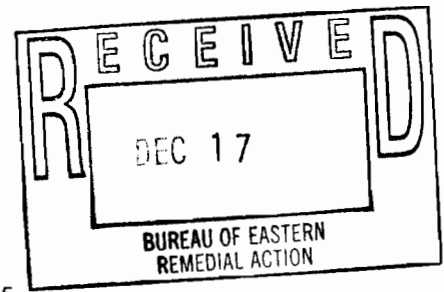




**Dvirka  
and  
Bartilucci**

CONSULTING ENGINEERS

330 Crossways Park Drive, Woodbury, New York, 11797-2015  
516-364-9890 • 718-460-3634 • Fax: 516-364-9045  
e-mail: db-eng@worldnet.att.net



**Principals**

Nicholas J. Bartilucci, P.E.  
Henry J. Chlupsa, P.E.  
Thomas F. Maher, P.E.  
Robert T. Burns, P.E.  
Richard M. Walka  
Steven A. Fangmann, P.E.

December 14, 2001

**Senior Associates**

Anthony O. Conetta, P.E.  
Dennis F. Koehler, P.E.  
Joseph H. Marturano  
Kenneth J. Pritchard, P.E.  
Theodore S. Pytlar, Jr.

Mr. Joseph Jones  
Division of Environmental Remediation  
New York State Department of Environmental Conservation  
625 Broadway  
Albany, NY 12233-7010

**Associates**

Rudolph F. Cannavale  
Joseph A. Fioraliso, P.E.  
David S. Glass, P.E.  
William D. Merklin, P.E.  
Michael Neuberger, P.E.  
Brian M. Veith, P.E.  
Charles J. Wachsmuth, P.E.

Re: New Cassel Industrial  
Off-site Groundwater Monitoring and Assessment Program  
Work Assignment No. D003600-25  
D&B No. 1898

Dear Mr. Jones:

Enclosed please find the groundwater results from the first round of sampling of the four early warning wells (EW-1B, EW-1C, EW-2B and EW-2C) and the eight new monitoring wells (MW-1 through MW-8) as part of the New Cassel Industrial Off-site Groundwater Monitoring and Assessment Program. The early warning wells were sampled on September 25, 2001, and the monitoring wells were sampled on November 2 and November 5, 2001. Figure 1 illustrates the location of the wells. The groundwater sampling procedures, Data Usability Summary Report (DUSR) and analytical results are provided below.

Sampling Procedures

Each monitoring well was purged to remove the standing water inside the well prior to sample collection. A minimum of three casing volumes were removed to ensure that water being sampled was representative of the aquifer. The early warning wells were purged using dedicated submersible pumps and purging of the monitoring wells was accomplished using a decontaminated submersible pump. All purge water was discharged to the Nassau County sanitary sewer system. For the monitoring wells, purging was accomplished by first measuring the static water level in the well and calculating the standing water volume. Water level measurements were collected using an electronic water level indicator. Water levels were not measured in the four early warning wells, since dedicated pumps are installed in these wells and the casings are not accessible. Depth to water was estimated at these locations based on water table elevation information in the study area.

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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 has been removed, well purging was considered complete. Results for these parameters monitored during purging are provided in the Sample Information Records included as Attachment A, and summarized in Table 1.

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 CompuChem. 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 eight monitoring wells was performed in accordance with procedures described in the approved QA/QC Plan.

## Data Usability Summary Report

Twelve groundwater samples were collected as part of the New Cassel Industrial Area Off-site Groundwater Monitoring and Assessment Program. Each sample was analyzed for VOCs, ferrous iron, total organic carbon, alkalinity, chloride, nitrate, sulfate, carbon dioxide and methane. The samples were analyzed by CompuChem, a subcontractor to the New York State Department of Environmental Conservation (NYSDEC). CompuChem in turn subcontracted the VOC analyses to H2M Laboratories. The ferrous iron and methane analyses were subcontracted to New Jersey Analytical Laboratories. These laboratories are all certified under the New York State Department of Health Environmental Laboratory Approval Program (ELAP). All samples were analyzed in accordance with the specified methods and 1995 NYSDEC Analytical Services Protocol (ASP) QA/QC requirements.

The data packages submitted by CompuChem have been validated in accordance with NYSDEC ASP requirements. The results have been reviewed for completeness and compliance with the specified methods. The findings of the validation process are summarized below.

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All samples were analyzed within the method specified holding times. All QA/QC requirements (i.e., initial and continuing calibrations, surrogate recoveries, spike recoveries and blanks) were met.

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 tables. In several instances, certain compounds that slightly exceeded the calibration range in the initial undiluted analysis were not detected in the diluted run, since the detection limit was elevated. The results for these compounds were then taken from the undiluted run and have been flagged "E" on the data summary tables.

The result for 1,2,3-trichlorobenzene in sample NCMW6 has been qualified with a "B" on the data summary table and is believed to be instrument carry-over and not attributable to the site.

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 eight monitoring wells are summarized in Table 2 (VOCs) and Table 3 (inorganic parameters). The results are compared to NYSDEC Class GA Groundwater Standards and Guidance Values.

The next round of sampling for the 12 wells is currently scheduled for January 2002.

