

**CHESTER COUNTY**

**395043075440702. Local number, CH 5183**  
**(New Garden Township, Chester County, Spray Irrigation Project)**

**LOCATION.**--Lat 39°50'43", long 75°44'07", 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 90 ft, cased to 90 ft, closed end, screened from 70-90 ft.

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

**DATUM.**--Elevation of land surface is 386 ft above sea level from a GPS unit. Measuring point: Top of plywood shelf, 1.95 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-XXX.

**PERIOD OF RECORD.**--May 30, 1998 to current year.

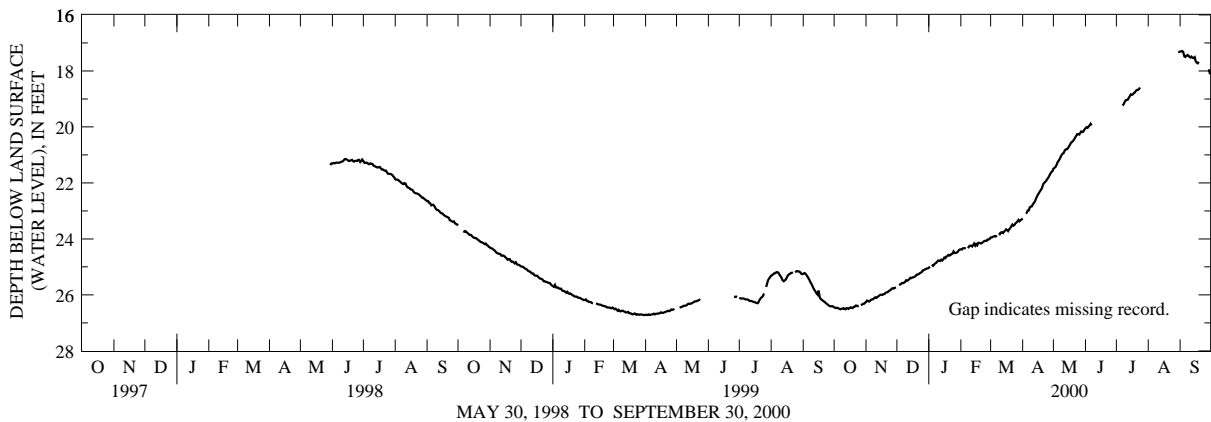
**EXTREMES FOR PERIOD OF RECORD.**--The extremes shown are extremes of the instantaneous depth below land-surface for the period of record indicated above.

Highest water level, 17.29 ft below land-surface datum, Sept. 2-4, 2000; lowest, 26.72 ft below land-surface datum, Mar. 30, 31, Apr. 2, 3, 5, 6, 1999.

**DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000**  
**DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26.44	26.26	---	25.03	24.37	23.95	23.27	21.49	20.05	---	---	17.31
2	26.46	26.20	---	24.99	24.38	23.95	---	21.46	20.01	---	---	17.30
3	26.47	26.22	25.65	---	24.34	23.93	---	21.43	20.03	---	---	17.29
4	26.46	26.24	25.63	24.92	24.33	23.91	23.08	21.35	19.99	---	---	17.32
5	26.48	26.21	25.61	24.96	24.33	23.90	23.07	21.26	19.95	---	---	17.48
6	26.49	26.17	25.57	24.92	24.33	23.91	22.99	21.21	19.89	---	---	17.50
7	26.51	26.16	25.58	24.88	---	23.87	22.98	21.14	19.94	19.24	---	17.46
8	26.50	26.15	25.56	24.86	24.33	---	22.87	21.07	---	19.20	---	17.43
9	26.49	26.11	25.53	24.82	24.26	23.80	22.85	21.00	---	19.11	---	17.45
10	26.47	26.09	25.48	24.77	24.24	23.83	22.84	20.95	---	19.05	---	17.50
11	26.50	26.11	25.49	24.78	24.24	23.77	22.76	20.93	---	19.04	---	17.52
12	26.51	26.08	25.47	24.79	24.27	23.76	22.71	20.84	---	19.03	---	17.49
13	26.47	26.05	25.44	24.74	24.22	23.79	22.66	20.80	---	18.97	---	17.53
14	26.48	26.02	25.39	24.77	24.17	23.74	22.57	20.80	---	18.90	---	17.54
15	26.50	26.00	25.40	24.73	24.24	23.71	22.48	20.76	---	18.84	---	17.51
16	26.47	25.99	25.38	24.67	24.19	23.66	22.41	20.70	---	18.85	---	17.65
17	26.44	26.00	25.37	24.69	24.23	23.69	22.36	20.64	---	18.84	---	17.70
18	26.46	25.98	25.35	24.63	24.14	23.72	22.29	20.56	---	18.79	---	17.73
19	26.47	25.96	25.33	24.61	24.14	23.65	22.24	20.54	---	18.77	---	17.67
20	26.43	25.92	25.28	24.57	24.16	23.62	22.17	20.50	---	18.71	---	---
21	26.42	25.91	25.28	24.59	24.16	23.56	22.04	20.45	---	18.68	---	---
22	26.38	25.90	25.26	24.58	24.13	23.49	22.00	20.38	---	18.68	---	---
23	26.38	25.87	25.23	24.54	24.10	23.53	21.96	20.32	---	18.65	---	---
24	26.40	25.84	25.21	24.52	24.07	23.50	21.92	20.26	---	18.59	---	---
25	26.39	25.82	25.19	24.45	24.07	23.45	21.86	20.26	---	---	---	---
26	---	25.78	25.13	24.50	24.07	23.42	21.81	20.27	---	---	---	---
27	26.36	25.76	25.12	24.50	24.02	23.37	21.74	20.22	---	---	---	---
28	26.35	25.77	25.09	24.49	24.02	23.32	21.67	20.16	---	---	---	17.99
29	26.32	25.75	25.08	24.46	24.00	23.37	21.61	20.18	---	---	---	17.98
30	26.32	25.73	25.06	24.41	---	23.33	21.58	20.17	---	---	17.32	18.12
31	26.28	---	25.05	24.38	---	23.31	---	20.10	---	---	17.32	---
MEAN	26.44	26.00	25.35	24.68	24.20	23.66	22.39	20.72	19.98	18.89	17.32	17.57
MAX	26.51	26.26	25.65	25.03	24.38	23.95	23.27	21.49	20.05	19.24	17.32	18.12
MIN	26.28	25.73	25.05	24.38	24.00	23.31	21.58	20.10	19.89	18.59	17.32	17.29

WTR YR 2000: HIGHEST 17.29, SEPTEMBER 3; LOWEST 26.51, OCTOBER 7, 12.



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WATER-QUALITY RECORDS

REMARKS.-- Samples collected with submersible pump from recovery water after well was pumped more than 3 casing volumes.  
 PERIOD OF RECORD.--May 1998 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	AGENCY ANA-LYZING SAMPLE (CODE NUMBER) (00028)	AGENCY COL-LECTING SAMPLE (CODE NUMBER) (00027)	OXYGEN, DIS-SOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)
OCT 1999											
26...	1100	9813	1028	6.6	6.7	160	12.0	--	--	--	--
DEC 02...	1100	9813	1028	7.5	7.8	202	11.9	--	--	--	--
JAN 2000											
03...	1200	9813	1028	7.4	6.8	199	12.0	28.8	3.60	2.2	4.4
FEB 07...	1200	9813	1028	8.2	6.4	193	12.2	--	--	--	--
MAR 08...	1100	9813	1028	7.6	6.5	202	12.3	--	--	--	--
APR 03...	1100	9813	1028	8.4	6.0	204	12.0	--	--	--	--
MAY 15...	1300	9813	1028	7.1	6.8	204	12.2	29.8	3.47	2.0	4.3
JUL 05...	1100	9813	1028	6.7	6.4	204	12.2	--	--	--	--
25...	1200	9813	1028	6.7	7.2	208	12.2	31.0	3.58	1.9	3.9
AUG 28...	1100	9813	1028	6.8	7.2	207	12.4	--	--	--	--
SEP 20...	0830	9813	1028	1.7	6.9	191	12.1	29.9	4.00	2.2	4.7

