

Dvirk and Bartilucci

CONSULTING ENGINEERS

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Division of Environmental Remediation
New York State Department of Environmental Conservation
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During the purging process, pH, specific conductivity, temperature, turbidity, dissolved oxygen and redox potential (eH) were monitored at regular intervals. When the values of all field parameters, except turbidity, had stabilized to within 10 percent for two successive readings, and the turbidity of the water was less than 50 Nephelometric Turbidity Units (NTUs), and a minimum of three casing volumes had been removed, well purging was considered complete. Results for the parameters monitored during purging are summarized in Table 1. Measurements of the parameters collected immediately prior to sampling are shown on the Sample Information Records included as Attachment A.

After purging, groundwater samples were collected from the dedicated discharge tubing. Samples were collected at a maximum flow rate of approximately 1-gallon per minute. Samples for volatile organic compound (VOC) analyses were collected first, followed by the remaining parameters. Filled sample bottles were immediately placed into an ice-filled cooler for shipment under chain-of-custody procedures to Southwest Laboratory of Oklahoma, Inc. Samples were shipped to arrive at the laboratory within 48 hours after collection.

Appropriate quality assurance/quality control (QA/QC) samples, including matrix spike, matrix spike duplicate and trip blank samples, were collected in conformance with the approved work plan.

Decontamination of the submersible pump used for purging the nine monitoring wells was performed in accordance with procedures described in the approved QA/QC Plan.

Data Usability Summary Report

Thirteen groundwater samples were collected in July 2002 during the fourth round of sampling for the Groundwater Monitoring and Assessment Program. The samples were analyzed by Southwest Laboratory of Oklahoma, a laboratory contractor to the New York State Department of Environmental Conservation (NYSDEC). The samples were analyzed in accordance with the specified methods and NYSDEC Analytical Services Protocol (ASP) Quality Assurance/ Quality Control (QA/QC) requirements.

The data packages submitted by Southwest have been validated by Nancy Potak, a NYSDEC-approved data validator and subcontractor to Dvirk and Bartilucci Consulting Engineers. Validation was performed in accordance with NYSDEC ASP requirements. The findings of the validation process have been summarized below and copies of the validation reports prepared by Nancy Potak are available upon request.

Samples were analyzed within the method specified holding times based upon Validated Time of Sample Receipt (VTSR) with the exception of several reanalyses at secondary dilutions. The exceedance in holding times did not effect the end use of the data. All QA/QC requirements (i.e., initial and continuing calibrations, surrogate recoveries, spike recoveries, blanks) were met.

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Several of the samples required reanalysis of the volatile fraction at further dilutions due to compound concentrations exceeding the instrument calibration range. The results for these compounds were taken from the diluted run and have been flagged with a "D" on the data summary table.

The initial analysis of three samples, MW-1, MW-2 and MW-3, were lost due to an instrument failure; therefore, the samples were reanalyzed. The reanalysis indicated that the samples required dilution due to compound concentrations exceeding the instrument calibration range. However, in order to obtain adequate volume for analysis, the two opened vials were combined, therefore, resulting in a loss of compounds and the compound concentrations from the diluted run were not comparable to the initial run. The data from the undiluted run is considered the best set and best correlates with the results from the previous three quarters.

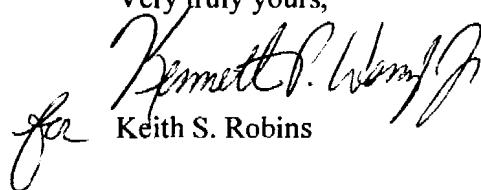
No other problems were found with the data packages and all results have been deemed valid and usable for environmental assessment purposes as qualified above.

Analytical Results

The analytical results for the four early warning wells and the nine monitoring wells are summarized in Table 2 (VOCs) and Table 3 (inorganic parameters). The results are compared to previous sample results (Rounds 1, 2 and 3) and the NYSDEC Class GA Groundwater Standards and Guidance Values. A complete copy of the laboratory data package is enclosed for your files.

If you have any questions or require additional information, please contact me at (516) 364-9890.

Very truly yours,


for
Keith S. Robins

KSR/RAP/lid

Enclosures

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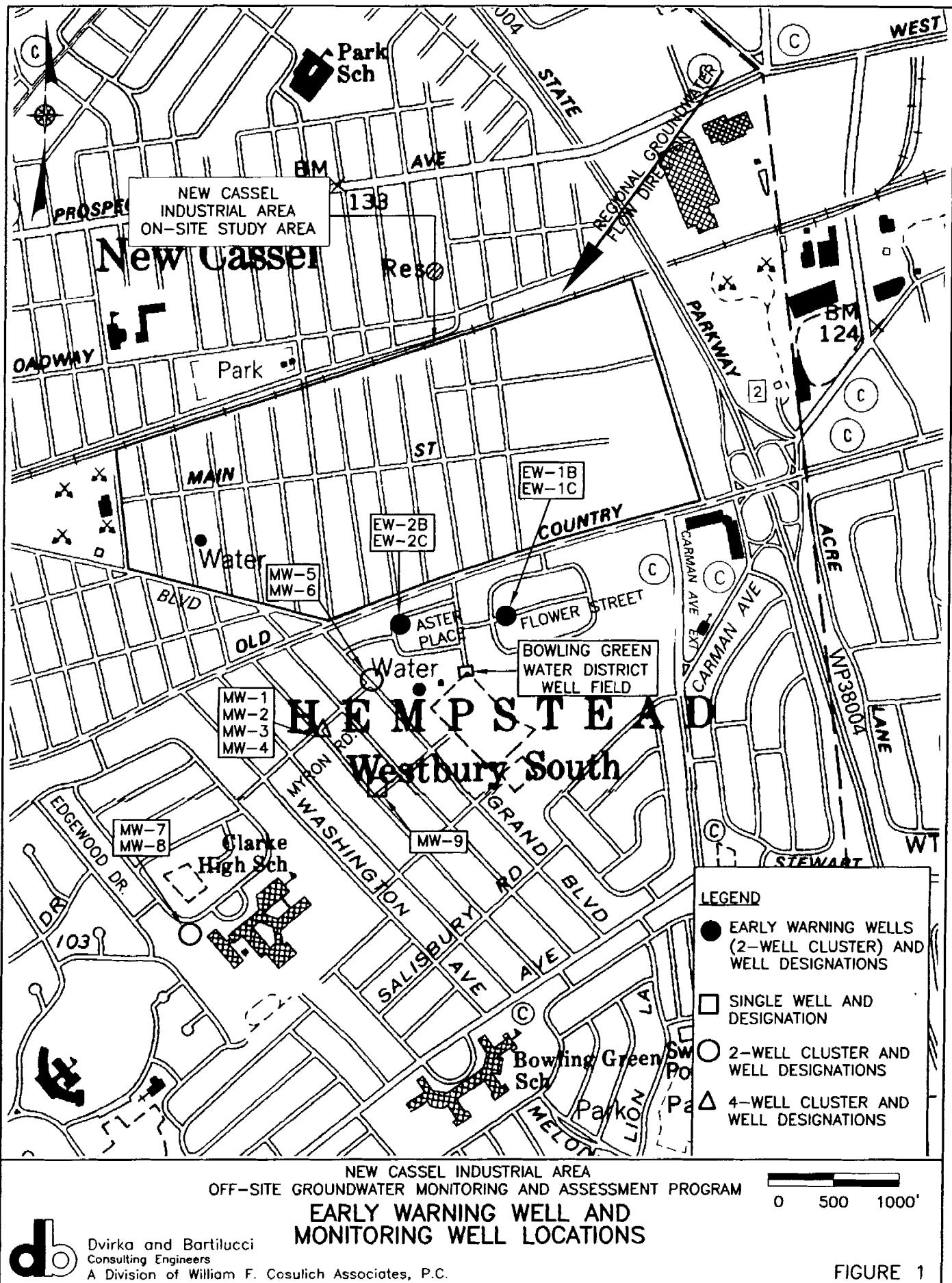


Table 1

**NEW CASSEL INDUSTRIAL AREA
OFF-SITE GROUNDWATER MONITORING AND ASSESSMENT PROGRAM
SUMMARY OF PURGE WATER PARAMETER DATA**

Well Number	Gallons	pH (standard units)	Temperature (°C)	Specific Conductivity (ms/cm)	Turbidity (NTUs)	Dissolved Oxygen (mg/l)	eH (mv)
EW-1B	Initial	6.27	17.9	0.309	16.5	4.84	227
	20	5.89	17.4	0.247	7.3	2.61	246
	40	5.60	17.2	0.247	8.0	1.40	289
	60	5.52	17.5	0.248	9.2	1.35	306
	80	5.58	17.3	0.250	6.5	1.40	303
	100	5.59	17.4	0.252	3.9	1.42	305
EW-1C	Initial	6.73	17.1	0.240	37	5.31	309
	150	8.17	14.7	0.134	81	4.93	316
	300	8.13	14.1	0.133	84	9.74	297
	450	7.27	13.7	0.133	23.8	10.32	248
	600	6.77	13.8	0.131	17.0	10.50	258
	750	6.43	13.7	0.130	16	11.67	265
	900	6.03	14.1	0.130	25	12.50	268
	1,050	6.09	13.6	0.128	9.1	11.08	260
	1,200	5.95	13.7	0.126	8.3	11.07	271
	1,350	5.99	14.3	0.125	14.1	11.06	262
	1,500	5.98	14.0	0.126	13.2	11.07	263
EW-2B	Initial	5.69	17.2	0.210	5.3	3.08	282
	20	5.54	17.1	0.208	3.9	2.10	327
	40	5.38	17.1	0.205	3.3	1.49	332
	60	5.47	16.9	0.203	3.0	1.67	328
	80	5.52	16.8	0.204	2.2	1.78	328
	100	5.49	16.8	0.205	3.4	1.74	330
EW-2C	Initial	5.31	17.7	0.153	63	3.80	286
	200	6.11	15.3	0.078	76	3.84	117
	400	6.16	14.4	0.067	184.0	11.65	231
	600	5.59	14.5	0.065	65	14.59	265
	800	5.80	14.3	0.065	35	14.48	264
	1,000	5.85	14.6	0.064	29	14.66	264
	1,200	5.84	14.4	0.064	28	14.71	264
	1,400	5.87	14.6	0.063	20	16.05	270
	1,600	5.88	14.3	0.064	26	16.06	267
	MW-1	Initial	4.30	19.0	0.356	3.9	5.42
MW-1	10	4.73	18.4	0.354	3.8	5.94	286
	20	4.48	18.2	0.341	2.1	4.83	345
	30	4.65	17.9	0.340	1.5	4.87	352
	40	4.74	18.0	0.339	1.9	4.90	359
	50	4.73	18.0	0.338	1.9	4.90	358
	60	4.73	17.9	0.339	1.4	5.01	359
	70	4.73	18.0	0.339	0.9	4.99	358

Table 1 (continued)

NEW CASSEL INDUSTRIAL AREA
OFF-SITE GROUNDWATER MONITORING AND ASSESSMENT PROGRAM
SUMMARY OF PURGE WATER PARAMETER DATA

Well Number	Gallons	pH (standard units)	Temperature (°C)	Specific Conductivity (ms/cm)	Turbidity (NTUs)	Dissolved Oxygen (mg/l)	eH (mv)
MW-2	Initial	5.30	17.3	0.283	2.7	2.57	330
	10	5.45	17.4	0.297	14.7	1.57	266
	20	5.43	17.1	0.297	7.3	1.80	261
	30	5.46	17.0	0.293	2.7	1.57	244
	40	5.45	17.3	0.291	2.6	1.37	239
	50	5.47	17.0	0.288	2.0	1.58	237
	60	5.47	17.0	0.288	1.1	1.30	230
	70	5.47	17.1	0.288	2.0	1.30	231
MW-3	Initial	4.50	18.3	0.119	7.8	1.93	179
	20	4.84	17.5	0.197	65.3	2.14	164
	40	5.04	17.5	0.220	17.1	1.80	152
	60	5.09	17.5	0.244	20.3	1.81	141
	80	5.09	17.5	0.246	23.3	2.86	146
MW-4	Initial	5.24	17.0	0.294	0.9	1.60	168
	50	5.33	18.2	0.294	1.4	1.32	187
	100	5.35	17.2	0.294	1.5	2.01	221
	150	5.37	17.5	0.292	1.8	2.00	225
	200	5.39	17.5	0.292	1.5	1.86	230
	250	5.37	17.7	0.293	1.1	1.92	231
	300	5.41	17.7	0.293	0.1	1.79	233
	350	5.41	18.0	0.293	0.9	1.75	233
MW-5	Initial	5.51	18.2	0.173	0.5	12.60	332
	10	5.65	17.5	0.295	9.0	12.64	350
	20	5.63	17.6	0.294	8.3	12.59	358
	30	5.68	17.6	0.327	2.1	12.34	360
	40	5.68	17.6	0.329	2.3	12.32	370
	50	5.68	17.6	0.328	7.0	12.32	370
MW-6	Initial	8.01	18.0	0.484	0.3	3.30	274
	20	7.13	17.2	0.493	12.1	1.20	286
	40	6.10	17.2	0.489	9.0	1.10	284
	60	5.86	17.4	0.491	7.6	1.14	276
	80	5.87	17.5	0.489	6.5	1.16	280
MW-7	Initial	5.55	16.3	0.223	29.5	9.11	353
	10	5.17	15.3	0.217	44.9	7.47	385
	20	5.04	15.1	0.215	5.3	7.76	403
	30	5.03	15.2	0.216	4.0	7.80	409
	40	5.02	15.2	0.219	3.4	7.76	407
	50	5.04	15.2	0.218	2.8	7.78	411
	60	5.05	15.3	0.216	3.1	7.77	413