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

Very truly yours,



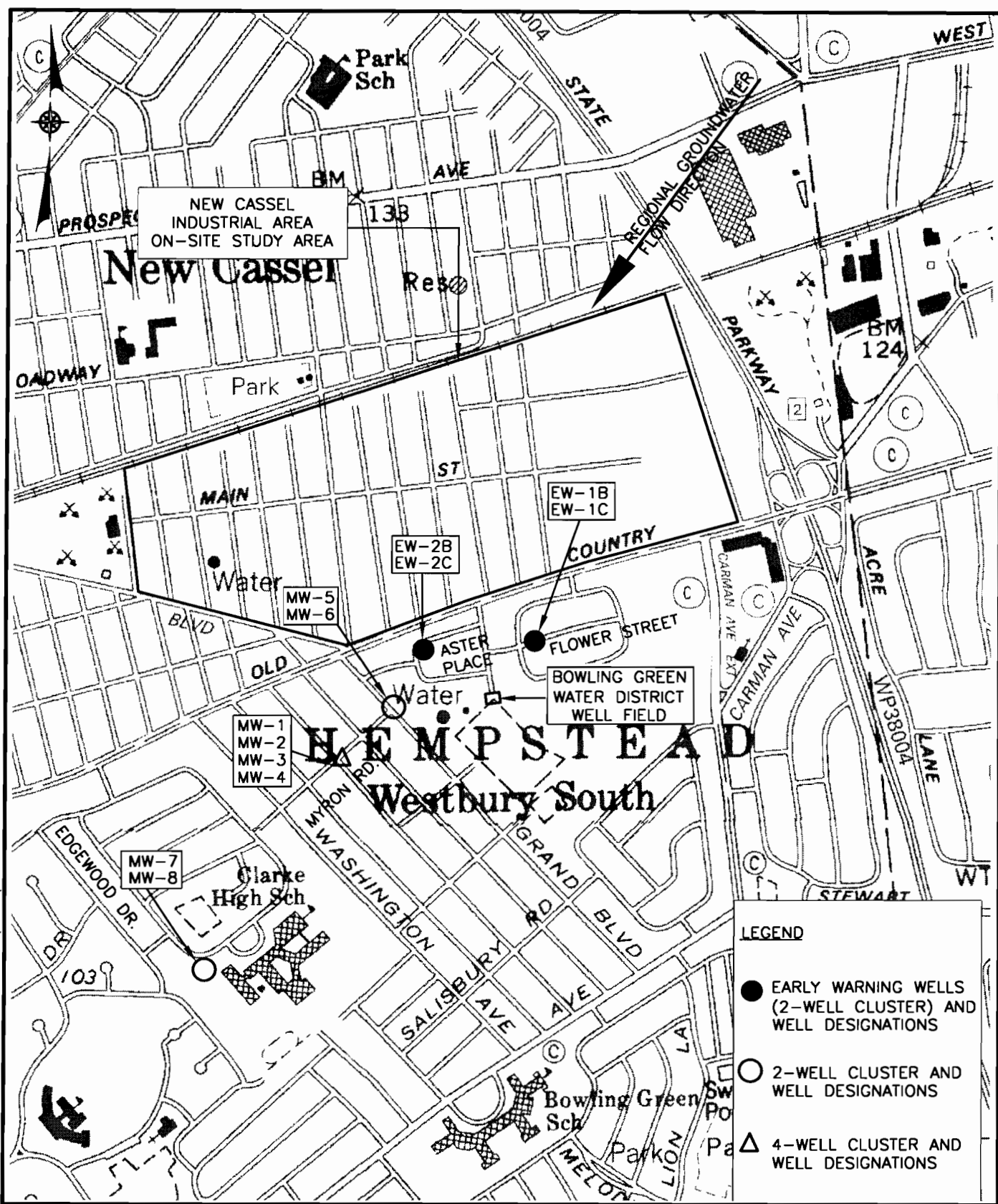
Keith Robins

TFM/KSR/ajm,jmy

Attachments

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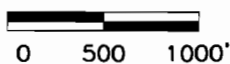
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**LEGEND**

- EARLY WARNING WELLS (2-WELL CLUSTER) AND WELL DESIGNATIONS
- 2-WELL CLUSTER AND WELL DESIGNATIONS
- △ 4-WELL CLUSTER AND WELL DESIGNATIONS

NEW CASSEL INDUSTRIAL AREA  
 OFF-SITE GROUNDWATER MONITORING AND ASSESSMENT PROGRAM



**EARLY WARNING WELL AND  
 NEW MONITORING WELL LOCATIONS**



Dvirka and Bartilucci  
 Consulting Engineers  
 A Division of William F. Casulich Associates, P.C.

FIGURE 1

**Table 1**

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

<b>Well Number</b>	<b>Gallons</b>	<b>pH (standard units)</b>	<b>Temperature (C°)</b>	<b>Specific Conductivity (ms/cm)</b>	<b>Turbidity (NTU)</b>	<b>Dissolved Oxygen (mg/l)</b>	<b>eH (mv)</b>
EW-1B	Initial	5.49	17.0	0.255	17	2.83	297
	20	5.33	16.9	0.252	5	1.48	301
	40	5.34	17.0	0.252	3	1.39	293
	60	5.35	17.0	0.252	2	1.40	287
	80	5.37	17.0	0.253	3	1.38	283
	100	5.36	17.0	0.253	3	1.38	283
EW-1C	Initial	8.73	14.9	0.137	96	1.54	252
	200	7.50	13.0	0.117	337	5.04	127
	400	6.21	12.8	0.122	21	6.69	264
	600	5.73	12.7	0.122	7	6.77	282
	800	5.37	12.7	0.121	2	6.97	286
	1,000	5.37	12.6	0.121	1	7.01	290
	1,200	5.35	12.6	0.120	2	7.10	290
	1,400	5.35	12.6	0.120	2	7.20	288
1,500	5.35	12.6	0.120	2	7.22	286	
EW-2B	Initial	5.53	17.0	0.193	8	2.10	336
	20	7.93	17.0	0.209	7	1.51	118
	40	5.59	17.0	0.211	9	2.22	228
	60	5.37	17.1	0.208	6	1.87	269
	80	5.43	17.1	0.208	3	3.30	256
	100	5.42	17.1	0.209	2	3.50	250
EW-2C	Initial	6.61	15.7	0.083	15	1.61	284
	200	8.18	13.9	0.020	68	1.50	34
	400	5.03	13.3	0.060	117	5.08	280
	600	4.95	13.1	0.059	71	5.72	292
	800	5.34	13.1	0.058	72	5.60	263
	1,000	5.52	13.0	0.059	54	6.16	253
	1,200	5.62	13.0	0.059	35	6.06	251
	1,400	5.60	13.0	0.062	10	5.82	241
	1,500	5.61	13.0	0.061	10	5.71	240
MW-1	Initial	4.90	16.3	0.307	1	5.18	264
	10	5.00	16.4	0.267	2	5.30	282
	20	4.97	16.7	0.267	1	4.76	318
	30	4.90	16.7	0.268	3	5.55	329
	40	4.99	16.7	0.269	3	4.94	332
	50	4.99	16.7	0.272	2	4.93	346

