Tighe&Bond
Consulting Engineers
Environmental Specialists

October 3, 2006

Michael D. Merriman

Deputy Regional Permit Administrator

Division of Environmental Permits

New York State Department of Environmental Conservation

21 South Putt Corners

New Paltz, New York 12561-1696

Re: Groundwater Sampling
SWMU AE Building 202
DEC # 35154-00067-00090
TechCity Properties, Inc.
300 Enterprise Drive
Kingston, NY 12401

Dear Mr. Merriman:

Tighe & Bond, Inc. (Tighe & Bond) has prepared this report to document supplemental groundwater results for solid waste management unit (SWMU) AE at the former IBM-Kingston facility. SWMU AE was identified by International Business Machines Corporation (IBM) and reported to the New York State Department of Environmental Conservation (NYSDEC) on July 29, 1996. The purpose of this investigation was to provide current groundwater flow and polychlorinated biphenyl (PCB) concentrations for three wells installed to investigate this SWMU.

Background

The former IBM-Kingston facility, now owned by TechCity Properties, Inc., is located at 300 Enterprise Drive in Kingston, New York (Figure 1). Building 202 is located to the west of Enterprise Drive (Figure 2). The building is currently occupied by the Bank of America Corporation (BOA).

Building 202 was built in 1970 and contains three elevators in the center of the building. A single, non-telescoping, hydraulic piston located in a subsurface boring control the movement of the elevators in the four-story building. Figure 3 provides a schematic of the elevator shaft boring created by Gary Casper of the NYSDEC.

In May 1996, Schindler Elevator personnel reported to IBM that the Building 202 Number 2 elevator had required the addition of 15 gallons of hydraulic fluid since January 1996. IBM hired Groundwater Sciences Corporation (GSC) to determine if a release had occurred. As part of GSC's investigation, a monitoring well was installed in the mechanical room adjacent to the elevator shaft and is approximately ten feet to the northwest of the elevator shaft. Soil and groundwater samples were collected from monitoring well locations.

Total petroleum hydrocarbons (TPH) and PCBs were detected in both mediums. Two additional monitoring wells (202-2S and 202-3S) were installed in down gradient locations with respect to elevator Number 2. TPH was detected at relatively low concentrations in the soil and groundwater. Only groundwater was analyzed for PCBs with no detections above the reporting limits. On July 10, 1996 confirmation samples were collected from monitoring well 202-IR/S that confirmed the presence of PCB Aroclor-1254 at concentrations ranging from 2μg/L to 10.2μg/L. The groundwater results provided in this report represent the first groundwater sampling data collected from these wells since the original investigation in 1996.

Field Investigations

On September 13, 2006 Tighe & Bond personnel mobilized to the site. Sampling activities were performed in general accordance with the procedures outlined in GSC's NYSDEC approved Groundwater Monitoring Plan dated January 30, 1997 and revised March 9, 1998. GSC personnel observed Tighe and Bond sampling activities, and collected split samples during this investigation. Attachment 1 provides the field sampling data recorded during the sampling activities.

Groundwater level measurements

Tighe & Bond measured water levels and for the presence of light non-aqueous phase liquid (LNAPL) at monitoring wells 202-1R/S, 202-2S, and 202-3S prior to well purging. Static water level measurements were conducted using a Heron© electronic interphase meter capable of measuring the depth to water to within 0.01 feet. LNAPL measurements were made through the use of an oil/water interface probe and a 2-inch polyethylene bailer. The water level measurement data for the site are summarized in Table 1. No LNAPL was observed or measured in any of the three wells. Previously recorded survey data were used in conjunction with the water level data to calculate groundwater elevations. The calculated elevations were subsequently used to create a water table contour map. Groundwater elevations and inferred flow directions are illustrated on Figure 2. It should be noted that 202-2S and 202-3S are both screened entirely in the overburden groundwater table. However, 202-1R/S, is screened 5.4 feet in overburden groundwater and in 14.6 feet in bedrock groundwater. Therefore, the groundwater contour map represents groundwater elevations screened in two strata.

Well Purging

All three wells were purged of stagnant water by evacuating three well volumes of water. The water was purged using a dedicated (single-use) polyvinyl chloride (PVC) bailer. The purged water was emptied into a drum that was subsequently transferred to an on-site storage facility.

The appropriate purge volume for each well was calculated based on water level measurement, well depth measurement, and well diameter. The depth to bottom of the well was sounded and the purge volume was calculated using the following formula:

$$V = 0.16 \text{ gal } x \text{ (DTB-DTW) } x \text{ 3}$$

V = Volume to be purged
n = number of gallons per foot
DTB = referenced Depth To Bottom
DTW = Depth To Water, prior to purge

Confirmation of the removal of all stagnant water was accomplished by verifying the drawdown of any pump used for purging or by bailing from the top of the column. The volume of purged water is provided on the field data sheets at Appendix A.

Well Sampling

All three wells were sampled using dedicated bailers. The bailers were lowered slowly into the water column so as to minimize agitation of the water column. After the sample was brought to the surface, it was emptied into the sample container using the bottom emptying device. Two 1-liter amber jars were filled for each monitoring well and analyzed for PCBs via method U.S. Environmental Protection Agency (USEPA) SW-846 Method 8080. One duplicate groundwater sample was collected from monitoring well 202 1/4S and labeled 202 1/5S. All samples were immediately placed on ice in a secure cooler and transported to Severn Trent Laboratories, Westfield Massachusetts for analysis.

Results

Figure 2 provides the inferred groundwater flow direction derived from the three monitoring wells. The inferred groundwater flow direction is in a northwesterly direction towards Esopus Creek. The groundwater flow direction suggests that the groundwater near the Elevator 2 heads in the direction of monitoring well 202-2S. Site plans containing pre-construction boring information were reviewed as part of this report. The depth to bedrock increases dramatically to the west consistent with the inferred groundwater flow direction. In particular, borings installed at the eastern extent of Building 202 measured bedrock at 11 feet below grade compared to borings installed on the western extent with bedrock measured at 29 feet. The borings also indicate that the depth to groundwater has increased substantially from pre-building construction to present day. A boring installed near the location of 202 1R/S had a depth to groundwater measured at 2.5 feet compared to 12.85 feet measured during this investigation. The variation in groundwater depth could be attributed to manipulation of site elevation and/or reduced infiltration due to building cover.

The field data sheets provide the conditions of the monitoring wells and observations made during sampling activities. All three wells were in excellent condition with no signs of damage to the casing or standpipes. All three of the wells were turbid with a slight to moderate sulfur odor. The interior well, 202-1R/S, also contained a slight odor of petroleum. No sheens or LNAPL were noted in any of the samples. The yield of all of the wells was moderate to high.

Table 2 provides the results of the groundwater analysis. Appendix B provides the actual laboratory analytical reports. Monitoring well 202 1R/S contained the PCB Aroclor 1254 in both the sample and duplicate sample at concentrations, 4.8 and 13μg/L, respectively. Both of these detections exceed the NYSDEC limit for PCBs in groundwater established at 0.1μg/L. None of the other aroclors were detected above the minimum reporting limit. No detections of PCBs were reported in either of the two exterior wells, 202-2S or 202-3S, above the minimum reporting limit of 0.061μg/L.

Two additional analytical tests were performed on the samples collected from 202 1R/S. The first analysis consisted of a laboratory filter of the sample by Severn Trent Laboratories using a 0.45-micron filter. Upon reanalysis, using Method EPA Method 8082, no detections of PCBs were reported above the minimum reporting limit of 0.061µg/L. The second test, EPA Method 8015B, employed gas chromatography to identify diesel and gasoline range organics present in the sample. The results provided on Table 2 yielded a chromatograph consistent with hydraulic oil. Additional co-mingled petroleum products, listed in Table 2, were not identified in the test. The quantity of hydraulic oil was detected at 45 mg/L.

Summary

The results of the investigation suggest that the groundwater below Building 202 contains PCB Aroclor 1254 in exceedence of NYSDEC standards. The inferred groundwater flow direction from MW 202 IR/S appears to be in a northwesterly direction towards monitoring well 202-2S. However, no PCBs were detected above reporting limits in groundwater from this well or monitoring well 202-3S.

The filtered groundwater sample did not contain PCBs at a concentration above minimum reporting limits. The filtering separates dissolved material from particulates contained in the sample. The absence of any PCBs in the filtered sample may indicate that the contaminant is in the sediment or in an emulsified oil product. The identification of hydraulic fluid in the groundwater provides a potential PCB source.

Please feel free to contact Jim Olsen at (860) 704-4761 or Brian Conte at (860) 704-4763 if you should have any questions, comments, or require additional information.

Very Truly Yours,

TIGHE & BOND, INC.

James T. Olsen, LEP
Senior Hydrogeologist/Office Manager

Brian C. Conte
Environmental Scientist

cc: Alan Ginsberg, - TechCity Properties, Inc.

Thomas Kacandes – TechCity Properties, Inc.

Michael S. Ahern, P.E. Divney Tung Schwalbe, LLP

Gary D. Casper, NYSDEC

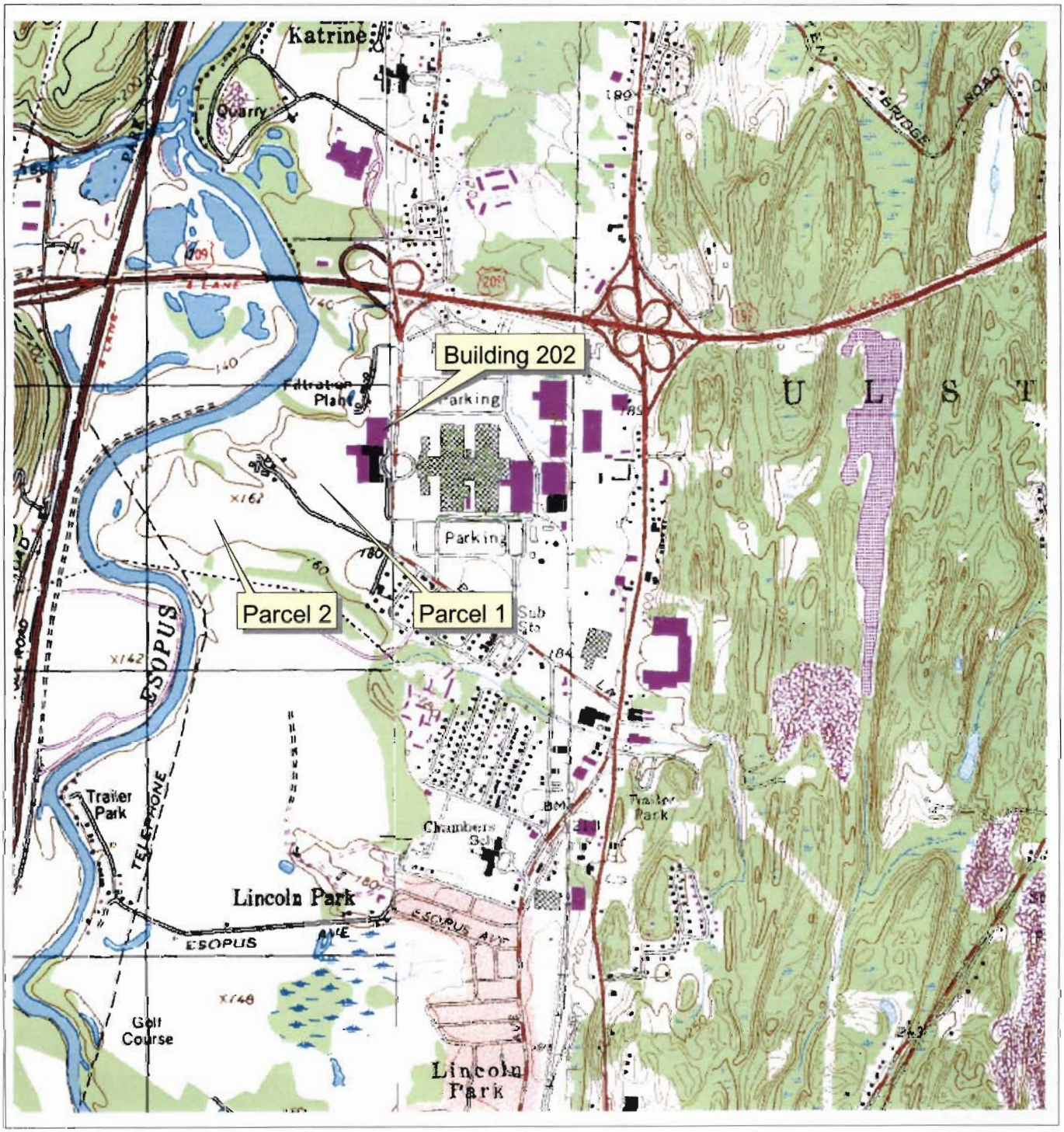
Wayne Mizerak, NYSDEC/DER ✓

Bridget Callaghan, New York State Dept of Health

Dean Chartrand, IBM Corporation

Douglas H. Zamelis, Green & Seifter Attorneys, PLLC

Angela T. Anastas, Bank of America



0 0.5 1 1.5 Miles

0 2000 4000 6000 Feet

Base map is a portion of the following U.S.G.S. Quadrangles: Kingston East 1980

N W E S

Site Location Map

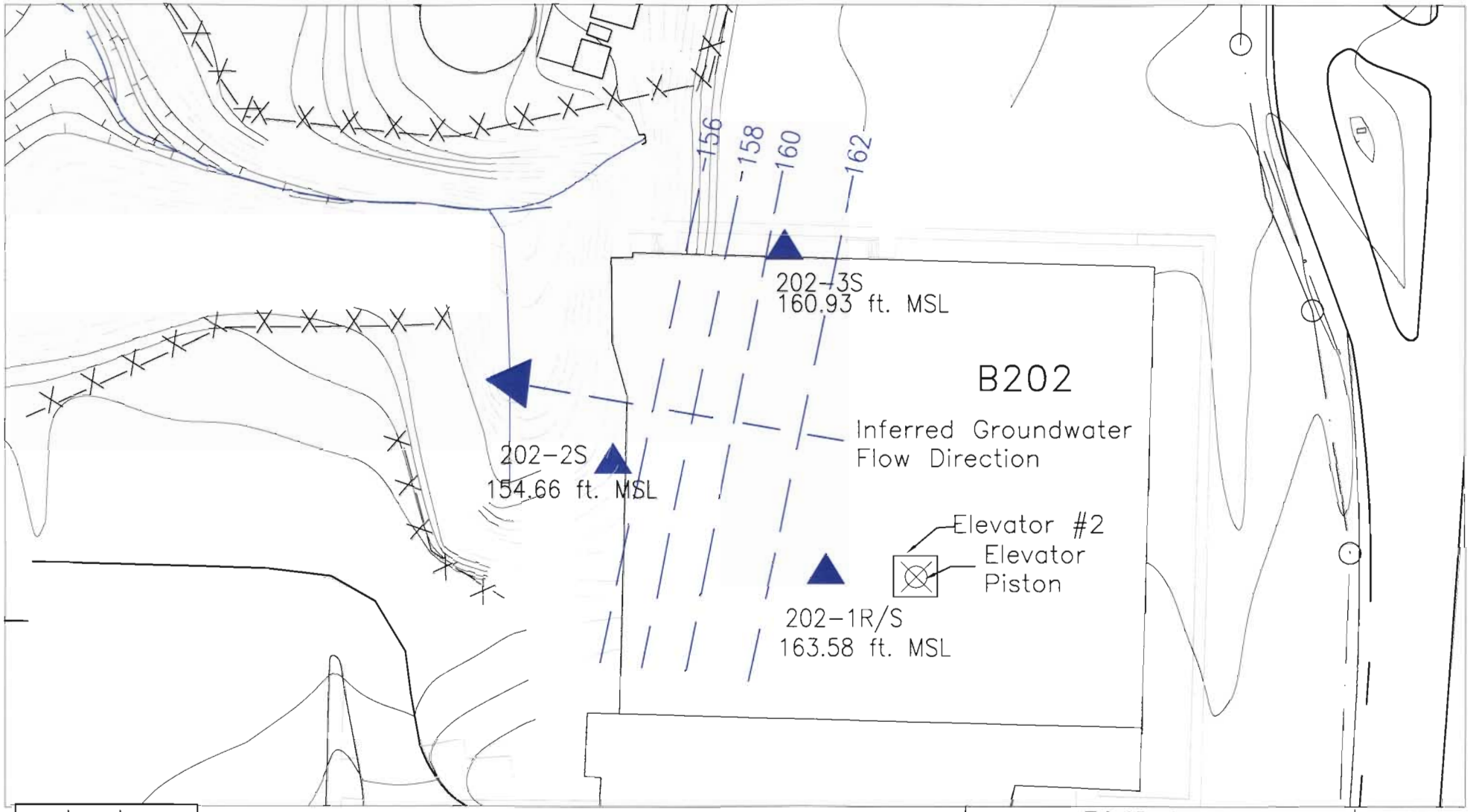
TechCity
Parcel1 and 2
300 Enterprise Drive
Kingston, New York

Tighe&Bond, Inc.
Consulting Engineers
213 Court Street, Suite 900 - Middletown, CT 06457

Job No.	Drawn By:	Date:
126252	BCC	Sept. 2006

File: 126223/Figures/Figure 1

Figure 1



Legend

- Monitoring Well Groundwater Elevation (feet)
- Groundwater Equipotentials (feet above MSL)