Table 1 (continued)

NEW CASSEL INDUSTRIAL AREA
OFF-SITE GROUNDWATER MONITORING AND ASSESSMENT PROGRAM
SUMMARY OF PURGE WATER PARAMETER DATA

Well Number	Gallons	pH (standard units)	Temperature (°C)	Specific Conductivity (ms/cm)	Turbidity (NTUs)	Dissolved Oxygen (mg/l)	eH (mv)
MW-8	Initial	5.70	13.9	0.245	143	5.91	25
	20	5.27	14.6	0.285	43	4.62	16
	40	5.18	14.5	0.261	30	5.09	8
	60	5.10	14.5	0.254	110	5.42	27
	80	5.09	14.4	0.250	44	5.68	35
	100	5.08	14.5	0.248	19	6.05	51
MW-9	Initial	7.90	17.9	0.208	8.2	14.15	186
	50	11.32	15.9	1.15	23.5	11.15	137
	100	11.35	15.9	0.870	12.1	10.84	139
	150	11.38	15.9	0.863	12.5	10.43	140
	200	11.29	15.6	0.735	13.3	10.40	148
	250	11.20	15.9	0.629	11.7	10.29	161
	300	10.95	16.0	0.443	13.5	9.81	132
	350	10.91	16.2	0.443	14.9	8.89	161
	400	10.54	15.3	0.282	14.2	6.46	183
	450	10.35	15.1	0.260	10.5	6.37	197
	500	10.16	15.0	0.233	9.0	6.80	206
	550	9.99	15.0	0.232	7.6	6.80	205
	600	10.00	15.0	0.233	7.5	6.81	207

Notes:

°C - degrees celsius

ms/cm - millisiemens/centimeter

NTUs - Nephelometric Turbidity Units

mv - millivolt

mg/l - milligrams per liter

TABLE 2
NEW CASSEL INDUSTRIAL AREA
OFF-SITE GROUNDWATER MONITORING AND ASSESSMENT PROGRAM
MONITORING WELL SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS

Sample Identification	EW-1B	EW-1B	EW-1B	EW-1B	EW-1C	EW-1C	Contract Required Detection Limit	NYSDEC Class GA Groundwater Standard or Guidance Value
Sample Depth, ft	154-164	154-164	154-164	154-164	506-516	506-516		
Date of Collection	09/25/01	01/28/02	04/25/02	07/18/02	09/25/01	01/28/02		
Dilution Factor	1.0	50.0	50.0	60.2	1.0	1.0		
Units	(ug/l)	(ug/l)						
Dichlorodifluoromethane	U	U	U	U	U	U	0.5	5 ST
Chloromethane	U	U	U	U	U	U	0.5	5 ST
Vinyl Chloride	U	U	U	U	U	U	0.5	2 ST
Bromomethane	U	U	U	U	U	U	0.5	5 ST
Chloroethane	U	U	U	U	U	U	0.5	5 ST
Fluorotrichloromethane	U	U	U	U	U	U	0.5	5 ST
1,1-Dichloroethene	39	45	39	38	U	U	0.5	5 ST
Methylene Chloride	U	26	U	U	U	U	0.5	5 ST
trans-1,2-Dichloroethene	0.8	U	U	0.8	U	U	0.5	5 ST
1,1-Dichloroethane	3.8	U	10	7	U	U	0.5	5 ST
2,2-Dichloropropane	''	U	U	U	U	U	0.5	5 ST
cis-1,2-Dichloroethene	58 ''D	87	54 D	44 D	U	U	0.5	5 ST
Chloroform	U	U	0.3 J	U	U	U	0.5	7 ST
Bromochloromethane	U	U	U	U	U	U	0.5	5 ST
1,1,1-Trichloroethane	40	59	52 D	41 D	U	U	0.5	5 ST
1,1-Dichloropropene	U	U	U	U	U	U	0.5	5 ST
Carbon Tetrachloride	U	U	U	U	U	U	0.5	5 ST
1,2-Dichloroethane	U	U	U	U	U	U	0.5	0.6 ST
Trichloroethene	66 D	120	91 D	67 D	12	13	0.5	5 ST
1,2-Dichloropropane	U	U	U	U	U	U	0.5	1 ST
Bromodichloromethane	U	U	U	U	U	U	0.5	50 GV
Dibromomethane	U	U	U	U	U	U	0.5	5 ST
cis-1,3-Dichloropropene	U	U	U	U	U	U	0.5	0.4 ST
trans-1,3-Dichloropropene	U	U	U	U	U	U	0.5	0.4 ST
1,1,2-Trichloroethane	U	U	U	U	U	U	0.5	1 ST
1,3-Dichloropropene	U	U	U	U	U	U	0.5	5 ST
Tetrachloroethene	630 D	1000	780 D	640 D	U	U	0.5	5 ST
Dibromochloromethane	U	U	U	U	U	U	0.5	50 GV
Chlorobenzene	U	U	U	U	U	U	0.5	5 ST
1,1,1,2-Tetrachloroethane	U	U	U	U	U	U	0.5	5 ST
Bromoform	U	U	U	U	U	U	0.5	50 GV
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	0.5	5 ST
1,2,3-Trichloropropane	U	U	U	U	U	U	0.5	0.04 ST
Bromobenzene	U	U	U	U	U	U	0.5	5 ST
1,3-Dichlorobenzene	1.1	U	U	2	U	U	0.5	3 ST
1,4-Dichlorobenzene	0.7	U	0.8	0.9	U	U	0.5	3 ST
1,2-Dichlorobenzene	U	U	U	U	U	U	0.5	3 ST
1,2,4-Trichlorobenzene	U	U	U	U	U	U	0.5	5 ST
Hexachlorobutadiene	U	U	U	U	U	U	0.5	0.5 ST
1,2,3-Trichlorobenzene	U	U	U	U	U	U	0.5	5 ST
Methyl-tert-butyl ether	U	U	U	U	U	U	0.5	---
Benzene	U	U	U	U	U	U	0.5	1 ST
Toluene	U	U	U	U	U	U	0.5	5 ST
Ethylbenzene	U	U	U	U	U	U	0.5	5 ST
m-Xylene	U	U	U	U	U	U	0.5	5 ST
p-Xylene	U	U	U	U	U	U	0.5	5 ST
o-Xylene	U	U	U	U	U	U	0.5	5 ST
Styrene	U	U	U	U	U	U	0.5	5 ST
Isopropylbenzene (Cumene)	U	U	U	U	U	U	0.5	5 ST
n-Propylbenzene	U	U	U	U	U	U	0.5	5 ST
1,3,5-Tri-methylbenzene	U	U	U	U	U	U	0.5	5 ST
2-Chlorotoluene	U	U	U	U	U	U	0.5	5 ST
4-Chlorotoluene	U	U	U	U	U	U	0.5	5 ST
tert-Butylbenzene	U	U	U	U	U	U	0.5	5 ST
1,2,4-Tri-methylbenzene	U	U	U	U	U	U	0.5	5 ST
sec-Butylbenzene	U	U	U	U	U	U	0.5	5 ST
p-Isopropyltoluene(p-Cymene)	U	U	U	U	U	U	0.5	5 ST
n-Butylbenzene	U	U	U	U	U	U	0.5	5 ST
Total VOCs	839.2	1337	1037.1	840.7	12	13.8	---	---

QUALIFIERS:

U: Compound analyzed for but not detected

J: Compound found at a concentration below the CRDL, value estimated

": Result reported as a sum of 2,2 -dichloropropane and cis-1,2-dichloroethene

E: Compound concentration exceeds instrument calibration range, value estimated

D: Result taken from reanalysis at a secondary dilution

NOTES:

* Value pertains to the sum of the isomers

ST: Standard

GV: Guidance Value

----: Not established

Indicates value exceeds NYSDEC Class GA groundwater standard or guidance value

TABLE 2 (continued)
NEW CASSEL INDUSTRIAL AREA
OFF-SITE GROUNDWATER MONITORING AND ASSESSMENT PROGRAM
MONITORING WELL SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS

Sample Identification	EW-1C	EW-1C	EW-2B	EW-2B	EW-2B	EW-2B	Contract Required Detection Limit	NYSDEC Class GA Groundwater Standard or Guidance Value
Sample Depth, ft	506-516	506-516	132-142	132-142	132-142	132-142		
Date of Collection	04/26/02	07/18/02	09/25/01	01/28/02	04/25/02	07/19/02		
Dilution Factor	1.0	1.0	1.0	5.0	5.0	5.0		
Units	(ug/l)	(ug/l)						
Dichlorodifluoromethane	U	U	U	U	U	U	0.5	5 ST
Chloromethane	U	U	U	U	U	U	0.5	5 ST
Vinyl Chloride	U	U	51 D	32	24	28	0.5	2 ST
Bromomethane	U	U	U	U	U	U	0.5	5 ST
Chloroethane	U	U	2.6	U	24	19	0.5	5 ST
Fluorotrichloromethane	U	U	0.8	U	U	U	0.5	5 ST
1,1-Dichloroethene	U	U	43 D	10	8	U	0.5	5 ST
Methylene Chloride	U	U	1.5	3 J	U	U	0.5	5 ST
trans-1,2-Dichloroethene	U	U	U	U	U	U	0.5	5 ST
1,1-Dichloroethane	U	U	150 D	24	9	5	0.5	5 ST
2,2-Dichloropropane	U	U	"	U	U	U	0.5	5 ST
cis-1,2-Dichloroethene	U	U	36 "	25	19	18	0.5	5 ST
Chloroform	U	U	U	U	U	U	0.5	7 ST
Bromochloromethane	U	U	U	U	U	U	0.5	5 ST
1,1,1-Trichloroethane	U	U	85 D	16	8	5	0.5	5 ST
1,1-Dichloropropene	U	U	U	U	U	U	0.5	5 ST
Carbon Tetrachloride	U	U	U	U	U	U	0.5	5 ST
1,2-Dichloroethane	U	U	0.7	U	0.5	U	0.5	0.6 ST
Trichloroethylene	15	13	140 D	130	100 D	84 D	0.5	5 ST
1,2-Dichloropropane	U	U	U	U	U	U	0.5	1 ST
Bromodichloromethane	U	U	U	U	U	U	0.5	50 GV
Dibromomethane	U	U	U	U	U	U	0.5	5 ST
cis-1,3-Dichloropropene	U	U	U	U	U	U	0.5	0.4 ST *
trans-1,3-Dichloropropene	U	U	U	U	U	U	0.5	0.4 ST *
1,1,2-Trichloroethane	U	U	U	U	U	U	0.5	1 ST
1,3-Dichloropropane	U	U	U	U	U	U	0.5	5 ST
Tetrachloroethylene	5	U	20	21	17	21	0.5	5 ST
Dibromochloromethane	U	U	U	U	U	U	0.5	50 GV
Chlorobenzene	U	U	1.3	U	U	U	0.5	5 ST
1,1,1,2-Tetrachloroethane	U	U	U	U	U	U	0.5	5 ST
Bromoform	U	U	U	U	U	U	0.5	50 GV
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	0.5	5 ST
1,2,3-Trichloropropane	U	U	0.5	U	U	U	0.5	0.04 ST
Bromobenzene	U	U	U	U	U	U	0.5	5 ST
1,3-Dichlorobenzene	U	U	U	U	U	U	0.5	3 ST
1,4-Dichlorobenzene	U	U	U	U	U	U	0.5	3 ST
1,2-Dichlorobenzene	U	U	U	U	U	U	0.5	3 ST
1,2,4-Trichlorobenzene	U	U	U	U	U	U	0.5	5 ST
Hexchlorobutadiene	U	U	U	U	U	U	0.5	0.5 ST
1,2,3-Trichlorobenzene	U	U	U	U	U	U	0.5	5 ST
Methyl-tert-butyl ether	U	U	U	U	U	U	0.5	—
Benzene	U	U	U	U	U	U	0.5	1 ST
Toluene	U	U	U	U	U	U	0.5	5 ST
Ethylbenzene	U	U	U	U	U	U	0.5	5 ST
m-Xylene	U	U	U	U	U	U	0.5	5 ST
p-Xylene	U	U	U	U	U	U	0.5	5 ST
o-Xylene	U	U	U	U	U	U	0.5	5 ST
Styrene	U	U	U	U	U	U	0.5	5 ST
Isopropylbenzene (Cumene)	U	U	U	U	U	U	0.5	5 ST
n-Propylbenzene	U	U	U	U	U	U	0.5	5 ST
1,3,5-Trimethylbenzene	U	U	U	U	U	U	0.5	5 ST
2-Chlorololuene	U	U	U	U	U	U	0.5	5 ST
4-Chlorololuene	U	U	U	U	U	U	0.5	5 ST
tert-Butylbenzene	U	U	U	U	U	U	0.5	5 ST
1,2,4-Trimethylbenzene	U	U	U	U	U	U	0.5	5 ST
sec-Butylbenzene	U	U	U	U	U	U	0.5	5 ST
p-Isopropyltoluene(p-Cymene)	U	U	U	U	U	U	0.5	5 ST
n-Butylbenzene	U	U	U	U	U	U	0.5	5 ST
Total VOCs	20	13	532.2	281	209.5	181	—	—

