

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES CHESTER COUNTY WATER-QUALITY MONITORING PROJECT

Ground-water samples were collected from selected wells in Chester County in June through August 2001 as part of the Chester County Ground-Water Quality Monitoring Program. The monitoring program began in 1980 with objectives that include providing data on ground-water quality (1) near suspected sources of contamination; (2) in areas of different land use or different underlying geology; (3) for specific contaminants or constituents countywide; and (4) in watersheds as part of regional assessment. Samples typically are collected each summer. In summer 2001, 21 wells were sampled in the county.

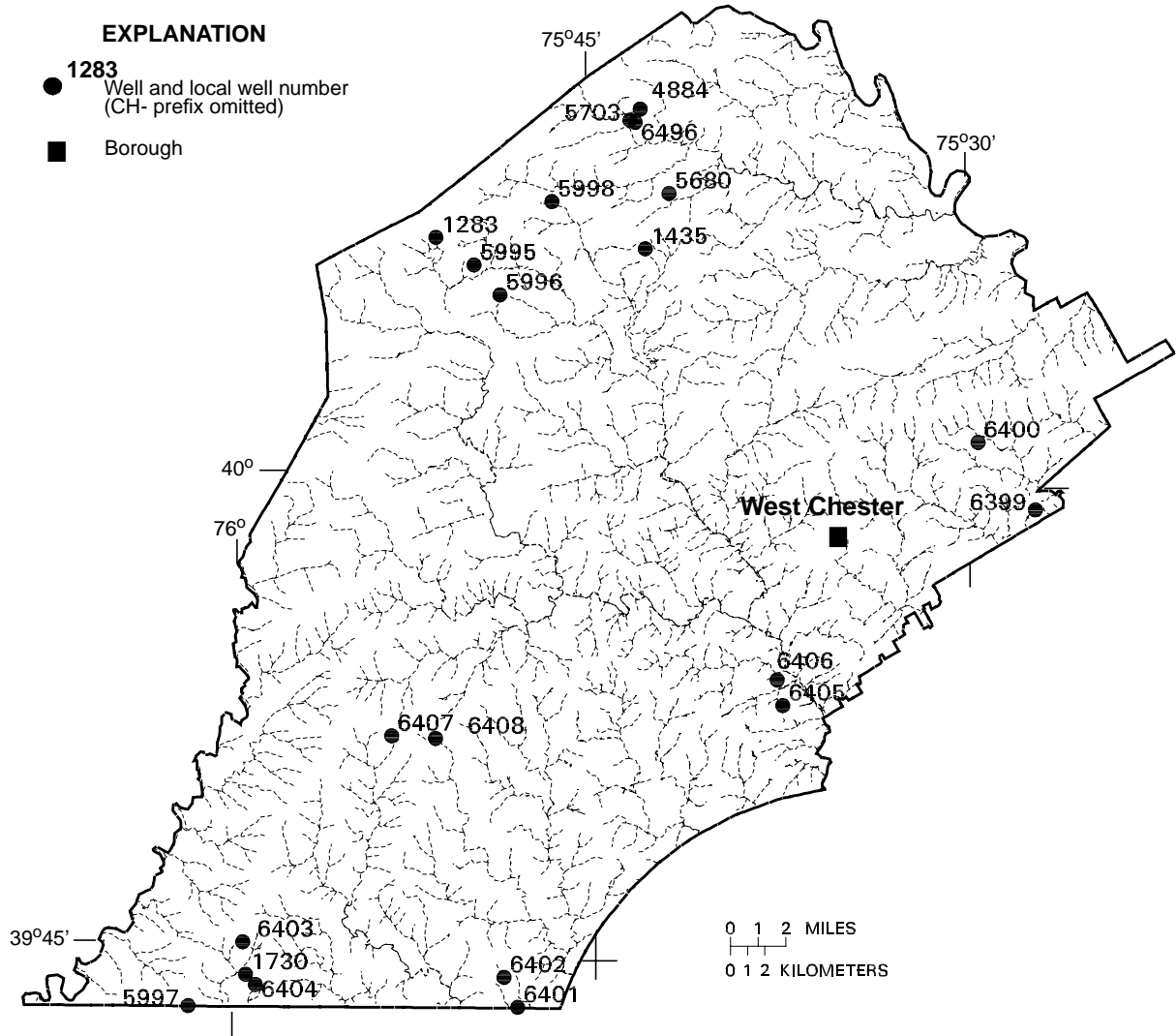


Figure 13.--Locations of selected ground-water well sites in the Chester County water-quality monitoring project.

**ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
CHESTER COUNTY WATER-QUALITY MONITORING PROJECT**

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

LOCAL IDENTIFIER	STATION NUMBER	NUMBER	DATE	AGENCY ANALYZING SAMPLE NUMBER (00028)	AGENCY COLLECTING SAMPLE NUMBER (00027)	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	DEPTH OF WELL, TOTAL (FEET) (72008)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	FLOW RATE (G/M) (00059)
CH 1283	400724075514701		06-19-01	80020	1028	16.03	90.0	670	4.6
CH 1435	400706075431501		06-21-01	80020	1028	16.86	85	673	5.8
CH 1730	394418075591201		06-28-01	80020	1028	--	54	472	5.0
CH 4884	401127075433101		08-07-01	80020	1028	18.99	97	480	4.5
CH 5680	400850075421901		06-20-01	80020	1028	8.72	220	430	5.0
CH 5680	400850075421901		08-09-01	80020	1028	--	220	430	5.0
CH 5703	401107075435801		08-13-01	80020	1028	9.80	63.3	420	2.1
CH 5995	400633075501302		06-18-01	80020	1028	42.99	--	670	2.8
CH 5996	400537075490901		06-20-01	80020	1028	11.95	120	670	3.8
CH 5997	394319076013101		07-09-01	80020	1028	9.44	120	482	4.5
CH 5998	400833075470401		06-25-01	80020	1028	--	--	580	3.3
CH 5998	400833075470401		08-09-01	80020	1028	--	--	580	3.7
CH 6399	395901075271801		06-13-01	80020	1028	28.87	100	435	7.0
CH 6399	395901075271801		08-16-01	80020	1028	--	100	435	7.0
CH 6400	400107075293902		06-14-01	80020	1028	20.63	120	435	2.6
CH 6401	394322075481001		06-26-01	80020	1028	13.45	220	325	3.7
CH 6402	394417075484501		06-26-01	80020	1028	30.28	205	340	8.7
CH 6402	394417075484501		08-06-01	80020	1028	--	205	340	6.1
CH 6403	394520075592001		07-02-01	80020	1028	24.23	120	508	5.6
CH 6404	394400075584901		07-05-01	80020	1028	8.82	50	470	3.4
CH 6405	395251075373101		07-10-01	80020	1028	--	--	345	6.1
CH 6406	395339075374501		07-11-01	80020	1028	17.64	302	215	6.6
CH 6406	395339075374501		07-11-01	80020	1028	17.64	302	215	6.6
CH 6407	395148075532301		07-12-01	80020	1028	27.34	325	625	4.2
CH 6408	395145075513601		07-16-01	80020	1028	89.86	400	555	4.2
CH 6496	401104075434301		08-07-01	80020	1028	--	--	494.32	4.5