Tighe&Bond Tighe & Bond – Consulting Engineers
213 Court Street – Suite 900 Middletown, Connecticut 06457 Ph: 860-704-4780

TECH-CITY
Groundwater Contour Map
Groundwater Sampling 9/13/2006
Kingston, NY

No.	By:	Date:

Job No.	Designed By:	Checked By:	Scale:
12-8252	BCC	JTO	1" = 230'
Cad File: 12-8252/figures/site drawing.dwg	Drawn By: BCC	Date: 9/20/06	Figure 2

IBM - Kingston

SWMU AE Schematic

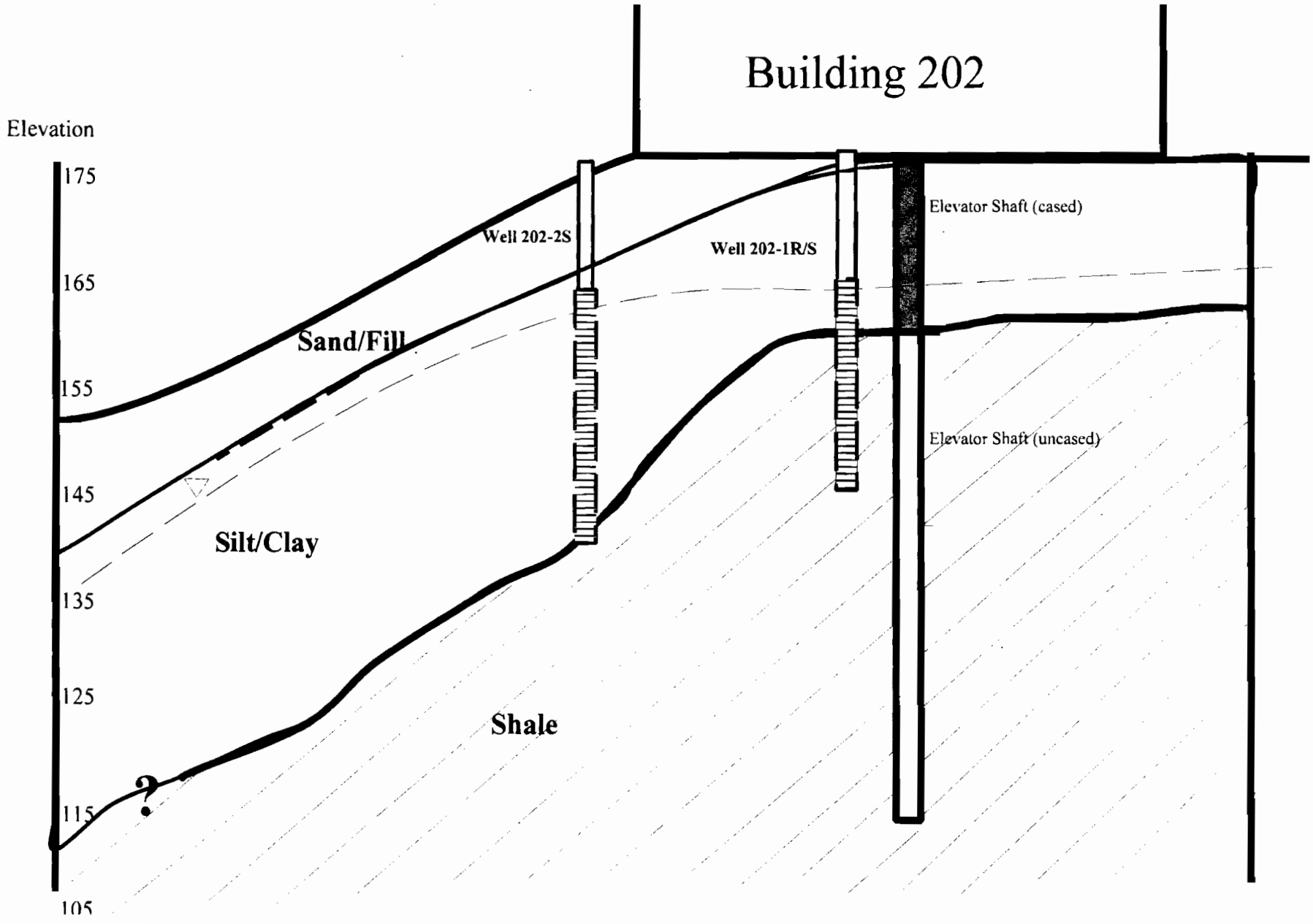


Table 1
Groundwater Elevation Data
SWMU AE Building 202
TechCity Properties, Inc.
Kingston, New York

Well Number	Top of Casing Elevation (ft.-NGVD)*	Depth to Bottom of Well	Depth to Water (feet)	Elevation (ft.-NGVD)	Screened Interval (feet)*	Geologic Unit*
202 - 2S	175.51	36.58	20.85	154.66	12-34.5	Silt and Clay
202 - 3S	175.42	21.14	14.49	160.93	6.5-19	Silt and Clay with some layers with sand and/or gravel
202 -1R/S	176.43	31.92	12.85	163.58	12-32	Top 5.4':Silt and Clay Bottom 14.6': Shale Bedrock

Notes:
Water level measurements collected on September 13,2006.
ft.-NGVD - Feet above National Geodetic Vertical Datum of 1929
** Data provided by Groundwater Sciences Corporation*

Table 2
Summary of Groundwater Analytical Data
SWMU AE Building 202
TechCity Properties, Inc.
Kingston, New York

Parameter	NYSDEC Standard	ID Date	202 2S 9/1/3/06	202 3S 9/1/3/06	202 1/RS 9/1/3/06	202 1/RS Duplicate	202 1/RS Lab Filtered
Polychlorinate Biphenyls (PCBs)(µg/L)							
PCB - Aroclor 1254	**0.1**		ND<0.061	ND<0.061	**4.8**	**13**	ND<0.061
Hydrocarbon Product Identification (mg/L)							
Creosote	No Standard		NT	NT	ND<1.0	NT	NT
Hydraulic Fluid	No Standard		NT	NT	45	NT	NT
Jet Fuel	No Standard		NT	NT	ND<1.0	NT	NT
Mineral Spirits	No Standard		NT	NT	ND<1.0	NT	NT
Motor Oil	No Standard		NT	NT	ND<1.0	NT	NT
Unmatched Hydrocarbons	No Standard		NT	NT	ND<1.0	NT	NT
MODF (C14-C28)	No Standard		NT	NT	ND<1.0	NT	NT
#4 Fuel (C9-C36)	No Standard		NT	NT	ND<1.0	NT	NT
#6 Fuel (C9-C36)	No Standard		NT	NT	ND<1.0	NT	NT

Notes:
Highlighted text - Concentration exceeds at least one indicated RSR criteria.
Only detected Constituents of Concern (COC) are included in the table.
NYSDEC - New York State Department of Environmental Conservation
ND - Not Detected to the indicated limit.
µg/L - micrograms per liter
NT - Not Tested
No Standard - No standard established by NYSDEC

Field Sampling Data Sheet

GENERAL INFORMATION:

Well No: 202 IR/S Date: 9 / 13 / 06 Personnel: TBCC

PURGING:

Reference Depth to Bottom (DTBr) NA ft.	Start: 15:45 Stop: 16:10
Measured Depth to Bottom (DTBm) 31.98 ft.	*Note: Use Reference Depth to Bottom for calculations*
Depth to Water (DTW): 12.85 ft.	Well Yields: ☒ Yes ☐ No
Target Volume: 9 gal.	Water Contained: ☒ Yes ☐ No
Actual Volume: 10 gal.	DTW After Purge: ft. 15.26

PURGE METHOD:

- ☒ Bailer
- ☐ Peristaltic Pump
- ☐ Well Wizard
- ☐ American Sigma
- ☐ Bladder Pump
- ☐ Submersible

SAMPLING:

Sample ID:

Sample Time: Start: 16:12 Stop: 16:20

Duplicate ID:

Sampling Method:

- ☒ Bailer
- ☐ Submersible
- ☐ Peristaltic Pump
- ☐ Bladder Pump

COMMENTS: Strong sulfer odor, no sheen, moderate turbidity

Signature: Ron Cat Date: 9/13/06 QA/QC Review: _____ Date: _____

Field Sampling Data Sheet

GENERAL INFORMATION:

Well No: 202 2 (5) Date: 9 / 13 / 06 Personnel: BCC

PURGING:

Reference Depth to Bottom (DTBr) NA ft.	Start: 13:54 Stop: 14:26
Measured Depth to Bottom (DTBm) 36.5 ft.	*Note: Use Reference Depth to Bottom for calculations*
Depth to Water (DTW): 20.58 ft.	Well Yields: [X] Yes [ ] No
Target Volume: 5 gal.	Water Contained: [X] Yes [ ] No
Actual Volume: 6 gal.	DTW After Purge: ft. 30.63

-> Took well some time to re-c

PURGE METHOD:

- [X] Bailer
- [ ] Peristaltic Pump
- [ ] Well Wizard
- [ ] American Sigma
- [ ] Bladder Pump
- [ ] Submersible

SAMPLING:

Sample Time: Start: 14:30 Stop: 14:31

Duplicate ID:

Sampling Method:

- [X] Bailer
- [ ] Peristaltic Pump
- [ ] Submersible
- [ ] Bladder Pump

COMMENTS: Strong sulfer odor no sheen, moderate turbidity

Signature: [signature] Date: 9/13/06 QA/QC Review: _____ Date: _____

Field Sampling Data Sheet

GENERAL INFORMATION:

Well No: 202 3(s) Date: 9 / 13 / 06 Personnel: BCC

PURGING:

Reference Depth to Bottom (DTBr) NA ft.		Start: 14:30	Stop: 14:58
Measured Depth to Bottom (DTBm) 21.14 ft.		*Note: Use Reference Depth to Bottom for calculations*	
Depth to Water (DTW): 14.49 ft.		Well Yields: ☒ Yes ☐ No	
Target Volume: 4 gal.		Water Contained: ☐ Yes ☒ No	
Actual Volume: 4 gal.		DTW After Purge: ft.	

PURGE METHOD:

☒ Bailer
☐ Peristaltic Pump
☐ Well Wizard
☐ American Sigma
☐ Bladder Pump
☐ Submersible

SAMPLING:

Sample Time: Start: 14:58 Stop: 15:06

Duplicate ID:

Sampling Method:

☐ Bailer ☐ Submersible

☐ Peristaltic Pump ☐ Bladder Pump

COMMENTS: Very turbid, strong sulfur odor, slight petroleum odor

Signature: Ben Cole Date: 9/13/06 QA/QC Review: _____ Date: _____

SEVERN TRENT STL

ANALYTICAL REPORT

Job Number: 360-5790-1

Job Description: 126252

For:
Tighe & Bond
213 Court Street
Middletown, CT 06457

Attention: Jim Olsen

Joseph A. Chimi

Joe Chimi
Report Production Representative
jchimi@stl-inc.com
09/21/2006
Revision: 1

Project Manager: Becky Mason

The test results in this report meet all NELAP requirements for accredited parameters. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced except in full, and with written approval from the laboratory. STL Westfield Certifications and Approvals: MADEP MA014, RIDOH57, CTDPH 0494, VT DECWSD, NH DES 253903-A, NELAP FL E87912 TOX, NELAP NJ MA008 TOX, NELAP NY 10843, NY DOH 10843.

ACCREDITED IN ACCORDANCE WITH nelac

CASE NARRATIVE FOR REPORT NUMBER: 360-5790

Client Name : Tighe & Bond

Project Name : 126252

Date : 9/21/06

REVISION

This revision makes the requested change to the Job Description.

360-5790-(3-4) For method 8082, the samples were analyzed at dilutions (10x and 50x, respectively) due to high target concentration. Consequently, the extraction surrogates were diluted outside method control limits.

METHOD SUMMARY

Client: Tighe & Bond

Job Number: 360-5790-1

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	STL WFD	SW846 8082	
Separatory Funnel Liquid-Liquid Extraction	STL WFD		SW846 3510C

LAB REFERENCES:

STL WFD = STL Westfield

METHOD REFERENCES:

SW846 - "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: Tighe & Bond

Job Number: 360-5790-1

Method	Analyst	Analyst ID
SW846 8082	Sullivan, Pat	PS

SAMPLE SUMMARY

Client: Tighe & Bond

Job Number: 360-5790-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
360-5790-1	202 2S	Water	09/13/2006 1400	09/14/2006 1120
360-5790-2	202 3S	Water	09/13/2006 1447	09/14/2006 1120
360-5790-3	202 2/4S	Water	09/13/2006 1549	09/14/2006 1120
360-5790-4	202 2/5S	Water	09/13/2006 1550	09/14/2006 1120

SAMPLE RESULTS

Client: Tighe & Bond

Job Number: 360-5790-1

Client Sample ID: 202 2S

Lab Sample ID: 360-5790-1
Client Matrix: Water

Date Sampled: 09/13/2006 1400
Date Received: 09/14/2006 1120

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method: 8082
Preparation: 3510C
Dilution: 1.0
Date Analyzed: 09/15/2006 2050
Date Prepared: 09/15/2006 0854

Analysis Batch: 360-10528
Prep Batch: 360-10472

Instrument ID: 5890II GC w/ dual ECDs
Lab File ID: P5869.D
Initial Weight/Volume: 990 mL
Final Weight/Volume: 1.0 mL
Injection Volume:
Column ID: PRIMARY

Analyte	Result (ug/L)	Qualifier	RL	RL
PCB-1016	ND		0.061	0.061
PCB-1221	ND		0.061	0.061
PCB-1232	ND		0.061	0.061
PCB-1242	ND		0.061	0.061
PCB-1248	ND		0.061	0.061
PCB-1254	ND		0.061	0.061
PCB-1260	ND		0.061	0.061
PCB-1262	ND		0.061	0.061
PCB-1268	ND		0.061	0.061

Surrogate	%Rec	Acceptance Limits
DCB Decachlorobiphenyl	40	30 - 150
Tetrachloro-m-xylene	61	30 - 150

Client: Tighe & Bond

Job Number: 360-5790-1

Client Sample ID: 202 3S

Lab Sample ID: 360-5790-2
Client Matrix: Water

Date Sampled: 09/13/2006 1447
Date Received: 09/14/2006 1120

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method: 8082
Preparation: 3510C
Dilution: 1.0
Date Analyzed: 09/15/2006 2111
Date Prepared: 09/15/2006 0854

Analysis Batch: 360-10528
Prep Batch: 360-10472

Instrument ID: 5890II GC w/ dual ECDs
Lab File ID: P5870.D
Initial Weight/Volume: 990 mL
Final Weight/Volume: 1.0 mL
Injection Volume:
Column ID: PRIMARY

Analyte	Result (ug/L)	Qualifier	RL	RL
PCB-1016	ND		0.061	0.061
PCB-1221	ND		0.061	0.061
PCB-1232	ND		0.061	0.061
PCB-1242	ND		0.061	0.061
PCB-1248	ND		0.061	0.061
PCB-1254	ND		0.061	0.061
PCB-1260	ND		0.061	0.061
PCB-1262	ND		0.061	0.061
PCB-1268	ND		0.061	0.061

Surrogate	%Rec	Acceptance Limits
DCB Decachlorobiphenyl	42	30 - 150
Tetrachloro-m-xylene	65	30 - 150

Client: Tighe & Bond

Job Number: 360-5790-1

Client Sample ID: **202 2/4S**

Lab Sample ID: 360-5790-3
Client Matrix: Water

Date Sampled: 09/13/2006 1549
Date Received: 09/14/2006 1120

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method: 8082
Preparation: 3510C
Dilution: 10
Date Analyzed: 09/18/2006 1111
Date Prepared: 09/15/2006 0854

Analysis Batch: 360-10528
Prep Batch: 360-10472

Instrument ID: 5890II GC w/ dual ECDs
Lab File ID: P5894.D
Initial Weight/Volume: 990 mL
Final Weight/Volume: 1.0 mL
Injection Volume:
Column ID: PRIMARY

Analyte	Result (ug/L)	Qualifier	RL	RL
PCB-1016	ND		0.61	0.61
PCB-1221	ND		0.61	0.61
PCB-1232	ND		0.61	0.61
PCB-1242	ND		0.61	0.61
PCB-1248	ND		0.61	0.61
PCB-1254	4.8		0.61	0.61
PCB-1260	ND		0.61	0.61
PCB-1262	ND		0.61	0.61
PCB-1268	ND		0.61	0.61

Surrogate	%Rec		Acceptance Limits
DCB Decachlorobiphenyl	0	D X	30 - 150
Tetrachloro-m-xylene	0	D X	30 - 150

Client: Tighe & Bond

Job Number: 360-5790-1

Client Sample ID: **202 2/5S**

Lab Sample ID: 360-5790-4
Client Matrix: Water

Date Sampled: 09/13/2006 1550
Date Received: 09/14/2006 1120

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method: 8082
Preparation: 3510C
Dilution: 50
Date Analyzed: 09/18/2006 1132
Date Prepared: 09/15/2006 0854

Analysis Batch: 360-10528
Prep Batch: 360-10472

Instrument ID: 5890II GC w/ dual ECDs
Lab File ID: P5895.D
Initial Weight/Volume: 990 mL
Final Weight/Volume: 1.0 mL
Injection Volume:
Column ID: PRIMARY

Analyte	Result (ug/L)	Qualifier	RL	RL
PCB-1016	ND		3.0	3.0
PCB-1221	ND		3.0	3.0
PCB-1232	ND		3.0	3.0
PCB-1242	ND		3.0	3.0
PCB-1248	ND		3.0	3.0
PCB-1254	13		3.0	3.0
PCB-1260	ND		3.0	3.0
PCB-1262	ND		3.0	3.0
PCB-1268	ND		3.0	3.0

Surrogate	%Rec		Acceptance Limits
DCB Decachlorobiphenyl	0	D X	30 - 150
Tetrachloro-m-xylene	0	D X	30 - 150

DATA REPORTING QUALIFIERS

Client: Tighe & Bond

Job Number: 360-5790-1

Lab Section	Qualifier	Description
GC Semi VOA		
	X	Surrogate exceeds the control limits
	D	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution may be flagged with a D.