QUALIFIERS:

- U: Compound analyzed for but not detected
- J: Compound found at a concentration below the CRL, value estimated
- ": Result reported as a sum of 2,2-dichloropropane and cis-1,2-dichloroethylene
- E: Compound concentration exceeds instrument calibration range, value estimated
- D: Result taken from reanalysis at a secondary dilution
- B: Compound found in the method blank as well as the sample

NOTES

- *: Value pertains to the sum of the isomers
- ST: Standard
- GV: Guidance Value
- : Not established
- Indicates value exceeds NYSDEC Class GA groundwater standard or guidance value

TABLE Z (continued)
NEW CASSEL INDUSTRIAL AREA
OFF-SITE GROUNDWATER MONITORING AND ASSESSMENT PROGRAM
MONITORING WELL SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS

Sample Identification	EW-2C	EW-2C	EW-2C	EW-2C	MW-1	MW-1	Contract Required Detection Limit	NYSDEC Class GA Groundwater Standard or Guidance Value
Sample Depth, ft	504-514	504-514	504-514	504-514	90-110	90-110		
Date of Collection	09/25/01	01/28/02	04/25/02	07/19/02	11/02/01	01/24/02		
Dilution Factor	1.0	1.0	1.0	1.0	1.0	1.0		
Units	(ug/l)	(ug/l)						
Dichlorodifluoromethane	U	U	U	U	U	U	0.5	5 ST
Chloromethane	U	U	U	U	U	U	0.5	5 ST
Vinyl Chloride	U	U	U	U	U	U	0.5	2 ST
Bromomethane	U	U	U	U	U	U	0.5	5 ST
Chloroethane	U	U	U	U	U	U	0.5	5 ST
Fluorotrichloromethane	U	U	U	U	U	U	0.5	5 ST
1,1-Dichloroethene	U	U	U	U	16	8	0.5	5 ST
Methylene Chloride	U	U	U	U	U	U	0.5	5 ST
trans-1,2-Dichloroethene	U	U	U	U	U	U	0.5	5 ST
1,1-Dichloroethane	U	U	U	U	2.8	2	0.5	5 ST
2,2-Dichloropropane	U	U	U	U	**	U	0.5	5 ST
cis-1,2-Dichloroethene	U	U	U	U	1.1 **	1	0.5	5 ST
Chloroform	U	U	U	U	0.5	U	0.5	7 ST
Bromochloromethane	U	U	U	U	U	U	0.5	5 ST
1,1,1-Trichloroethane	U	U	U	U	7.8	4	0.5	5 ST
1,1-Dichloropropene	U	U	U	U	U	U	0.5	5 ST
Carbon Tetrachloride	U	U	U	U	U	U	0.5	5 ST
1,2-Dichloroethane	U	U	U	U	U	U	0.5	0.6 ST
Trichloroethene	U	U	U	U	21	16	0.5	5 ST
1,2-Dichloropropane	U	U	U	U	U	U	0.5	1 ST
Bromodichloromethane	U	U	U	U	U	U	0.5	50GV
Dibromomethane	U	U	U	U	U	U	0.5	5 ST
cis-1,3-Dichloropropene	U	U	U	U	U	U	0.5	0.4 ST *
trans-1,3-Dichloropropene	U	U	U	U	U	U	0.5	0.4 ST *
1,1,2-Trichloroethane	U	U	U	U	U	U	0.5	1 ST
1,3-Dichloropropane	U	U	U	U	U	U	0.5	5 ST
Tetrachloroethene	U	U	U	U	1	4.1	3	0.5
Dibromochloromethane	U	U	U	U	U	U	0.5	50GV
Chlorobenzene	U	U	U	U	U	U	0.5	5 ST
1,1,1,2-Tetrachloroethane	U	U	U	U	U	U	0.5	5 ST
Bromoform	U	U	U	U	U	U	0.5	50GV
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	0.5	5 ST
1,2,3-Trichloropropane	U	U	U	U	U	U	0.5	0.04 ST
Bromobenzene	U	U	U	U	U	U	0.5	5 ST
1,3-Dichlorobenzene	U	U	U	U	U	U	0.5	3 ST
1,4-Dichlorobenzene	U	U	U	U	U	U	0.5	3 ST
1,2-Dichlorobenzene	U	U	U	U	U	U	0.5	3 ST
1,2,4-Trichlorobenzene	U	U	U	U	U	U	0.5	5 ST
Hexachlorobutadiene	U	U	U	U	U	U	0.5	0.5 ST
1,2,3-Trichlorobenzene	U	U	U	U	U	U	0.5	5 ST
Methyl-tert-butyl ether	U	U	U	U	U	U	0.5	---
Benzene	U	U	U	U	U	U	0.5	1 ST
Toluene	U	U	U	U	U	U	0.5	5 ST
Ethylbenzene	U	U	U	U	U	U	0.5	5 ST
m-Xylene	U	U	U	U	U	U	0.5	5 ST
p-Xylene	U	U	U	U	U	U	0.5	5 ST
o-Xylene	U	U	U	U	U	U	0.5	5 ST
Styrene	U	U	U	U	U	U	0.5	5 ST
Isopropylbenzene (Cumene)	U	U	U	U	U	U	0.5	5 ST
n-Propylbenzene	U	U	U	U	U	U	0.5	5 ST
1,3,5-Trimethylbenzene	U	U	U	U	U	U	0.5	5 ST
2-Chlorotoluene	U	U	U	U	U	U	0.5	5 ST
4-Chlorotoluene	U	U	U	U	U	U	0.5	5 ST
tert-Butylbenzene	U	U	U	U	U	U	0.5	5 ST
1,2,4-Trimethylbenzene	U	U	U	U	U	U	0.5	5 ST
sec-Butylbenzene	U	U	U	U	U	U	0.5	5 ST
p-Isopropyltoluene(p-Cymene)	U	U	U	U	U	U	0.5	5 ST
n-Butylbenzene	U	U	U	U	U	U	0.5	5 ST
Total VOCs	0	0	0	1	53.3	34		—

QUALIFIERS:

- U: Compound analyzed for but not detected
- J: Compound found at a concentration below the CRDL, value estimated
- **: Result reported as a sum of 2,2 -dichloropropane and cis-1,2-dichloroethene
- E: Compound concentration exceeds instrument calibration range, value estimated
- D: Result taken from reanalysis at a secondary dilution

NOTES:

*: Value pertains to the sum of the isomers

ST: Standard

GV: Guidance Value

—: Not established

Indicates value exceeds NYSDEC Class GA groundwater standard or guidance value

TABLE 2 (continued)
NEW CASSEL INDUSTRIAL AREA
OFF-SITE GROUNDWATER MONITORING AND ASSESSMENT PROGRAM
MONITORING WELL SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS

Sample Identification	MW-1	MW-1	MW-2	MW-2	MW-2	MW-2	Contract Required Detection Limit	NYSDEC Class GA Groundwater Standard or Guidance Value
Units	(ug/l)	(ug/l)						
Dichlorodifluoromethane	U	U	U	U	U	U	0.5	5 ST
Chloromethane	U	U	U	U	U	U	0.5	5 ST
Vinyl Chloride	U	U	U	U	U	U	0.5	2 ST
Bromomethane	U	U	U	U	U	U	0.5	5 ST
Chloroethane	U	U	U	1	2	U	0.5	5 ST
Fluorotrifluoromethane	U	U	U	U	U	U	0.5	5 ST
1,1-Dichloroethene	28	24	540 D	440 D	480 D	190 E	0.5	5 ST
Methylene Chloride	U	U	1.9		U	U	0.5	5 ST
trans-1,2-Dichloroethene	U	U	U		U	U	0.5	5 ST
1,1-Dichloroethane	5	4	140 D	140 D	140 D	52 E	0.5	5 ST
2,2-Dichloropropane		U	**	U		U	0.5	5 ST
cis-1,2-Dichloroethene	3	3	48 **E	35	42 D	17	0.5	5 ST
Chloroform	U	1	5.2	2	4	2 B	0.5	7 ST
Bromochloromethane	U	U	U	U	U	U	0.5	5 ST
1,1,1-Trichloroethane	10 J	10	230 D	220 D	210 D	75 E	0.5	5 ST
1,1-Dichloropropene	U	U	U	U	U	U	0.5	5 ST
Carbon Tetrachloride	U	U	U	U	U	U	0.5	5 ST
1,2-Dichloroethane	U	U	2.2	U	2	U	0.5	0.6 ST
Trichloroethene	52 DJ	55 E	580 D	500 D	450 D	190 E	0.5	5 ST
1,2-Dichloropropane	U	U	U	U	U	U	0.5	1 ST
Bromodichloromethane	U	U	U	U	U	U	0.5	50 GV
Dibromomethane	U	U	U	U	U	U	0.5	5 ST
cis-1,3-Dichloropropene	U	U	U	U	U	U	0.5	0.4 ST *
trans-1,3-Dichloropropene	U	U	U	U	U	U	0.5	0.4 ST *
1,1,2-Trichloroethane	U	U	1.5	2	U	U	0.5	1 ST
1,3-Dichloropropane	U	U	U	U	U	U	0.5	5 ST
Tetrachloroethene	9	9	49 JD	53 D	52 D	26	0.5	5 ST
Dibromochloromethane	U	U	U	U	U	U	0.5	50 GV
Chlorobenzene	U	U	U	U	U	U	0.5	5 ST
1,1,1,2-Tetrachloroethane	U	U	U	U	U	U	0.5	5 ST
Bromoform	U	U	U	U	U	U	0.5	50 GV
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	0.5	5 ST
1,2,3-Trichloropropane	U	U	U	U	U	U	0.5	0.04 ST
Bromobenzene	U	U	U	U	U	U	0.5	5 ST
1,3-Dichlorobenzene	U	U	U	U	U	U	0.5	3 ST
1,4-Dichlorobenzene	U	U	U	U	U	U	0.5	3 ST
1,2-Dichlorobenzene	U	U	U	U	U	U	0.5	3 ST
1,2,4-Trichlorobenzene	U	U	U	U	U	U	0.5	5 ST
Hexachlorobutadiene	U	U	U	U	U	U	0.5	0.5 ST
1,2,3-Trichlorobenzene	U	U	U	U	U	U	0.5	5 ST
Methyl-tert-butyl ether	U	U	U	U	U	U	0.5	---
Benzene	U	U	U	U	U	U	0.5	1 ST
Toluene	U	U	U	U	U	U	0.5	5 ST
Ethylbenzene	U	U	U	U	U	U	0.5	5 ST
m-Xylene	U	U	U	U	U	U	0.5	5 ST
p-Xylene	U	U	U	U	U	U	0.5	5 ST
o-Xylene	U	U	U	U	U	U	0.5	5 ST
Styrene	U	U	U	U	U	U	0.5	5 ST
Isopropylbenzene (Cumene)	U	U	U	U	U	U	0.5	5 ST
n-Propylbenzene	U	U	U	U	U	U	0.5	5 ST
1,3,5-Trimethylbenzene	U	U	U	U	U	U	0.5	5 ST
2-Chlorotoluene	U	U	U	U	U	U	0.5	5 ST
4-Chlorotoluene	U	U	U	U	U	U	0.5	5 ST
tert-Butylbenzene	U	U	U	U	U	U	0.5	5 ST
1,2,4-Trimethylbenzene	U	U	U	U	U	U	0.5	5 ST
sec-Butylbenzene	U	U	U	U	U	U	0.5	5 ST
p-Isopropyltoluene(p-Cymene)	U	U	U	U	U	U	0.5	5 ST
n-Butylbenzene	U	U	U	U	U	U	0.5	5 ST
Total VOCs	105	106	1597.8	1393	1382	552	—	—

