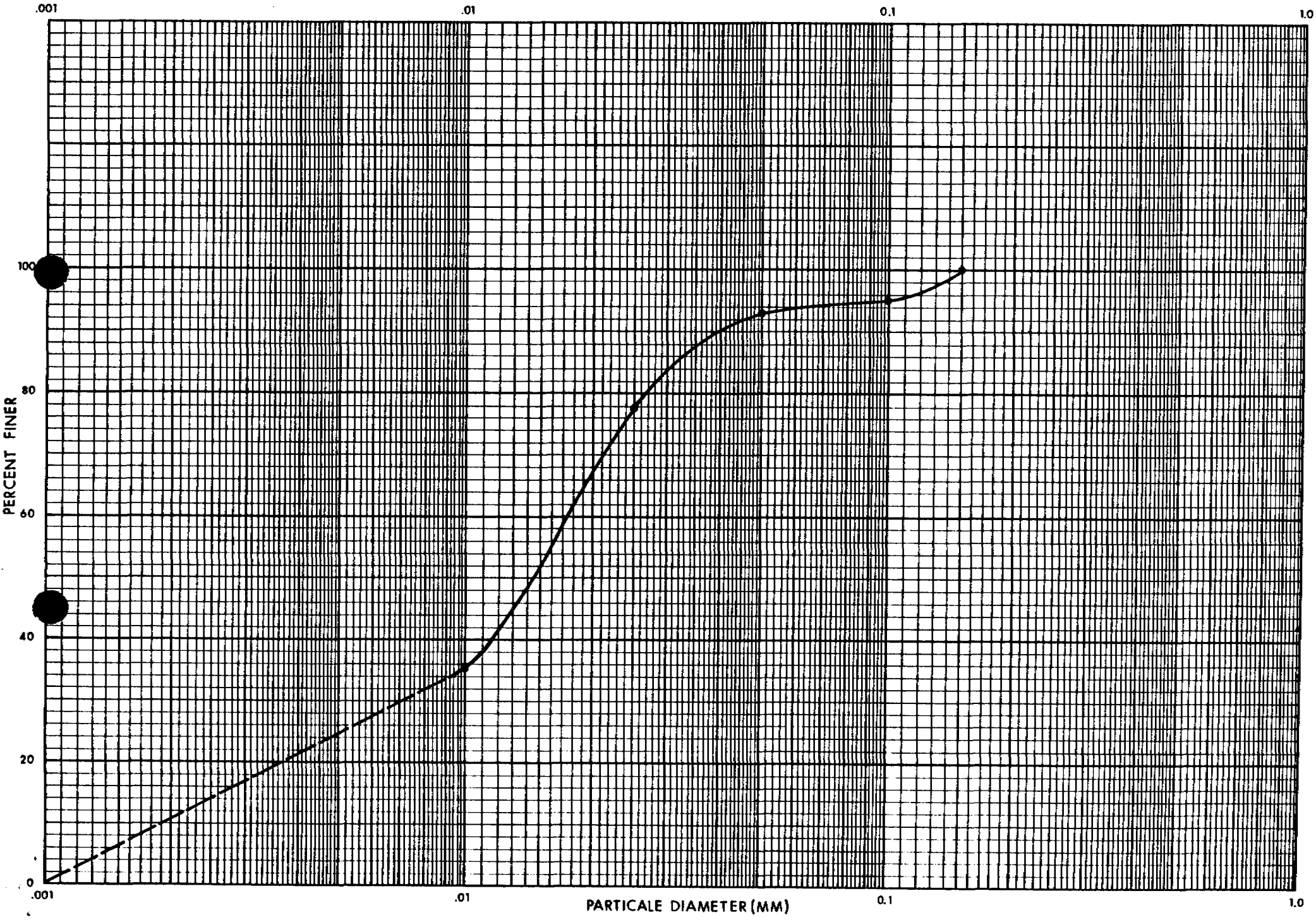
POND NO. 5

Microns	mm	% Count	Weight %	% Finer
0-10	0-.010	70.66%	93.29	29.34%
10-25	.010-.025	16.19%	21.37	83.81%
25-50	.025-.050	8.10%	10.69	91.9%
50-100	.050-.100	4.42%	5.83	95.58%
100-150	.100-.150	0.59%	0.78	99.41%
150 & up	.150 & up	0.04%	0.06	99.96%