QUALITY CONTROL RESULTS

Client: Tighe & Bond

Job Number: 360-5790-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Prep Batch: 360-10472					
LCS 360-10472/2-A	Lab Control Spike	T	Water	3510C	
LCSD 360-10472/3-A	Lab Control Spike Duplicate	T	Water	3510C	
MB 360-10472/1-A	Method Blank	T	Water	3510C	
360-5790-1	202 2S	T	Water	3510C	
360-5790-2	202 3S	T	Water	3510C	
360-5790-3	202 2/4S	T	Water	3510C	
360-5790-4	202 2/5S	T	Water	3510C	
Analysis Batch:360-10528					
LCS 360-10472/2-A	Lab Control Spike	T	Water	8082	360-10472
LCSD 360-10472/3-A	Lab Control Spike Duplicate	T	Water	8082	360-10472
MB 360-10472/1-A	Method Blank	T	Water	8082	360-10472
360-5790-1	202 2S	T	Water	8082	360-10472
360-5790-2	202 3S	T	Water	8082	360-10472
360-5790-3	202 2/4S	T	Water	8082	360-10472
360-5790-4	202 2/5S	T	Water	8082	360-10472

Report Basis
T = Total

Client: Tighe & Bond

Job Number: 360-5790-1

Method Blank - Batch: 360-10472

Method: 8082
Preparation: 3510C

Lab Sample ID: MB 360-10472/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 09/15/2006 1947
Date Prepared: 09/15/2006 0854

Analysis Batch: 360-10528
Prep Batch: 360-10472
Units: ug/L

Instrument ID: 5890II GC w/ dual ECDs
Lab File ID: P5866.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1.0 mL
Injection Volume:
Column ID: PRIMARY

Analyte	Result	Qual	RL	RL
PCB-1016	ND		0.060	0.060
PCB-1221	ND		0.060	0.060
PCB-1232	ND		0.060	0.060
PCB-1242	ND		0.060	0.060
PCB-1248	ND		0.060	0.060
PCB-1254	ND		0.060	0.060
PCB-1260	ND		0.060	0.060
PCB-1262	ND		0.060	0.060
PCB-1268	ND		0.060	0.060

Surrogate	% Rec	Acceptance Limits
DCB Decachlorobiphenyl	64	30 - 150
Tetrachloro-m-xylene	59	30 - 150

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Tighe & Bond

Job Number: 360-5790-1

Lab Control Spike/
Lab Control Spike Duplicate Recovery Report - Batch: 360-10472

Method: 8082
Preparation: 3510C

LCS Lab Sample ID: LCS 360-10472/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 09/15/2006 2008
Date Prepared: 09/15/2006 0854

Analysis Batch: 360-10528
Prep Batch: 360-10472
Units: ug/L

Instrument ID: 5890II GC w/ dual ECDs
Lab File ID: P5867.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 5.0 mL
Injection Volume:
Column ID: PRIMARY

LCSD Lab Sample ID: LCSD 360-10472/3-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 09/15/2006 2029
Date Prepared: 09/15/2006 0854

Analysis Batch: 360-10528
Prep Batch: 360-10472
Units: ug/L

Instrument ID: 5890II GC w/ dual ECDs
Lab File ID: P5868.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 5.0 mL
Injection Volume:
Column ID: PRIMARY

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
PCB-1016	70	68	40 - 140	2	20		
PCB-1260	72	73	40 - 140	1	20		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
DCB Decachlorobiphenyl	51	50	30 - 150
Tetrachloro-m-xylene	56	56	30 - 150

Calculations are performed before rounding to avoid round-off errors in calculated results.

LOGIN SAMPLE RECEIPT CHECK LIST

Client: Tighe & Bond

Job Number: 360-5790-1

Login Number: 5790

Question	T/F/NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	NA	
The cooler's custody seal, if present, is intact.	NA	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	6.2 C
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	NA	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	

Severn Trent Laboratories, Inc.
Chain of Custody Form

SEVERN TRENT STL

26704

•53 Southampton Road
Westfield, MA 01085
(P) 413-572-4000
(F) 413-572-3707
STL Westfield

•149 Rangeway Road
N. Billerica, MA 01862
(P) 978-667-1400
(F) 978-667-7871
STL Billerica / Service Center

Client: Tighe + Bond
Address: Middletown, CT
Phone: 860 704476 Fax:
Project #: 126253
Project Manager: James Olsen
Work ID:
Contact: Brian Cole

Job# 360-5792 Quote# PO#

Requested Turnaround Time (PLEASE SPECIFY)
STANDARD ____ RUSH ✓ (Lab Approval Required)

Regulatory Classification
NPDES ____ Drinking Water ____
RCRA ____ MCP GW1/S1 ____
Other ____

Special Report Format
QA/QC Report ✓
DQE (MCP) Rpt ____
DEP Form(s) ____

Shaded areas for office use

Analysis Requested
Check analysis and specify method and analytes in comments section.
For example:
500-series for drinking water
600-series for waste water, NPDES
6000-series for groundwater, soil, waste
8000-series for groundwater, soil, waste
Use comments section to further define.

Comments (Special Instructions)

Please print legibility. If the analytical requests are not clearly defined on the chain-of-custody, the turnaround time will begin after all questions have been satisfactorily answered.

Sample Type Codes
WW-Wastewater DW-Drinking water SW-Surface water
LW-Lab water GW-Groundwater A-Air
S-Solid / Soil SL-Sludge O-Oil Z-Other

Sample ID	Sample Type	Sampler's Initials	Date Time Collected	Grab	Comp.	# Containers	Plastic(P) or Glass(G)	Preservative: NaHSO4/MeOH	HNO3 to pH <2	H2SO4 to pH <2	HCl to pH <2	NaOH to pH >12	Na2S2O3	None / 4° C	Volatiles 524 /624 /8260	Volatiles 601 /602 /8021	Semivos 525 /625 /8270	(PCB) Pest / Herbicide	EPH / VPH	DRO / GRO / ETPH	Metals 6010 / 200.7	Mercury 245.1 / 7470-71	General Chemistry	Bacteriological	Toxicity	Oil & Grease / TOC	Radchem / Other
202 25	W	BCC	9/13 14:00											✓				✓									
202 35	W	BCC	9/13 14:47											✓				✓									
202 2/45	W	BCC	9/13 15:49											✓				✓									
202 2/55	W	BCC	9/13 15:50											✓				✓									

Analyze for PCBs as discussed with Becky Mason

KRT 9/14/06

Sampled by (print): Brian Cole Signature:

Relinquished by:	Brian Cole	Date: 9/13	Time: 17:56	Received by:	Date: 9/13	Time: 17:55
Relinquished by:	Carly Hubbard	Date: 9/14	Time: 9:30	Received by:	Date: 9/14/06	Time: 0930
Relinquished by:		Date: 9/14/06	Time: 11:20	Received by:	Date: 9/14/06	Time: 1120

Cooler? (Y) / N NADEP Requirement Samples iCad? Y / N
Temp @ receipt 4.0 °C
Preservation /pH checked? (Y) / N
By: KRT Date: 9/14/06

STL WESTFIELD

Page 1 of 1

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STL-8245 (1000)

SEVERN TRENT STL

ANALYTICAL REPORT

Job Number: 360-5790-2

Job Description: 126252

For:
Tighe & Bond
213 Court Street
Middletown, CT 06457

Attention: Jim Olsen

Joseph a. Chimi

Joe Chimi
Report Production Representative
jchimi@stl-inc.com
09/21/2006
Revision: 1

Project Manager: Becky Mason

The test results in this report meet all NELAP requirements for accredited parameters. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced except in full, and with written approval from the laboratory. STL Westfield Certifications and Approvals: MADEP MA014, RIDOH57, CTDPH 0494, VT DECWSD, NH DES 253903-A, NELAP FL E87912 TOX, NELAP NJ MA008 TOX, NELAP NY 10843, NY DOH 10843.

Severn Trent Laboratories, Inc.
STL Westfield Westfield Executive Park 53 Southampton Road,
Westfield, MA 01085
Tel (413) 572-4000 Fax (413) 572-3707 www.stl-inc.com

ACCREDITED IN ACCORDANCE WITH nelac

CASE NARRATIVE FOR REPORT NUMBER: 360-5790-2

Client Name : Tighe & Bond

Project Name : 126253

Date : 9/21/06

REVISION

This revision makes the requested change to the Job Description.

360-5790-4 For method 8082, the samples were filtered at the laboratory prior to analysis.

METHOD SUMMARY

Client: Tighe & Bond

Job Number: 360-5790-2

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	STL WFD	SW846 8082	
Separatory Funnel Liquid-Liquid Extraction	STL WFD		SW846 3510C

LAB REFERENCES:

STL WFD = STL Westfield

METHOD REFERENCES:

SW846 - "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: Tighe & Bond

Job Number: 360-5790-2

Method	Analyst	Analyst ID
SW846 8082	Sullivan, Pat	PS

SAMPLE SUMMARY

Client: Tighe & Bond

Job Number: 360-5790-2

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
360-5790-4	202 2/5S	Water	09/13/2006 1550	09/14/2006 1120

SAMPLE RESULTS

Client: Tighe & Bond

Job Number: 360-5790-2

Client Sample ID: 202 2/5S

Lab Sample ID: 360-5790-4
Client Matrix: Water

Date Sampled: 09/13/2006 1550
Date Received: 09/14/2006 1120

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method: 8082
Preparation: 3510C
Dilution: 1.0
Date Analyzed: 09/20/2006 2252
Date Prepared: 09/20/2006 1212

Analysis Batch: 360-10686
Prep Batch: 360-10631

Instrument ID: 5890II GC w/ dual ECDs
Lab File ID: P6004.D
Initial Weight/Volume: 990 mL
Final Weight/Volume: 1.0 mL
Injection Volume:
Column ID: PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
PCB-1016	ND		0.061	0.061
PCB-1221	ND		0.061	0.061
PCB-1232	ND		0.061	0.061
PCB-1242	ND		0.061	0.061
PCB-1248	ND		0.061	0.061
PCB-1254	ND		0.061	0.061
PCB-1260	ND		0.032	0.061
PCB-1262	ND		0.061	0.061
PCB-1268	ND		0.061	0.061

Surrogate	%Rec	Acceptance Limits
DCB Decachlorobiphenyl	62	30 - 150
Tetrachloro-m-xylene	53	30 - 150

QUALITY CONTROL RESULTS

Client: Tighe & Bond

Job Number: 360-5790-2

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Prep Batch: 360-10631					
LCS 360-10631/2-A	Lab Control Spike	T	Water	3510C	
LCSD 360-10631/3-A	Lab Control Spike Duplicate	T	Water	3510C	
MB 360-10631/1-A	Method Blank	T	Water	3510C	
360-5790-4	202 2/5S	T	Water	3510C	
Analysis Batch:360-10686					
LCS 360-10631/2-A	Lab Control Spike	T	Water	8082	360-10631
LCSD 360-10631/3-A	Lab Control Spike Duplicate	T	Water	8082	360-10631
MB 360-10631/1-A	Method Blank	T	Water	8082	360-10631
360-5790-4	202 2/5S	T	Water	8082	360-10631

Report Basis
T = Total

Client: Tighe & Bond

Job Number: 360-5790-2

Method Blank - Batch: 360-10631

Method: 8082
Preparation: 3510C

Lab Sample ID: MB 360-10631/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 09/20/2006 2005
Date Prepared: 09/20/2006 1212

Analysis Batch: 360-10686
Prep Batch: 360-10631
Units: ug/L

Instrument ID: 5890II GC w/ dual ECDs
Lab File ID: P5996.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1.0 mL
Injection Volume:
Column ID: PRIMARY

Analyte	Result	Qual	MDL	RL
PCB-1016	ND		0.060	0.060
PCB-1221	ND		0.060	0.060
PCB-1232	ND		0.060	0.060
PCB-1242	ND		0.060	0.060
PCB-1248	ND		0.060	0.060
PCB-1254	ND		0.060	0.060
PCB-1260	ND		0.032	0.060
PCB-1262	ND		0.060	0.060
PCB-1268	ND		0.060	0.060

Surrogate	% Rec	Acceptance Limits
DCB Decachlorobiphenyl	58	30 - 150
Tetrachloro-m-xylene	64	30 - 150

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Tighe & Bond

Job Number: 360-5790-2

Lab Control Spike/
Lab Control Spike Duplicate Recovery Report - Batch: 360-10631

Method: 8082
Preparation: 3510C

LCS Lab Sample ID: LCS 360-10631/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 09/20/2006 2026
Date Prepared: 09/20/2006 1212

Analysis Batch: 360-10686
Prep Batch: 360-10631
Units: ug/L

Instrument ID: 5890II GC w/ dual ECDs
Lab File ID: P5997.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 5.0 mL
Injection Volume:
Column ID: PRIMARY

LCSD Lab Sample ID: LCSD 360-10631/3-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 09/20/2006 2047
Date Prepared: 09/20/2006 1212

Analysis Batch: 360-10686
Prep Batch: 360-10631
Units: ug/L

Instrument ID: 5890II GC w/ dual ECDs
Lab File ID: P5998.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 5.0 mL
Injection Volume:
Column ID: PRIMARY

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
PCB-1016	65	61	40 - 140	6	20		
PCB-1260	75	71	40 - 140	5	20		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
DCB Decachlorobiphenyl	62	58	30 - 150
Tetrachloro-m-xylene	64	57	30 - 150

Calculations are performed before rounding to avoid round-off errors in calculated results.

LOGIN SAMPLE RECEIPT CHECK LIST

Client: Tighe & Bond

Job Number: 360-5790-2

Login Number: 5790

Question	T/F/NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	NA	
The cooler's custody seal, if present, is intact.	NA	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	6.2 C
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	NA	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	

Severn Trent Laboratories, Inc.
Chain of Custody Form

SEVERN TRENT **STL**

26704

•53 Southampton Road
Westfield, MA 01085
(P) 413-572-4000
(F) 413-572-3707
STL Westfield

•149 Rangeway Road
N. Billerica, MA 01862
(P) 978-667-1400
(F) 978-667-7871
STL Billerica / Service Center

Client: Tighe + Bond
Address: Middletown, CT
Phone: 860 7044760 Fax:

Project #: 126253
Project Manager: James Olsen
Work ID:
Contact: Brian Cote

Job #: 360-5[illegible] Quote #: [illegible]
Shaded areas for office use

Requested Turnaround Time (PLEASE SPECIFY) ✓
STANDARD ____ RUSH ✓ (Lab Approval Required)

Regulatory Classification: NPDES ____ Drinking Water ____ RCRA ____ MCP GW1/S1 ____ Other ____

Special Report Format: QA/QC Report ✓ DQE (MCP) Rpt ____ DEP Form(s) ____

Analysis Requested
Check analysis and specify method and analytes in comments section.
For example:
500-series for drinking water
600-series for waste water, NPDES
6000-series for groundwater, soil, waste
8000-series for groundwater, soil, waste
Use comments section to further define.

Comments *(Special Instructions)*
Please print legibility. If the analytical requests are not clearly defined on the chain-of-custody, the turnaround time will begin after all questions have been satisfactorily answered.

Sample Type Codes
WW-Wastewater DW-Drinking water SW-Surface water
LW-Lab water GW-Groundwater A-Air
S-Solid / Soil SL-Sludge O-Oil Z-Other

Sample ID	Sample Type	Sampler's Initials	Date Time Collected	Grab	Comp.	# Containers	Plastic(P) or Glass(G)	NaHSO4/MeOH	HNO3 to pH <2	H2SO4 to pH <2	HCl to pH <2	NaOH to pH >12	Na2S2O3	None / 4° C	Volatiles 524 /624 /8260	Volatiles 601 /802 /8021	Semivoa 525 /625 /8270	PCB / Pest / Herbicide	EPH / VPH	DRO / GRO / ETPH	Metals 6010 / 200.7	Mercury 245.1 / 7470-71	General Chemistry	Bacteriological	Toxicity	Oil & Grease / TOC	Radchem / Other
202 2S	W	BCC	9/13 14:08											✓				✓									
202 3S	W	BCC	9/13 14:47											✓				✓									
202 2/4S	W	BCC	9/13 14:49											✓				✓									
202 2/5S	W	BCC	9/13 15:50											✓				✓									

(PCB circled.) Unused rows lined out, initialed "KBT 9/14/06".