LOCAL IDENTIFIER	DATE	OXYGEN, DIS-SOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	PH WATER WHOLE LAB (STANDARD UNITS) (00403)	SPECIFIC CONDUCTANCE (µS/CM) (00095)	TEMPERATURE AIR (DEG C) (00020)	TEMPERATURE WATER (DEG C) (00010)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNESIUM, DIS-SOLVED (MG/L AS MG) (00925)
CH 1283	06-19-01	7.4	5.8	6.2	264	24.5	12.0	21.6	11.3
CH 1435	06-21-01	6.8	4.9	6.0	224	30.0	12.3	19.1	7.11
CH 1730	06-28-01	8.4	5.4	5.4	186	31.0	17.6	7.58	7.56
CH 4884	08-07-01	.1	6.6	7.0	158	33.0	13.1	13.7	6.38
CH 5680	06-20-01	.2	6.8	7.5	209	28.5	13.2	19.8	6.87
CH 5680	08-09-01	--	--	--	208	28.0	13.4	--	--
CH 5703	08-13-01	5.8	5.8	6.5	220	24.5	16.6	20.3	6.35
CH 5995	06-18-01	6.8	6.7	7.2	109	22.0	11.8	15.2	1.92
CH 5996	06-20-01	2.7	6.0	6.4	503	25.5	13.5	40.0	25.9
CH 5997	07-09-01	8.3	6.5	6.8	69	26.5	14.2	6.92	3.12
CH 5998	06-25-01	8.0	5.0	7.0	228	23.5	12.2	20.2	6.19
CH 5998	08-09-01	--	--	--	223	29.0	12.0	--	--
CH 6399	06-13-01	6.0	6.3	8.2	237	30.2	12.5	21.0	8.43
CH 6399	08-16-01	--	--	--	234	22.0	12.4	--	--
CH 6400	06-14-01	5.0	5.8	6.6	230	29.0	11.5	20.2	8.51
CH 6401	06-26-01	7.2	5.9	6.2	150	32.0	15.3	13.4	3.49
CH 6402	06-26-01	9.0	5.6	6.4	117	30.5	13.5	7.49	3.91
CH 6402	08-06-01	--	--	--	114	30.0	15.1	--	--
CH 6403	07-02-01	8.6	5.5	5.8	170	16.0	13.1	9.80	6.01
CH 6404	07-05-01	6.8	6.8	7.4	938	21.5	13.3	11.3	66.1
CH 6405	07-10-01	.2	6.8	7.1	211	31.5	12.3	20.9	5.95
CH 6406	07-11-01	3.4	6.1	6.5	135	27.0	12.5	8.74	5.29
CH 6406	07-11-01	3.3	6.1	6.5	135	27.0	12.5	8.58	5.21
CH 6407	07-12-01	3.6	6.5	6.8	82	23.2	12.7	5.87	2.62
CH 6408	07-16-01	4.4	6.7	6.7	139	26.5	14.2	8.70	5.09
CH 6496	08-07-01	.3	7.2	7.4	396	28.0	12.9	53.9	14.3

**ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
CHESTER COUNTY WATER-QUALITY MONITORING PROJECT**

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

LOCAL IDENTIFIER	DATE	POTAS- SIUM, DIS- SOLVED	SODIUM, DIS- SOLVED	ANC WATER UNFLTRD IT FIELD	BROMIDE DIS- SOLVED	CHLO- RIDE, DIS- SOLVED	FLUO- RIDE, DIS- SOLVED	SILICA, DIS- SOLVED	SULFATE DIS- SOLVED
		(MG/L AS K) (00935)	(MG/L AS NA) (00930)	(MG/L AS CACO3) (00419)	(MG/L AS BR) (71870)	(MG/L AS CL) (00940)	(MG/L AS F) (00950)	(MG/L AS SIO2) (00955)	(MG/L AS SO4) (00945)
CH 1283	06-19-01	1.30	7.1	41	<.01	15.3	<.2	26.5	20.4
CH 1435	06-21-01	1.60	8.8	18	<.01	23.6	<.2	19.6	28.1
CH 1730	06-28-01	1.74	10.8	12	.01	21.5	<.2	13.3	5.9
CH 4884	08-07-01	.87	8.7	61	.22	3.2	E.1	39.3	17.4
CH 5680	06-20-01	2.86	5.9	64	.31	4.9	.2	42.1	30.7
CH 5680	08-09-01	--	--	--	--	--	--	--	--
CH 5703	08-13-01	1.43	8.3	33	.03	26.4	<.2	24.2	7.4
CH 5995	06-18-01	.63	4.1	48	<.01	1.6	<.2	21.2	4.2
CH 5996	06-20-01	1.29	11.6	64	.03	70.9	E.1	39.0	51.8
CH 5997	07-09-01	.19	1.9	25	<.01	1.7	<.2	21.1	.3
CH 5998	06-25-01	1.62	8.2	20	.04	11.8	<.2	23.1	10.6
CH 5998	08-09-01	--	--	--	--	--	--	--	--
CH 6399	06-13-01	1.90	7.1	53	.03	20.1	E.1	31.4	14.8
CH 6399	08-16-01	--	--	--	--	--	--	--	--
CH 6400	06-14-01	1.84	8.9	46	.11	29.6	E.1	30.3	5.9
CH 6401	06-26-01	2.27	6.9	30	.01	6.0	<.2	24.4	19.9
CH 6402	06-26-01	1.41	5.2	14	.02	7.8	<.2	16.6	6.7
CH 6402	08-06-01	--	--	--	--	--	--	--	--
CH 6403	07-02-01	2.19	8.0	9	.03	16.7	<.2	13.4	.5
CH 6404	07-05-01	1.54	58.3	136	.03	184	<.2	30.8	32.5
CH 6405	07-10-01	4.82	5.7	53	.03	5.7	E.1	28.4	34.3
CH 6406	07-11-01	1.99	7.2	23	.04	7.5	<.2	19.5	12.6
CH 6406	07-11-01	1.98	7.1	25	.04	7.6	<.2	19.3	12.4
CH 6407	07-12-01	1.66	4.7	31	<.01	2.6	.2	19.4	6.7
CH 6408	07-16-01	2.37	9.0	30	.02	7.3	<.2	24.1	4.7
CH 6496	08-07-01	2.09	7.8	105	.02	3.5	<.2	36.1	86.2
LOCAL IDENTIFIER	DATE	NITRO- GEN, AMMONIA DIS- SOLVED	NITRO- GEN, NO2+NO3 DIS- SOLVED	NITRO- GEN, NITRITE DIS- SOLVED	PHOS- PHORUS ORTHO, DIS- SOLVED	E COLI, MTEC MF WATER	COLI- FORM, FECAL, 0.7 µM-MF	ALUM- INUM, DIS- SOLVED	ANTI- MONY, DIS- SOLVED
		(MG/L AS N) (00608)	(MG/L AS N) (00631)	(MG/L AS N) (00613)	(MG/L AS P) (00671)	(COL/ 100 ML) (31633)	(COLS./ 100 ML) (31625)	(µG/L AS AL) (01106)	(µG/L AS SB) (01095)
CH 1283	06-19-01	<.040	10.6	<.006	E.016	.0	<1	--	--
CH 1435	06-21-01	<.040	4.91	<.006	E.009	.0	<1	3	<.05
CH 1730	06-28-01	<.040	8.39	.010	<.020	.0	.0	68	E.03
CH 4884	08-07-01	E.023	E.028	E.004	<.020	--	--	6	<.05
CH 5680	06-20-01	<.040	E.030	.012	<.020	.0	.0	--	--
CH 5680	08-09-01	--	--	--	--	--	--	--	--
CH 5703	08-13-01	E.038	3.92	<.006	<.020	--	--	5	<.05
CH 5995	06-18-01	E.027	.375	<.006	.026	.0	.0	--	--
CH 5996	06-20-01	<.040	3.72	<.006	.020	.0	.0	--	--
CH 5997	07-09-01	<.040	1.51	<.006	.085	.0	.0	3	<.05
CH 5998	06-25-01	<.040	13.4	.008	.018	.0	<1	--	--
CH 5998	08-09-01	--	--	--	--	--	--	--	--
CH 6399	06-13-01	<.040	2.44	<.006	<.020	<1	.0	--	--
CH 6399	08-16-01	--	--	--	--	--	--	--	--
CH 6400	06-14-01	<.040	2.15	<.006	E.016	.0	.0	--	--
CH 6401	06-26-01	<.040	2.97	.007	.043	.0	.0	--	--
CH 6402	06-26-01	<.040	5.21	.008	.020	.0	.0	--	--
CH 6402	08-06-01	--	--	--	--	--	--	--	--
CH 6403	07-02-01	E.029	9.54	.006	<.020	.0	.0	--	--
CH 6404	07-05-01	E.030	1.81	E.005	<.020	<1	--	6	<.05
CH 6405	07-10-01	<.040	<.050	E.003	<.020	.0	.0	--	--
CH 6406	07-11-01	<.040	2.68	E.005	E.009	<1	.0	--	--
CH 6406	07-11-01	<.040	2.74	E.005	<.020	--	--	--	--
CH 6407	07-12-01	<.040	1.65	E.003	<.020	.0	.0	--	--
CH 6408	07-16-01	<.040	4.34	<.006	E.009	.0	.0	--	--
CH 6496	08-07-01	E.021	E.033	<.006	<.020	--	--	9	E.03

