

CHESTER COUNTY

395049075434302. Local number, CH 5179
(New Garden Township, Chester County, Spray Irrigation Project)

LOCATION.--Lat 39°50'49", long 75°43'43", 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 2 in., depth 39.1 ft, cased to 39 ft, closed end, screened from 24-39 ft.

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

DATUM.--Elevation of land surface is 360 ft above sea level from a GPS unit. Measuring point: Top of plywood shelf, 1.2 ft above land-surface datum.

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

PERIOD OF RECORD.--August 1, 1998 to current year.

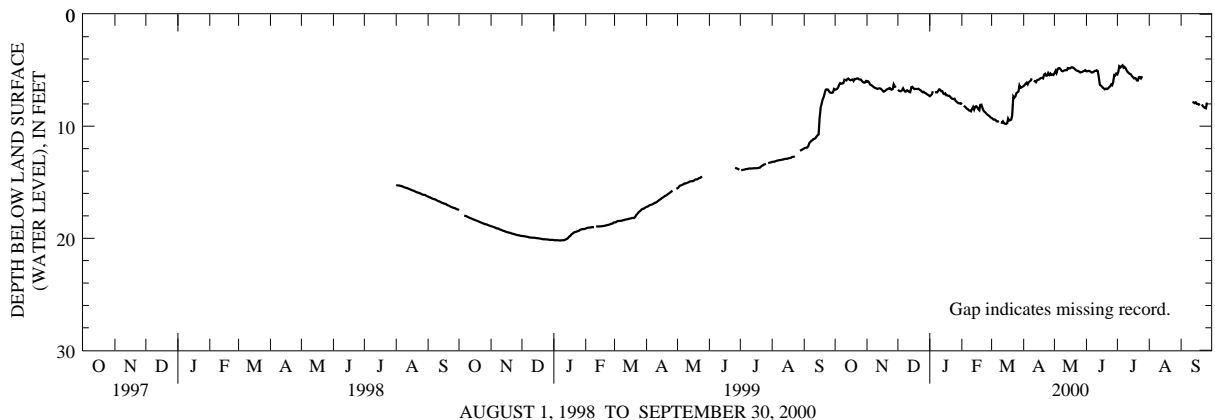
EXTREMES FOR PERIOD OF RECORD.--The extremes shown are extremes of the instantaneous depth below land surface for the period of record indicated above.

Highest water level, 4.56 ft below land-surface datum, July 6, 2000; lowest, 20.19 ft below land-surface datum, Jan. 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	6.74	6.03	6.76	7.32	8.05	9.26	6.41	5.29	5.09	5.37	---	---
2	6.72	5.99	6.82	7.24	---	9.34	6.31	5.05	5.10	5.13	---	---
3	6.66	6.09	6.88	7.15	8.18	9.41	6.21	5.25	5.06	4.64	---	---
4	6.51	6.28	6.86	6.88	8.25	9.40	6.10	4.89	5.06	4.75	---	---
5	6.29	6.33	6.80	---	8.34	9.47	6.25	4.82	5.13	4.64	---	---
6	6.16	6.37	6.61	6.97	8.43	9.57	6.09	4.81	5.19	4.56	---	---
7	6.21	6.47	6.78	6.96	8.48	9.59	5.99	4.92	5.19	4.76	---	---
8	6.17	6.53	6.91	6.98	8.59	9.54	5.92	5.06	5.15	4.69	---	---
9	6.15	6.58	6.89	6.85	8.60	---	5.73	5.09	5.06	4.82	---	---
10	5.84	6.62	6.78	6.70	8.65	9.66	---	5.04	5.06	5.01	---	---
11	5.88	6.66	6.86	6.74	8.47	9.68	5.92	5.00	5.00	5.14	---	---
12	5.92	6.64	6.95	6.85	8.28	9.57	6.00	4.99	5.08	5.25	---	7.84
13	5.77	6.61	6.96	6.85	8.51	9.73	6.06	4.99	5.61	5.32	---	7.87
14	5.75	6.64	6.51	7.07	8.26	9.78	5.89	4.80	6.30	5.37	---	7.93
15	5.84	6.70	6.48	7.13	8.22	9.79	5.84	4.84	6.36	5.50	---	7.87
16	5.89	6.79	6.58	7.07	8.30	9.74	5.83	4.84	6.45	5.58	---	8.00
17	5.84	6.91	6.69	7.23	8.47	9.33	5.75	4.77	6.56	5.72	---	8.00
18	5.83	6.88	6.66	7.24	8.57	9.49	5.69	4.74	6.63	5.69	---	8.07
19	5.94	6.80	6.67	7.28	8.10	9.46	5.67	4.76	6.71	5.72	---	7.97
20	5.77	6.72	6.68	7.29	8.08	9.42	5.72	4.82	6.64	5.92	---	---
21	5.79	6.69	6.65	7.41	8.35	9.06	5.38	4.92	6.68	5.91	---	8.05
22	5.75	6.63	6.73	7.50	8.59	7.34	5.32	4.99	6.63	5.62	---	8.20
23	5.72	6.58	6.79	7.54	8.71	7.45	5.49	5.06	6.51	5.61	---	8.28
24	5.80	6.69	6.88	7.58	8.78	7.33	5.46	5.06	6.44	5.72	---	8.36
25	5.83	6.74	6.96	7.55	8.88	7.05	5.24	5.13	6.27	5.53	---	8.40
26	5.83	6.69	6.92	7.71	8.99	6.97	5.42	5.19	6.34	---	---	7.89
27	5.95	6.25	7.01	7.81	9.04	6.89	5.29	5.18	6.06	---	---	---
28	6.05	6.44	7.04	7.89	9.10	6.36	5.41	5.14	5.41	---	---	---
29	6.11	6.55	7.13	7.96	9.21	6.56	5.39	5.07	5.45	---	---	---
30	6.11	---	7.18	7.96	---	6.53	5.41	5.05	5.29	---	---	---
31	5.97	---	7.25	7.93	---	6.46	---	4.99	---	---	---	---
MEAN	6.03	6.55	6.83	7.29	8.52	8.64	5.77	4.99	5.78	5.28	---	8.05
MAX	6.74	6.91	7.25	7.96	9.21	9.79	6.41	5.29	6.71	5.92	---	8.40
MIN	5.72	5.99	6.48	6.70	8.05	6.36	5.24	4.74	5.00	4.56	---	7.84