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 (NTU)	Dissolved Oxygen (mg/l)	eH (mv)
MW-2	Initial	5.29	16.6	0.262	1	5.59	343
	10	5.19	17.0	0.270	1	2.74	229
	20	5.37	17.1	0.290	4	2.84	212
	30	5.33	17.1	0.294	5	2.68	215
	40	5.28	17.2	0.296	5	2.65	2.09
	50	5.33	17.2	0.296	5	2.60	207
	60	5.35	17.2	0.296	5	2.70	203
MW-3	Initial	5.14	17.0	0.187	73	4.40	112
	20	4.69	17.2	0.173	8	2.90	55
	40	4.95	17.1	0.228	19	2.97	50
	60	5.00	17.1	0.250	1	3.50	58
	80	5.09	17.2	0.263	1	3.40	58
	100	5.14	17.1	0.267	3	2.73	60
MW-4	Initial	6.32	16.6	0.111	43	11.22	160
	40	5.57	16.8	0.253	66	5.52	226
	80	5.48	16.7	0.289	30	4.14	223
	120	5.37	16.7	0.295	7	3.66	225
	160	5.37	16.7	0.297	4	3.75	230
	200	5.39	16.7	0.296	1	4.12	249
	240	5.37	16.6	0.297	2	5.05	244
	280	5.39	16.7	0.298	1	3.33	242
	300	5.37	16.8	0.298	2	3.35	252
MW-5	Initial	4.40	15.4	0.151	4	10.10	355
	10	5.14	16.1	0.279	5	6.66	368
	20	5.13	15.9	0.278	7	6.87	371
	30	5.12	16.1	0.289	8	6.53	376
	40	5.08	16.0	0.290	8	6.37	381
	50	5.07	16.0	0.290	7	6.58	385
MW-6	Initial	5.49	16.0	0.521	56	3.58	364
	10	5.68	16.3	0.557	47	2.85	294
	20	5.60	16.3	0.553	6	2.60	280
	30	5.59	16.3	0.551	2	2.54	277
	40	5.61	16.3	0.550	2	3.16	274
	50	5.66	16.2	0.548	5	2.53	275
	60	5.62	16.3	0.548	6	2.53	265
	65	5.64	16.4	0.548	7	2.52	263
MW-7	Initial	5.01	13.8	0.199	56	6.43	225
	10	4.81	14.5	0.226	120	4.88	253
	20	4.84	14.4	0.226	19	4.85	273
	30	4.86	14.3	0.227	8	4.80	299
	40	4.80	14.4	0.226	8	4.76	311
	50	4.85	14.4	0.227	8	4.80	322

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 (NTU)	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

Notes:

C° - Celsius

ms/cm - millisiemens/centimeter

NTU - Nephelometric Turbidity Unit

mv - millivolt

mg/l - milligram per liter

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

Sample Identification	NCMWEW1B	NCMWEW1C	NCMWEW2B	NCMWEW2C	NCMW1	NCMW2	Contract Required	NYSDEC Class GA
Sample Depth, ft	154-164	506-516	132-142	504-514	90-110	110-130	Detection	Groundwater Standard or Guidance Value
Date of Collection	09/25/01	09/25/01	09/25/01	09/25/01	11/02/01	11/02/01	Limit	
Dilution Factor	1.0	1.0	1.0	1.0	1.0	1.0	(ug/l)	(ug/l)
Units	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(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	U	U	U	0.5	2 ST
Bromomethane	U	U	U	U	U	U	0.5	5 ST
Chloroethane	U	U	2.6	U	U	U	0.5	5 ST
Fluorotrichloromethane	U	U	0.6	U	U	U	0.5	5 ST
1,1-Dichloroethene	39	U	43 D	U	16	540 D	0.5	5 ST
Methylene Chloride	U	U	1.5	U	U	1.9	0.5	5 ST
trans-1,2-Dichloroethene	0.6	U	U	U	U	U	0.5	5 ST
1,1-Dichloroethane	3.8	U	150 D	U	2.8	140 D	0.5	5 ST
2,2-Dichloropropane	**	U	**	U	**	**	0.5	5 ST
cis-1,2-Dichloroethene	58 **D	U	36 **	U	1.1 **	48 **E	0.5	5 ST
Chloroform	U	U	U	U	0.5	5.2	0.5	7 ST
Bromochloromethane	U	U	U	U	U	U	0.5	5 ST
1,1,1-Trichloroethane	40	U	85 D	U	7.8	230 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	0.7	U	U	2.2	0.5	0.6 ST
Trichloroethene	66 D	12	140 D	U	21	580 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	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	1.5	0.5	1 ST
1,3-Dichloropropane	U	U	U	U	U	U	0.5	5 ST
Tetrachloroethene	630 D	U	20	U	4.1	49 JD	0.5	5 ST
Dibromochloromethane	U	U	U	U	U	U	0.5	50GV
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	50GV
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	1.1	U	U	U	U	U	0.5	3 ST
1,4-Dichlorobenzene	0.7	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-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
<b>Total VOCs</b>	839.2	12	532.2	U	53.3	1597.8		----