Comments: Analyze for PCBs as discussed with Becky Mason

Per Brian Cote Run 202 2/5S for PCB but filter the Sample first. Run 9/19/06

Sampled by (print): Brian Cote Signature: [signature]

Relinquished by	Date	Time	Received by	Date	Time
Brian Cote	9/13	17:56	[signature]	9/13	17:55
Carly Hibbard	9/14	9:30	[signature]	9/14/06	0930
[signature]	9/14/06	11:20	[signature]	9/14/06	1120

STL WESTFIELD

Page 1 of 1

White = Lab file Yellow = Report copy Pink = Customer copy
STL-8245 (1000)

SEVERN TRENT STL

ANALYTICAL REPORT

Job Number: 360-5790-3

Job Description: 126252

For:
Tighe & Bond
213 Court Street
Middletown, CT 06457

Attention: Jim Olsen

Joseph A. Chimi

Joe Chimi
Report Production Representative
jchimi@stl-inc.com
09/26/2006

Project Manager: Becky Mason

The test results in this report meet all NELAP requirements for accredited parameters. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced except in full, and with written approval from the laboratory. STL Westfield Certifications and Approvals: MADEP MA014, RIDOH57, CTDPH 0494, VT DECWSD, NH DES 253903-A, NELAP FL E87912 TOX, NELAP NJ MA008 TOX, NELAP NY 10843, NY DOH 10843.

METHOD SUMMARY

Client: Tighe & Bond

Job Number: 360-5790-3

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Hydrocarbon Product Identification	STL WFD	SW846 8015B	
Separatory Funnel Liquid-Liquid Extraction	STL WFD		SW846 3510C

LAB REFERENCES:

STL WFD = STL Westfield

METHOD REFERENCES:

SW846 - "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: Tighe & Bond

Job Number: 360-5790-3

Method	Analyst	Analyst ID
SW846 8015B	Tester, Carla	CT

SAMPLE SUMMARY

Client: Tighe & Bond

Job Number: 360-5790-3

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
360-5790-3	202 2/4S	Water	09/13/2006 1549	09/14/2006 1120

SAMPLE RESULTS

Client: Tighe & Bond

Job Number: 360-5790-3

Client Sample ID: 202 2/4S

Lab Sample ID: 360-5790-3
Client Matrix: Water

Date Sampled: 09/13/2006 1549
Date Received: 09/14/2006 1120

8015B Hydrocarbon Product Identification

Method: 8015B
Preparation: 3510C
Dilution: 10
Date Analyzed: 09/23/2006 0132
Date Prepared: 09/20/2006 1603

Analysis Batch: 360-10868
Prep Batch: 360-10653

Instrument ID: HP 5890II GC w/ FID
Lab File ID: C4231.D
Initial Weight/Volume: 990 mL
Final Weight/Volume: 1.0 mL
Injection Volume:
Column ID: PRIMARY

Analyte	Result (mg/L)	Qualifier	RL	RL
Creosote	ND		1.0	1.0
Hydraulic Fluid	45		1.0	1.0
Jet fuel	ND		1.0	1.0
Mineral Spirits	ND		1.0	1.0
Motor Oil	ND		1.0	1.0
Unmatched Hydrocarbons	ND		1.0	1.0
MODF (C14-C28)	ND		1.0	1.0
#4 Fuel, C9-C36	ND		1.0	1.0
C9-C36 (#6 Fuel)	ND		1.0	1.0

Surrogate	%Rec	Acceptance Limits
o-Terphenyl	101	40 - 140

QUALITY CONTROL RESULTS

Client: Tighe & Bond

Job Number: 360-5790-3

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Prep Batch: 360-10653					
LCS 360-10653/2-A	Lab Control Spike	T	Water	3510C	
LCSD 360-10653/3-A	Lab Control Spike Duplicate	T	Water	3510C	
MB 360-10653/1-A	Method Blank	T	Water	3510C	
360-5790-3	202 2/4S	T	Water	3510C	
Analysis Batch:360-10868					
LCS 360-10653/2-A	Lab Control Spike	T	Water	8015B	360-10653
LCSD 360-10653/3-A	Lab Control Spike Duplicate	T	Water	8015B	360-10653
MB 360-10653/1-A	Method Blank	T	Water	8015B	360-10653
360-5790-3	202 2/4S	T	Water	8015B	360-10653

Report Basis
T = Total

Client: Tighe & Bond

Job Number: 360-5790-3

Method Blank - Batch: 360-10653

Method: 8015B
Preparation: 3510C

Lab Sample ID: MB 360-10653/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 09/20/2006 2056
Date Prepared: 09/20/2006 1603

Analysis Batch: 360-10868
Prep Batch: 360-10653
Units: mg/L

Instrument ID: HP 5890II GC w/ FID
Lab File ID: C4171.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1.0 mL
Injection Volume:

Analyte	Result	Qual	RL	RL
Creosote	ND		0.10	0.10
Hydraulic Fluid	ND		0.10	0.10
Jet fuel	ND		0.10	0.10
Mineral Spirits	ND		0.10	0.10
Motor Oil	ND		0.10	0.10
Unmatched Hydrocarbons	ND		0.10	0.10
MODF (C14-C28)	ND		0.10	0.10
#4 Fuel, C9-C36	ND		0.10	0.10
C9-C36 (#6 Fuel)	ND		0.10	0.10

Surrogate	% Rec	Acceptance Limits
o-Terphenyl	105	40 - 140

Lab Control Spike/
Lab Control Spike Duplicate Recovery Report - Batch: 360-10653

Method: 8015B
Preparation: 3510C

LCS Lab Sample ID: LCS 360-10653/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 09/20/2006 2348
Date Prepared: 09/20/2006 1603

Analysis Batch: 360-10868
Prep Batch: 360-10653
Units: mg/L

Instrument ID: HP 5890II GC w/ FID
Lab File ID: C4175.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1.0 mL
Injection Volume:

LCSD Lab Sample ID: LCSD 360-10653/3-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 09/21/2006 0031
Date Prepared: 09/20/2006 1603

Analysis Batch: 360-10868
Prep Batch: 360-10653
Units: mg/L

Instrument ID: HP 5890II GC w/ FID
Lab File ID: C4176.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1.0 mL
Injection Volume:

Analyte	% Rec. LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
#4 Fuel, C9-C36	86	84	60 - 140	3	50		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
o-Terphenyl	132	128	40 - 140

Calculations are performed before rounding to avoid round-off errors in calculated results.

LOGIN SAMPLE RECEIPT CHECK LIST

Client: Tighe & Bond

Job Number: 360-5790-3

Login Number: 5790

Question	T/F/NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	NA	
The cooler's custody seal, if present, is intact.	NA	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	6.2 C
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	NA	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	

Severn Trent Laboratories, Inc.
Chain of Custody Form

SEVERN TRENT STL

26704

•53 Southampton Road
Westfield, MA 01085
(P) 413-572-4000
(F) 413-572-3707
STL Westfield

•149 Rangeway Road
N. Billerica, MA 01862
(P) 978-667-1400
(F) 978-667-7871
STL Billerica / Service Center

Client: Tighe + Bond
Address: Middletown, CT
Phone: 860 704476 Fax:

Project #: 126253
Project Manager: James Olsen
Work ID:
Contact: Brian Conte

Job #: [illegible] Quote: [illegible] PO#: [illegible]

Shaded areas for office use.

Requested Turnaround Time (PLEASE SPECIFY)
STANDARD 5 Day ✓ Per Brian Conte
RUSH (Lab Approval Required)

Regulatory Classification
NPDES ___ Drinking Water ___
RCRA ___ MCP GW1/S1 ___
Other ___

Special Report Format
QA/QC Report ✓
DQE (MCP) Rpt ___
DEP Form(s) ___

Analysis Requested
Check analysis and specify method and analytes in comments section.
For example:
500-series for drinking water
600-series for waste water, NPDES
6000-series for groundwater, soil, waste
8000-series for groundwater, soil, waste
Use comments section to further define.

Comments
(Special Instructions)
Please print legibility. If the analytical requests are not clearly defined on the chain-of-custody, the turnaround time will begin after all questions have been satisfactorily answered.

Sample Type Codes
WW-Wastewater DW-Drinking water SW-Surface water
LW-Lab water GW-Groundwater A-Air
S-Solid / Soil SL-Sludge O-Oil Z-Other

Sample ID	Sample Type	Sampler's Initials	Date Time Collected	Grab	Comp.	# Containers	Plastic(P) or Glass(G)	NaHSO4/MeOH	HNO3 to pH <2	H2SO4 to pH <2	HCl to pH <2	NaOH to pH >12	Na2S2O3	None / 4° C	Volatiles 524/624/8260	Volatiles 601/802/8021	Semivoa 525/625/8270	PCB Pest / Herbicide	EPH / VPH	DRO / GRO / ETPH	Metals 6010 / 200.7	Mercury 245.1 / 7470-71	General Chemistry	Bacteriological	Toxicity	Oil & Grease / TOC	Radchem / Other
202 2S	W	BCC	9/13 14:08											✓				✓									
202 3S	W	BCC	9/13 14:47											✓				✓									
202 2/4S	✓	BCC	9/13 14:49											✓				✓									
202 2/5S	✓	BCC	9/13 14:50											✓				✓									

BRT 9/14/06

Comments: ~~Analyze for PCBs as Discussed with Becky Mason~~ Rep 9/20/06

Run DRO Finger Print on 202 2/4S Per Brian Conte Rep 9/20/06

Sampled by (print): Brian Conte" Signature: Brian Conte

Relinquished by	Date	Time	Received by	Date	Time
Brian Conte	9/13	17:56	Regina	9/13	17:55
Carly Hubbard	9/14	9:30	[illegible]	9/14/06	0930
[illegible]	9/14/06	11:20	[illegible]	9/14/06	1120

Cooler(s) Y/N; MA ER Requirement; Temp @ receipt; Preservation checked; By/Date (office use, shaded) [illegible]

STL WESTFIELD

Page 1 of 1

White = Lab file Yellow = Report copy Pink = Customer copy

STL-8245 (1000)

APPENDICES

Tighe & Bond, Inc. (Tighe & Bond) has conducted this investigation to further define the solid waste management unit (SWMU) AE located in Building 202 at the former IBM-Kingston facility. SWMU AE was identified by International Business Machines Corporation (IBM) and reported to the New York State Department of Environmental Conservation (NYSDEC) on July 29, 1996. A loss of hydraulic fluid from Elevator No. 2 in Building 202 was first discovered in May of 1996. Subsequent environmental investigations have detected hydraulic fluid and polychlorinated biphenyls (PCBs) in a downgradient well. The presence of PCBs in the groundwater warranted the identification of the SWMU.

The former IBM-Kingston facility, now owned by TechCity Properties, Inc., is located at 300 Enterprise Drive in Kingston, New York (Figure 1). Building 202 is located to the west of Enterprise Drive (Figure 2). Building 202 is one of three interconnected office buildings located on the west side of Enterprise Drive. The building is currently occupied by the Bank of America Corporation (BOA).

The scope of this report has been defined, in large part, through multiple conversations between James Olsen of Tighe & Bond and Gary Casper and Wayne Mizerak of NYSDEC. The NYSDEC has requested further definition of the SWMU. The data in this report will support the conclusion that no further action (NFA) is required for this SWMU.

The information presented in this report is organized in four sections:

- Historic information compilation presents a description of the elevator construction, chronology of events related to the release of hydraulic fluid, and summary of analytical data.
- Hydrogeologic evaluation.
- Depth-discrete groundwater sampling presents data from the most recent sampling of monitoring well 202 IR/S in additional to historic data. The section details the methodology, results, and conclusions from the sampling event.
- Conclusion and results.

SECTION 2 BACKGROUND INFORMATION CONCERNING ELEVATOR NO. 2

Tighe&Bond

2.1 ELEVATOR CONSTRUCTION

Figure 3 provides a diagram of the major components of the Elevator No. 2 at Building 202 which is used as a passenger elevator. An as-built diagram was not available for this report. Specific construction details were obtained from previous environmental reports and communications with Dick Coller, Chief Engineer, of TechCity. Two other elevators are adjacent to the Elevator Number 2 including an additional passenger elevator (No. 1) and a freight elevator (No. 3).

IBM reported in the July 29, 1996 SWMU notification letter that the elevator is over 30 years old (building built in 1970). The hydraulic jacks for each all three building elevators are located within a recessed pit approximately four feet below the first floor elevation of the building. The dimensions of the pit are approximately 10 feet wide and 15 feet long. The 1996 IBM report states that the elevator is constructed with a single, non-telescoping, hydraulic piston. The hydraulic jack for Elevator No. 2 extends nearly 64 feet below the pit floor into the subsurface and is approximately 10 inches in diameter. The thickness of overburden is approximately 17 feet at this location. To accommodate the hydraulic jack, a 22-inch steel casing was installed through the overburden and seated several feet into competent bedrock. An open borehole continues approximately 47 feet into the shale bedrock. According to the IBM report, sand was placed within the annular space of the casing and the jack.

Dick Coller was interviewed on December 7, 2006 and provided additional information about the elevator construction. To his knowledge, no secondary containment surrounds the hydraulic cylinder. Newer hydraulic elevators are fitted with a cylinder sleeve that protects the cylinder from corrosive elements and protects against releases to the environment. Dick Coller confirmed that the hydraulic cylinder extends into bedrock by means of an open borehole. The location of the elevator drawings were not known by Dick Coller.

According to a report prepared by C.T. Male Associates, P.C. (C.T. Male), dated March 29, 2002, titled," Summary of Findings Elevator Hydraulic Lift Cylinder Assessments" the hydraulic cylinder for Elevator No. 2 was replaced in 1997. The report states that after the replacement of the hydraulic cylinder, the annular space between the jack and shaft was not entirely refilled with sand. The depth to the sand pack in Elevator No. 2 was approximately 48 feet below the finished floor of the elevator pit after replacement. C.T. Male conducted groundwater measurements on December 5, 2001. During that investigation, the depth to water within the annular space was approximately 9.5 feet below the floor elevation of the elevator pit.

On October 31, 2006 Tighe & Bond measured water levels from overburden and bedrock wells located near Building 202. The monitoring wells used for measurement were selected from conversations between James Olsen of Tighe & Bond and Gary Casper of NYDEC. GSC was on-site to assist in locating and gaining access to the wells. Static water level measurements were conducted using a Solinst© electronic water level indicator capable of measuring the depth to water to within 0.01 feet. The water level measurement data for the site are summarized in Table 3. No LNAPL was observed or measured in any of the wells. Previously recorded survey data were used in conjunction with the water level data to calculate groundwater elevations.

Figure 4 provides the bedrock groundwater piezometric surface contours in the area of building 202. Four wells screened entirely in the bedrock were measured: MW-1R, MW-324R, MW-4R, and MW-816R. MW-202 R/S is screened five feet in the overburden and fifteen feet into bedrock. MW-[illegible]-R was scheduled to be measured; however, the well was submerged by surface water at the time of sampling (photograph provided in Appendix A). The bedrock groundwater map indicates an approximate bedrock flow in a northwesterly direction from building 202 toward Esopus Creek.

Figure 5 provides the overburden groundwater contour map. Groundwater elevations were collected from eighteen overburden wells in the area of building 202. Table 4 provides the groundwater elevations and surveyed elevations referenced from well boring logs. Overburden groundwater flows in a westerly to northwesterly direction towards Esopus Creek. Groundwater appears to discharge to the wetlands located west of the former wastewater treatment plant.

A cross section parallel to groundwater flow and through building 202 and the elevator shaft is provided as Figure 6. As indicated in the cross section, the bedrock surface dips significantly to the west under building 202. The bedrock surface is further illustrated in Figure 7. A bedrock high is centered just east of building 202 under Enterprise Drive. The bedrock surface west of Enterprise Drive dips to the west and southwest towards Esopus Creek. The configuration of the bedrock surface and location of area discharge zone, Esopus Creek, are the controlling factors in bedrock groundwater flow.

SECTION 4 DISCRETE SAMPLING OF MONITORING WELL 202 1R/S

On October 30, 2006 Tighe & Bond personnel mobilized to the site. Gary Casper of NYSDEC was on site to observe the sampling activities. Monitoring well 202-1R/S was sampled using low stress pumping methodology. The purging and sampling technique was in accordance with conversations between Gary Casper of the NYSDEC and James Olsen of Tighe & Bond. The purpose of the sampling was to obtain groundwater samples at discrete depths within the well that were representative of bedrock and overburden groundwater quality. Table 4 provides the field sampling data recorded during sampling activities and Table 5 provides the analytical data.