WTR YR 2000: HIGHEST 4.56, JULY 6; LOWEST 9.79, MARCH 15.



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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 (µS/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											
27...	1300	9813	1028	9.1	6.0	222	12.6	--	--	--	--
NOV											
30...	1400	9813	1028	9.0	6.3	218	7.8	--	--	--	--
JAN 2000											
05...	1400	9813	1028	7.9	6.0	218	12.7	19.8	7.14	2.5	4.7
FEB											
02...	1200	9813	1028	3.8	6.9	207	12.1	--	--	--	--
MAR											
09...	1100	9813	1028	10.4	5.6	133	12.9	--	--	--	--
APR											
10...	1300	9813	1028	9.7	5.8	205	12.3	--	--	--	--
MAY											
24...	1400	9813	1028	5.9	6.1	232	12.1	24.9	8.14	2.3	4.7
JUN											
27...	1000	9813	1028	8.8	5.9	242	12.2	--	--	--	--
JUL											
27...	1100	9813	1028	8.8	6.0	255	12.0	27.0	9.38	2.5	4.8
AUG											
30...	1100	9813	1028	8.2	6.4	271	12.5	--	--	--	--
SEP											
20...	1100	9813	1028	7.9	6.1	243	12.6	26.9	10.0	2.9	5.7

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											
27...	38	--	--	--	--	<.02	<.020	1.83	2.2	<.040	.045
NOV											
30...	32	--	--	--	--	<.02	<.020	1.61	1.9	<.040	.027
JAN 2000											
05...	39	24.8	<.2	13.5	22.9	--	<.020	1.57	1.9	<.040	.053
FEB											
02...	26	--	--	--	--	<.02	<.020	1.44	1.7	<.040	.098
MAR											
09...	34	--	--	--	--	<.02	<.020	1.34	1.5	<.040	.084
APR											
10...	23	--	--	--	--	<.02	<.020	1.47	1.7	<.040	.025
MAY											
24...	36	29.6	<.2	13.4	22.1	--	<.020	1.50	1.8	<.040	.025
JUN											
27...	34	--	--	--	--	<.02	<.020	1.49	1.8	<.040	.026
JUL											
27...	36	34.0	<.2	13.8	21.6	--	<.020	1.58	1.9	<.040	.027
AUG											
30...	39	--	--	--	--	<.02	<.020	1.78	2.1	<.040	.022
SEP											
20...	37	36.7	<.2	15.8	20.5	--	<.020	1.84	2.3	<.040	.021

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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 DIS- 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											
27...	.027	--	--	--	--	--	--	--	--	--	--
NOV											
30...	.034	--	--	--	--	--	--	--	--	--	--
JAN 2000											
05...	.017	<1.0	138	--	--	--	--	<200	<.20	--	--
FEB											
02...	.010	--	--	--	--	--	--	--	--	--	--
MAR											
09...	.025	--	--	--	--	--	--	--	--	--	--
APR											
10...	.030	--	--	--	--	--	--	--	--	--	--
MAY											
24...	.025	<1.0	66	17	--	--	--	<200	<.20	--	--
JUN											
27...	.026	--	--	--	--	--	--	--	--	--	--
JUL											
27...	.027	<1.0	216	15	--	--	--	<200	<.20	--	--
AUG											
30...	.027	--	--	--	--	--	--	--	--	--	--
SEP											
20...	.025	<1.0	148	18	<2	<4.0	141	<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										
27...	--	--	--	--	--	--	--	--	--	--
NOV										
30...	--	--	--	--	--	--	--	--	--	--
JAN 2000										
05...	--	20	--	--	<10	--	--	--	--	<10
FEB										
02...	--	--	--	--	--	--	--	--	--	--
MAR										
09...	--	--	--	--	--	--	--	--	--	--
APR										
10...	--	--	--	--	--	--	--	--	--	--
MAY										
24...	--	<20	--	--	<10	--	--	--	--	10
JUN										
27...	--	--	--	--	--	--	--	--	--	--
JUL										
27...	--	<20	--	--	<10	--	--	--	--	<10
AUG										
30...	--	--	--	--	--	--	--	--	--	--
SEP										
20...	<4	<20	<1	<25.0	<10	<.2	<4	<7.0	149	<10