**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	NCMW3	NCMW4	NCMW5	NCMW6	NCMW7	NCMW8	Contract Required	NYSDEC Class GA
Sample Depth, ft	130-150	180-200	90-110	110-130	90-110	120-140		Groundwater
Date of Collection	11/02/01	11/02/01	11/05/01	11/05/01	11/05/01	11/05/01	Detection	Standard or
Dilution Factor	1.0	1.0	1.0	1.0	1.0	1.0	Limit	Guidance Value
Units	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(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	0.7	U	U	U	U	0.5	5 ST
Fluorotrichloromethane	U	U	U	U	U	U	0.5	5 ST
1,1-Dichloroethene	900 D	1100 D	11	270 D	U	U	0.5	5 ST
Methylene Chloride	7.1	8.9	U	1.3	U	U	0.5	5 ST
trans-1,2-Dichloroethene	0.5	0.8	U	U	U	U	0.5	5 ST
1,1-Dichloroethane	230 D	310 D	1.5	52 D	0.7	1.3	0.5	5 ST
2,2-Dichloropropane	**	**	U	**	**	**	0.5	5 ST
cis-1,2-Dichloroethene	54 **E	82 **E	U	22 **	23 **	1.7 **	0.5	5 ST
Chloroform	5.7	2.4	U	1.1	U	U	0.5	7 ST
Bromochloromethane	U	U	U	U	U	U	0.5	5 ST
1,1,1-Trichloroethane	350 D	350 D	15	240 D	U	0.7	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	7	U	0.8	U	U	0.5	0.6 ST
Trichloroethene	1200 D	1000 D	2.5	93 D	2	1.1	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	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	2.1	3.6	U	U	U	U	0.5	1 ST
1,3-Dichloropropane	U	U	U	U	U	U	0.5	5 ST
Tetrachloroethene	67 E	150 D	3.7	80 D	5.2	1.1	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
Hexchlorobutadiene	U	U	U	U	U	U	0.5	0.5 ST
1,2,3-Trichlorobenzene	U	U	U	1 B	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
<b>Total VOCs</b>	2822.2	3015.4	33.7	761.2	30.9	5.9		----

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 considered to be carryover

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	NCMWEW1B	NCMWEW1C	NCMWEW2B	NCMWEW2C	NCMW1	NCMW2	Contract Required Detection Limit (mg/l)	NYSDEC Class GA Groundwater Standard or Guidance Value (mg/l)
Sample Depth, ft	154-164	506-516	132-142	504-514	90-110	110-130		
Date of Collection	09/25/01	09/25/01	09/25/01	09/25/01	11/02/01	11/02/01		
Dilution Factor	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)		
Ferrous Iron	U	0.157	U	0.339	U	U	0.05	---
Total Organic Carbon	U	U	U	U	U	U	5	---
Alkalinity	20.6	10.2	15	10.6	10.0	22.0	10	---
Chloride	26.9	9.81	30.3	4.11	38.8	33.5	3	250 ST
Nitrate	6.071	5.591	2.194	1.773	5.553	6.813	0.05	10 ST
Sulfate	21.9	U	17.1	U	24.200	20.900	5	250 ST
Carbon Dioxide	79.8	72.9	60.6	17.4	66.3	408	NA	---
Methane	0.005	0.009	0.11	0.007	0.004	0.013	0.002	---

Sample Identification	NCMW3	NCMW4	NCMW5	NCMW6	NCMW7	NCMW8	Contract Required Detection Limit (mg/l)	NYSDEC Class GA Groundwater Standard or Guidance Value (mg/l)
Sample Depth, ft	130-150	180-200	90-110	110-130	90-110	120-140		
Date of Collection	11/02/01	11/02/01	11/05/01	11/05/01	11/05/01	11/05/01		
Dilution Factor	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)		
Ferrous Iron	U	U	U	U	U	U	0.05	---
Total Organic Carbon	5.505	6.309	U	U	U	12.2	5	---
Alkalinity	18.0	22.0	16.0	32.0	U	14.0	10	---
Chloride	36.0	45.7	43.6	117	18.8	22.9	3	250 ST
Nitrate	6.505	8.177	3.744	4.885	5.913	5.049	0.05	10 ST
Sulfate	21.100	U	29.200	29.100	31.000	32.700	5	250 ST
Carbon Dioxide	369	466	53.1	392	158	56.2	NA	---
Methane	1.2	0.013	0.009	0.007	0.007	0.007	0.002	---

**QUALIFIERS:**

U: Compound analyzed for but not detected  
NA: Not Available

**NOTES:**

ST: Standard  
---: Not established

**ATTACHMENT 1**

**SAMPLE INFORMATION RECORDS**



**SAMPLE INFORMATION RECORD**

SITE New Cassel Industrial Area SAMPLE CREW Keith Robins/STEVE Tuoss  
 SAMPLE LOCATION/WELLNO. EW-1B Located on Flower street  
 FIELD SAMPLE ID. NUMBER NC-MW-EW-1B(164) DATE 9/25/01  
 TIME 11:30 am WEATHER Overcast, light drizzle TEMPERATURE 60°-65°F