QUALIFIERS:

U: Compound analyzed for but not detected

J: Compound found at a concentration below the CRDL, value estimated

**: Result reported as a sum of 2,2-dichloropropane and cis-1,2-dichloroethene

E: Compound concentration exceeds instrument calibration range, value estimated

D: Result taken from reanalysis at a secondary dilution

B: Compound found in the method blank as well as the sample

NOTES:

*: Value pertains to the sum of the isomers

ST: Standard

GV: Guidance Value

—: Not established

Indicates value exceeds NYSDEC Class GA groundwater standard or guidance value

TABLE 2 (continued)
NEW CASSEL INDUSTRIAL AREA
OFF-SITE GROUNDWATER MONITORING AND ASSESSMENT PROGRAM
MONITORING WELL SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS

Sample Identification	MW-3	MW-3	MW-3	MW-3	MW-4	MW-4	Contract Required Detection Limit	NYSDEC Class GA Groundwater Standard or Guidance Value
Sample Depth, ft	130-150	130-150	130-150	130-150	180-200	180-200		
Date of Collection	11/02/01	01/24/02	04/24/02	07/16/02	11/02/01	01/24/02		
Dilution Factor	1.0	1.0	50.0	1.0	1.0	1.0		
Units	(ug/l)	(ug/l)						
Dichlorodifluoromethane	U	U	U	U	U	U	0.5	5 ST
Chloromethane	U	U	U	U	U	U	0.5	5 ST
Vinyl Chloride	U	U	U	U	U	U	0.5	2 ST
Bromomethane	U	U	U	U	U	U	0.5	5 ST
Chloroethane	0.7	1	U	1	0.7	1	0.5	5 ST
Fluorotrichloromethane	U	U	U	U	U	U	0.5	5 ST
1,1-Dichloroethene	900 D	770 D	390 D	870 E	1100 D	750 D	0.5	5 ST
Methylene Chlonde	7.1	U	50 D	3	5.9	U	0.5	5 ST
trans-1,2-Dichloroethene	0.5	U	U	U	0.8	U	0.5	5 ST
1,1-Dichloroethane	230 D	250 D	130 D	210 E	310 D	280 D	0.5	5 ST
2,2-Dichloropropane	"	U	"	U	"	U	0.5	5 ST
cis-1,2-Dichloroethene	54 **E	40	25 **D	40 E	82 **E	64 D	0.5	5 ST
Chloroform	5.7	3	U	U	2.4	3	0.5	7 ST
Bromochloromethane	U	U	U	4 B	U	U	0.5	5 ST
1,1,1-Trichloroethane	350 D	350 D	180 D	270 E	350 D	280 D	0.5	5 ST
1,1-Dichloropropene	U	U	U	U	U	U	0.5	5 ST
Carbon Tetrachloride	U	U	U	U	U	U	0.5	5 ST
1,2-Dichloroethane	5.1	U	U	U	7	U	0.5	0.6 ST
Trichloroethene	1200 D	1000 D	490 D	920 E	1000 D	790 D	0.5	5 ST
1,2-Dichloropropane	U	U	U	U	U	U	0.5	1 ST
Bromodichloromethane	U	U	U	U	U	U	0.5	50 GV
Dibromomethane	U	U	U	U	U	U	0.5	5 ST
cis-1,3-Dichloropropene	U	U	U	U	U	U	0.5	0.4 ST*
trans-1,3-Dichloropropene	U	U	U	U	U	U	0.5	0.4 ST*
1,1,2-Trichloroethane	2.1	2	U	Z	3.6	3	0.5	1 ST
1,3-Dichloropropane	U	U	U	U	U	U	0.5	5 ST
Tetrachloroethene	87 E	74 D	28 D	70 E	150 D	130 D	0.5	5 ST
Dibromochloromethane	U	U	U	U	U	U	0.5	50 GV
Chlorobenzene	U	U	U	U	U	U	0.5	5 ST
1,1,2-Tetrachloroethane	U	U	U	U	U	U	0.5	5 ST
Bromoform	U	U	U	U	U	U	0.5	50 GV
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	0.5	5 ST
1,2,3-Trichloropropane	U	U	U	U	U	U	0.5	0.04 ST
Bromobenzene	U	U	U	U	U	U	0.5	5 ST
1,3-Dichlorobenzene	U	U	U	U	U	U	0.5	3 ST
1,4-Dichlorobenzene	U	U	U	U	U	U	0.5	3 ST
1,2-Dichlorobenzene	U	U	U	U	U	U	0.5	3 ST
1,2,4-Trichlorobenzene	U	U	U	U	U	U	0.5	5 ST
Hexachlorobutadiene	U	U	U	U	U	U	0.5	0.6 ST
1,2,3-Trichlorobenzene	U	U	U	U	U	U	0.5	5 ST
Methyl-tert-butyl ether	U	U	U	U	U	U	0.5	---
Benzene	U	U	U	U	U	U	0.5	1 ST
Toluene	U	U	U	U	U	U	0.5	5 ST
Ethylbenzene	U	U	U	U	U	U	0.5	5 ST
m-Xylene	U	U	U	U	U	U	0.5	5 ST
p-Xylene	U	U	U	U	U	U	0.5	5 ST
o-Xylene	U	U	U	U	U	U	0.5	5 ST
Styrene	U	U	U	U	U	U	0.5	5 ST
Isopropylbenzene (Cumene)	U	U	U	U	U	U	0.5	5 ST
n-Propylbenzene	U	U	U	U	U	U	0.5	5 ST
1,3,5-Trimethylbenzene	U	U	U	U	U	U	0.5	5 ST
2-Chlorotoluene	U	U	U	U	U	U	0.5	5 ST
4-Chlorotoluene	U	U	U	U	U	U	0.5	5 ST
tert-Butylbenzene	U	U	U	U	U	U	0.5	5 ST
1,2,4-Trimethylbenzene	U	U	U	U	U	U	0.5	5 ST
sec-Butylbenzene	U	U	U	U	U	U	0.5	5 ST
p-Isopropyltoluene(p-Cymene)	U	U	U	U	U	U	0.5	5 ST
n-Butylbenzene	U	U	U	U	U	U	0.5	5 ST
Total VOCs	2822.2	2490	1273	2190	3015.4	2301	

QUALIFIERS:

- U: Compound analyzed for but not detected
J: Compound found at a concentration below the CRDL, value estimated
**: Result reported as a sum of 2,2 -dichloropropane and cis-1,2-dichloroethene
E: Compound concentration exceeds instrument calibration range, value estimated
D: Result taken from reanalysis at a secondary dilution

NOTES:

- *: Value pertains to the sum of the isomers
ST: Standard
GV: Guidance Value
---: Not established
█: Indicates value exceeds NYSDEC Class GA groundwater standard or guidance value

TABLE 2 (continued)
NEW CASSEL INDUSTRIAL AREA
OFF-SITE GROUNDWATER MONITORING AND ASSESSMENT PROGRAM
MONITORING WELL SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS

Sample Identification	MW-4	MW-4	MW-5	MW-5	MW-5	MW-5	Contract Required Detection Limit	NYSDEC Class GA Groundwater Standard or Guidance Value
Sample Depth, ft	180-200	180-200	90-110	90-110	90-110	90-110		
Date of Collection	04/24/02	07/16/02	11/05/01	01/24/02	04/25/02	07/17/02		
Dilution Factor	50.0	1/50	1.0	1.0	1.0	1.0		
Units	(ug/l)	(ug/l)						
Dichlorodifluoromethane	U	U	U	U	U	U	0.5	5 ST
Chloromethane	U	U	U	U	U	U	0.5	5 ST
Vinyl Chloride	U	U	U	U	U	U	0.5	2 ST
Bromomethane	U	U	U	U	U	U	0.5	5 ST
Chloroethane	U	2	U	U	U	U	0.5	5 ST
Fluorotrichloromethane	U	U	U	U	U	U	0.5	5 ST
1,1-Dichloroethene	530 D	520 D	11	10	3	2	0.5	5 ST
Methylene Chloride	55 D	U	U	U	U	U	0.5	5 ST
trans-1,2-Dichloroethene	U	U	U	U	U	U	0.5	5 ST
1,1-Dichloroethane	180 D	170 D	1.5	2	0.8	U	0.5	5 ST
2,2-Dichloropropane	''	U	U	U	U	U	0.5	5 ST
cis-1,2-Dichloroethene	43 **D	38 D	U	0.5	1	8	0.5	5 ST
Chloroform	U	37 BD	U	U	0.3 J	U	0.5	7 ST
Bromochloromethane	U	U	U	U	U	U	0.5	5 ST
1,1,1-Trichloroethane	180 D	170 D	15	15	4	3	0.5	5 ST
1,1-Dichloropropene	U	U	U	U	U	U	0.5	5 ST
Carbon Tetrachloride	U	U	U	U	U	U	0.5	5 ST
1,2-Dichloroethane	U	U	U	U	U	U	0.5	0.6 ST
Trichloroethylene	550 D	480 D	2.5	2	2	1	0.5	5 ST
1,2-Dichloropropane	U	U	U	U	U	U	0.5	1 ST
Bromodichloromethane	U	U	U	U	U	U	0.5	50 GV
Dibromomethane	U	U	U	U	U	U	0.5	5 ST
cis-1,3-Dichloropropene	U	U	U	U	U	U	0.5	0.4 ST*
trans-1,3-Dichloropropene	U	U	U	U	U	U	0.5	0.4 ST*
1,1,2-Trichloroethane	U	4	U	U	U	U	0.5	1 ST
1,3-Dichloropropane	U	U	U	U	U	U	0.5	5 ST
Tetrachloroethylene	38 D*	77 D	3.7	16	25	19	0.5	5 ST
Dibromochloromethane	U	U	U	U	U	U	0.5	50 GV
Chlorobenzene	U	U	U	U	U	U	0.5	5 ST
1,1,1,2-Tetrachloroethane	U	U	U	U	U	U	0.5	5 ST
Bromoform	U	U	U	U	U	U	0.5	50 GV
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	0.5	5 ST
1,2,3-Trichloropropane	U	U	U	U	U	U	0.5	0.04 ST
Bromobenzene	U	U	U	U	U	U	0.5	5 ST
1,3-Dichlorobenzene	U	U	U	U	U	U	0.5	3 ST
1,4-Dichlorobenzene	U	U	U	U	U	U	0.5	3 ST
1,2-Dichlorobenzene	U	U	U	U	U	U	0.5	3 ST
1,2,4-Trichlorobenzene	U	U	U	U	U	U	0.5	5 ST
Hexachlorobutadiene	U	U	U	U	U	U	0.5	0.5 ST
1,2,3-Trichlorobenzene	U	U	U	U	U	U	0.5	5 ST
Methyl-tert-butyl ether	U	U	U	U	U	U	0.5	—
Benzene	U	U	U	U	U	U	0.5	1 ST
Toluene	U	U	U	U	U	U	0.5	5 ST
Ethylbenzene	U	U	U	U	U	U	0.5	5 ST
m-Xylene	U	U	U	U	U	U	0.5	5 ST
p-Xylene	U	U	U	U	U	U	0.5	5 ST
o-Xylene	U	U	U	U	U	U	0.5	5 ST
Styrene	U	U	U	U	U	U	0.5	5 ST
Isopropylbenzene (Cumene)	U	U	U	U	U	U	0.5	5 ST
n-Propylbenzene	U	U	U	U	U	U	0.5	5 ST
1,3,5-Trimethylbenzene	U	U	U	U	U	U	0.5	5 ST
2-Chlorotoluene	U	U	U	U	U	U	0.5	5 ST
4-Chlorotoluene	U	U	U	U	U	U	0.5	5 ST
tert-Butylbenzene	U	U	U	U	U	U	0.5	5 ST
1,2,4-Trimethylbenzene	U	U	U	U	U	U	0.5	5 ST
sec-Butylbenzene	U	U	U	U	U	U	0.5	5 ST
p-Isopropyltoluene(p-Cymene)	U	U	U	U	U	U	0.5	5 ST
n-Butylbenzene	U	U	U	U	U	U	0.5	5 ST
Total VOCs	1576	1498	33.7	45.5	36.1	31		—

