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West Well and Boiler Room Remedial System Evaluation

Work Plan

Amphenol Corporation
Sidney, New York

JTM ASSOCIATES, LLC
environmental consulting

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environmental consulting

November 9, 2004

Mr. Walter F. Wintsch, Jr.
New York State Department of Environmental Conservation
Division of Hazardous Waste Remediation
1150 N. Westcott Road
Schenectady, New York 12306-2014

Re: Amphenol Corporation
West Well and Boiler Room
Remedial System Evaluation
Work Plan

Dear Mr. Wintsch:

This document presents the work plan to evaluate the effectiveness of the West Well and Boiler Room remedial systems. As we've discussed, the program includes the collection of ground water and soil vapor samples in areas hydraulically downgradient of the respective remedial systems. We expect to begin the field portion of the project the week of November 29, 2004.

Should any questions arise, please to not hesitate to contact me or Joe Bianchi at Amphenol.

Very truly yours,
JTM ASSOCIATES, LLC

James T. Mickam, PG
President

cc: Joe Bianchi – Amphenol Corporation
Sam Waldo – Amphenol
Rich Galloway – Amphenol

Introduction

Amphenol Corporation manufactures a variety of electrical connectors at its facility in Sidney, New York. Prior to Amphenol assuming responsibility for the operations, the plant was owned and operated by the Bendix Connector Group of Allied-Signal Corporation. Several different business entities have used this site for industrial manufacturing since the early 1900s. Figure 1 illustrates the location of the site.

In some areas of the site, chlorinated volatile organic compounds (VOCs); primarily Trichloroethylene and its associated degradation products have affected the quality of the on-site shallow ground water. To mitigate these impacts, Amphenol operates both shallow and deep ground water recovery and treatment systems at the facility.

The ground water remedial systems are monitored consistent with New York State Department of Environmental Conservation (NYSDEC) requirements. Monitoring data from both sites are routinely reported to NYSDEC. Additional background information and monitoring data can be found in West Well and Plating Area Ground Water Monitoring Report – 1st Quarter 2004; JTM ASSOCIATES, LLC and Boiler Room Site Ground Water Monitoring Report – 2003 Annual Report; July 2004; JTM ASSOCIATES, LLC.

As part of their regular review and evaluation of the performance of the ongoing ground water remediation programs at the site, Amphenol proposes to further assess the presence of site related constitutes in the shallow ground water in areas hydraulically downgradient of the remedial systems. A secondary objective is to address developing New York State programs regarding indoor air quality. This document describes the proposed scope of work to accomplish this objective.

Proposed Remedial System Performance Work Scope

Figure 2 illustrates the Amphenol site and its surrounding area. The location of existing ground water monitoring wells and other features is also depicted. Ground water collection and treatment began at the area of the West Well in March 1998. Remediation in the central area of the plant (Boiler Room site) began during the third quarter of 1999. Extensive databases of ground water chemistry data are available for each site. The existing data will be supplemented by sampling the first encountered ground water and unsaturated zone soil vapor at additional locations to better define the chemistry of the shallow ground water spatially.

Ground water chemistry characterization

Shallow ground water will be characterized by collecting samples from temporary observation wells located at regular spatial intervals throughout the area of interest. Figure 2 illustrates the proposed sampling point locations, which will primarily be positioned along road right-of-ways and easements. The temporary wells will be installed using direct push technology and constructed of one-inch diameter PVC casing attached to 2-foot length of slotted PVC screen. Although earlier work indicates that the local subsurface is primarily composed of interbedded fine to coarse sand, if appropriate based on field conditions, a silica sand envelope may be installed around the temporary observation well screen to minimize sample turbidity. The annular space between the casing and borehole will be sealed with bentonite. A protective, flush mount curb box will be installed to complete the construction.

Following their installation and a minimum 48 hour equilibration period, the temporary observation wells will be sampled using low flow sampling methods as described in the Compendium of ERT Ground Water Sampling Procedures

(USEPA – OSWER 9360.4-06). Samples will be analyzed for volatile organic compounds (VOCs) using EPA Methods 601 and 602, consistent with the ongoing West Well and Boiler Room site monitoring programs applying Level 1 quality assurance / quality control criteria. Samples will be collected and analyzed by Adirondack Environmental, the firm presently engaged for the West Well and Boiler Room routine monitoring. Appendix A provides a specific ground water sampling protocol.