4.1 GROUNDWATER LEVEL MEASUREMENTS

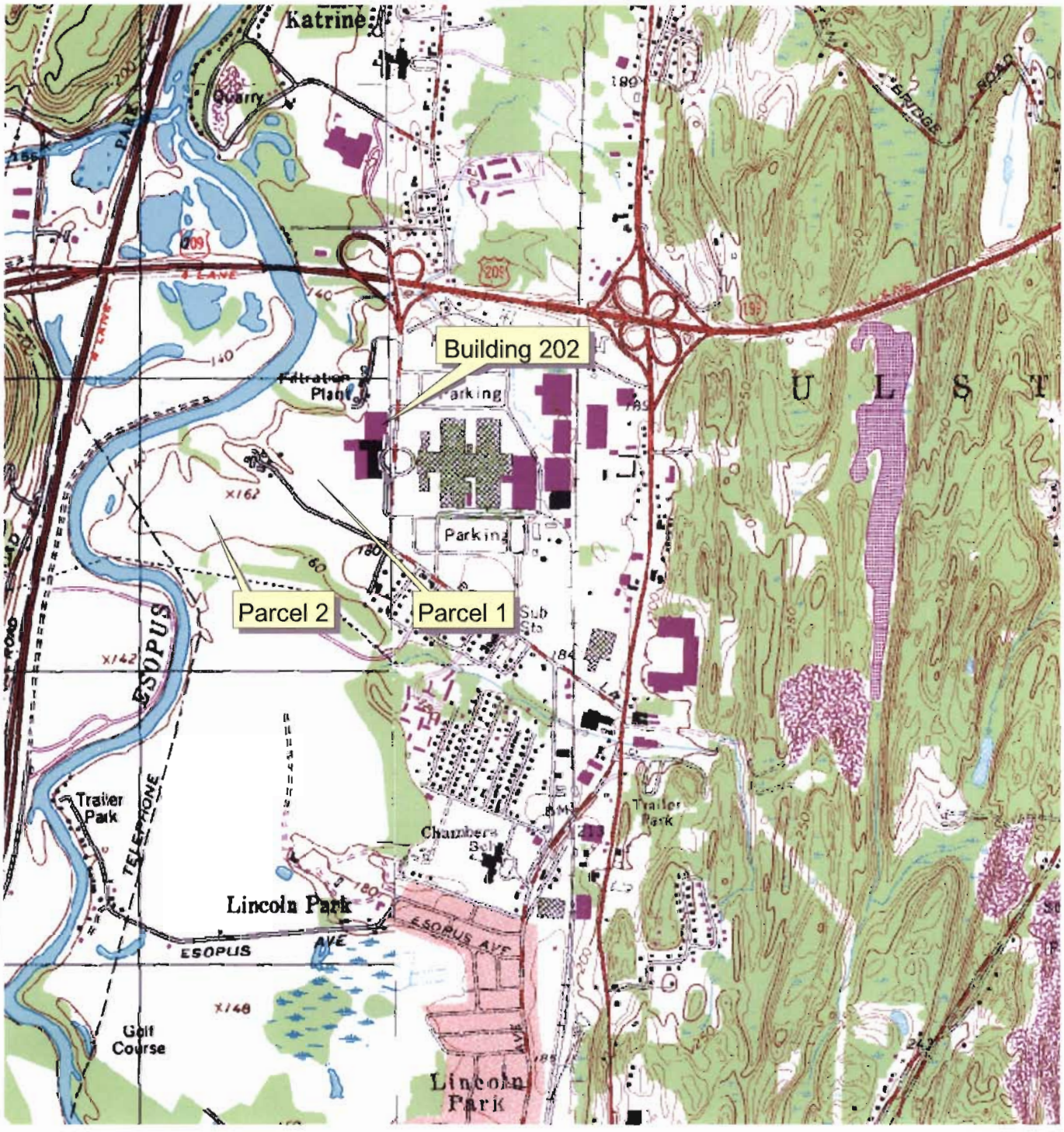
Tighe & Bond measured water levels and for the presence of light non-aqueous phase liquid (LNAPL) at monitoring well 202-1R/S prior to well purging. Static water level measurements were conducted using a Solinst© water level indicator capable of measuring the depth to water to within 0.01 feet. The water level measurement data for the site are summarized in Table 3. No LNAPL was observed in the well.

4.2 WELL PURGING

Well 202-1 R/S was purged of stagnant water by evacuating over 11 gallons of purge water using a peristaltic pump. Purging was accomplished by lowering ¼-inch single-use tubing to approximately 1 foot below the water column. The purge rate was reduced to minimize water column drawdown. Prior to drum containment, the purge water entered through a flow through cell and water quality parameters were recorded. Table 4 provides the drawdown levels and water quality parameters measured during purging activities. The purging method was designed to purge the well efficiently while also removing any stagnant water above the screen interval. These procedures should also have served to reduce the vertical mixing between overburden and bedrock groundwaters.

4.3 WELL SAMPLING

Monitoring well 202-1R/S was sampled at discrete depth intervals since it is screened in both the overburden and bedrock. A separate sampling line (separate from the purge line) was used to collect the discrete samples using a peristaltic pump. After sample collection, the sampling line was purged with two liters of groundwater from the next interval to be sampled. Discrete samples were collected from 32, 25, 18, and 16 feet below ground surface. The samples were collected in order of the deepest interval, starting at 32 feet, to the shallowest interval, 16 feet below ground surface. The intervals were chosen to straddle the overburden/bedrock interphase identified at



Base map is a portion of the following U.S.G.S. Quadrangles: Kingston East 1980

N
W E
S

Site Location Map

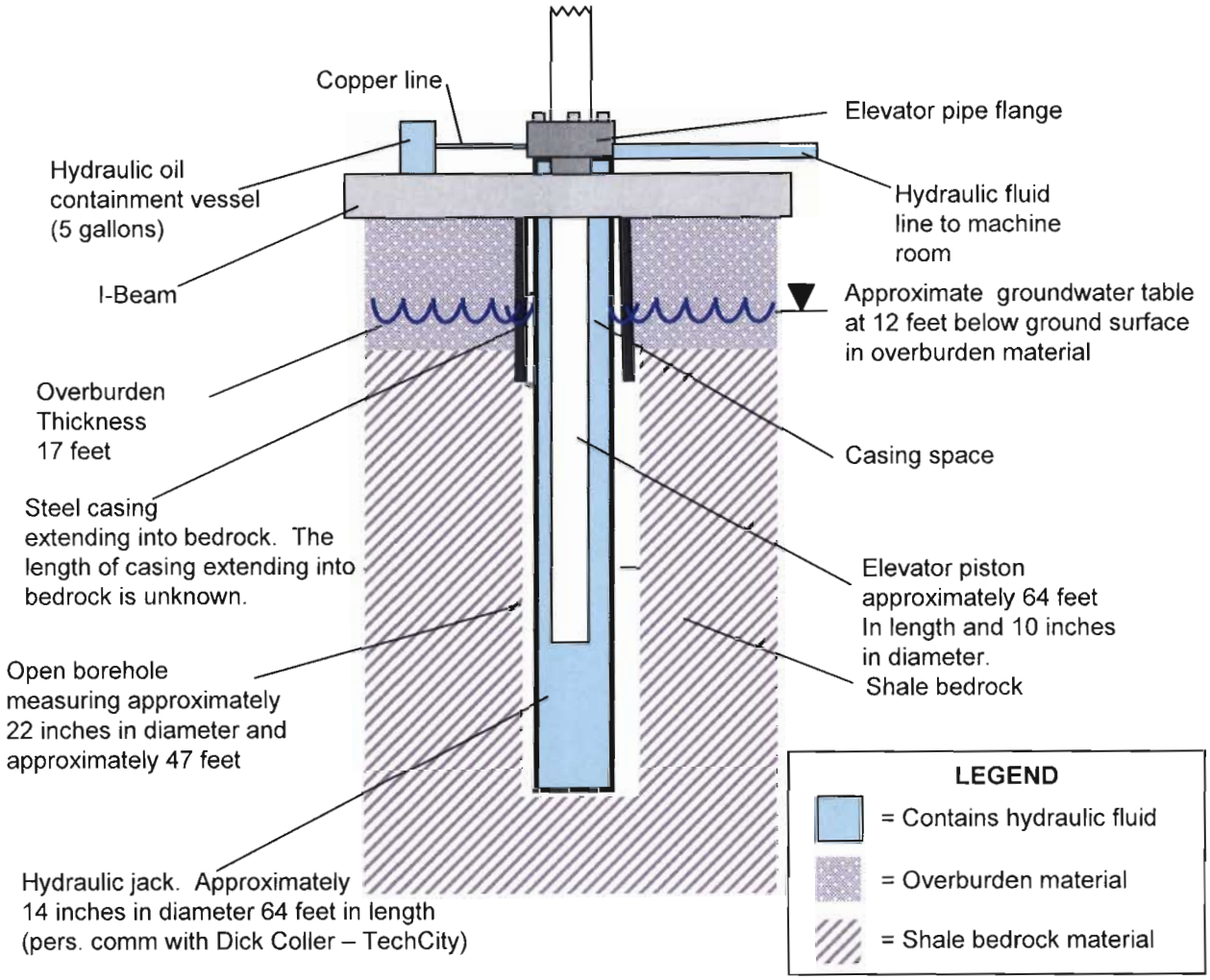
TechCity
Parcel1 and 2
300 Enterprise Drive
Kingston, New York

Tighe&Bond, Inc.
Consulting Engineers
213 Court Street, Suite 900 - Middletown, CT 06457

Job No.	Drawn By:	Date:
126252	BCC	Sept. 2006

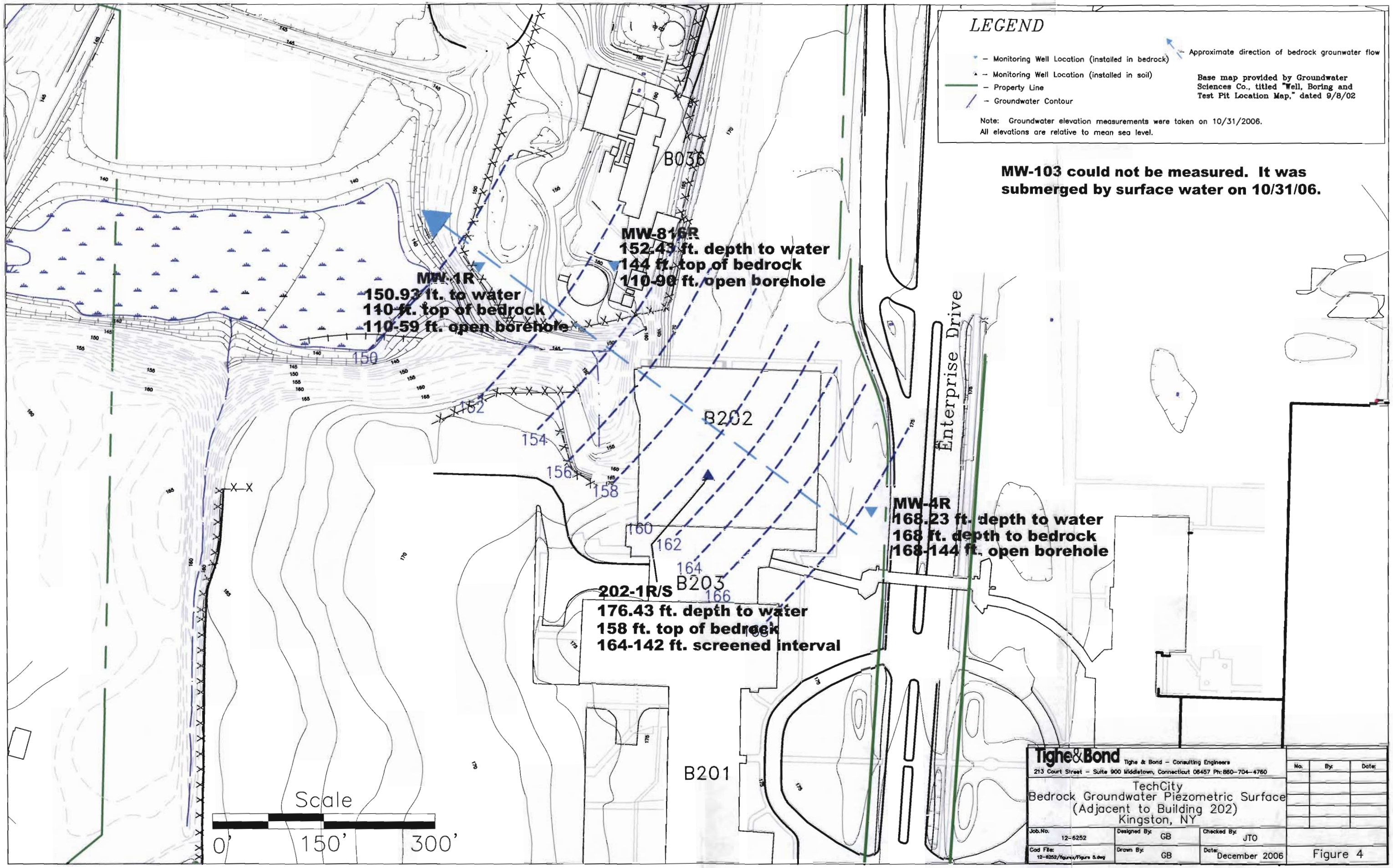
File: 126223/Figures/Figure 1

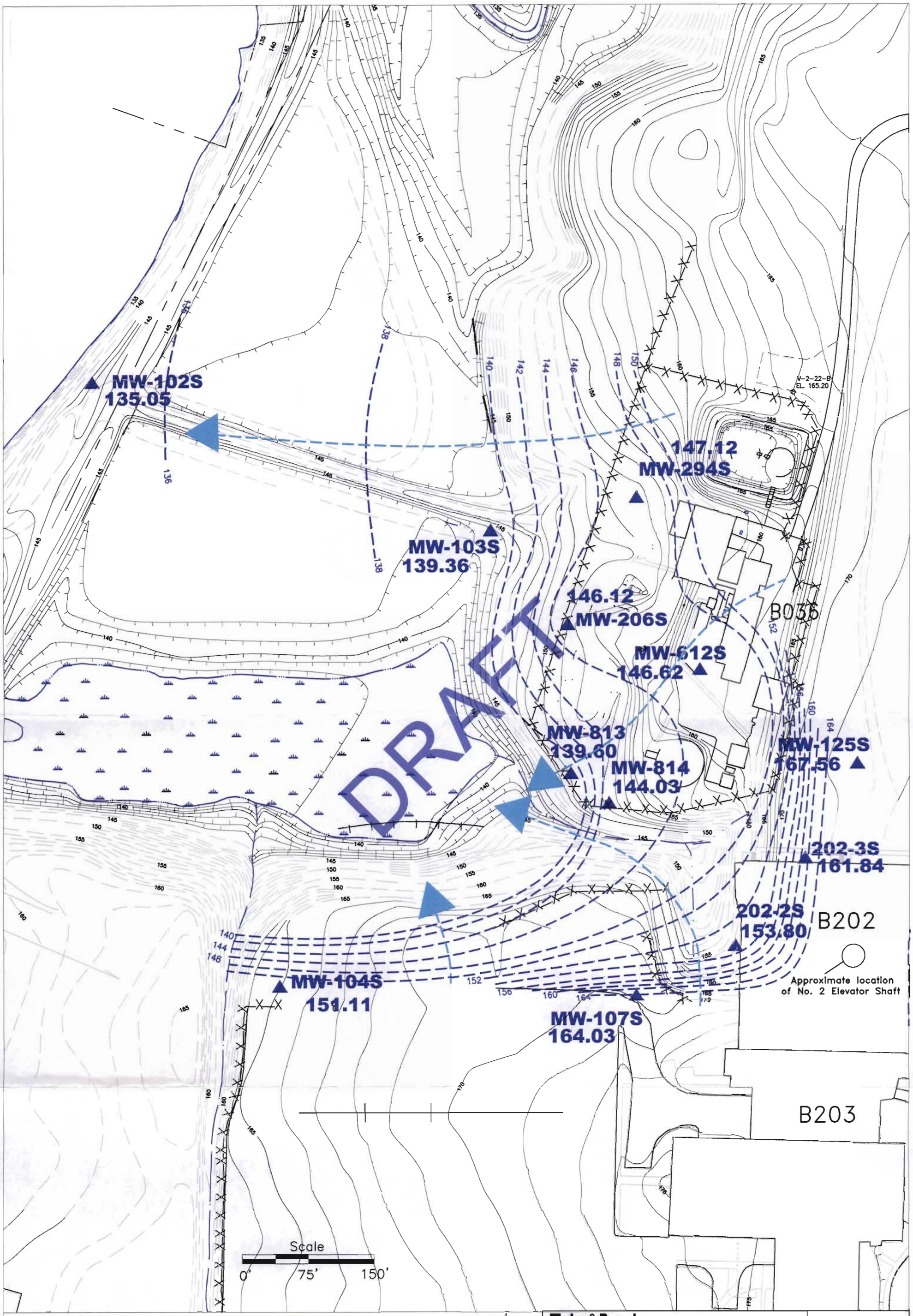
Figure 1



Photograph taken on October 30, 2006

Tighe&Bond	Solid Waste Management Unit AE **Elevator Number 2** TechCity, Kingston, New York	NOT TO SCALE December 2006 FIGURE 3


LEGEND
– Monitoring Well Location (installed in bedrock)
– Monitoring Well Location (installed in soil)
– Property Line
– Groundwater Contour
– Approximate direction of bedrock grounwater flow
Base map provided by Groundwater Sciences Co., titled "Well, Boring and Test Pit Location Map," dated 9/8/02
Note: Groundwater elevation measurements were taken on 10/31/2006.
All elevations are relative to mean sea level.
MW-103 could not be measured. It was submerged by surface water on 10/31/06.
MW-816R
152.43 ft. depth to water
144 ft. top of bedrock
110-96 ft. open borehole
MW-1R
150.93 ft. to water
110 ft. top of bedrock
110-59 ft. open borehole
MW-4R
168.23 ft. depth to water
168 ft. depth to bedrock
168-144 ft. open borehole
202-1R/S
176.43 ft. depth to water
158 ft. top of bedrock
164-142 ft. screened interval
B035
B202
B203
B201
Enterprise Drive
X–X
Scale
0'
150'
300'
Tighe&Bond
Tighe & Bond – Consulting Engineers
213 Court Street – Suite 900 Middletown, Connecticut 06457 Ph: 860-704-4760
TechCity
Bedrock Groundwater Piezometric Surface
(Adjacent to Building 202)
Kingston, NY
Job.No. 12-6252
Designed By: GB
Checked By: JTO
Cad File: 12-6252/figures/Figure 5.dwg
Drawn By: GB
Date: December 2006
No. By: Date:
Figure 4



LEGEND

- Approximate Groundwater Flow

Note: Groundwater elevation measurements were taken on 10/31/06.

