

CHESTER COUNTY

395045075434701. Local number, CH 5172.
(New Garden Township, Chester County, Spray Irrigation Project)

LOCATION.--Lat 39°50'45", long 75°43'47", Hydrologic Unit 02040205, at Spray Irrigation Site in New Garden Township.

Owner: New Garden Township Municipal Authority.

AQUIFER.--Felsic Gneiss of Precambrian age.

WATER-LEVEL RECORDS

WELL CHARACTERISTICS.--Drilled observation well, diameter 4 in., depth 125 ft, cased to 123 ft, closed end, screened from 96.5-121.5 ft.

INSTRUMENTATION.--Electronic data logger with 60-minute recording interval.

DATUM.--Elevation of land surface is 401.0 ft above sea level. Measuring point: Top of plywood shelf, 2.5 ft above land-surface datum.

REMARKS.--In addition to the daily mean water levels shown below, daily maximum and minimum water levels, since May 1998, are also available from the District Office. Data for this project are presented in tables on pages XXX, and XXX.

PERIOD OF RECORD.--May 29, 1998 to current year.

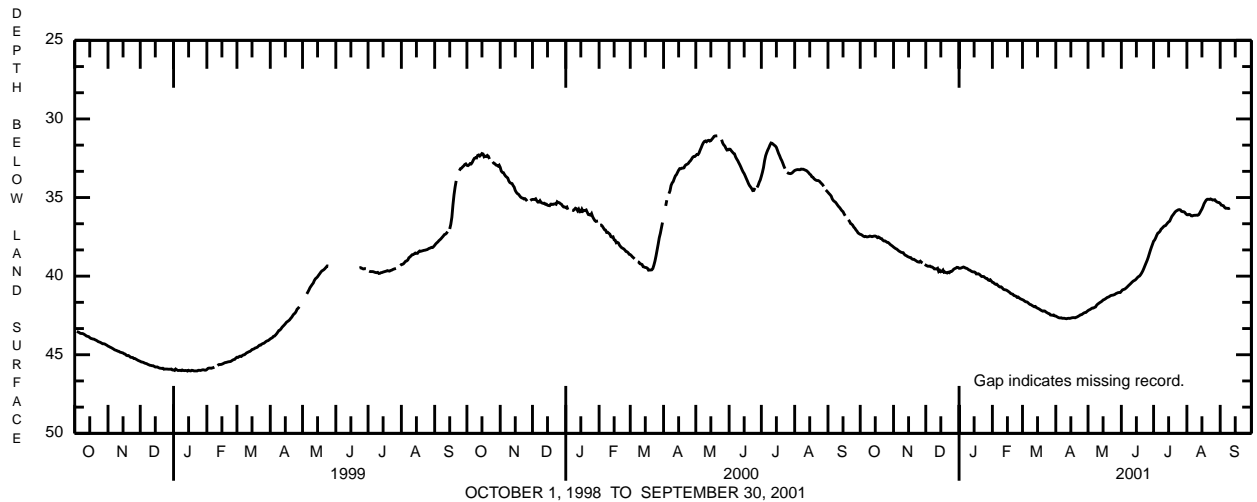
EXTREMES FOR PERIOD OF RECORD.--The extremes shown are extremes of the instantaneous depth below land surface for the period of record indicated above.

Highest water level, 31.05 ft below land-surface datum, May 21, 2000; lowest, 46.04 ft below land-surface datum, Jan. 13-15, 17, 18, 1999.