Soil vapor chemistry characterization

The concentration of VOCs in the soil vapor adjacent to the new ground water sampling locations will also be measured. This will be accomplished by installing, using direct push methods, a Geoprobe Systems™ Model # AT8617S soil gas sampling implant attached to 3/16" Teflon tubing. Since a majority of the proposed sampling locations are within road right-of ways, the soil gas sampling probes will either be installed directionally at an angle such that the sampling probed will be located beneath paved road surfaces or directly through the road. The probes will be positioned approximately 8 feet below the ground surface or shallower depending on the depth of the ground water at each respective location. The borehole created by the probe installation process will be backfilled with native materials and sealed at the surface to prevent atmospheric air from entering the implant.

Following a minimum 48-hour equilibration period and purging of the sample tubing, soil vapor samples will be collected using a 1-liter vacuum canister regulated to sample continuously for a period of one hour. Soil vapor samples will be collect prior to ground water sample collection. Samples will be analyzed for those parameters included in USEPA Method T0-15 to a detection limit concentration of not greater than 5 micrograms per cubic meter. In addition to soil vapor samples, ambient air samples will be collected adjacent to a representative number of soil vapor sampling points. Appendix B describes the use of the vacuum canister sampling devices and lists the Method T0-15 parameters.

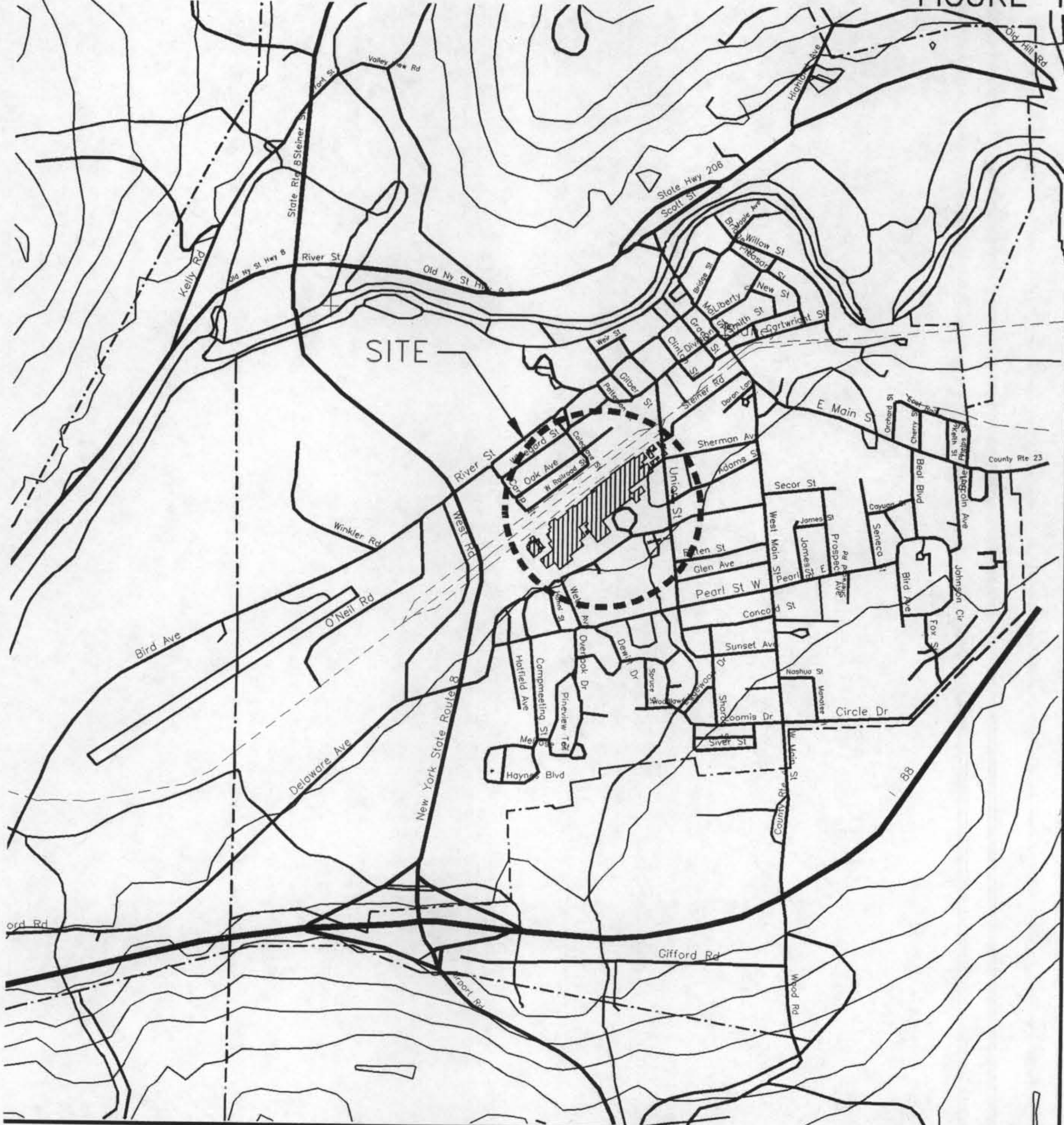
Data reporting and presentation

Upon receipt of all analytical data, tabular summaries will be prepared to present the results of the ground water and soil vapor sampling. Various illustrations will also be prepared to illustrate the horizontal distribution of compounds that the results indicate are of interest. A narrative report will be developed to document data collection and summarize study results. Recommendations for follow-up evaluations will also be offered.

FIGURES

DWG PATH: C:\DWGS\JTM ASSOCIATES\AMPHENOL\OIL STORAGE & HANDLING FAC\D02WW-BR.DWG SF 1

FIGURE 1



AMPHENOL CORPORATION
SIDNEY, NEW YORK

SITE LOCATION MAP

2000 0 2000
APPROX. SCALE IN FEET

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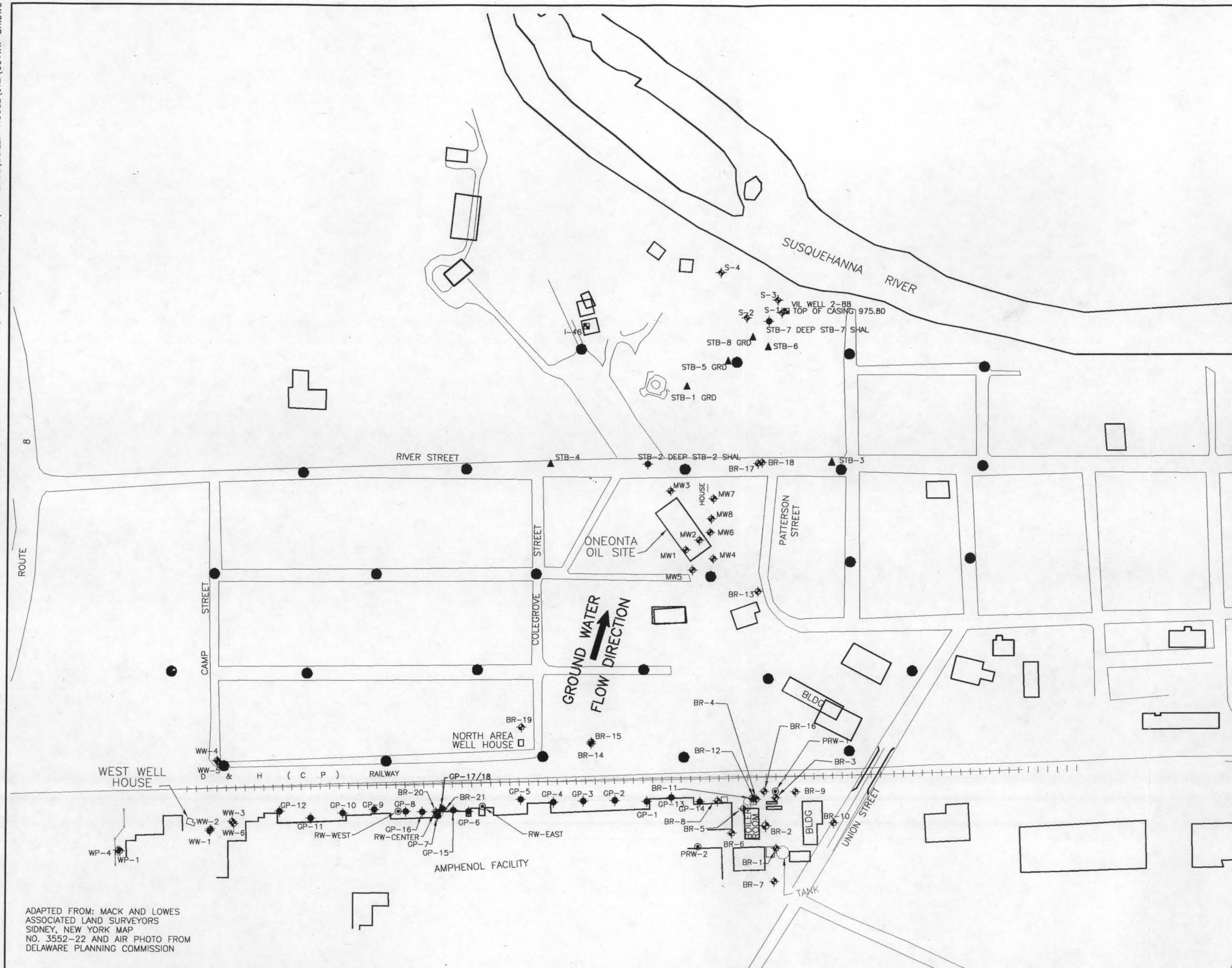
FIGURE 2