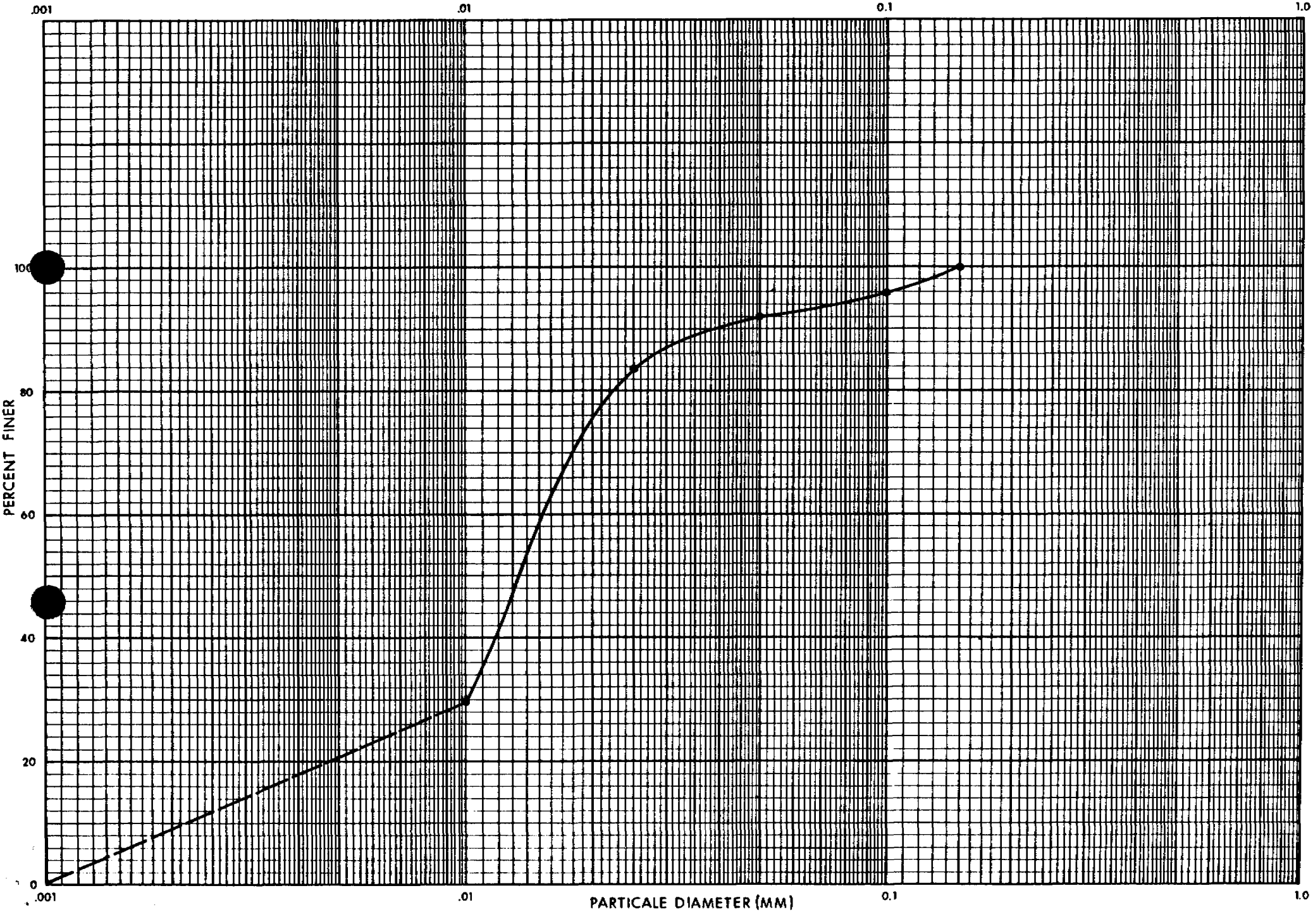
POND NO. 6

Microns	mm	% Count	Weight %	% Finer
0-10	0-.010	65.61%	93.16	34.39%
10-25	.010-.025	22.71%	22.25	77.29%
25-50	.025-.050	6.56%	9.32	93.44%
50-100	.050-.100	4.54%	6.45	95.46%
100-150	.100-.150	0.50%	0.72	99.50%
150 & up	.150 & up	0.08%	0.11	99.92%