- ▼ – Monitoring Well Location (installed in bedrock)
- ▲ – Monitoring Well Location (installed in soil)
- / – Groundwater Contours

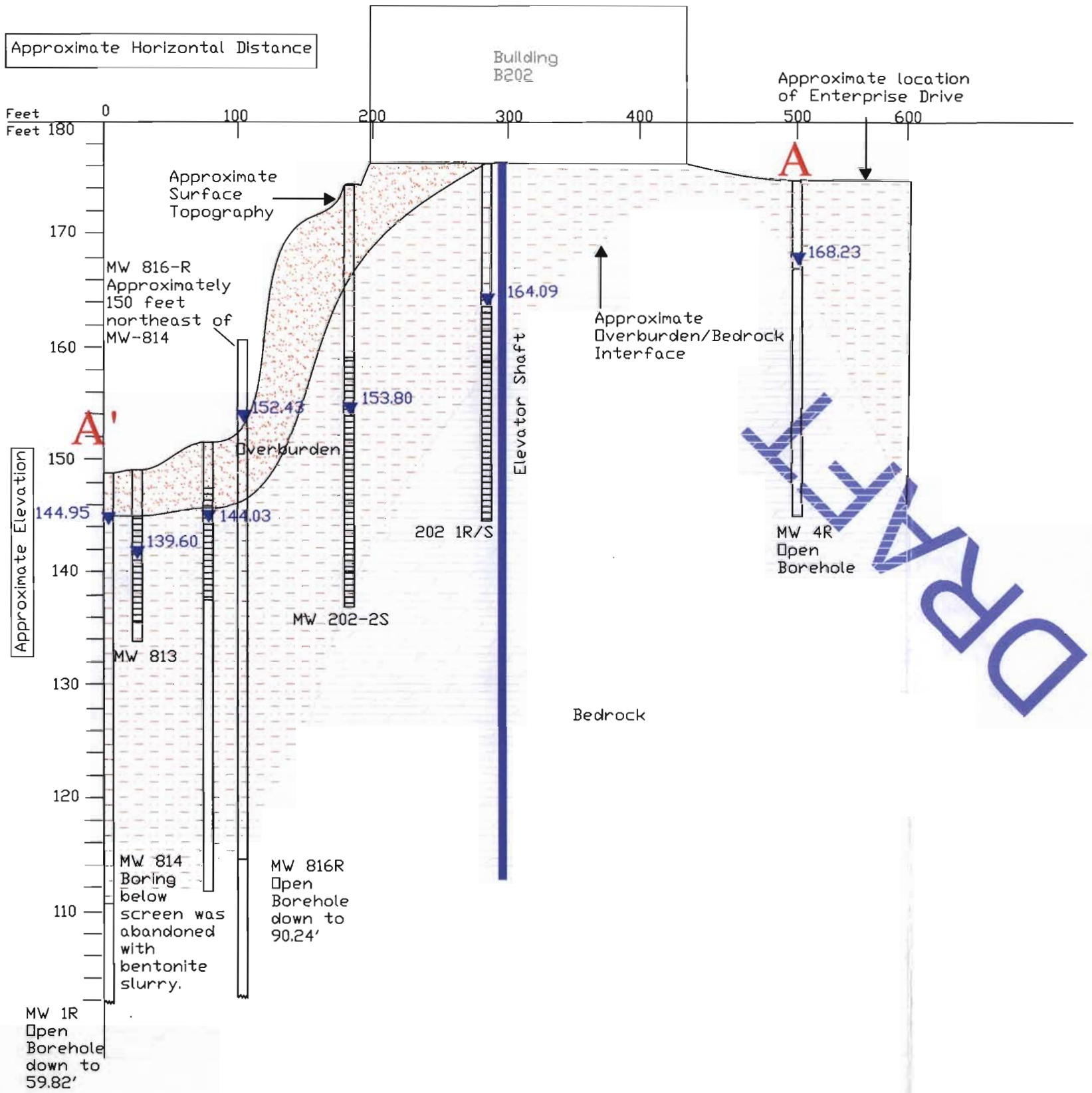
Base map provided by Groundwater Sciences, Co., titled "Well, Boring and Test Pit Location Map," Dated 9/8/02.

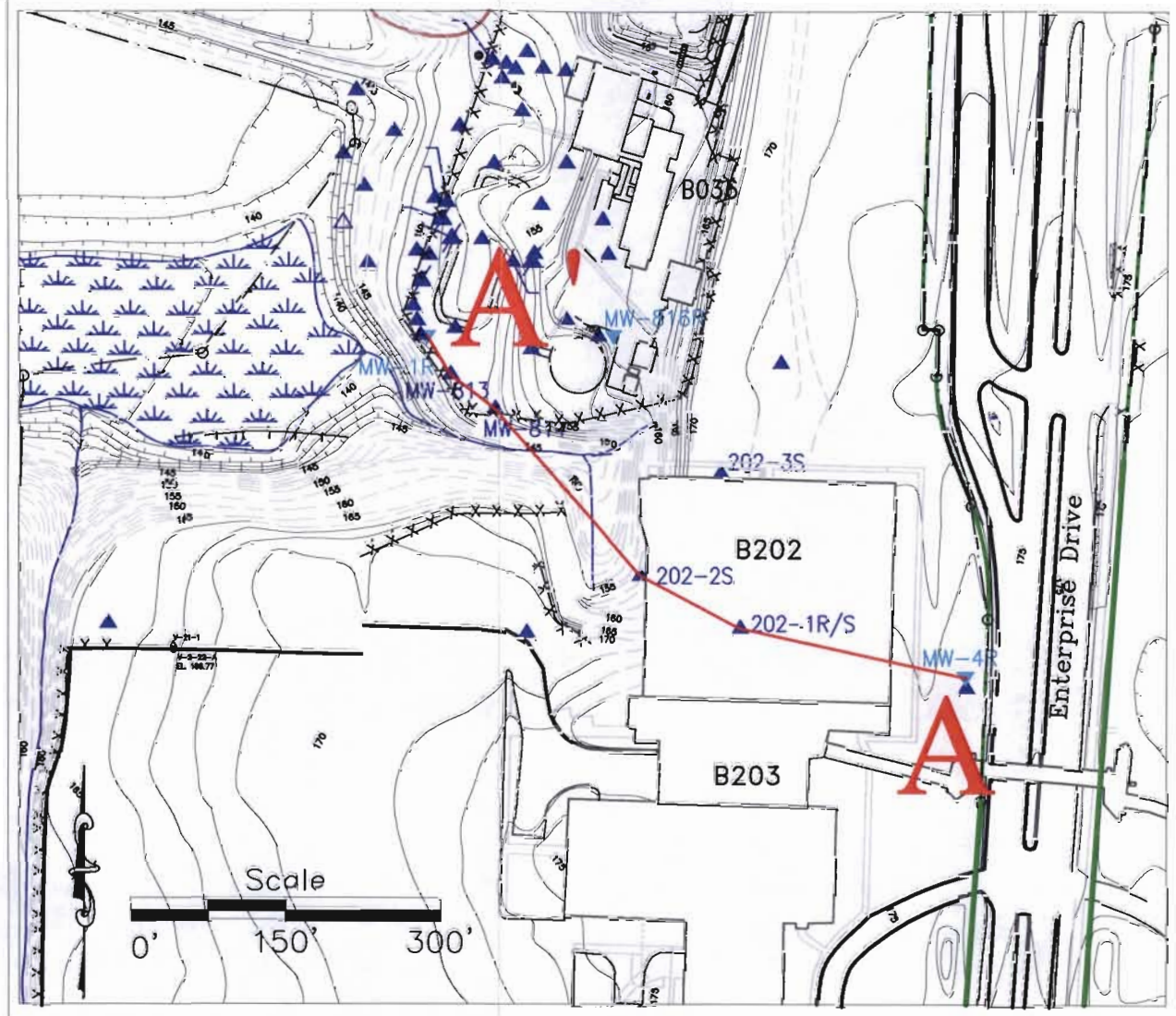
Tighe&Bond Tighe & Bond – Consulting Engineers
213 Court Street – Suite 900 Middletown, Connecticut 06457 Ph: 860-704-4760

No.	By:	Date:

TechCity
Overburden Groundwater Contour Map
(Adjacent to Building 202)
Kingston, NY

Job.No. 12-6252	Designed By: GB	Checked By: JTO	
Cad File: 12-6252/figures/site drawing.dwg	Drawn By: GB	Date: December 2006	Figure 5





LEGEND

Illustration left

- Bedrock
- Sand/Silty Clay Unit
- Fill Material
- Well Location
- Screen Interval (MW)
- Groundwater Elevation

144 – feet above ground elevation

Groundwater elevations collected on 10/31/06

Illustration above

- Monitoring Well Location (installed in soil)
- Monitoring Well Location (installed in bedrock)
- Soil Boring or Test Pit Location
- Property Line
- Transect Line (A)

DRAFT

Base map provided by Groundwater Sciences Co., titled "Well, Boring and Test Pit Location Map," dated 9/8/02.

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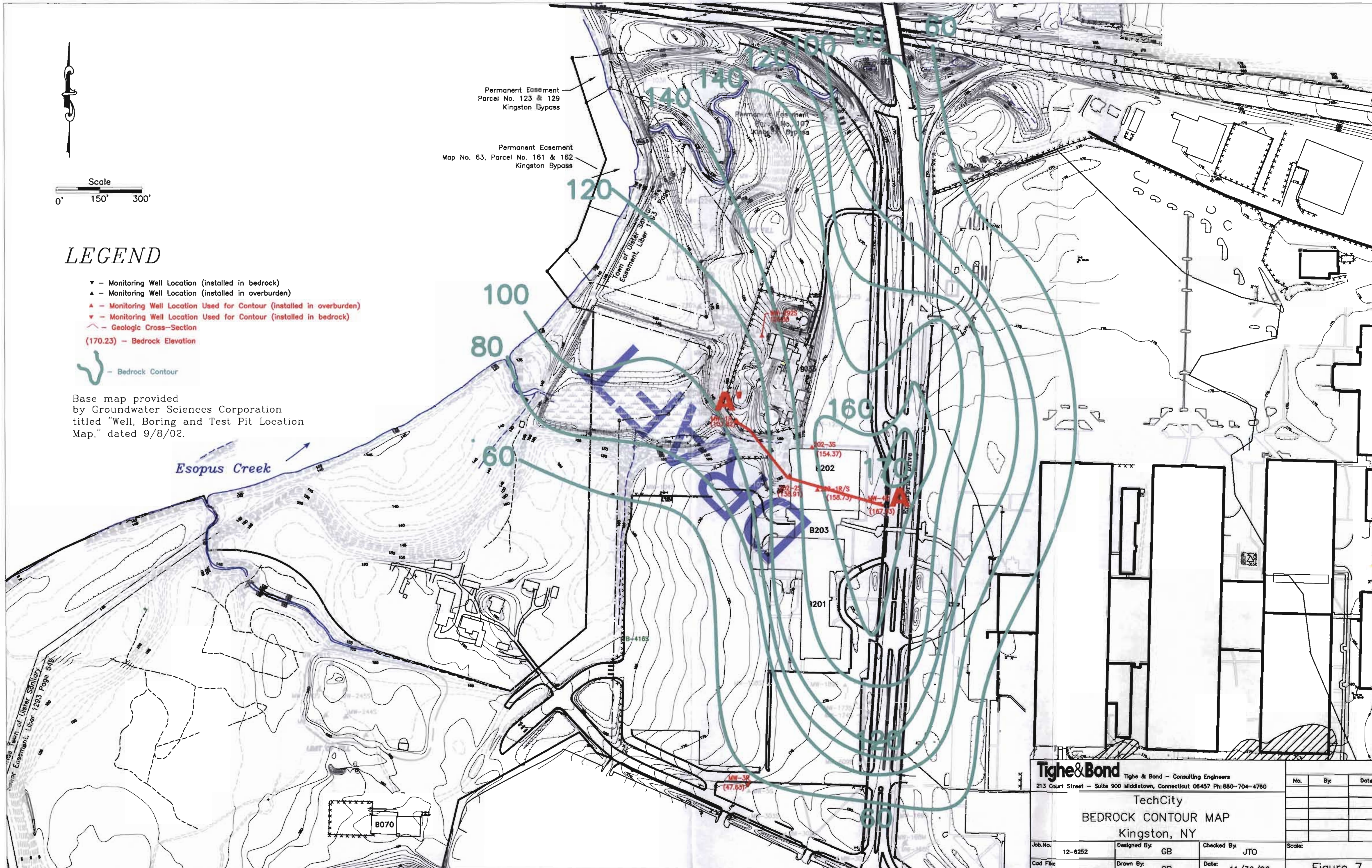
TechCity
Geologic Cross-Section
(Adjacent to Building 202)
Kingston, NY

No.	By:	Date:

Job No.	Designed By:	Checked By:
12-6252	GB	JTO
Cad File: 12-6252/figures/site drawing.dwg	Drawn By: GB	Date: December 2006

Figure 6

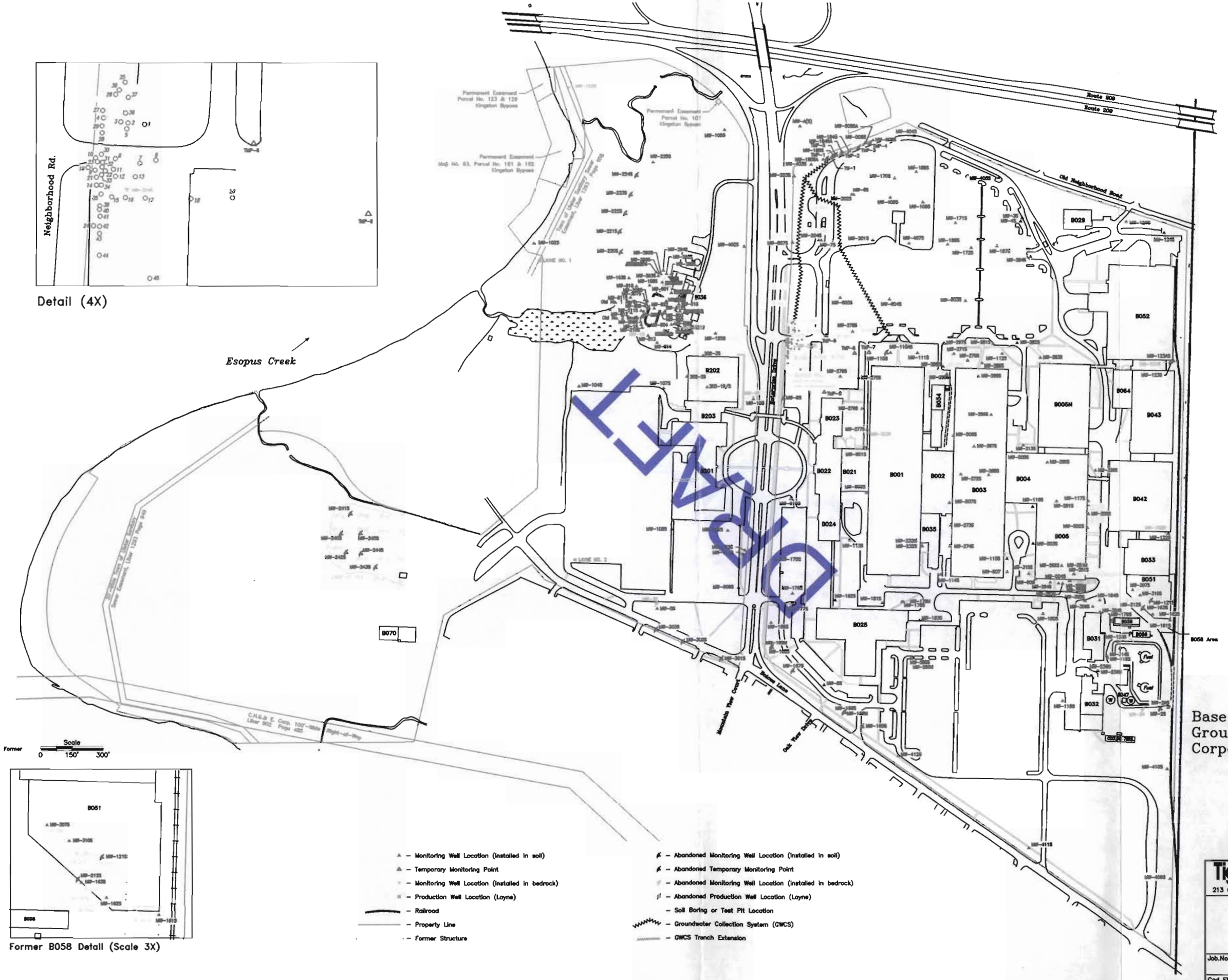


Scale
0'
150'
300'
LEGEND
▼ – Monitoring Well Location (installed in bedrock)
▲ – Monitoring Well Location (installed in overburden)
▲ – Monitoring Well Location Used for Contour (installed in overburden)
▼ – Monitoring Well Location Used for Contour (installed in bedrock)
Geologic Cross–Section
(170.23) – Bedrock Elevation
– Bedrock Contour
Base map provided by Groundwater Sciences Corporation titled "Well, Boring and Test Pit Location Map," dated 9/8/02.
Esopus Creek
Permanent Easement Parcel No. 123 & 129 Kingston Bypass
Permanent Easement Map No. 63, Parcel No. 161 & 162 Kingston Bypass
Town of Ulster Sanitary Sewer Easement, Liber 1293 Page 549
DRAFT
60
80
100
120
140
160
170
A'
A
(154.37)
(158.73)
(167.73)
(47.63)
MW-3R
B202
B203
B201
B070

Tighe&Bond Tighe & Bond – Consulting Engineers 213 Court Street – Suite 900 Middletown, Connecticut 06457 Ph: 860–704–4760			
TechCity BEDROCK CONTOUR MAP Kingston, NY			
Job.No. 12-6252	Designed By: GB	Checked By: JTO	Scale:
Cad File: 12-6252/figures/site drawing.dwg	Drawn By: GB	Date: 11/30/06	Figure 7

No.	By:	Date:

Detail (4X)



Former B058 Detail (Scale 3X)

- Monitoring Well Location (installed in soil)
- Temporary Monitoring Point
- Monitoring Well Location (installed in bedrock)
- Production Well Location (Layne)
- Railroad
- Property Line
- Former Structure
- Abandoned Monitoring Well Location (installed in soil)
- Abandoned Temporary Monitoring Point
- Abandoned Monitoring Well Location (installed in bedrock)
- Abandoned Production Well Location (Layne)
- Soil Boring or Test Pit Location
- Groundwater Collection System (GWCS)
- GWCS Trench Extension

Base map provided by Groundwater Sciences Corporation.