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

LOCAL IDENTIFIER	DATE	ARSENIC DIS-SOLVED (µG/L AS AS) (01000)	ARSENIC TOTAL (µG/L AS AS) (01002)	BARIUM, DIS-SOLVED (µG/L AS BA) (01005)	BERYL-LIUM, DIS-SOLVED (µG/L AS BE) (01010)	BORON, DIS-SOLVED (µG/L AS B) (01020)	CADMIUM DIS-SOLVED (µG/L AS CD) (01025)	CHROMIUM, DIS-SOLVED (µG/L AS CR) (01030)	COBALT, DIS-SOLVED (µG/L AS CO) (01035)
CH 1283	06-19-01	< .2	--	--	--	<13	--	--	--
CH 1435	06-21-01	.2	--	57.2	.08	19	.08	E.7	.09
CH 1730	06-28-01	<.2	--	84.5	.22	<13	.07	<.8	2.38
CH 4884	08-07-01	.5	<2	96.3	.09	--	E.03	<.8	.15
CH 5680	06-20-01	< .2	--	--	--	<13	--	--	--
CH 5680	08-09-01	--	--	--	--	--	--	--	--
CH 5703	08-13-01	E.1	<2	22.8	<.06	--	.08	<.8	.04
CH 5995	06-18-01	E.1	--	--	--	68	--	--	--
CH 5996	06-20-01	<.2	--	--	--	<13	--	--	--
CH 5997	07-09-01	<.2	--	<1.0	<.06	16	.04	2.2	.02
CH 5998	06-25-01	<.2	--	--	--	E12	--	--	--
CH 5998	08-09-01	--	--	--	--	--	--	--	--
CH 6399	06-13-01	<.2	--	--	--	<13	--	--	--
CH 6399	08-16-01	--	--	--	--	--	--	--	--
CH 6400	06-14-01	<.2	--	--	--	<13	--	--	--
CH 6401	06-26-01	<.2	--	--	--	<13	--	--	--
CH 6402	06-26-01	E.2	--	--	--	<13	--	--	--
CH 6402	08-06-01	--	--	--	--	--	--	--	--
CH 6403	07-02-01	<.2	--	--	--	15	--	--	--
CH 6404	07-05-01	<.2	--	26.4	<.06	39	.04	5.0	.08
CH 6405	07-10-01	<.2	--	--	--	E8	--	--	--
CH 6406	07-11-01	<.2	--	--	--	E12	--	--	--
CH 6406	07-11-01	<.2	--	--	--	15	--	--	--
CH 6407	07-12-01	<.2	--	--	--	E12	--	--	--
CH 6408	07-16-01	<.2	--	--	--	E8	--	--	--
CH 6496	08-07-01	2.7	4	23.9	<.06	--	<.04	<.8	.15