EXTREMES FOR CURRENT YEAR.--Highest water level, 35.07 ft below land-surface datum, Aug. 23; lowest, 42.73 ft below land-surface datum, Apr. 11.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37.34	38.15	39.30	39.50	40.39	41.50	42.54	42.19	40.96	37.78	36.09	35.38
2	37.36	38.20	39.34	39.50	40.41	41.53	42.58	42.15	40.88	37.70	36.10	35.48
3	37.41	38.25	39.37	39.48	40.48	41.59	42.62	42.12	40.85	37.56	36.07	35.50
4	37.46	38.28	39.37	39.45	40.52	41.63	42.65	42.07	40.83	37.39	36.09	35.52
5	37.49	38.34	39.36	39.42	40.51	41.64	42.66	42.03	40.78	37.26	36.16	35.62
6	37.47	38.40	39.41	39.44	40.58	41.68	42.65	42.03	40.72	37.22	36.17	35.68
7	37.50	38.44	39.42	39.49	40.65	41.75	42.68	41.99	40.65	37.14	36.14	35.68
8	37.50	38.48	39.47	39.50	40.69	41.80	42.68	41.96	40.58	37.01	36.13	35.69
9	37.48	38.50	39.54	39.54	40.68	41.82	42.68	41.85	40.52	36.95	36.13	35.70
10	37.45	38.51	39.54	39.60	40.73	41.87	42.70	41.78	40.45	36.87	36.12	35.66
11	37.47	38.61	39.54	39.62	40.82	41.91	42.71	41.73	40.38	36.81	36.13	---
12	37.49	38.67	39.50	39.67	40.86	41.95	42.69	41.68	40.32	36.79	36.09	---
13	37.47	38.70	39.70	39.71	40.87	41.93	42.68	41.64	40.28	36.71	35.98	---
14	37.45	38.75	39.63	39.73	40.89	42.00	42.69	41.59	40.24	36.62	35.85	---
15	37.45	38.78	39.72	39.73	40.93	42.04	42.67	41.52	40.17	36.55	35.73	---
16	37.48	38.81	39.69	39.76	40.98	42.07	42.65	41.49	40.09	36.50	35.57	---
17	37.55	38.82	39.61	39.86	41.03	42.11	42.64	41.45	40.03	36.35	35.39	---
18	37.51	38.90	39.76	39.86	41.10	42.16	42.64	41.40	39.99	36.20	35.27	---
19	37.55	38.93	39.74	39.85	41.13	42.20	42.65	41.35	39.90	36.11	35.16	---
20	37.61	38.93	39.78	39.89	41.15	42.23	42.62	41.33	39.79	36.02	35.11	---
21	37.62	38.98	39.80	39.96	41.23	42.21	42.59	41.29	39.66	35.92	35.11	---
22	37.71	39.02	39.75	40.02	41.25	42.23	42.55	41.24	39.50	35.86	35.12	---
23	37.76	39.07	39.78	40.02	41.28	42.29	42.51	41.22	39.33	35.82	35.09	---
24	37.76	39.10	39.70	40.03	41.35	42.33	42.46	41.21	39.16	35.78	35.12	---
25	37.80	39.11	39.70	40.09	41.33	42.37	42.45	41.19	39.00	35.77	35.16	---
26	37.85	39.05	39.64	40.14	41.39	42.39	42.40	41.16	38.81	35.79	35.15	---
27	37.86	39.12	39.56	40.15	41.44	42.47	42.35	41.11	38.58	35.88	35.14	---
28	37.92	39.16	39.52	40.24	41.47	42.48	42.32	41.08	38.36	35.90	35.23	---
29	37.99	---	39.49	40.27	---	42.49	42.31	41.05	38.16	35.90	35.28	---
30	38.04	39.26	39.44	40.23	---	42.47	42.25	41.04	37.97	35.94	35.31	---
31	38.09	---	39.45	40.31	---	42.53	---	41.04	---	36.03	35.32	---
MEAN	37.61	38.74	39.57	39.81	40.93	42.05	42.58	41.55	39.90	36.52	35.63	35.59
MAX	38.09	39.26	39.80	40.31	41.47	42.53	42.71	42.19	40.96	37.78	36.17	35.70
MIN	37.34	38.15	39.30	39.42	40.39	41.50	42.25	41.04	37.97	35.77	35.09	35.38



CHESTER COUNTY

395045075434701. Local number, CH 5172--Continued
 (New Garden Township, Chester County, Spray Irrigation Project)

WATER-QUALITY RECORDS

REMARKS.-- Samples collected with submersible pump from recovery water after well was pumped more than three casing volumes. The sample holding time was exceeded for nitrogen dissolved, parameter 00602, for the May 7 sample.