Tighe&Bond Tighe & Bond – Consulting Engineers
213 Court Street – Suite 900 Middletown, Connecticut 06457 Ph: 860-704-4760

TechCity
Site Layout
Kingston, NY

Job.No.	Designed By:	Checked By:
12-6252	BCC	JTO
Cad File: 12-6252/figures/site drawing.dwg	Drawn By: BCC	Date: 12/7/06

Table 1
Summary of Chronological Events
SWMU AE Building 202
TechCity Properties, Inc.
Kingston, New York

Date	Description
May-96	Schindler Elevator personnel reported the the No. 2 Elevator required the addition of 15 gallons of hydraulic fluid since January 1996. IBM hires Groundwater Sciences Corporation (GSC) to determine if a release had occurred. The sand from the annular space and hydraulic fluid were analyzed for PCBs.
June-96	Results from GSC study suggests no PCBs have been released. Results discussed with New York Department of Environmental Control (NYDEC) and incident not considered a SWMU.
June-July- 96	GSC further investigates downgradient soil and groundwater quality. Total petroleum hydrocarbons (TPH) and PCBs found in downgradient interior well (202 1R/S), No evidence of migration in two downgradient exterior wells 202-2S and 202-3S.
1997	Elevator No. 2 jack assembly was replaced.
October-00	Elevator maintenance contractor (Schindler) reported to C.B. Richard Ellis that the hydraulic cylinder for the Elevator No. 1 was leaking. Schindler added 20 gallons of hydraulic fluid to the reservoir tank following an eight month period of time. Based on this observation the NYSDEC assigned spill No. 0009072.
December-01	C.T. Male was hired to perform environmental investigations of Elevator No. 1 and 2. A sample from the No. 2 hydraulic reservoir indicates presence of PCBs.
December-02	C.T. Male removed hydraulic fluid from the Elevator No. 2 reservoir. Fluid was tested with no evidence of PCBs.
January-February 02	C.T. Male tests for free product in Elevator No. 2 casing. None observed.
January-04	NYDEC reviews C.T. Male Assessment report and concludes no further action is required for spill No. 0009072.
September-06	Tighe & Bond collects samples from interior well 202 1R/S and two exterior downgradient wells 202-2S and 202-3S. PCBs detected in 202 1R/S with no detection in two exterior wells. Sample from 202-2S was laboratory filtered which removed detectable concentrations of PCBs.
October-06	Tighe & Bond sampled interior monitoring well 202 1R/S at discrete intervals using low flow sampling techniques. No PCBs were detected in the samples. Low concentrations of TPH detected.

Table 2
Summary of Historical Groundwater Analytical Data
SWMU AE Building 202
TechCity Properties, Inc.
Kingston, New York

Date	Monitoring Well	Consultant	Sampling Method	PCBs Method 8080	PCBs Method 8082	TPH Method 418.1	Notes
7/2/1996	2021R/S	GSC	Bailer	2 µg/L		0.8 mg/L	
7/10/1996	202 1R/S	GSC	Bailer	3.5/2.6/10.2 µg/L		NT	Sample was split and sent to three different laboratories
	202-2S	GSC	Bailer	ND<1 µg/L		0.9 mg/L	
	202-3S	GSC	Bailer	ND<1 µg/L		0.9 mg/L	
9/13/2006	202 1R/S	Tighe & Bond	Bailer		4.8/13 µg/L	45 mg/L	Duplicate sample collected
	202 1R/S (filtered)	Tighe & Bond	Bailer		ND<0.061 µg/L		Sample filtered in laboratory using 0.45 um filter
	202-2S	Tighe & Bond	Bailer		ND<0.061 µg/L		
	202-3S	Tighe & Bond	Bailer		ND<0.061 µg/L		
	202 1R/S	GSC	Bailer		4.8/12 µg/L		Duplicate sample collected. Samples split from Tighe & Bond sampling effort
	202-2S	GSC	Bailer		ND		Samples split from Tighe & Bond sampling effort
	202-3S	GSC	Bailer		ND		Samples split from Tighe & Bond sampling effort
10/30/2006	202 1R/S 16	Tighe & Bond	Peristaltic Pump	ND <0.34 ug/L		2.2 mg/L	Sample collected 16 feet below top of casing
	202 1R/S 18	Tighe & Bond	Peristaltic Pump	ND <0.35 ug/L		NT	Sample collected 18 feet below top of casing
	202 1R/S 25	Tighe & Bond	Peristaltic Pump	ND <0.36 ug/L		NT	Sample collected 25 feet below top of casing
	202 1R/S 32	Tighe & Bond	Peristaltic Pump	ND <0.37 ug/L		1.1 mg/L	Sample collected 32 feet below top of casing

Notes:

Bordered text indicate exceedence of NYDEC PCB standard established at 0.1µg/L.
NYSDEC - New York State Department of Environmental Conservation
ND - Not Detected to the indicated limit.
µg/L - micrograms per liter
NT - Not Tested

Table 3
Summary of Groundwater Elevations
SWMU AE Building 202 - MW 202 1R/S
TechCity Properties, Inc.
Kingston, New York

	Depth to Water (ft. MSL)*	Elevation (ft. MSL) **	Ground Water Elevation (ft. MSL)
Bedrock Wells			
MW-1R	5.98	150.93	144.95
MW-324R	10.03	175.00	164.97
202-1R/S	12.34	176.43	164.09
MW-4R	7.85	176.08	168.23
MW-103R	Submerged ***	-	-
MW-816R	8.97	161.40	152.43
Overburden Wells			
MW-103S	4.31	132.91	128.60
MW-294S	8.70	155.82	147.12
MW-206S	6.30	152.42	146.12
MW-612S	9.60	156.22	146.62
MW-813	9.80	149.40	139.60
MW-125S	6.32	173.88	167.56
MW-814	7.67	151.70	144.03
202-3S	13.58	175.42	161.84
MW-104S	16.90	168.01	151.11
MW-107S	9.50	173.53	164.03
202-2S	19.49	173.29	153.80
MW-10S	2.60	176.94	174.34
MW-610S	9.70	181.16	171.46
MW-108S	5.01	177.26	172.25
MW-189S	8.64	175.52	166.88
MW-173S	9.41	179.83	170.42
MW-174S	9.34	179.89	170.55
MW-102S	11.93	146.98	135.05

Note:
* Groundwater measurements were collected on 10/31/06.
** Elevations referenced from benchmark on casing.
*** Monitoring well MW-103 R was submerged by surface water. Photo provided in Appendix A.

Table 4
Summary of Groundwater Stabilization Data
SWMU AE Building 202 - MW 202 1R/S
TechCity Properties, Inc.
Kingston, New York

Time	Water Level (ft. below grade)	Dissolved Oxygen (µg/L)	Temperature (°F)	pH (S.U.)	Oxidation Reduction Potential (mV)	Conductivity (µg/L)	Turbidity (FNU)
10:55	12.34	3568	74.97	7.48	-200	2696	1.14
11:40	13.23	3359	75.11	7.49	-223	3071	1.07
13:10	13.35	3132	75.12	7.5	-231	3071	2.05
13:21	13.86	3005	75.21	7.48	-216	3112	1.78
13:28	13.94	3212	75.74	7.47	-225	3121	1.77
13:42	14.20	3145	75.23	7.48	-224	3114	1.76
14:07	14.50	3211	75.26	7.48	-226	3211	1.7
14:45	14.89	3014	75.26	7.47	-228	3213	1.8
14:53	15.27	3125	75.27	7.45	-227	3215	1.65
15:16	16.00	3125	75.28	7.45	-227	3142	1.72
15:35	16.27	3125	75.26	7.45	-227	3141	1.77
15:55	16.50	3124	75.26	7.[illegible]	-228	3141	1.68
16:10	16.50				First Sample Collected		

Note:
All data collected on 10/30/06.
°F - Degrees Farenheit
S.U. - Standard Units
mV - millivolts
FNU - Formazin Nephelometric Unit
µg/L - micrograms per liter

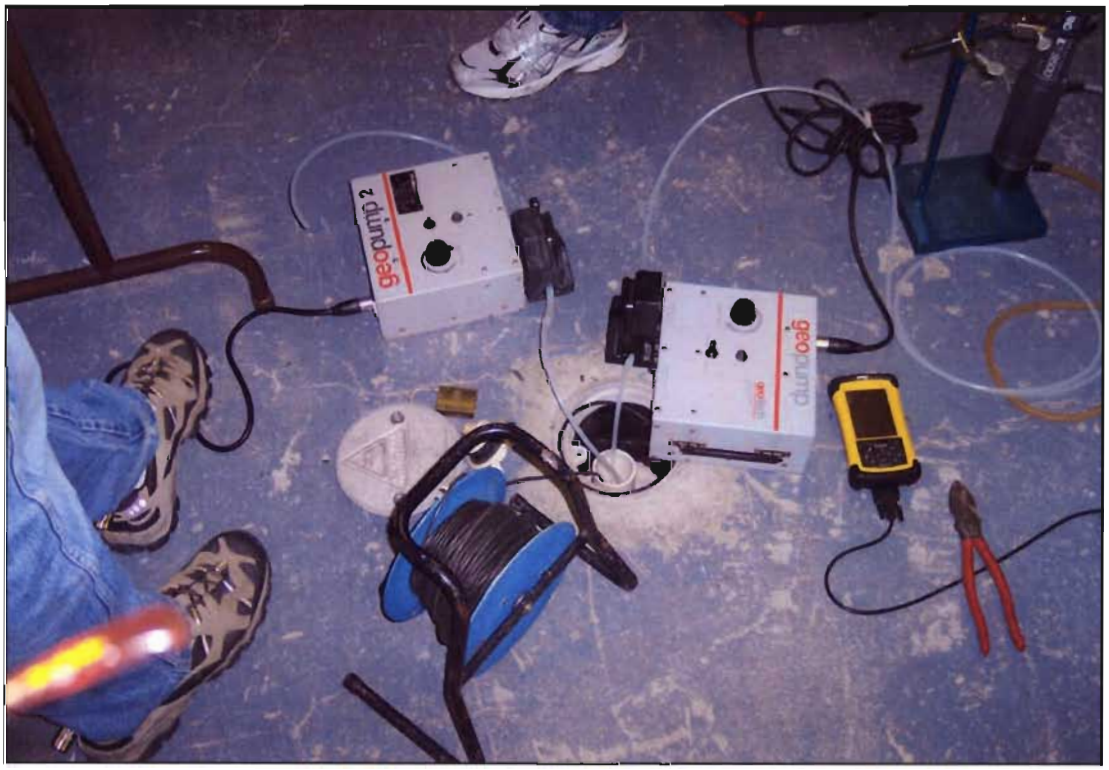
Table 5
Summary of Groundwater Analytical Data
SWMU AE Building 202
TechCity Properties, Inc.
Kingston, New York

Parameter	NYDEC Standard	202 1R/S 16 feet	202 1R/S 18 feet	202 1R/S 25 feet	202 1R/S 32 feet
Polychlorinate Biphenyls (PCBs)(µg/L)					
PCB -1254	0.1	ND <0.34	ND <0.31	ND <0.31	ND <0.31
Hydrocarbon Product Identification (mg/L)					
Creosote	NS	ND<0.1	NT	NT	ND<0.1
Hydraulic Fluid	NS	ND<0.1	NT	NT	ND<0.1
Jet Fuel	NS	ND<0.1	NT	NT	ND<0.1
Mineral Spirits	NS	ND<0.1	NT	NT	ND<0.1
Motor Oil	NS	ND<0.1	NT	NT	ND<0.1
Unmatched Hydrocarbons	NS	2.1	NT	NT	1.1
MODF (C14-C28)	NS	ND<0.1	NT	NT	ND<0.1
#4 Fuel (C9-C36)	NS	ND<0.1	NT	NT	ND<0.1
#6 Fuel (C9-C36)	NS	ND<0.1	NT	NT	ND<0.1

Notes:
Only detected Constituents of Concern (COC) are included in the table.
NYSDEC - New York State Department of Environmental Conservation
ND - Not Detected to the indicated limit.
µg/L - micrograms per liter
NT - Not Tested
NS - No standard established by NYSDEC

Picture above: Monitoring well 103R submerged on 10/31/06.

Picture below: Low-stress sampling set up completed on 10/30/06.



SEVERN TRENT STL

ANALYTICAL REPORT

Job Number: 360-6809-1

Job Description: 126252

For:
Tighe & Bond
213 Court Street
Middletown, CT 06457

Attention: Jim Olsen

Joseph A. Chimi

Joe Chimi
Report Production Representative
jchimi@stl-inc.com
11/09/2006

Project Manager: Becky Mason

The test results in this report meet all NELAP requirements for accredited parameters. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced except in full, and with written approval from the laboratory. STL Westfield Certifications and Approvals: MADEP MA014, RIDOH57, CTDPH 0494, VT DECWSD, NH DES 253903-A, NELAP FL E87912 TOX, NELAP NJ MA008 TOX, NELAP NY 10843, NY DOH 10843.

ACCREDITED IN ACCORDANCE WITH nelac

Client: Tighe & Bond
Date: 11/09/2006

Semi-Volatile GC Analysis

Other Deficiency

For method 8015B_ID, the results are reported as Unmatched Hydrocarbons. The carbon range is from C12 exceeding beyond C36.