QUALIFIERS:

U: Compound analyzed for but not detected

J: Compound found at a concentration below the CRDL, value estimated

**: Result reported as a sum of 2,2-dichloropropane and cis-1,2-dichloroethene

E: Compound concentration exceeds instrument calibration range, value estimated

D: Result taken from reanalysis at a secondary dilution

B: Compound found in the method blank as well as the sample

*: Sample result highly estimated, based on validation criteria

NOTES:

*: Value pertains to the sum of the isomers

ST: Standard

GV: Guidance Value

---: Not established

Indicates value exceeds NYSDEC Class GA groundwater standard or guidance value

TABLE 2 (continued)
NEW CASSEL INDUSTRIAL AREA
OFF-SITE GROUNDWATER MONITORING AND ASSESSMENT PROGRAM
MONITORING WELL SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS

Sample Identification	MW-8	MW-6	MW-6	MW-6	MW-7	MW-7	Contract Required Detection Limit	NYSDEC Class GA Groundwater Standard or Guidance Value
Sample Depth, ft	110-130	110-130	110-130	110-130	90-110	90-110		
Date of Collection	11/05/01	01/25/02	04/25/02	07/17/02	11/05/01	01/25/02		
Dilution Factor	1.0	1.0	10.0	1/5	1.0	1.0		
Units	(ug/l)	(ug/l)						
Dichlorodifluoromethane	U	U	U	U	U	U	0.5	5 ST
Chloromethane	U	U	U	U	U	U	0.5	5 ST
Vinyl Chloride	U	U	U	U	U	U	0.5	2 ST
Bromomethane	U	U	U	U	U	U	0.5	5 ST
Chlorethane	U	U	U	U	U	U	0.5	5 ST
Fluorodichloromethane	U	U	1 J	U	U	U	0.5	5 ST
1,1-Dichloroethene	270 D	72 D	100 D	99 D	U	0.5	0.5	5 ST
Methylene Chloride	1.3	U	U	5 D	U	U	0.5	5 ST
trans-1,2-Dichloroethene	U	U	U	U	U	U	0.5	5 ST
1,1-Dichloroethane	52 D	36	33	29	0.7	1	0.5	5 ST
2,2-Dichloropropane	--	U	--	U	--	U	0.5	5 ST
cis-1,2-Dichloroethene	22 "	13	9 "	9	23 "	18	0.5	5 ST
Chloroform	1.1	U	1	U	U	U	0.5	7 ST
Bromochloromethane	U	U	U	U	U	U	0.5	5 ST
1,1,1-Trichloroethane	240 D	89 D	96 D	90 D	U	0.5	0.5	5 ST
1,1-Dichloropropene	U	U	U	U	U	U	0.5	5 ST
Carbon Tetrachloride	U	U	U	U	U	U	0.5	5 ST
1,2-Dichloroethane	0.8	U	U	U	U	U	0.5	0.5 ST
Trichloroethene	93 D	54 D	43	51 D	2	3	0.5	5 ST
1,2-Dichloropropane	U	U	U	U	U	U	0.5	1 ST
Bromodichloromethane	U	U	U	U	U	U	0.5	50 GV
Dibromomethane	U	U	U	U	U	U	0.5	5 ST
cis-1,3-Dichloropropene	U	U	U	U	U	U	0.5	0.4 ST *
trans-1,3-Dichloropropene	U	U	U	U	U	U	0.5	0.4 ST *
1,1,2-Trichloroethane	U	U	U	U	U	U	0.5	1 ST
1,3-Dichloropropane	U	U	U	U	U	U	0.5	5 ST
Tetrachloroethene	80 D	37 D	68 E	47 D	5.2	6	0.5	5 ST
Dibromochloromethane	U	U	U	U	U	U	0.5	50 GV
Chlorobenzene	U	U	U	U	U	U	0.5	5 ST
1,1,1,2-Tetrachloroethane	U	U	U	U	U	U	0.5	5 ST
Bromoform	U	U	U	U	U	U	0.5	50 GV
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	0.5	5 ST
1,2,3-Trichloropropane	U	U	U	U	U	U	0.5	0.04 ST
Bromobenzene	U	U	U	U	U	U	0.5	5 ST
1,3-Dichlorobenzene	U	U	U	U	U	U	0.5	3 ST
1,4-Dichlorobenzene	U	U	U	U	U	U	0.5	3 ST
1,2-Dichlorobenzene	U	U	U	U	U	U	0.5	3 ST
1,2,4-Trichlorobenzene	U	U	U	U	U	U	0.5	5 ST
Hexachlorobutadiene	U	U	U	U	U	U	0.5	0.5 ST
1,2,3-Trichlorobenzene	1 B	U	U	U	U	U	0.5	5 ST
Methyl-tert-butyl ether	U	U	U	U	U	U	0.5	---
Benzene	U	U	U	U	U	U	0.5	1 ST
Toluene	U	U	U	U	U	U	0.5	5 ST
Ethylbenzene	U	U	U	U	U	U	0.5	5 ST
m-Xylene	U	U	U	U	U	U	0.5	5 ST
p-Xylene	U	U	U	U	U	U	0.5	5 ST
o-Xylene	U	U	U	U	U	U	0.5	5 ST
Styrene	U	U	U	U	U	U	0.5	5 ST
Isopropylbenzene (Cumene)	U	U	U	U	U	U	0.5	5 ST
n-Propylbenzene	U	U	U	U	U	U	0.5	5 ST
1,3,5-Trimethylbenzene	U	U	U	U	U	U	0.5	5 ST
2-Chlorotoluene	U	U	U	U	U	U	0.5	5 ST
4-Chlorotoluene	U	U	U	U	U	U	0.5	5 ST
tert-Butylbenzene	U	U	U	U	U	U	0.5	5 ST
1,2,4-Trimethylbenzene	U	U	U	U	U	U	0.5	5 ST
sec-Butylbenzene	U	U	U	U	U	U	0.5	5 ST
p-Isopropyltoluene(p-Cymene)	U	U	U	U	U	U	0.5	5 ST
n-Butylbenzene	U	U	U	U	U	U	0.5	5 ST
Total VOCs	761.2	301	351	330	30.9	29		---

QUALIFIERS:

U: Compound analyzed for but not detected

J: Compound found at a concentration below the CRDL, value estimated

": Result reported as a sum of 2,2-dichloropropane and cis-1,2-dichloroethene

E: Compound concentration exceeds instrument calibration range, value estimated

D: Result taken from reanalysis at a secondary dilution

B: Compound found in the method blank as well as the sample

NOTES:

*: Value pertains to the sum of the isomers

ST: Standard

GV: Guidance Value

---: Not established

Indicates value exceeds NYSDEC Class GA groundwater standard or guidance value

TABLE 2 (continued)
NEW CASSEL INDUSTRIAL AREA
OFF-SITE GROUNDWATER MONITORING AND ASSESSMENT PROGRAM
MONITORING WELL SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS

Sample Identification	MW-7	MW-7	MW-8	MW-8	MW-8	MW-8	Contract Required Detection Limit	NYSDEC Class GA Groundwater Standard or Guidance Value
Sample Depth, ft	90-110	90-110	120-140	120-140	120-140	120-140		
Date of Collection	04/24/02	07/16/02	11/05/01	01/25/02	04/24/02	07/17/02		
Dilution Factor	1.0	1.0	1.0	1.0	1.0	1.0		
Units	(ug/l)	(ug/l)						
Dichlorodifluoromethane	U	U	U	U	U	U	0.5	5 ST
Chloromethane	U	U	U	U	U	U	0.5	5 ST
Vinyl Chloride	U	U	U	U	U	U	0.5	2 ST
Bromomethane	U	U	U	U	U	U	0.5	5 ST
Chloroethane	U	U	U	U	U	U	0.5	5 ST
Fluorodichloromethane	U	U	U	U	U	U	0.5	5 ST
1,1-Dichloroethene	0.7	2	U	0.8	U	0.5	0.5	5 ST
Methylene Chloride	U	U	U	0.6	U	U	0.5	5 ST
trans-1,2-Dichloroethene	U	U	U	U	0.9	U	0.5	5 ST
1,1-Dichloroethane	1	2	13	2	2	1	0.5	5 ST
2,2-Dichloropropane	--	U	--	--	--	U	0.5	5 ST
cis-1,2-Dichloroethene	15 **	18	17 **	2	2 **	2	0.5	5 ST
Chloroform	U	U	U	U	U	U	0.5	7 ST
Bromochloromethane	U	U	U	U	U	U	0.5	5 ST
1,1,1-Trichloroethane	0.6	2	0.7	0.7	0.8	D	0.5	5 ST
1,1-Dichloropropene	U	U	U	U	U	U	0.5	5 ST
Carbon Tetrachloride	U	U	U	U	U	U	0.5	5 ST
1,2-Dichloroethane	U	U	U	U	U	U	0.5	0.6 ST
Trichloroethene	3	8	1.1	2	U	0.8	0.5	5 ST
1,2-Dichloropropane	U	U	U	U	U	U	0.5	1 ST
Bromodichloromethane	U	U	U	U	U	U	0.5	50GV
Dibromomethane	U	U	U	U	U	U	0.5	5 ST
cis-1,3-Dichloropropene	U	U	U	U	U	U	0.5	0.4 ST *
trans-1,3-Dichloropropene	U	U	U	U	U	U	0.5	0.4 ST *
1,1,2-Trichloroethane	U	U	U	U	U	U	0.5	1 ST
1,3-Dichloropropane	U	U	U	U	U	U	0.5	5 ST
Tetrachloroethene	4	6	1.1	1	1	0.8	0.5	5 ST
Dibromochloromethane	U	U	U	U	U	U	0.5	50GV
Chlorobenzene	U	U	U	U	U	U	0.5	5 ST
1,1,1,2-Tetrachloroethane	U	U	U	U	U	U	0.5	5 ST
Bromoform	U	U	U	U	U	U	0.5	50GV
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	0.5	5 ST
1,2,3-Trichloropropane	U	U	U	U	U	U	0.5	0.04 ST
Bromobenzene	U	U	U	U	U	U	0.5	5 ST
1,3-Dichlorobenzene	U	U	U	U	U	U	0.5	3 ST
1,4-Dichlorobenzene	U	U	U	U	U	U	0.5	3 ST
1,2-Dichlorobenzene	U	U	U	U	U	U	0.5	3 ST
1,2,4-Trichlorobenzene	U	U	U	U	U	U	0.5	5 ST
Hexachlorobutadiene	U	U	U	U	U	U	0.5	0.5 ST
1,2,3-Trichlorobenzene	U	U	U	U	U	U	0.5	5 ST
Methyl-tert-butyl ether	U	2	U	U	U	U	0.5	—
Benzene	U	U	U	U	U	U	0.5	1 ST
Toluene	U	U	U	U	U	U	0.5	5 ST
Ethylbenzene	U	U	U	U	U	U	0.5	5 ST
m-Xylene	U	U	U	U	U	U	0.5	5 ST
p-Xylene	U	U	U	U	U	U	0.5	5 ST
o-Xylene	U	U	U	U	U	U	0.5	5 ST
Styrene	U	U	U	U	U	U	0.5	5 ST
Isopropylbenzene (Cumene)	U	U	U	U	U	U	0.5	5 ST
n-Propylbenzene	U	U	U	U	U	U	0.5	5 ST
1,3,5-Trimethylbenzene	U	U	U	U	U	U	0.5	5 ST
2-Chlorotoluene	U	U	U	U	U	U	0.5	5 ST
4-Chlorotoluene	U	U	U	U	U	U	0.5	5 ST
tert-Butylbenzene	U	U	U	U	U	U	0.5	5 ST
1,2,4-Trimethylbenzene	U	U	U	U	U	U	0.5	5 ST
sec-Butylbenzene	U	U	U	U	U	U	0.5	5 ST
p-Isopropyltoluene(p-Cymene)	U	U	U	U	U	U	0.5	5 ST
n-Butylbenzene	U	U	U	U	U	U	0.5	5 ST
Total VOCs	24.3	40	5.9	9.1	8.7	5.1	—	—