**SAMPLE TYPE:**

GROUNDWATER X SEDIMENT \_\_\_\_\_  
 SURFACE WATER/STREAM \_\_\_\_\_ AIR \_\_\_\_\_  
 SOIL \_\_\_\_\_ OTHER (Describe, i.e., septage, leachate) \_\_\_\_\_

**WELL INFORMATION (fill out for groundwater samples):**

DEPTH TO WATER ≈ 45.77 FT MEASUREMENT METHOD (Lms 9/2000) see remarks  
 DEPTH OF WELL ≈ 164 FT MEASUREMENT METHOD (Lms 9/2000) see remarks  
 VOLUME REMOVED 100 gallons REMOVAL METHOD 2 inch dedicated submersible pump

**FIELD TEST RESULTS:**

COLOR clear pH 5.36 ODOR none  
 TEMPERATURE 17.0 SPECIFIC CONDUCTANCE MS/cm 0.253  
 OTHER (OVA, Methane meter, etc.) — TURBIDITY (NTUs) 2.5  
GPM = 1.0 Dissolved oxygen = 1.38 mg/l EH = 283(mv)

**CONSTITUENTS SAMPLED:**

VOCs (502) chloride, methane Total Organic Carbon  
Alkalinity Nitrate, sulfate Ferrous Iron, carbon dioxide

REMARKS: Purge water discharged to Nassau County Sewer System.  
Total depth and depth to water measurements obtained from LMS  
RI/FS Appendices III report, dated 9/2000,  
Collected MS/MSD at well EW-1B

**WELL CASING VOLUMES**

GAL/FT	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46



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**SAMPLE INFORMATION RECORD**

SITE New Cassel Industrial Area SAMPLE CREW Keith Robins/STEVE TAUSS  
 SAMPLE LOCATION/WELLNO. EW-1C Located on Flower Street  
 FIELD SAMPLE LD. NUMBER NC-MW-EW-1C(516) DATE 9/25/01  
 TIME 10<sup>00</sup>am WEATHER overcast, Light drizzle TEMPERATURE 60°-65°F

**SAMPLE TYPE:**

GROUNDWATER X SEDIMENT \_\_\_\_\_  
 SURFACE WATER/STREAM \_\_\_\_\_ AIR \_\_\_\_\_  
 SOIL \_\_\_\_\_ OTHER (Describe, i.e., septage, leachate) \_\_\_\_\_

**WELL INFORMATION (fill out for groundwater samples):**

DEPTH TO WATER ≈ 57.77 FT MEASUREMENT METHOD (Lms 9/2000 RI/FS, Appendix III)  
 DEPTH OF WELL ≈ 516 FT MEASUREMENT METHOD (Lms 9/2000 RI/FS, Appendix III)  
 VOLUME REMOVED 1,500 gallons REMOVAL METHOD submersible pump - dedicated

**FIELD TEST RESULTS:**

COLOR clear pH 5.35 ODOR none  
 TEMPERATURE (°F) 12.60 SPECIFIC CONDUCTANCE (µmhos/cm) 0.120  
 OTHER (OVA, Methane meter, etc.) \_\_\_\_\_ TURBIDITY (NTUs) 2.0  
Gpm = 15 Dissolved oxygen = 7.22 mg/l, Eh = 286 mV

**CONSTITUENTS SAMPLED:**

VOCS (502) chloride, methane Total Organic Carbon,  
Alkalinity Nitrate, Sulfate Ferrous Iron, Carbon Dioxide

REMARKS: Purge water discharged to Nassau County sewer system  
Total depth and depth to water measurements obtained from LMS  
RI/RS Appendix III, report, dated 9/2000.

**WELL CASING VOLUMES**

GAL/FT	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46



**SAMPLE INFORMATION RECORD**

SITE New Cassel Industrial Area SAMPLE CREW Keith Robins/STEVE TAVSS  
 SAMPLE LOCATION/WELLNO. EW-2B Located on Aster Place  
 FIELD SAMPLE ID. NUMBER NC-MW-EW-2B(142) DATE 9/25/01  
 TIME 2<sup>20</sup> pm WEATHER Overcast, light drizzle TEMPERATURE 60-65 °F

SAMPLE TYPE:

GROUNDWATER X SEDIMENT \_\_\_\_\_  
 SURFACE WATER/STREAM \_\_\_\_\_ AIR \_\_\_\_\_  
 SOIL \_\_\_\_\_ OTHER (Describe, i.e., septage,  
leachate) \_\_\_\_\_

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER ≈ 46.7 FT MEASUREMENT METHOD (LMS / 9/2000), see remarks  
 DEPTH OF WELL ≈ 142 FT MEASUREMENT METHOD LMS (9/2000), see remarks  
 VOLUME REMOVED 100 gallons REMOVAL METHOD 2 inch dedicated submersible pump

FIELD TEST RESULTS:

COLOR clear pH 5.42 ODOR none  
 TEMPERATURE (°F) 17.1 SPECIFIC CONDUCTANCE (ms/cm) 0.209  
 OTHER (OVA, Methane meter, etc.) — TURBIDITY (NTUs) 2.2  
GPM = 1.0 Dissolved Oxygen = 3.50 mg/l, Eh = 250 (mV)

CONSTITUENTS SAMPLED:

VOCs (502) chloride, methane Total Organic Carbon  
Alkalinity Nitrate, sulfate Ferrous Iron, Carbon dioxide

REMARKS:

Purge water discharged to Nassau County Sewer System  
Total depth and depth to water measurements obtained from  
LMS RIF/S Appendices III report, dated 9/2000

WELL CASING VOLUMES

GAL/FT	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46



**SAMPLE INFORMATION RECORD**

SITE New Cassel Industrial Area SAMPLE CREW Keith Robins/STAVE TAUSS  
 SAMPLE LOCATION/WELLNO. EW-2C located on Aster Place  
 FIELD SAMPLE I.D. NUMBER NC MW EW-2C (514) DATE 9/25/01  
 TIME 3:15 pm WEATHER Light Drizzle / overcast TEMPERATURE 60-65 °F

SAMPLE TYPE:  
 GROUNDWATER X SEDIMENT \_\_\_\_\_  
 SURFACE WATER/STREAM \_\_\_\_\_ AIR \_\_\_\_\_  
 SOIL \_\_\_\_\_ OTHER (Describe, i.e., seepage, leachate) \_\_\_\_\_

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER ≈ 45 FT MEASUREMENT METHOD (Lms 9/2000) see remarks  
 DEPTH OF WELL ≈ 514 FT MEASUREMENT METHOD (Lms 9/2000) see remarks  
 VOLUME REMOVED 1500 gallons REMOVAL METHOD dedicated 3-inch submersible pump

FIELD TEST RESULTS:

COLOR clear pH 5.61 ODOR none  
 TEMPERATURE 13.0 °C SPECIFIC CONDUCTANCE 0.061  $\frac{ms}{cm}$   
 OTHER (OVA, Methane meter, etc.) \_\_\_\_\_ TURBIDITY (NTUs) 10

Flow rate) GPM = 10 Dissolved oxygen = 5.71 mg/l pH = 240(mV)

CONSTITUENTS SAMPLED:

VOCS (SO2) chloride, methane Total Organic Carbon  
Alkalinity Nitrate, Sulfate Ferrous Iron, carbon dioxide

REMARKS:

Purge water discharged to Nassau County Sewer System.  
Total depth and depth to water measurements obtained from  
Lms RI/FS Appendix III report, dated 9/2000.

WELL CASING VOLUMES

GAL/FT	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

**SAMPLE INFORMATION RECORD**

SITE New Cassel Industrial Area SAMPLE CREW Keith Robins, Jim Milligan

SAMPLE LOCATION/WELLNO. NCmw-1 (110)

FIELD SAMPLE I.D. NUMBER MW-1 DATE 11/2/01

TIME 8:50am WEATHER Sunny/cool TEMPERATURE 56°F

**SAMPLE TYPE:**

GROUNDWATER X SEDIMENT \_\_\_\_\_

SURFACE WATER/STREAM \_\_\_\_\_ AIR \_\_\_\_\_

SOIL \_\_\_\_\_ OTHER (Describe, i.e., seepage, leachate) \_\_\_\_\_

**WELL INFORMATION (fill out for groundwater samples):**

DEPTH TO WATER 50.69 FT MEASUREMENT METHOD water level meter

DEPTH OF WELL 110.0 FT MEASUREMENT METHOD water level meter

VOLUME REMOVED 50 gallons REMOVAL METHOD 2 inch ground for pump

**FIELD TEST RESULTS:**

COLOR clear pH 4.99 ODOR none

TEMPERATURE (°C) 16.7 SPECIFIC CONDUCTANCE (µmhos/cm) 0.272 ms/cm

OTHER (OVA, Methane meter, etc.) \_\_\_\_\_ TURBIDITY (NTUs) 2

Dissolved oxygen = 4.93 mg/l EH = 346(mV)

**CONSTITUENTS SAMPLED:**

VOG, TOC Carbon disulfide Alkalinity  
Methane, Ferrus Iron Nitrate, Sulfate, chloride

**REMARKS:**

Purge water discharged into Nassau County Sewer manhole  
Sample was collected off disposable hose off the pump

**WELL CASING VOLUMES**

GAL/FT	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46



**SAMPLE INFORMATION RECORD**

SITE NEW Cassel Industrial Area SAMPLE CREW Keith Robins / Jim Milligan  
 SAMPLE LOCATION/WELLNO. NC MW-2 (130)  
 FIELD SAMPLE ID. NUMBER MW-2 DATE 11/2/01  
 TIME 1030 am WEATHER Sunny / cool TEMPERATURE 50°F

**SAMPLE TYPE:**

GROUNDWATER  SEDIMENT \_\_\_\_\_  
 SURFACE WATER/STREAM \_\_\_\_\_ AIR \_\_\_\_\_  
 SOIL \_\_\_\_\_ OTHER (Describe, i.e., septage, leachate) \_\_\_\_\_

**WELL INFORMATION (fill out for groundwater samples):**

DEPTH TO WATER 50.81 FT MEASUREMENT METHOD water level meter  
 DEPTH OF WELL 130 FT MEASUREMENT METHOD water level meter  
 VOLUME REMOVED 65 gallons REMOVAL METHOD 2 inch groundfos 2 inch pump

**FIELD TEST RESULTS:**

COLOR clear pH 5.35 ODOR none  
 TEMPERATURE 17.2 °C SPECIFIC CONDUCTANCE 0.296  $\mu\text{mhos/cm}$   
 OTHER (OVA, Methane meter, etc.) \_\_\_\_\_ TURBIDITY (NTUs) 4.7  
Dissolved oxygen = 2.68 mg/l, EH = 203 (mv)

**CONSTITUENTS SAMPLED:**

VOCS, TOC Carbon disulfide chloride,  
methane, Ferric Iron Nitrate, Alkalinity Sulfate

REMARKS: purge water discharged to Nassau County sewer system.  
Sample collected off disposable discharge hose of the pump.