Affected Items

360-6809-B-1-A

Batch: 360-12684
Method: 360-8015B_id

360-6809-A-4-B

Batch: 360-12684
Method: 360-8015B_id

METHOD SUMMARY

Client: Tighe & Bond

Job Number: 360-6809-1

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Hydrocarbon Product Identification	STL WFD	SW846 8015B	
Separatory Funnel Liquid-Liquid Extraction	STL WFD		SW846 3510C
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	STL WFD	SW846 8082	
Separatory Funnel Liquid-Liquid Extraction	STL WFD		SW846 3510C

LAB REFERENCES:

STL WFD = STL Westfield

METHOD REFERENCES:

SW846 - "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: Tighe & Bond

Job Number: 360-6809-1

Method	Analyst	Analyst ID
SW846 8015B	Pham, Tam	TP
SW846 8082	Sullivan, Pat	PS

SAMPLE SUMMARY

Client: Tighe & Bond

Job Number: 360-6809-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
360-6809-1	202 IR/S 16'	Water	10/30/2006 1600	11/02/2006 1530
360-6809-2	202 IR/S 18'	Water	10/30/2006 1630	11/02/2006 1530
360-6809-3	202 IR/S 25'	Water	10/30/2006 1620	11/02/2006 1530
360-6809-4	202 IR/S 32'	Water	10/30/2006 1530	11/02/2006 1530

SAMPLE RESULTS

Client: Tighe & Bond

Job Number: 360-6809-1

Client Sample ID: **202 IR/S 16'**

Lab Sample ID: 360-6809-1
Client Matrix: Water

Date Sampled: 10/30/2006 1600
Date Received: 11/02/2006 1530

8015B Hydrocarbon Product Identification

Method: 8015B
Preparation: 3510C
Dilution: 1.0
Date Analyzed: 11/07/2006 1823
Date Prepared: 11/06/2006 1143

Analysis Batch: 360-12684
Prep Batch: 360-12550

Instrument ID: HP 5890II GC w/ FID
Lab File ID: C4628.D
Initial Weight/Volume: 990 mL
Final Weight/Volume: 1.0 mL
Injection Volume:
Column ID: PRIMARY

Analyte	Result (mg/L)	Qualifier	RL	RL
Creosote	ND		0.10	0.10
Hydraulic Fluid	ND		0.10	0.10
Jet fuel	ND		0.10	0.10
Mineral Spirits	ND		0.10	0.10
Motor Oil	ND		0.10	0.10
Unmatched Hydrocarbons	2.2		0.10	0.10
MODF (C14-C28)	ND		0.10	0.10
#4 Fuel, C9-C36	ND		0.10	0.10
C9-C36 (#6 Fuel)	ND		0.10	0.10
Fuel Oil #2	ND		0.10	0.10

Surrogate	%Rec	Acceptance Limits
o-Terphenyl	70	40 - 140

Client: Tighe & Bond

Job Number: 360-6809-1

Client Sample ID: **202 IR/S 32'**

Lab Sample ID: 360-6809-4
Client Matrix: Water

Date Sampled: 10/30/2006 1530
Date Received: 11/02/2006 1530

8015B Hydrocarbon Product Identification

Method: 8015B
Preparation: 3510C
Dilution: 1.0
Date Analyzed: 11/07/2006 1906
Date Prepared: 11/06/2006 1143

Analysis Batch: 360-12684
Prep Batch: 360-12550

Instrument ID: HP 5890II GC w/ FID
Lab File ID: C4629.D
Initial Weight/Volume: 990 mL
Final Weight/Volume: 1.0 mL
Injection Volume:
Column ID: PRIMARY

Analyte	Result (mg/L)	Qualifier	RL	RL
Creosote	ND		0.10	0.10
Hydraulic Fluid	ND		0.10	0.10
Jet fuel	ND		0.10	0.10
Mineral Spirits	ND		0.10	0.10
Motor Oil	ND		0.10	0.10
Unmatched Hydrocarbons	1.1		0.10	0.10
MODF (C14-C28)	ND		0.10	0.10
#4 Fuel, C9-C36	ND		0.10	0.10
C9-C36 (#6 Fuel)	ND		0.10	0.10
Fuel Oil #2	ND		0.10	0.10

Surrogate	%Rec	Acceptance Limits
o-Terphenyl	72	40 - 140

Client: Tighe & Bond

Job Number: 360-6809-1

Client Sample ID: **202 IR/S 16'**

Lab Sample ID: 360-6809-1
Client Matrix: Water

Date Sampled: 10/30/2006 1600
Date Received: 11/02/2006 1530

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method: 8082
Preparation: 3510C
Dilution: 1.0
Date Analyzed: 11/06/2006 2006
Date Prepared: 11/03/2006 1734

Analysis Batch: 360-12613
Prep Batch: 360-12509

Instrument ID: 5890II GC w/ dual ECDs
Lab File ID: P1056.D
Initial Weight/Volume: 880 mL
Final Weight/Volume: 5.0 mL
Injection Volume:
Column ID: PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
PCB-1016	ND		0.34	0.34
PCB-1221	ND		0.34	0.34
PCB-1232	ND		0.34	0.34
PCB-1242	ND		0.34	0.34
PCB-1248	ND		0.34	0.34
PCB-1254	ND		0.34	0.34
PCB-1260	ND		0.18	0.34
PCB-1262	ND		0.34	0.34
PCB-1268	ND		0.34	0.34

Surrogate	%Rec	Acceptance Limits
DCB Decachlorobiphenyl	41	30 - 150
Tetrachloro-m-xylene	49	30 - 150

Client: Tighe & Bond

Job Number: 360-6809-1

Client Sample ID: **202 IR/S 18'**

Lab Sample ID: 360-6809-2
Client Matrix: Water

Date Sampled: 10/30/2006 1630
Date Received: 11/02/2006 1530

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method: 8082
Preparation: 3510C
Dilution: 1.0
Date Analyzed: 11/06/2006 2027
Date Prepared: 11/03/2006 1734

Analysis Batch: 360-12613
Prep Batch: 360-12509

Instrument ID: 5890II GC w/ dual ECDs
Lab File ID: P1057.D
Initial Weight/Volume: 975 mL
Final Weight/Volume: 5.0 mL
Injection Volume:
Column ID: PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
PCB-1016	ND		0.31	0.31
PCB-1221	ND		0.31	0.31
PCB-1232	ND		0.31	0.31
PCB-1242	ND		0.31	0.31
PCB-1248	ND		0.31	0.31
PCB-1254	ND		0.31	0.31
PCB-1260	ND		0.16	0.31
PCB-1262	ND		0.31	0.31
PCB-1268	ND		0.31	0.31

Surrogate	%Rec	Acceptance Limits
DCB Decachlorobiphenyl	39	30 - 150
Tetrachloro-m-xylene	49	30 - 150

Client: Tighe & Bond

Job Number: 360-6809-1

Client Sample ID: **202 IR/S 25'**

Lab Sample ID: 360-6809-3
Client Matrix: Water

Date Sampled: 10/30/2006 1620
Date Received: 11/02/2006 1530

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method: 8082
Preparation: 3510C
Dilution: 1.0
Date Analyzed: 11/06/2006 2048
Date Prepared: 11/03/2006 1734

Analysis Batch: 360-12613
Prep Batch: 360-12509

Instrument ID: 5890II GC w/ dual ECDs
Lab File ID: P1058.D
Initial Weight/Volume: 990 mL
Final Weight/Volume: 5.0 mL
Injection Volume:
Column ID: PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
PCB-1016	ND		0.30	0.30
PCB-1221	ND		0.30	0.30
PCB-1232	ND		0.30	0.30
PCB-1242	ND		0.30	0.30
PCB-1248	ND		0.30	0.30
PCB-1254	ND		0.30	0.30
PCB-1260	ND		0.16	0.30
PCB-1262	ND		0.30	0.30
PCB-1268	ND		0.30	0.30

Surrogate	%Rec	Acceptance Limits
DCB Decachlorobiphenyl	33	30 - 150
Tetrachloro-m-xylene	47	30 - 150

Client: Tighe & Bond

Job Number: 360-6809-1

Client Sample ID: **202 IR/S 32'**

Lab Sample ID: 360-6809-4
Client Matrix: Water

Date Sampled: 10/30/2006 1530
Date Received: 11/02/2006 1530

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method: 8082
Preparation: 3510C
Dilution: 1.0
Date Analyzed: 11/06/2006 2108
Date Prepared: 11/03/2006 1734

Analysis Batch: 360-12613
Prep Batch: 360-12509

Instrument ID: 5890II GC w/ dual ECDs
Lab File ID: P1059.D
Initial Weight/Volume: 990 mL
Final Weight/Volume: 5.0 mL
Injection Volume:
Column ID: PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
PCB-1016	ND		0.30	0.30
PCB-1221	ND		0.30	0.30
PCB-1232	ND		0.30	0.30
PCB-1242	ND		0.30	0.30
PCB-1248	ND		0.30	0.30
PCB-1254	ND		0.30	0.30
PCB-1260	ND		0.16	0.30
PCB-1262	ND		0.30	0.30
PCB-1268	ND		0.30	0.30

Surrogate	%Rec	Acceptance Limits
DCB Decachlorobiphenyl	37	30 - 150
Tetrachloro-m-xylene	53	30 - 150

QUALITY CONTROL RESULTS

Client: Tighe & Bond

Job Number: 360-6809-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Prep Batch: 360-12509					
LCS 360-12509/2-A	Lab Control Spike	T	Water	3510C	
LCSD 360-12509/3-A	Lab Control Spike Duplicate	T	Water	3510C	
MB 360-12509/1-A	Method Blank	T	Water	3510C	
360-6809-1	202 IR/S 16'	T	Water	3510C	
360-6809-2	202 IR/S 18'	T	Water	3510C	
360-6809-3	202 IR/S 25'	T	Water	3510C	
360-6809-4	202 IR/S 32'	T	Water	3510C	
Prep Batch: 360-12550					
LCS 360-12550/2-A	Lab Control Spike	T	Water	3510C	
LCSD 360-12550/3-A	Lab Control Spike Duplicate	T	Water	3510C	
MB 360-12550/1-A	Method Blank	T	Water	3510C	
360-6809-1	202 IR/S 16'	T	Water	3510C	
360-6809-4	202 IR/S 32'	T	Water	3510C	
Analysis Batch:360-12613					
LCS 360-12509/2-A	Lab Control Spike	T	Water	8082	360-12509
LCSD 360-12509/3-A	Lab Control Spike Duplicate	T	Water	8082	360-12509
MB 360-12509/1-A	Method Blank	T	Water	8082	360-12509
360-6809-1	202 IR/S 16'	T	Water	8082	360-12509
360-6809-2	202 IR/S 18'	T	Water	8082	360-12509
360-6809-3	202 IR/S 25'	T	Water	8082	360-12509
360-6809-4	202 IR/S 32'	T	Water	8082	360-12509
Analysis Batch:360-12684					
LCS 360-12550/2-A	Lab Control Spike	T	Water	8015B	360-12550
LCSD 360-12550/3-A	Lab Control Spike Duplicate	T	Water	8015B	360-12550
MB 360-12550/1-A	Method Blank	T	Water	8015B	360-12550
360-6809-1	202 IR/S 16'	T	Water	8015B	360-12550
360-6809-4	202 IR/S 32'	T	Water	8015B	360-12550

Report Basis
T = Total

Client: Tighe & Bond

Job Number: 360-6809-1

Method Blank - Batch: 360-12550

Method: 8015B
Preparation: 3510C

Lab Sample ID: MB 360-12550/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/07/2006 1615
Date Prepared: 11/06/2006 1143

Analysis Batch: 360-12684
Prep Batch: 360-12550
Units: mg/L

Instrument ID: HP 5890II GC w/ FID
Lab File ID: C4625.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1.0 mL
Injection Volume:

Analyte	Result	Qual	RL	RL
Creosote	ND		0.10	0.10
Hydraulic Fluid	ND		0.10	0.10
Jet fuel	ND		0.10	0.10
Mineral Spirits	ND		0.10	0.10
Motor Oil	ND		0.10	0.10
Unmatched Hydrocarbons	ND		0.10	0.10
MODF (C14-C28)	ND		0.10	0.10
#4 Fuel, C9-C36	ND		0.10	0.10
C9-C36 (#6 Fuel)	ND		0.10	0.10
Fuel Oil #2	ND		0.10	0.10

Surrogate	% Rec	Acceptance Limits
o-Terphenyl	94	40 - 140

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Tighe & Bond

Job Number: 360-6809-1

Lab Control Spike/
Lab Control Spike Duplicate Recovery Report - Batch: 360-12550

Method: 8015B
Preparation: 3510C

LCS Lab Sample ID:	LCS 360-12550/2-A	Analysis Batch: 360-12684	Instrument ID: HP 5890II GC w/ FID
Client Matrix:	Water	Prep Batch: 360-12550	Lab File ID: C4626.D
Dilution:	1.0	Units: mg/L	Initial Weight/Volume: 1000 mL
Date Analyzed:	11/07/2006 1658		Final Weight/Volume: 1.0 mL
Date Prepared:	11/06/2006 1143		Injection Volume:

LCSD Lab Sample ID:	LCSD 360-12550/3-A	Analysis Batch: 360-12684	Instrument ID: HP 5890II GC w/ FID
Client Matrix:	Water	Prep Batch: 360-12550	Lab File ID: C4627.D
Dilution:	1.0	Units: mg/L	Initial Weight/Volume: 1000 mL
Date Analyzed:	11/07/2006 1741		Final Weight/Volume: 1.0 mL
Date Prepared:	11/06/2006 1143		Injection Volume:

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
#4 Fuel, C9-C36	74	78	60 - 140	6	50		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
o-Terphenyl	95	92	40 - 140

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Tighe & Bond

Job Number: 360-6809-1

Method Blank - Batch: 360-12509

Method: 8082
Preparation: 3510C

Lab Sample ID: MB 360-12509/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/06/2006 1742
Date Prepared: 11/03/2006 1734

Analysis Batch: 360-12613
Prep Batch: 360-12509
Units: ug/L

Instrument ID: 5890II GC w/ dual ECDs
Lab File ID: P1049.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 5.0 mL
Injection Volume:
Column ID: PRIMARY

Analyte	Result	Qual	MDL	RL
PCB-1016	ND		0.30	0.30
PCB-1221	ND		0.30	0.30
PCB-1232	ND		0.30	0.30
PCB-1242	ND		0.30	0.30
PCB-1248	ND		0.30	0.30
PCB-1254	ND		0.30	0.30
PCB-1260	ND		0.16	0.30
PCB-1262	ND		0.30	0.30
PCB-1268	ND		0.30	0.30

Surrogate	% Rec	Acceptance Limits
DCB Decachlorobiphenyl	51	30 - 150
Tetrachloro-m-xylene	64	30 - 150

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Tighe & Bond

Job Number: 360-6809-1

Lab Control Spike/
Lab Control Spike Duplicate Recovery Report - Batch: 360-12509

Method: 8082
Preparation: 3510C

LCS Lab Sample ID: LCS 360-12509/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/07/2006 0913
Date Prepared: 11/03/2006 1734

Analysis Batch: 360-12613
Prep Batch: 360-12509
Units: ug/L

Instrument ID: 5890II GC w/ dual ECDs
Lab File ID: P1067.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 5.0 mL
Injection Volume:
Column ID: PRIMARY

LCSD Lab Sample ID: LCSD 360-12509/3-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/07/2006 0934
Date Prepared: 11/03/2006 1734

Analysis Batch: 360-12613
Prep Batch: 360-12509
Units: ug/L

Instrument ID: 5890II GC w/ dual ECDs
Lab File ID: P1068.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 5.0 mL
Injection Volume:
Column ID: PRIMARY

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
PCB-1016	64	61	40 - 140	5	20		
PCB-1260	65	62	40 - 140	4	20		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
DCB Decachlorobiphenyl	52	43	30 - 150
Tetrachloro-m-xylene	73	67	30 - 150

Calculations are performed before rounding to avoid round-off errors in calculated results.

LOGIN SAMPLE RECEIPT CHECK LIST

Client: Tighe & Bond

Job Number: 360-6809-1

Login Number: 6809

Question	T/F/NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	NA	
The cooler's custody seal, if present, is intact.	NA	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	3.8 C
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	NA	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	

Severn Trent Laboratories, Inc.
Chain of Custody Form

SEVERN TRENT STL

37676

•53 Southampton Road
Westfield, MA 01085
(P) 413-572-4000
(F) 413-572-3707
STL Westfield

•149 Rangeway Road
N. Billerica, MA 01862
(P) 978-667-1400
(F) 978-667-7871
STL Billerica / Service Center

Client: Tighe + Bond
Address: Middletown, CT
Phone: 860-704-4761 Fax:

Project #: 126262
Project Manager: Susan Olsen
Work ID:
Contact: Brian Cole

Job#: 360-6092 Quote# PO#

Requested Turnaround Time (PLEASE SPECIFY)
STANDARD ✓ RUSH _____ *(Lab Approval Required)*

Regulatory Classification
NPDES _____ Drinking Water _____
RCRA _____ MCP GW1/S1 _____
Other _____

Special Report Format
QA/QC Report _____
DQE (MCP) Rpt _____
DEP Form(s) _____

Shaded areas for office use

Analysis Requested
Check analysis and specify method and analytes in comments section.
For example:
500-series for drinking water
600-series for waste water, NPDES
6000-series for groundwater, soil, waste
8000-series for groundwater, soil, waste
Use comments section to further define.

Comments (Special Instructions)
Please print legibility. If the analytical requests are not clearly defined on the chain-of-custody, the turnaround time will begin after all questions have been satisfactorily answered.

Sample Type Codes
WW-Wastewater DW-Drinking water SW-Surface water
LW-Lab water GW-Groundwater A-Air
S-Solid / Soil SL-Sludge O-Oil Z-Other

Sample ID	Sample Type	Sampler's Initials	Date Time Collected	Grab	Comp.	# Containers	Plastic(P) or Glass(G)	Preservative: NaHSO4/MeOH	HNO3 to pH <2	H2SO4 to pH <2	HCl to pH <2	NaOH to pH >12	Na2S2O3	None / 4° C	Volatiles 524 /624 /8260	Volatiles 601 /602 /8021	Semivoa 525 /625 /8270	(PCB / Pest / Herbicide	EPH / VPH	DRO / GRO / ETPH	Metals 6010 / 200.7	Mercury 245.1 / 7470-71	General Chemistry	Bacteriological	Toxicity	Oil & Grease / TOC	Radchem / Other
202 IR/S 16'		—	10-30-06 16:00			2	G							2				✓		✓							
202 IR/S 18'		—	10-30-06 16:30			1	G							1				✓									
202 IR/S 25'		—	10-30-06 16:20			2	G							2				✓									
202 IR/S 32'		BCC	10-30-06 1530			1	G							2				✓		✓							
~~202 IR/S 48'~~		—	~~10-30-06 1530~~			~~1~~	G																				
			11/01/06																								

Samples were received 10/31/06 via courier w/ no COC. All info was taken from labels.
Label for 202 IR/S 33' lists "Tech City" for proj name
No ANALYSIS SPECIFIED.
* DRO Fingerprint
R'cvd 10/31/06 1935 from courier - JERRY POOL

Sampled by (print): Brian Cole
Signature: Brian Cole

Cooler ? (Y) N
MADEP Requirement / Samples Iced? (Y) N

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Brian Cole	11/2	15:30		11/2/06	1530
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:

Temp @ receipt: 3.0 °C
Preservation / pH checked? Y / N
By: Date:

STL WESTFIELD

Page 1 of 1

White = Lab file Yellow = Report copy Pink = Customer copy
STL-8245 (1000)