QUALIFIERS:

U: Compound analyzed for but not detected

J: Compound found at a concentration below the CRDL, value estimated

**: Result reported as a sum of 2,2-dichloropropane and cis-1,2-dichloroethene

E: Compound concentration exceeds instrument calibration range, value estimated

D: Result taken from reanalysis at a secondary dilution

B: Compound found in the method blank as well as the sample

U*: Result qualified as non-detect based on validation criteria

NOTES:

* Value pertains to the sum of the isomers

ST: Standard

GV: Guidance Value

—: Not established

Indicates value exceeds NYSDEC Class GA groundwater standard or guidance value

TABLE 2 (continued)
NEW CASSEL INDUSTRIAL AREA
OFF-SITE GROUNDWATER MONITORING AND ASSESSMENT PROGRAM
MONITORING WELL SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS

Sample Identification	MW-9							Contract Required Detection Limit	NYSDEC Class GA Groundwater Standard or Guidance Value
Units	(ug/l)							(ug/l)	(ug/l)
Dichlorodifluoromethane	U							0.5	5 ST
Chloromethane	U							0.5	5 ST
Vinyl Chloride	U							0.5	2 ST
Bromomethane	U							0.5	5 ST
Chloroethane	U							0.5	5 ST
Fluorotrichloromethane	U							0.5	5 ST
1,1-Dichloroethene	1							0.5	5 ST
Methylene Chloride	U							0.5	5 ST
trans-1,2-Dichloroethene	U							0.5	5 ST
1,1-Dichloroethane	U							0.5	5 ST
2,2-Dichloropropane	"							0.5	5 ST
cis-1,2-Dichloroethene	0.8 "							0.5	5 ST
Chloroform	U							0.5	7 ST
Bromochloromethane	U							0.5	5 ST
1,1,1-Trichloroethane	2							0.5	5 ST
1,1-Dichloropropene	U							0.5	5 ST
Carbon Tetrachloride	U							0.5	5 ST
1,2-Dichloroethane	U							0.5	0.6 ST
Trichloroethene	15							0.5	5 ST
1,2-Dichloropropane	U							0.5	1 ST
Bromodichloromethane	U							0.5	50GV
Dibromomethane	U							0.5	5 ST
cis-1,3-Dichloropropene	U							0.5	04 ST*
trans-1,3-Dichloropropene	U							0.5	04 ST*
1,1,2-Trichloroethane	U							0.5	1 ST
1,3-Dichloropropane	U							0.5	5 ST
Tetrachloroethene	1							0.5	5 ST
Dibromochloromethane	U							0.5	50GV
Chlorobenzene	U							0.5	5 ST
1,1,1,2-Tetrachloroethane	U							0.5	5 ST
Bromoform	U							0.5	50GV
1,1,2,2-Tetrachloroethane	U							0.5	5 ST
1,2,3-Trichloropropane	U							0.5	0.04 ST
Bromobenzene	U							0.5	5 ST
1,3-Dichlorobenzene	U							0.5	3 ST
1,4-Dichlorobenzene	U							0.5	3 ST
1,2-Dichlorobenzene	U							0.5	3 ST
1,2,4-Trichlorobenzene	U							0.5	5 ST
Hexachlorobutadiene	U							0.5	0.5 ST
1,2,3-Trichlorobenzene	U							0.5	5 ST
Methyl-tert-butyl ether	U							0.5	---
Benzene	U							0.5	1 ST
Toluene	U							0.5	5 ST
Ethylbenzene	U							0.5	5 ST
m-Xylene	U							0.5	5 ST
p-Xylene	U							0.5	5 ST
o-Xylene	U							0.5	5 ST
Styrene	U							0.5	5 ST
Isopropylbenzene (Cumene)	U							0.5	5 ST
n-Propylbenzene	U							0.5	5 ST
1,3,5-Trimethylbenzene	U							0.5	5 ST
2-Chirotoluene	U							0.5	5 ST
4-Chlorotoluene	U							0.5	5 ST
tert-Butylbenzene	U							0.5	5 ST
1,2,4-Trimethylbenzene	U							0.5	5 ST
sec-Butylbenzene	U							0.5	5 ST
p-Isopropyltoluene(p-Cymene)	U							0.5	5 ST
n-Butylbenzene	U							0.5	5 ST
Total VOCs	19.8								----

QUALIFIERS:

U: Compound analyzed for but not detected

J: Compound found at a concentration below the CRDL, value estimated

": Result reported as a sum of 2,2-dichloropropane and cis-1,2-dichloroethene

E: Compound concentration exceeds instrument calibration range, value estimated

D: Result taken from reanalysis at a secondary dilution

B: Compound found in the method blank as well as the sample

NOTES:

*: Value pertains to the sum of the isomers

ST: Standard

GV: Guidance Value

---: Not established

Indicates value exceeds NYSDEC Class GA groundwater standard

or guidance value

TABLE 3
NEW CASSEL INDUSTRIAL AREA
OFF-SITE GROUNDWATER MONITORING AND ASSESSMENT PROGRAM
MONITORING WELL SAMPLE RESULTS
INORGANIC PARAMETERS

Sample Identification	EW-1B	EW-1B	EW-1B	EW-1B	EW-1C	EW-1C	EW-1C	EW-1C	EW-2B	Contract Required Detection Limit	NYSDEC Class GA Groundwater Standard or Guidance Value
Sample Depth, ft	154-164	154-164	154-164	154-164	506-516	506-516	506-516	506-516	132-142		
Date of Collection	09/25/01	01/28/02	04/25/02	07/19/02	09/25/01	01/28/02	04/25/02	07/19/02	09/25/01		
Dilution Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		
Units	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)		
Ferrous Iron*	U	0.445	U	0.038 B	0.157	U	0.248	0.316	U	0.05	0.3 ST**
Total Organic Carbon	U	1.1	2	2.7	U	U	U	1.400	U	5	---
Alkalinity	20.6	18	20	18	10.2	10	12	11.0	15	10	---
Chloride	26.9	31.9	33.5	31.2	9.81	13.3	13.6	13.7	30.3	3	250 ST
Nitrate	6.071	6.3	6	6.4	5.591	6	6	6.3	2.194	0.05	10 ST
Sulfate	21.9	23.5	23.1	21.9	U	2.3	1.4	U	17.1	5	250 ST
Carbon Dioxide	79.8	60	U	64	72.9	13	14	U	60.6	NA	---
Methane	0.005	U	U	U	0.009	U	U	U	0.11	0.002	---

Sample Identification	EW-2B	EW-2B	EW-2B	EW-2C	EW-2C	EW-2C	EW-2C	MW-1	MW-1	Contract Required Detection Limit	NYSDEC Class GA Groundwater Standard or Guidance Value
Sample Depth, ft	132-142	132-142	132-142	504-514	504-514	504-514	504-514	90-110	90-110		
Date of Collection	01/28/02	04/25/02	07/19/02	09/25/01	01/28/02	04/25/02	07/19/02	11/02/01	01/24/02		
Dilution Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		
Units	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)		
Ferrous Iron*	U	U	U	0.339	0.858	0.551	U	U	U	0.05	0.3 ST**
Total Organic Carbon	1	1.2	2	U	1.4	U	U	4.1	5	---	
Alkalinity	14	14	13	10.6	10	10	10	10	U	10	---
Chloride	35.8	35.9	36.8	4.11	7	6.8	6.8	38.8	48.9	3	250 ST
Nitrate	2.2	2.1	2.3	1.773	1.9	1.9	1.9	5.553	4.1	0.05	10 ST
Sulfate	12.4	9.7	9.5	U	2.7	1.5	U	24.2	26	5	250 ST
Carbon Dioxide	60	56	67	17.4	13	10	14	66.3	78	NA	---
Methane	12.4	0.004 J	0.056	0.007	U	0.074	U	0.004	U	0.002	---

QUALIFIERS:

U: Compound analyzed for but not detected

NA: Not Available

B: Concentration was above IDL but less than CRDL

NOTES:

ST: Standard

---: Not established

*: Sample analyzed for Total Iron instead of Ferrous Iron

**: Standard applies to Total Iron

: Indicates value exceeds NYSDEC Class GA Groundwater Standard or Guidance Value

TABLE 3 NEW CASSEL INDUSTRIAL AREA OFF-SITE GROUNDWATER MONITORING AND ASSESSMENT PROGRAM MONITORING WELL SAMPLE RESULTS INORGANIC PARAMETERS											
Sample Identification	MW-1	MW-2	MW-2	MW-3	MW-3	MW-3	MW-3	MW-5	MW-5	MW-5	NYSDEC Class GA
Sample Depth, ft	90-110	110-130	110-130	110-130	110-150	130-150	130-150	130-150	130-150	130-150	NYSDEC Class GA
Depth of Collection	04/24/02	07/16/02	01/24/02	01/24/02	01/24/02	01/24/02	01/24/02	04/24/02	04/24/02	04/24/02	Groundwater Standard or Guideline Value
Collection Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	Groundwater Standard or Guideline Value
Sample Depth, ft	133-150	180-200	180-200	180-200	90-110	90-110	90-110	90-110	90-110	90-110	NYSDEC Class GA
Depth of Collection	07/16/02	01/24/02	01/24/02	01/24/02	01/24/02	01/24/02	01/24/02	01/24/02	01/24/02	01/24/02	Groundwater Standard or Guideline Value
Contract	MW-4	MW-4	MW-4	MW-4	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	NYSDEC Class GA
Sample Identification	MW-3	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4	MW-5	MW-5	MW-5	NYSDEC Class GA
Depth of Collection	133-150	180-200	180-200	180-200	90-110	90-110	90-110	90-110	90-110	90-110	NYSDEC Class GA
Collection Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	Groundwater Standard or Guideline Value
Contract	MW-5	NYSDEC Class GA									
Ferric Iron*	Units	(mg/l)	Groundwater Standard or Guideline Value								
Total Organic Carbon	3.95	U	0.5	U	U	U	U	U	U	0.05	0.3 ST..
Chloride	23	2.8	2.4	2.4	2.4	2.4	2.4	2.4	2.4	0.618	Ferric Iron
Nitrate	15	22.0	20	19	16	16	16	16	16	0.618	Total Organic Carbon
Sulfate	37.6	45.7	47.4	46.8	46.9	46.9	46.9	46.9	46.9	0.618	Chloride
Alkalinity	18.9	8.177	9.1	8.9	9.2	9.2	9.2	9.2	9.2	0.618	Nitrate
Carbon Dioxide	51	46.8	47.4	47.4	47.4	47.4	47.4	47.4	47.4	0.618	Sulfate
Methane	0.14	466	66	68	73	71	71	71	71	0.002	Alkalinity

NOTES:	ST: Standard	—: Not established	NA: Not Available	U: Compound analyzed for but not detected	B: Concentration was above DL but less than CRDL
.....
.....
.....
.....