LOCAL IDENTIFIER	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)	LEAD, TOTAL RECOVERABLE (µG/L AS PB) (01051)	MANGANESE, DIS-SOLVED (µG/L AS MN) (01056)	MOLYBDENUM, DIS-SOLVED (µG/L AS MO) (01060)	NICKEL, DIS-SOLVED (µG/L AS NI) (01065)	SILVER, DIS-SOLVED (µG/L AS AG) (01075)
CH 1283	06-19-01	--	M	.40	--	<3.0	--	--	--
CH 1435	06-21-01	48.2	20	.70	--	1.4	<.2	.93	<1.0
CH 1730	06-28-01	214	70	.95	--	76.5	<.2	9.05	<1.0
CH 4884	08-07-01	1.2	1870	E.07	<1	238	1.6	<.06	<1.0
CH 5680	06-20-01	--	4150	<.08	--	196	--	--	--
CH 5680	08-09-01	--	--	--	--	--	--	--	--
CH 5703	08-13-01	37.2	<10	E.06	4	9.1	<.2	1.21	<1.0
CH 5995	06-18-01	--	M	E.05	--	4.1	--	--	--
CH 5996	06-20-01	--	M	.15	--	8.2	--	--	--
CH 5997	07-09-01	9.3	10	.12	--	3.0	<.2	<.06	<1.0
CH 5998	06-25-01	--	<10	.61	--	<3.0	--	--	--
CH 5998	08-09-01	--	--	--	--	--	--	--	--
CH 6399	06-13-01	--	<10	.34	--	<3.0	--	--	--
CH 6399	08-16-01	--	--	--	--	--	--	--	--
CH 6400	06-14-01	--	<10	.11	--	E3.0	--	--	--
CH 6401	06-26-01	--	<10	.58	--	E2.1	--	--	--
CH 6402	06-26-01	--	<10	.57	--	8.3	--	--	--
CH 6402	08-06-01	--	--	--	--	--	--	--	--
CH 6403	07-02-01	--	<10	.84	--	49.6	--	--	--
CH 6404	07-05-01	2.3	20	.16	--	1.2	<.2	121	<1.0
CH 6405	07-10-01	--	3680	.64	--	141	--	--	--
CH 6406	07-11-01	--	<10	.40	--	58.1	--	--	--
CH 6406	07-11-01	--	<10	.68	--	58.1	--	--	--
CH 6407	07-12-01	--	10	.26	--	29.1	--	--	--
CH 6408	07-16-01	--	<10	.62	--	3.6	--	--	--
CH 6496	08-07-01	4.4	<10	.14	<1	51.7	.8	<.06	<1.0

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

LOCAL IDENT- I- FIER	DATE	TRI- CHLORO- FLUORO- METHANE TOTAL (µG/L) (34488)	VINYL CHLO- RIDE TOTAL (µG/L) (39175)	RADON 222 TOTAL (PCI/L) (82303)	RADON 222, 2X CL, SS MDC, WATER, UNFLTRD (PCI/L) (99327)	RN-222 2 SIGMA WATER, WHOLE, TOTAL, (PCI/L) (76002)	URANIUM NATURAL DIS- SOLVED (µG/L AS U) (22703)
CH 1283	06-19-01	<.20	<.2	712	28.0	30	--
CH 1435	06-21-01	<.20	<.2	639	25.0	27	<.02
CH 1730	06-28-01	<.20	<.2	1820	24.0	39	<.02
CH 4884	08-07-01	--	--	988	25.0	31	<.02
CH 5680	06-20-01	--	--	276	25.0	21	--
CH 5680	08-09-01	--	--	--	--	--	--
CH 5703	08-13-01	--	--	595	31.0	29	.04
CH 5995	06-18-01	<.20	<.2	48.0	26.0	17	--
CH 5996	06-20-01	<.20	<.2	884	25.0	30	--
CH 5997	07-09-01	--	--	122	24.0	17	<.02
CH 5998	06-25-01	--	--	293	22.0	20	--
CH 5998	08-09-01	--	--	--	--	--	--
CH 6399	06-13-01	--	--	459	24.0	23	--
CH 6399	08-16-01	--	--	--	--	--	--
CH 6400	06-14-01	<.20	<.2	605	26.0	24	--
CH 6401	06-26-01	<.20	<.2	789	23.0	28	--
CH 6402	06-26-01	--	--	951	23.0	31	--
CH 6402	08-06-01	--	--	--	--	--	--
CH 6403	07-02-01	<.20	<.2	5800	24.0	67	--
CH 6404	07-05-01	<.20	<.2	177	22.0	17	E.01
CH 6405	07-10-01	<.20	<.2	1450	24.0	36	--
CH 6406	07-11-01	--	--	1180	25.0	33	--
CH 6406	07-11-01	--	--	1190	25.0	34	--
CH 6407	07-12-01	<.20	<.2	4290	24.0	60	--
CH 6408	07-16-01	--	--	1700	23.0	38	--
CH 6496	08-07-01	--	--	1280	26.0	35	.28