DATE	ANC WATER UNFLTRD IT FIELD (MG/L AS CACO3) (00419)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, DIS-SOLVED (MG/L AS N) (00602)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)
OCT 1999											
26...	69	--	--	--	--	<.02	<.020	2.94	3.3	<.040	.033
DEC 02...	71	--	--	--	--	<.02	<.020	3.00	3.4	<.040	.036
JAN 2000											
03...	54	6.0	<.2	21.6	1.9	--	<.020	2.99	3.4	<.040	.036
FEB 07...	64	--	--	--	--	<.02	<.020	3.05	3.6	<.040	.039
MAR 08...	74	--	--	--	--	<.02	<.020	E3.10	3.7	<.040	.045
APR 03...	57	--	--	--	--	<.02	<.020	3.12	3.7	<.040	.020
MAY 15...	67	6.4	<.2	21.4	2.0	--	<.020	3.23	3.5	<.040	.023
JUL 05...	71	--	--	--	--	<.02	.040	3.35	3.7	<.040	.023
25...	77	6.8	<.2	19.5	2.0	--	<.020	3.41	3.8	<.040	.027
AUG 28...	76	--	--	--	--	<.02	<.020	3.42	3.7	<.040	.021
SEP 20...	70	6.3	<.2	23.1	1.9	--	<.020	3.43	4.1	<.040	.013

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WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	SOLIDS, RESIDUE AT 180 DEG. C SOLVED (MG/L) (70300)	ALUM- INUM, DIS- SOLVED (µG/L AS AL) (01106)	ANTI- MONY, DIS- SOLVED (µG/L AS SB) (01095)	ARSENIC DIS- SOLVED (µG/L AS AS) (01000)	BARIUM, DIS- SOLVED (µG/L AS BA) (01005)	BORON, DIS- SOLVED (µG/L AS B) (01020)	BROMIDE DIS- SOLVED (MG/L AS BR) (71870)	CADMIUM DIS- SOLVED (µG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (µG/L AS CR) (01030)
OCT 1999											
26...	.011	--	--	--	--	--	--	--	--	--	--
DEC											
02...	.018	--	--	--	--	--	--	--	--	--	--
JAN 2000											
03...	.022	<1.0	--	--	--	--	--	<200	<.20	--	--
FEB											
07...	<.010	--	--	--	--	--	--	--	--	--	--
MAR											
08...	.050	--	--	--	--	--	--	--	--	--	--
APR											
03...	.020	--	--	--	--	--	--	--	--	--	--
MAY											
15...	.021	<1.0	120	20	--	--	--	<200	<.20	--	--
JUL											
05...	.022	--	--	--	--	--	--	--	--	--	--
25...	.026	<1.0	140	13	--	--	--	<200	<.20	--	--
AUG											
28...	.032	--	--	--	--	--	--	--	--	--	--
SEP											
20...	.022	<1.0	160	17	<2	<4.0	56	<200	<.20	<10.0	<4.0

DATE	COPPER, DIS- SOLVED (µG/L AS CU) (01040)	IRON, DIS- SOLVED (µG/L AS FE) (01046)	LEAD, DIS- SOLVED (µG/L AS PB) (01049)	LITHIUM DIS- SOLVED (µG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (µG/L AS MN) (01056)	MERCURY DIS- SOLVED (µG/L AS HG) (71890)	NICKEL, DIS- SOLVED (µG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (µG/L AS SE) (01145)	STRON- TIUM, DIS- SOLVED (µG/L AS SR) (01080)	ZINC, DIS- SOLVED (µG/L AS ZN) (01090)
OCT 1999										
26...	--	--	--	--	--	--	--	--	--	--
DEC										
02...	--	--	--	--	--	--	--	--	--	--
JAN 2000										
03...	--	<20	--	--	<10	--	--	--	--	13
FEB										
07...	--	--	--	--	--	--	--	--	--	--
MAR										
08...	--	--	--	--	--	--	--	--	--	--
APR										
03...	--	--	--	--	--	--	--	--	--	--
MAY										
15...	--	<20	--	--	<10	--	--	--	--	10
JUL										
05...	--	--	--	--	--	--	--	--	--	--
25...	--	<20	--	--	<10	--	--	--	--	17
AUG										
28...	--	--	--	--	--	--	--	--	--	--
SEP										
20...	<4	<20	<1	<25.0	<10	<.2	<4	<7.0	108	10