TABLE 3
NEW CASSEL INDUSTRIAL AREA
OFF-SITE GROUNDWATER MONITORING AND ASSESSMENT PROGRAM
MONITORING WELL SAMPLE RESULTS
INORGANIC PARAMETERS

Sample Identification	MW-6	MW-6	MW-6	MW-6	MW-7	MW-7	MW-7	MW-7	MW-8	Contract Required Detection Limit	NYSDEC Class GA Groundwater Standard or Guidance Value
Sample Depth, ft	110-130	110-130	110-130	110-130	90-110	90-110	90-110	90-110	120-140		
Date of Collection	11/05/01	01/25/02	04/26/02	07/17/02	11/05/01	01/25/02	04/24/02	07/16/02	11/05/01		
Dilution Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		
Units	(mg/l)	(mg/l)									
Ferrous Iron*	U	U	0.0457 B	0.0609 B	U	0.0693 B	U	U	U	0.05	0.3 ST**
Total Organic Carbon	U	4.4	2	1.9	U	3.4	1.1	1.4	12.2	5	—
Alkalinity	32	27	27	24	U	U	U	U	14	10	—
Chloride	117	102	99	101	18.8	21.8	21.5	22.7	22.9	3	250 ST
Nitrate	4,885	5.1	4.7	5.2	5,913	6	5.6	6.3	5,049	0.05	10 ST
Sulfate	29.1	30.9	26.4	21.3	31	33.8	28.4	31.1	32.7	5	250 ST
Carbon Dioxide	392	57	53	62	158	81	U	U	56.2	NA	—
Methane	0.007	U	U	U	0.007	U	U	U	0.007	0.002	—

Sample Identification	MW-8	MW-8	MW-8	MW-9						Contract Required Detection Limit	NYSDEC Class GA Groundwater Standard or Guidance Value
Sample Depth, ft	120-140	120-140	120-140	315							
Date of Collection	01/25/02	04/24/02	07/17/02	07/17/02							
Dilution Factor	1.0	1.0	1.0	1.0							
Units	(mg/l)	(mg/l)	(mg/l)	(mg/l)						(mg/l)	(mg/l)
Ferrous Iron*	10.7	18.2	13.2	0.027 B						0.05	0.3 ST**
Total Organic Carbon	6.9	4.4	2.2	1.9						5	—
Alkalinity	38	53	42	24						10	—
Chloride	26.1	25.9	24.7	101						3	250 ST
Nitrate	2.8	3.4	1.7	5.2						0.05	10 ST
Sulfate	27.9	22.8	19.6	21.3						5	250 ST
Carbon Dioxide	U	48	52	62						NA	—
Methane	U	0.22	0.16	U						0.002	—

QUALIFIERS:

U: Compound analyzed for but not detected

NA: Not Available

B: Concentration was above IDL but less than CRDL

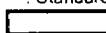
NOTES:

ST: Standard

---: Not established

*: Sample analyzed for Total Iron instead of Ferrous Iron

**: Standard applies to Total Iron

 :Indicates Value exceeds NYSDEC Class GA Groundwater Standard or Guidance Value

ATTACHMENT A

SAMPLE INFORMATION RECORDS



A DIVISION OF WILLIAM F COSULICH ASSOCIATES, P.C.

Date: 7/16/98

SAMPLE INFORMATION RECORD

Site: New Castle Industrial Area

Sample Crew: Jane Milligan / Al Jasuszewski

Sample Location/Well No. MW-1

Time 1025 0935

Field Sample I.D. Number NC-MW-1 (110)

Temperature 82 - 85 °F

Weather Sunny Clear

Sample Type:

Groundwater X

Sediment _____

Surface Water/Stream _____

Air _____

Soil _____

Other (describe, i.e.
water, septic, etc.)

Well Information (fill out for groundwater samples)

Depth to Water 54.13 FT

Measurement Method Water Level Indicator

Depth of Well 110 FT

Measurement Method Water Level Indicator

Volume Removed 70 Gallons

Removal Method 2 inch gravel pump

Field Test Results

Color None, clear

pH 4.73

Odor None

Temperature ($^{\circ}$ F) 18.7

Specific Conductance ($\mu\text{mhos/cm}$) 0.339

Other (OVA, Methane Meter, etc.) Dissolved oxygen = 4.99 (mg/L) Eh = 358 (mV)

Turbidity (NTU) 0.9

Constituents Sampled

VOC, TSC

Chloride, Alkalinity

Dissolved

Methane, ferrous Iron

Nitrate, Sulfate

Carbon Disulfide

Remarks:

Pump water discharged into Nassau County Sewer System.

Sample collected off discharge line from the pump

GPM = 2.0

Well Casing Volumes

GAL/FT

1 $\frac{1}{4}$ " = 0.077

2" = 0.16

3" = 0.37

4" = 0.65

1 $\frac{1}{2}$ " = 0.10

2 $\frac{1}{2}$ " = 0.24

3 $\frac{1}{2}$ " = 0.50

6" = 1.46



Date: 7/16/92

SAMPLE INFORMATION RECORD

Site: New Castle Industrial Area

Sample Crew: James Milligan / Al Jeroszczak

Sample Location/Well No. MW-2

Field Sample I.D. Number NC-MW-2 (130)

Time 1025

Weather Sunny Clear

Temperature 80 - 85 °F

Sample Type:

Groundwater X

Sediment _____

Surface Water/Stream _____

Air _____

Soil _____

Other (describe, i.e.
water, septic, etc.)

Well Information (fill out for groundwater samples)

Depth to Water 54.21 FT

Measurement Method Water Level Meter

Depth of Well 130 FT

Measurement Method Water Level Meter

Volume Removed 70 gallons

Removal Method 2" ground surface pump

Field Test Results

Color Clear

pH 5.47

Odor none

Temperature ($^{\circ}$ F) 71.1

Specific Conductance ($\mu\text{mhos/cm}$) 0.288

Other (OVA, Methane Meter, etc.) Dissolved oxygen = 1.30 (mg/l) Eh = 271 (mV)

Turbidity (NTU): 2.0

Constituents Sampled

VOCs, Toc Chloride, Alkalinity

Dissolved
Carbon Dioxide

Methane, Ferric Iron Nitrate, Sulfate

Methane

Remarks:

Purge water discharged into Nassau County Sewer System.

Sample collected off discharge pipe from the pipe.

GPM = 4

Well Casing Volumes

GAL/FT

$1\frac{1}{4}'' = 0.077$

$2'' = 0.16$

$3'' = 0.37$

$4'' = 0.65$

$1\frac{1}{2}'' = 0.10$

$2\frac{1}{2}'' = 0.24$

$3\frac{1}{2}'' = 0.50$

$4\frac{1}{2}'' = 1.46$

Date: 7/16/02

SAMPLE INFORMATION RECORD

Site: New Castle Industrial Area Sample Crew: James Milligan / Al Jozewski
 Sample Location/Well No. MW-3
 Field Sample I.D. Number NC-MW-3 (150) Time 1130
 Weather Sunny clear Temperature 80° - 85°F
 Sample Type:
 Groundwater Sediment _____
 Surface Water/Stream _____ Air _____
 Soil _____ Other (describe, i.e.
 water, septic, etc.) _____

Well Information (fill out for groundwater samples)

Depth to Water 54.27 Ft Measurement Method Water Level Indicator
 Depth of Well 150 Ft Measurement Method Water Level Indicator
 Volume Removed 80 Gallons Removal Method _____

Field Test Results

Color Clear pH 5.09 Odor None
 Temperature ($^{\circ}\text{F}$) 75 Specific Conductance ($\mu\text{mhos/cm}$) 0.246
 Other (OVA, Methane Meter, etc.) Dissolved Oxygen = 2.86 (mg/L) Eh = 146 (mV)
Turbidity 23.3 NTU

Constituents Sampled

VOC	<u>Chloride, methane</u>	Total Organic Carbon
Alkalinity	<u>Nitrate, Sulfate</u>	Ferrous Iron, Carbon dioxide

Remarks:

Pump water discharge to New Castle Central Sewer System
Sample collected off discharge hose from the pump

Well Casing Volumes

GAL/FT	$1\frac{1}{4}'' = 0.077$	$2'' = 0.16$	$3'' = 0.37$	$4'' = 0.65$
	$1\frac{1}{2}'' = 0.10$	$2\frac{1}{2}'' = 0.24$	$3\frac{1}{2}'' = 0.50$	$6'' = 1.46$



Date: 7/16/92

SAMPLE INFORMATION RECORD

Site: New Castle Industrial Area Sample Crew: Jam M. Higgin / Al Jazorewski

Sample Location/Well No. MW-4

Field Sample I.D. Number NC-MW-4 (202) Time 1230

Weather Sunny Clear Temperature 80 - 85 °F

Sample Type:

Groundwater Sediment _____

Surface Water/Stream _____ Air _____

Soil _____ Other (describe, i.e. water, septic, etc.) _____

Well Information (fill out for groundwater samples)

Depth to Water 54.66 Ft Measurement Method Water Level Indicator

Depth of Well 200 Ft Measurement Method Water Level Indicator

Volume Removed 350 GALLONS Removal Method 2 Inch grates P/S

Field Test Results

Color Very Clear pH 5.41 Odor None

Temperature ($^{\circ}$ F) 78.0 Specific Conductance ($\mu\text{hos/cm}$) 0.273

Other (OVA, Methane Meter, etc.) Dissolved oxygen = 1.75 (mg/l) Eh = 233 (mv)

Turbidity (NTU): 0.9

Constituents Sampled

VOC, Toc Chloride, Alkalinity Carbon Dioxide _____

Methane, Sulfur Iron Nitrate, Sulfate _____

Remarks:

Pump water discharge into Nassau County Sewer System

Septic collected off disposal discharge hose from the pump

(GPM = 5)

Well Casing Volumes

GAL/FT 1 1/4" = 0.077

2" = 0.16

3" = 0.37

4" = 0.65

1 1/2" = 0.10

2 1/4" = 0.24

3 1/2" = 0.50

6" = 1.46



Date: 7/17/02

SAMPLE INFORMATION RECORD

Site: New Cassel Industrial Area Sample Crew: James Milligan, Al Tarczewski

Sample Location/Well No. MW-5

Field Sample I.D. Number NC-MW-5 (10)

Time 1320

Weather Sunny

Temperature 85°

Sample Type:

Groundwater X

Sediment

Surface Water/Stream

Air

Soil

Other (describe, i.e.
water, septic, etc.)

Well Information (fill out for groundwater samples)

Depth to Water 55.77 (ft)

Measurement Method water level indicator

Depth of Well 110 (ft)

Measurement Method water level indicator

Volume Removed 50 Gallons

Removal Method 2 inch ground water pump

Field Test Results

Color Clear pH 5.68 Odor No odor

Temperature (°C) 17.6 Specific Conductance (µmhos/cm) 0.328

Other (OVA, Methane Meter, etc.) Turbidity: 7.0 Dissolved Oxygen: 12.32

Eh 370, GPM 2

Constituents Sampled

VOC, TOC Chloride, Alkalinity Carbon Dioxide

Methane Nitrate, Sulfate Ferric Iron

Remarks:

Purge water discharged into Nassau County Sewer System

Sample collected off disposable discharge hose from the pump

Well Casing Volumes

GAL/FT

1 1/4" = 0.077

1 1/2" = 0.10

2" = 0.16

2 1/2" = 0.24

3" = 0.37

3 1/2" = 0.50

4" = 0.65

6" = 1.46



Date: 7/17/02

SAMPLE INFORMATION RECORD

Site: New Cassel Industrial Area Sample Crew: Jim Milligan, Al Jasnowski

Sample Location/Well No. MW-6

Field Sample I.D. Number NC-MW-6 (130)

Time 1215

Weather Sunny

Temperature 85°

Sample Type:

Groundwater X

Sediment _____

Surface Water/Stream _____

Air _____

Soil _____

Other (describe, i.e.
water, septic, etc.)