PERIOD OF RECORD.--May 1998 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	TIME	AGENCY ANA-LYZING SAMPLE NUMBER (CODE 00028)	AGENCY COLLECTING SAMPLE NUMBER (CODE 00027)	OXYGEN, DIS-SOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	SPECIFIC CONDUCTANCE (MICRO-S/CM) (00095)	TEMPERATURE WATER (DEG C) (00010)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNESIUM, DIS-SOLVED (MG/L AS MG) (00925)	POTASSIUM, DIS-SOLVED (MG/L AS K) (00935)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)
OCT 2000											
16...	1100	9813	1028	5.7	7.8	210	12.5	--	--	--	--
NOV											
13...	0945	9813	1028	5.4	8.0	211	12.2	--	--	--	--
DEC											
12...	1000	9813	1028	4.0	7.2	207	11.7	26.0	4.92	4.14	6.4
JAN 2001											
16...	1100	9813	1028	5.5	7.8	206	11.7	--	--	--	--
FEB											
20...	1100	9813	1028	4.8	7.5	211	12.1	--	--	--	--
MAR											
26...	1040	9813	1028	5.2	7.8	209	12.0	23.6	5.00	4.06	6.5
MAY											
07...	1000	9813	1028	2.8	7.8	206	12.5	--	--	--	--
30...	1000	9813	1028	3.6	7.9	209	12.3	--	--	--	--
JUN											
25...	1100	9813	1028	4.8	7.7	206	13.1	25.7	5.13	4.21	6.8
JUL											
16...	1100	9813	1028	4.4	7.7	209	12.7	--	--	--	--
AUG											
27...	1200	9813	1028	3.1	7.9	207	13.3	--	--	--	--

DATE	ANC WATER UNFLTRD IT FIELD (MG/L AS CACO3) (00419)	BROMIDE DIS-SOLVED (MG/L AS BR) (71870)	CHLORIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUORIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN DIS-SOLVED (MG/L AS N) (00602)
OCT 2000										
16...	50	--	--	--	--	--	--	<.020	<.02	.32
NOV										
13...	40	--	--	--	--	--	--	<.020	<.02	.43
DEC										
12...	50	<.20	2.7	<.2	19.3	41.4	172	<.020	--	.37
JAN 2001										
16...	49	--	--	--	--	--	--	<.020	<.02	.50
FEB										
20...	54	--	--	--	--	--	--	<.020	<.02	.43
MAR										
26...	49	<.20	3.5	<.2	19.8	39.4	174	<.020	--	.43
MAY										
07...	49	--	--	--	--	--	--	<.020	<.02	<.06
30...	46	--	--	--	--	--	--	<.020	<.02	.45
JUN										
25...	52	<.20	4.2	<.2	21.0	39.0	180	<.020	--	.45
JUL										
16...	50	--	--	--	--	--	--	<.020	<.02	.50
AUG										
27...	49	--	--	--	--	--	--	<.020	<.02	.56

CHESTER COUNTY

395045075434701. Local number, CH 5172--Continued
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WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00618)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	BORON, DIS- SOLVED (µG/L AS B) (01020)	IRON, DIS- SOLVED (µG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (µG/L AS MN) (01056)	ZINC, DIS- SOLVED (µG/L AS ZN) (01090)
OCT 2000									
16...	.290	<.040	<.010	<.010	--	--	--	--	--
NOV									
13...	.300	<.040	.012	<.010	--	--	--	--	--
DEC									
12...	.320	<.040	<.010	<.010	<1.0	<200	<20	<10.0	<10
JAN 2001									
16...	.350	<.040	<.010	<.010	--	--	--	--	--
FEB									
20...	.350	<.040	<.010	<.010	--	--	--	--	--
MAR									
26...	.350	<.040	<.010	<.010	1.0	<200	<20	<10.0	<10
MAY									
07...	.380	<.040	<.010	<.010	--	--	--	--	--
30...	.430	<.040	<.010	<.010	--	--	--	--	--
JUN									
25...	.420	<.040	<.010	<.010	<1.0	<200	<20	<10.0	<10
JUL									
16...	.450	<.040	<.010	<.010	--	--	--	--	--
AUG									
27...	.460	<.040	.019	<.010	--	--	--	--	--