**WELL CASING VOLUMES**

GAL/FT	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

**SAMPLE INFORMATION RECORD**

SITE New Cassel Industrial Area SAMPLE CREW Keith Robins/ Jim Milligan  
 SAMPLE LOCATION/WELLNO. NC-MW-3 (150)  
 FIELD SAMPLE I.D. NUMBER MW-3 DATE 11/2/01  
 TIME 11:40am WEATHER Sunny/Cool TEMPERATURE 60°F

**SAMPLE TYPE:**

GROUNDWATER X SEDIMENT \_\_\_\_\_  
 SURFACE WATER/STREAM \_\_\_\_\_ AIR \_\_\_\_\_  
 SOIL \_\_\_\_\_ OTHER (Describe, i.e., septage, leachate) \_\_\_\_\_

**WELL INFORMATION (fill out for groundwater samples):**

DEPTH TO WATER 50.79 FT MEASUREMENT METHOD water level meter  
 DEPTH OF WELL 150 FT MEASUREMENT METHOD water level meter  
 VOLUME REMOVED 105 gallons REMOVAL METHOD 2 inch groundfos pump

**FIELD TEST RESULTS:**

COLOR clear pH 5.16 ODOR none  
 TEMPERATURE (°F) 17.2°C SPECIFIC CONDUCTANCE ( $\mu\text{mhos/cm}$ ) 0.270 ms/cm  
 OTHER (OVA, Methane meter, etc.) \_\_\_\_\_ TURBIDITY (NTUs) 3  
Dissolved oxygen = 3.31 mg/l, Eh = 63 (mv)

**CONSTITUENTS SAMPLED:**

TOC, VOCs, Carbon Dioxide, Chloride  
Methane, Ferron Iron, Nitrate, Sulfate, Alkalinity

REMARKS: Purge water discharged in Nassau County Sewer System.  
Sample collected off disposable discharge hose from the pump.

**WELL CASING VOLUMES**

GAL/FT	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46



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**SAMPLE INFORMATION RECORD**

SITE New Cassel Industrial Area SAMPLE CREW Keith Robins/Jim Milligan

SAMPLE LOCATION/WELLNO. NC-MW-4 (200)

FIELD SAMPLE ID. NUMBER MW-4 DATE 11/2/01

TIME 2:45 pm WEATHER Sunny / Cool TEMPERATURE 60°F

**SAMPLE TYPE:**

GROUNDWATER X SEDIMENT \_\_\_\_\_

SURFACE WATER/STREAM \_\_\_\_\_ AIR \_\_\_\_\_

SOIL \_\_\_\_\_ OTHER (Describe, i.e., septage, leachate) \_\_\_\_\_

**WELL INFORMATION (fill out for groundwater samples):**

DEPTH TO WATER 51.12 FT MEASUREMENT METHOD water level meter

DEPTH OF WELL 200 FT MEASUREMENT METHOD water level meter

VOLUME REMOVED 300 gallons REMOVAL METHOD dash Grundfos pump

**FIELD TEST RESULTS:**

COLOR Clear pH 5.37 ODOR None

TEMPERATURE 16.8°C SPECIFIC CONDUCTANCE 0.298

OTHER (OVA, Methane meter, etc.) \_\_\_\_\_ TURBIDITY (NTUs) 2-3

Dissolved oxygen = 3.33 mg/l ; Eh = 252 (mV)

**CONSTITUENTS SAMPLED:**

VOCS, TOC Chloride, Alkalinity Carbon Disulfide  
Methane, Ferrous Iron Nitrate, Sulfate Methane

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	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

**SAMPLE INFORMATION RECORD**

SITE New Cassel Industrial Area SAMPLE CREW Keith Robins / Jim Milligan  
 SAMPLE LOCATION/WELL NO. NC-MW-5 (110)  
 FIELD SAMPLE ID. NUMBER MW-5 DATE 11/5/01  
 TIME 8:50am WEATHER Cold, Breezy TEMPERATURE 40°F

**SAMPLE TYPE:**

GROUNDWATER  SEDIMENT \_\_\_\_\_  
 SURFACE WATER/STREAM \_\_\_\_\_ AIR \_\_\_\_\_  
 SOIL \_\_\_\_\_ OTHER (Describe, i.e., septage, leachate) \_\_\_\_\_

**WELL INFORMATION (fill out for groundwater samples):**

DEPTH TO WATER 52.37 FT MEASUREMENT METHOD water level meter  
 DEPTH OF WELL 110 FT MEASUREMENT METHOD Water level meter  
 VOLUME REMOVED 50 gallons REMOVAL METHOD 2 inch groutless pump

**FIELD TEST RESULTS:**

COLOR Clear pH 5.07 ODOR None  
 TEMPERATURE (°F) 16.0°C SPECIFIC CONDUCTANCE (µmhos/cm) 0.290 ms/cm  
 OTHER (OVA, Methane meter, etc.) \_\_\_\_\_ TURBIDITY (NTUs) 6.7  
Dissolved oxygen = 6.58 mg/l, Eh = 385 (mV)

**CONSTITUENTS SAMPLED:**

VOCs, TOC Methane chloride Alkalinity  
Ferrous Iron Nitrate, Sulfate Carbon Dioxide

**REMARKS:**

(Collect ms/msD)  
Prize water discharged into Nassau County Sewer System  
Sample collected off disposable discharge hose off pump