Well Information (fill out for groundwater samples)

Depth to Water 55.841 (ft)

Measurement Method water level Indicator

Depth of Well 130 (ft)

Measurement Method water level Indicator

Volume Removed 80 Gallons

Removal Method 2 inch ground Pump

Field Test Results

Color Clear pH 5.87 Odor No odor

Temperature (°F) 71.5 Specific Conductance ($\mu\text{hos/cm}$) .489

Other (OVA, Methane Meter, etc.) Turbidity: 6.5 Dissolved Oxygen: 1.16

Eh: 280 GPM: 2

Constituents Sampled

VOC, TOC Chloride, Alkalinity Carbon Dioxide

Methane, ferrous Iron Nitrate, Sulfate

Remarks:

Purge water discharged into Nesson County sewer system

Sample collected off disposable discharge hose from the pump

Well Casing Volumes

GAL/FT $1\frac{1}{2}'' = 0.077$

$1\frac{1}{2}'' = 0.10$

$2'' = 0.16$

$2\frac{1}{2}'' = 0.24$

$3'' = 0.37$

$3\frac{1}{2}'' = 0.50$

$4'' = 0.65$

$6'' = 1.46$

Date: 7/16/02

SAMPLE INFORMATION RECORD

Site: Nev Cassel Industrial Area Sample Crew: James Phillips / Al Jaworski

Sample Location/Well No. MW-7

Field Sample I.D. Number NC-MW-7(110)

Time 1330

Weather Sunny clear

Temperature 80 - 85 °F

Sample Type:

Groundwater X

Sediment _____

Surface Water/Stream _____

Air _____

Soil _____

Other (describe, i.e.
water, septic, etc.) _____

Well Information (fill out for groundwater samples)

Depth to Water 48.18 Ft

Measurement Method Water Level Indicator

Depth of Well 110 Ft

Measurement Method Water Level Indicator

Volume Removed 60 Gallons

Removal Method _____

Field Test Results

Color None, clear

pH 5.25

Odor None

Temperature ($^{\circ}$ F) 75.3

Specific Conductance ($\mu\text{mhos/cm}$) 0.216

Other (OVA, Methane Meter, etc.) Dissolved Oxygen 7.77 (mg/l) Turbidity 3.1 (NTU)

Eh = 4.3 (mV)

Constituents Sampled

VOCs

Chloride, methane

TOC

Carbon dioxide

Alkalinity

Nitrate, Sulfate

Ferrous Iron

Remarks:

Purge water discharged to Nasco County Sewer System

Sample collected w/ disposable tubing

GPM = 2.5

Well Casing Volumes

GAL/FT

$1\frac{1}{2}'' = 0.077$

$1\frac{1}{2}'' = 0.10$

$2'' = 0.16$

$2\frac{1}{2}'' = 0.24$

$3'' = 0.37$

$3\frac{1}{2}'' = 0.50$

$4'' = 0.65$

$6'' = 1.46$



Date: 7/17/02

SAMPLE INFORMATION RECORD

Site: New Cassel Industrial Area

Sample Crew: James Milligan, Al Jaroszewski

Sample Location/Well No. MW-8

Field Sample I.D. Number NC-MW-8-(140)

Time 09:30

Weather Sunny

Temperature 85°

Sample Type:

Groundwater x

Sediment

Surface Water/Stream

Air

Soil

Other (describe, i.e.
water, septic, etc.)

Well Information (fill out for groundwater samples)

Depth to Water 48.45 (ft)

Measurement Method water level Indicator

Depth of Well 140 (ft)

Measurement Method water level Indicator

Volume Removed 80 Gallons

Removal Method 2 inch submersible pump

Field Test Results

Color Clear pH 5.99 Odor No Odor

Temperature (F) 55 Specific Conductance (mmhos/cm) 0.260

Other (OVA, Methane Meter, etc. Turbidity: 14.0 Dissolved Oxygen:

Eh: 31 GPM = 2

Constituents Sampled

VOC, TOC Chloride, Alkalinity Carbon Dioxide

Methane, Ferrous Iron Nitrate, Sulfate

Remarks:

Purge water discharged into Nassau County Sewer System

Sample collected off disposable discharge hose from the pump

Well Casing Volumes

GAL/FT

1 1/4" = 0.077

1 1/2" = 0.10

2" = 0.16

2 1/2" = 0.24

3" = 0.37

3 1/2" = 0.50

4" = 0.65

6" = 1.46



Date: 7/17/92

SAMPLE INFORMATION RECORD

Site: New Castle Industrial Area

Sample Crew: James Mager, Al Javandek

Sample Location/Well No. MW-9

Field Sample I.D. Number Mc-MW-9 (315)

Time 1110

Weather Sunny Clear

Temperature 80-85 °F

Sample Type:

Groundwater X

Sediment _____

Surface Water/Stream _____

Air _____

Soil _____

Other (describe, i.e.
water, septicage, etc.)

Well Information (fill out for groundwater samples)

Depth to Water 52.25 Ft

Measurement Method water level meter

Depth of Well 315 Ft

Measurement Method water level meter

Volume Removed 600 Gallons

Removal Method _____

Field Test Results

Color None, clear pH 10.00 Odor None

Temperature ($^{\circ}\text{F}$) 75.0 Specific Conductance ($\mu\text{mhos/cm}$) 0.233

Other (OVA, Methane Meter, etc.) Dissolved oxygen = 6.81 mg/L Eh = 222 mV

Turbidity 7.5 NTU

Constituents Sampled

VOC, TOC Chloride, Alkalinity Carbon Dioxide

Methane, Ferric Iron Nitrate, Sulfate

Remarks:

Sample collected off disposable tubing

pH might be high due to dirty probe

Well Casing Volumes

GAL/FT $1\frac{1}{4}'' = 0.077$

$2'' = 0.16$

$3'' = 0.37$

$4'' = 0.65$

$1\frac{1}{2}'' = 0.10$

$2\frac{1}{2}'' = 0.24$

$3\frac{1}{2}'' = 0.50$

$4'' = 1.46$

Date: 7/19/02

SAMPLE INFORMATION RECORD

Site: New Cassel Industrial Sample Crew: J. Milligan; J. Scharf

Sample Location/Well No. EW-2C

Field Sample I.D. Number NC-MW-EW-2C (S14) Time 1055

Weather Sunny Hazy 90° Temperature 90°

Sample Type:

Groundwater X Sediment _____

Surface Water/Stream _____ Air _____

Soil _____ Other (describe, i.e.
water, septic, etc.) _____

Well Information (fill out for groundwater samples)

Depth to Water 45 (ft) Measurement Method LMS 9/2000 RI/FS App

Depth of Well 514 (ft) Measurement Method LMS 9/2000 RI/FS App

Volume Removed 1600 Gallons Removal Method Submersible pump - dedicated
3"

Field Test Results

Color Clear pH 5.88 Odor No odor

Temperature ($^{\circ}\text{F}$) 74.3 Specific Conductance ($\mu\text{hos/cm}^{m^2/\text{cm}}$) 0.64

Other (OVA, Methane Meter, etc.) Turbidity: 26 NTU, Dissolved Oxygen: 16.96 mg/L
Eh: 267 mV

Constituents Sampled

<u>VOC (SO₂)</u>	<u>Chloride</u>	<u>Methane</u>	<u>Total Organic C</u>
<u>Alkalinity</u>	<u>Nitrate, Sulfate</u>	<u>Ferric Iron, Carbon D</u>	

Remarks:

Purge water to Nassau county sewer system
 Total Depth and depth to water measurements obtained
 from LMS RI/FS Appendices report dated 9/2000

Well Casing Volumes

GAL/FT	$1\frac{1}{2}" = 0.077$	$2" = 0.16$	$3" = 0.37$	$4" = 0.65$
	$1\frac{1}{2}" = 0.10$	$2\frac{1}{2}" = 0.24$	$3\frac{1}{2}" = 0.50$	$6" = 1.46$



Date: 7/19/02

SAMPLE INFORMATION RECORD

Site: New Cassel Industrial Area Sample Crew: J. Milligan; J. Schafer
 Sample Location/Well No. E W-2B
 Field Sample I.D. Number E W-2B Time 1200
 Weather Sunny Hazy 90° Temperature 90°
 Sample Type:
 Groundwater X Sediment _____
 Surface Water/Stream _____ Air _____
 Soil _____ Other (describe, i.e.
 water, septic, etc.) _____

Well Information (fill out for groundwater samples)

Depth to Water 49.90 (ft) Measurement Method LMS 9/2000 RI/FS App II
 Depth of Well 142 (ft) Measurement Method LMS 9/2000 RI/FS App II
 Volume Removed 120 gallons Removal Method Submersible pump - dedicated
2"

Field Test Results

Color clear pH 5.48 Odor NO Odor
 Temperature ($^{\circ}\text{C}$) 16.8 Specific Conductance ($\mu\text{s/cm}$) - 204
 Other (OVA, Methane Meter, etc.) Turbidity: 1.2, Dissolved Oxygen: 1.73
L-h: 331

Constituents Sampled

<u>VOC CS₂</u>	<u>chloride</u>	<u>Methane</u>	<u>Total Organic Carbo</u>
<u>Alkalinity</u>	<u>Nitrate, Sulfate</u>	<u>Ferrous Iron, Carbon</u>	<u>Dioxide</u>

Remarks:

Purge water to Massan County Sewer System
 Total depth and depth to water measurements obtained
 From LMS RI/RS Appendices report dated 9/2000

Well Casing Volumes

GAL/FT	$1\frac{1}{4}'' = 0.077$	$2'' = 0.16$	$3'' = 0.37$	$4'' = 0.65$
	$1\frac{1}{2}'' = 0.10$	$2\frac{1}{2}'' = 0.24$	$3\frac{1}{2}'' = 0.50$	$6'' = 1.46$



Date: 7/18/02

SAMPLE INFORMATION RECORD

Site: New Cassel Industrial Area Sample Crew: John Schaefer James Milligan

Sample Location/Well No. E W-1C

Field Sample I.D. Number NC-MW-EW-1C(516) Time 1020

Weather Sunny Hazy 90° Temperature 90°

Sample Type:

Groundwater X Sediment _____

Surface Water/Stream _____ Air _____

Soil _____ Other (describe, i.e.
water, septic, etc.) _____

Well Information (fill out for groundwater samples)

Depth to Water 47.77 (ft) Measurement Method (LMS 9/2000 RT/RS Appendix III)

Depth of Well 516 (ft) Measurement Method (LMS 9/2000 RT/RS Appendices III)

Volume Removed 1,500 Gallons Removal Method Submersible pump - dedicated

Field Test Results

Color Clear pH 5.98 Odor No odor

Temperature ($^{\circ}\text{C}$) 14.0 Specific Conductance ($\mu\text{mhos/cm}$) 0.126

Other (OVA, Methane Meter, etc.) Turbidity: 13.2 mg/l , Dissolved Oxygen: 11.01, Eh: 263 mV

GPM: 15

Constituents Sampled

VOCs, (SO₂)

Chloride, Methane

Total Organic Carbon

Alkalinity

Nitrate, Sulfate

Ferric Iron, Carbon Dic

Remarks:

Purge water to Nasco County sewer system

Total Depth and depth to water measurements obtained from LMS

RT/RS Appendix III report dated 9/2000

Well Casing Volumes

GAL/FT $1\frac{1}{2}'' = 0.077$
 $1\frac{1}{4}'' = 0.10$

$2'' = 0.16$
 $2\frac{1}{2}'' = 0.24$

$3'' = 0.37$
 $3\frac{1}{2}'' = 0.50$

$4'' = 0.65$
 $6'' = 1.46$



A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.

Date: 7/18/82

SAMPLE INFORMATION RECORD

Site: New Cassel Industrial Area

Sample Crew: James Milligan / John Schaefer

Sample Location/Well No. EW - 1B

Field Sample I.D. Number NC-MW-FW-1C(164)

Time 1155

Weather Sunny Hazy

Temperature 90°

Sample Type:

Groundwater X

Sediment

Surface Water/Stream

Air

Soil

Other (describe, i.e.
water, septic, etc.)

Well Information (fill out for groundwater samples)

Depth to Water 45.77 (ft)

Measurement Method (LMS 7/2000 RT/FS Appendix III)

Depth of Well 164 (ft)

Measurement Method (LMS 7/2000 RT/FS Appendix I)

Volume Removed 100 Gallons

Removal Method Submersible pump - dedicated

Field Test Results

Color Clear pH 5.59 Odor No odor

Temperature (°F) 71.4 Specific Conductance ($\mu\text{mhos/cm}$) 0.252

Other (OVA, Methane Meter, etc. Turbidity: 3.9 NT Dissolved Oxygen 1.42 mg/l

Eh 305 mV GPM: 2

Constituents Sampled

VOCs (SO2) Chloride, Total Organic Carbon Methane

Alkalinity Nitrate, sulfate Ferric Iron Carbon Dioxide

Remarks:

Purge water discharged to Nassau County sewer system

Total Depth and Depth to water obtained from LMS

RT/FS Appendix III report dated 9/2000

Well Casing Volumes

GAL/FT

1 1/4" = 0.077

1 1/2" = 0.10

2" = 0.16

2 1/2" = 0.24

3" = 0.37

3 1/2" = 0.50

4" = 0.65

5" = 1.46