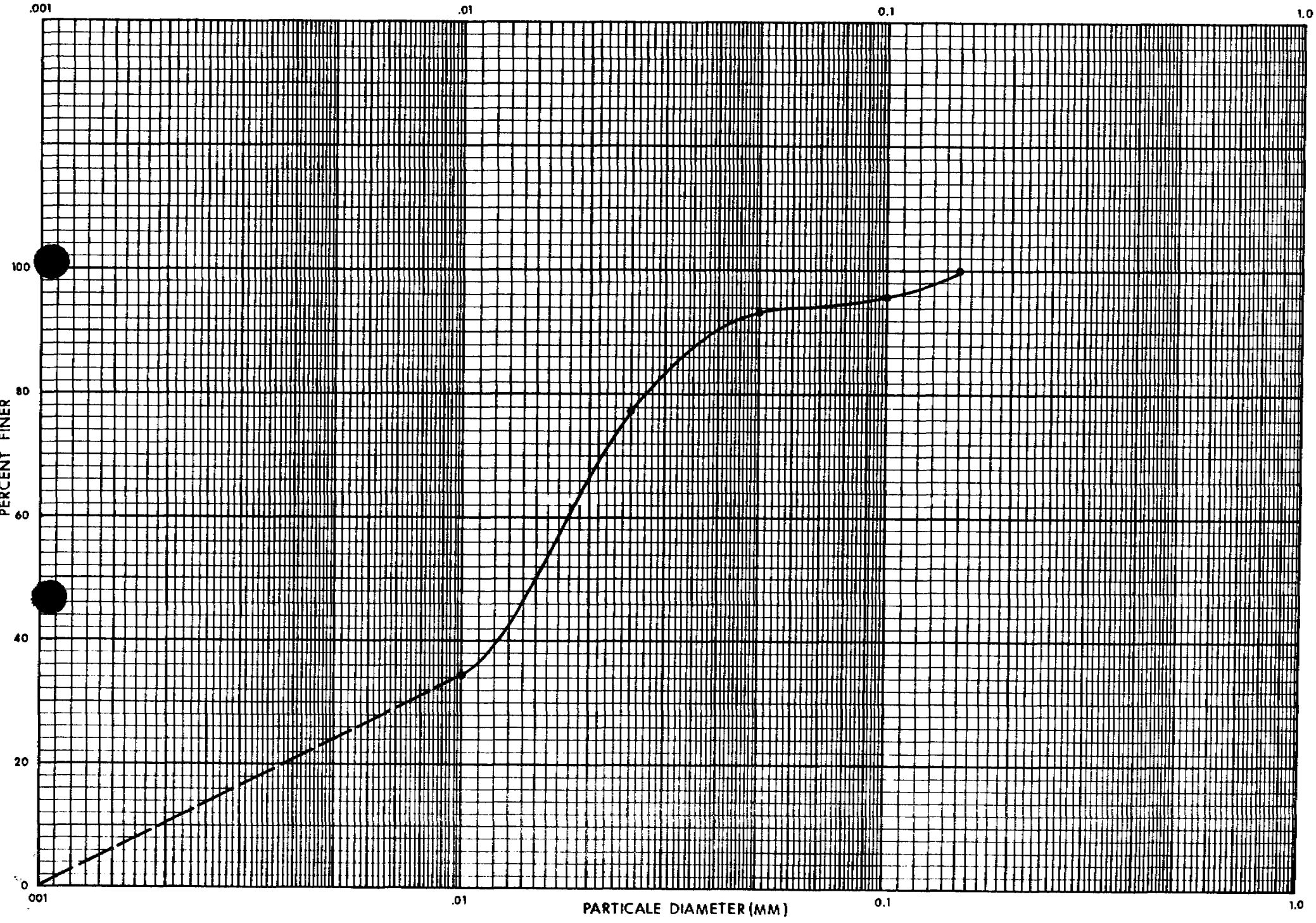
SEDIMENT SIZE DISTRIBUTION - POND NO. 4



SEDIMENT SIZE DISTRIBUTION - POND NO. 5



SEDIMENT SIZE DISTRIBUTION - POND NO. 6



SUMMARY OF SETTLING EFFICIENCIES

$V_c = \frac{Q}{A}$ where Q = peak outflow, A = surface in ft.^{2}

POND NO. 4

area (ac) = .331 ac.

area (ft.^{2}) = 14418.36 ft.^{2}

$V_c = \frac{.058 \text{ cfs}}{14{,}418.36 \text{ ft.}^2}$

$V_c = 4.02 \times 10^{-6}$ ft./sec.

$d_c = \left(\frac{V_c}{2.81}\right)^{\frac{1}{2}}$

$d_c = .0012$ mm

3.0% finer

suspended solids = 136 mg/l

concentration of suspended solids remaining = 4.08 mg/l

POND NO. 5

area (ac) = .171 ac

area (ft.^{2}) = 7448.76 ft.^{2}

$V_c = \frac{.283 \text{ cfs}}{7{,}448.76 \text{ ft.}^2}$

$V_c = 3.80 \times 10^{-5}$ ft./sec.

$d_c = \left(\frac{V_c}{2.81}\right)^{\frac{1}{2}}$

$d_c = .0037$ mm

17.0% finer

suspended solids = 132 mg/l

concentration of suspended solids remaining=22.44 mg/l

POND NO. 6

area (ac) - .456 ac

area (ft.^{2}) = 19863.36 ft. 2

$V_c = \frac{.047 \text{ cfs}}{19{,}863.36 \text{ ft.}^2}$

$V_c = 2.37 \times 10^{-6}$ ft./sec.

$d_c = \left(\frac{V_c}{2.81}\right)^{\frac{1}{2}}$

$d_c = .0009$ mm

0% finer

suspended solids = 142 mg/l

concentration of suspended solids remaining = 0.0 mg/l