**WELL CASING VOLUMES**

GAL/FT	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46



**SAMPLE INFORMATION RECORD**

SITE New Cassel Industrial Area SAMPLE CREW Keith Rubin/Jim Milligan  
 SAMPLE LOCATION/WELLNO. NC-MW-6 (130')  
 FIELD SAMPLE ID. NUMBER MW-6 DATE 11/2/01  
 TIME 1015am WEATHER Sunny/cold, breezy TEMPERATURE 40's

**SAMPLE TYPE:**

GROUNDWATER X SEDIMENT \_\_\_\_\_  
 SURFACE WATER/STREAM \_\_\_\_\_ AIR \_\_\_\_\_  
 SOIL \_\_\_\_\_ OTHER (Describe, i.e., seepage, leachate) \_\_\_\_\_

**WELL INFORMATION (fill out for groundwater samples):**

DEPTH TO WATER 52.43 FT MEASUREMENT METHOD water level meter.  
 DEPTH OF WELL 130 FT MEASUREMENT METHOD water level meter  
 VOLUME REMOVED 65 gallons REMOVAL METHOD 2 inch grindfos pump

**FIELD TEST RESULTS:**

COLOR Clear pH 5.64 ODOR None  
 TEMPERATURE (°F) 16.4°C SPECIFIC CONDUCTANCE (µmhos/cm) 0.548  
 OTHER (OVA, Methane meter, etc.) \_\_\_\_\_ TURBIDITY (NTUs) 6.8  
Dissolved oxygen = 2.52 mg/l, Eh = 263 (mv)

**CONSTITUENTS SAMPLED:**

VOCs, TOC Methane, chloride, Alkalinity  
Ferrous Iron Sulfate, Nitrate Carbon Dioxide

REMARKS: Purge water discharged into Nassau County Sewer System  
Sample off disposable discharge hose off the pump.

**WELL CASING VOLUMES**

GAL/FT	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46



**SAMPLE INFORMATION RECORD**

SITE New Cassel Industrial Area SAMPLE CREW Keith Rubins / Jim Muligan

SAMPLE LOCATION/WELLNO. NC MW-7 (110)

FIELD SAMPLE ID. NUMBER MW-7 DATE 11/5/01

TIME 1:00 pm WEATHER Sunny / cold breezy TEMPERATURE 40°s

**SAMPLE TYPE:**

GROUNDWATER X SEDIMENT \_\_\_\_\_

SURFACE WATER/STREAM \_\_\_\_\_ AIR \_\_\_\_\_

SOIL \_\_\_\_\_ OTHER (Describe, i.e., septage, leachate) \_\_\_\_\_

**WELL INFORMATION (fill out for groundwater samples):**

DEPTH TO WATER 45.00 FT MEASUREMENT METHOD water level meter

DEPTH OF WELL 110 FT MEASUREMENT METHOD water level meter

VOLUME REMOVED 55 gallons REMOVAL METHOD 2 inch groundfos pump

**FIELD TEST RESULTS:**

COLOR clean pH 4.88 ODOR none

TEMPERATURE (°C) 14.4 SPECIFIC CONDUCTANCE (µmhos/cm) 0.226 ms/cm

OTHER (OVA, Methane meter, etc.) \_\_\_\_\_ TURBIDITY (NTUs) 10.6

Dissolved oxygen = 5.04 mg/l, Eh = 323 (mv)

**CONSTITUENTS SAMPLED:**

VOCS TOC As Alkalinity Carbon Disulfide  
methane, chloride Nitrate Sulfate Ferrous Iron

REMARKS: Purge water discharged to Nassau County Sewer System - Sample grab off  
disposable discharge hose from the pump

**WELL CASING VOLUMES**

GAL/FT	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

**SAMPLE INFORMATION RECORD**

SITE New Cassel Industrial Area SAMPLE CREW Keith Robins/ Jim Milligan  
 SAMPLE LOCATION/WELLNO. NC MW-8 (140)  
 FIELD SAMPLE ID. NUMBER MW-8 DATE 4/3/01  
 TIME 11:30 am WEATHER Sunny / cold TEMPERATURE 40's

SAMPLE TYPE:  
 GROUNDWATER X SEDIMENT \_\_\_\_\_  
 SURFACE WATER/STREAM \_\_\_\_\_ AIR \_\_\_\_\_  
 SOIL \_\_\_\_\_ OTHER (Describe, i.e., septage, leachate) \_\_\_\_\_

WELL INFORMATION (fill out for groundwater samples):  
 DEPTH TO WATER 45.16 FT MEASUREMENT METHOD water level meter  
 DEPTH OF WELL 140 FT MEASUREMENT METHOD water level meter  
 VOLUME REMOVED 100 gallons REMOVAL METHOD 2 inch grinder pump

FIELD TEST RESULTS:  
 COLOR clear pH 5.08 ODOR NONE  
 TEMPERATURE 14.5°C SPECIFIC CONDUCTANCE ( $\mu\text{mhos/cm}$ ) 0.248 ms/cm  
 OTHER (OVA, Methane meter, etc.) \_\_\_\_\_ TURBIDITY (NTUs) 19.2  
Dissolved Oxygen = 6.05 mg/l, Eh = 511mv

CONSTITUENTS SAMPLED:  
VOCS, TOC, Nitrate, Sulfate, Ferrous Iron  
Methane, Alkalinity, chloride Carbon Disulfide

REMARKS: Purge water discharged into Nassau County Sewer System  
Sample collected off discharge disposable hose off pump.

**WELL CASING VOLUMES**

GAL/FT	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46