AMPHENOL CORPORATION
SIDNEY, NEW YORK

WEST WELL AND BOILER ROOM
REMEDIAL SYSTEM EVALUATION

PROPOSED OFF-SITE
SAMPLING POINTS



GRID NORTH
NY STATE PLANE SYSTEM
CENTRAL ZONE

LEGEND

- STB-7 DEEP STB-7 SHAL — PIEZOMETER LOCATION
- STB-5 GRD — SOIL BORING LOCATION
- I-46 — PRODUCTION WELL LOCATION
- S-2 — VILLAGE OF SIDNEY TEST WELL
- WW-3 — WEST WELL HOUSE MONITOR WELL
- MW2 — ONEONTA OIL MONITOR WELL
- BR-13 — BOILER ROOM MONITOR WELL
- WATER SUPPLY SYSTEM MONITOR WELL
- PROPOSED TEMPORARY OBSERVATION WELL AND SOIL VAPOR PROBE

300 0 300
APPROX. SCALE IN FEET

ADAPTED FROM: MACK AND LOWES
ASSOCIATED LAND SURVEYORS
SIDNEY, NEW YORK MAP
NO. 3552-22 AND AIR PHOTO FROM
DELAWARE PLANNING COMMISSION

JTM ASSOCIATES, LLC
environmental consulting

PLOT DATE: 8/22/04
(USES XREF BASE-300) DWG PATH: C:\DWGS\JTM-ASSOCIATES\AMPHENOL\BOILER-HOUSE\JTM\001WW-BR.DWG

APPENDICES

APPENDIX A

Protocol for Low Flow Ground Water Sample Collection

The following procedures shall be employed for the collection of groundwater samples by low flow protocol. The field data sheet (attached) shall be completed for each sampling location.

1. Identify and locate the monitoring point to be sampled. Using well construction logs and field observations complete the well construction section of the field data sheet.

2. Initiate ambient air analysis by PID. Once a representative reading has been recorded, open the protective structure or casing cap.

3. Place the PID collection line near the well cap and remove the cap while monitoring the well mouth. Use the PID to scan the wellhead for airborne contaminants and record the peak reading.

4. Collect and record a static water level. Do not collect a well depth measurement at this time. The depth of the well will be estimated using previous sampling data or well construction logs. Due to the sensitive nature of this sample protocol disturbance of the water column must be kept to a minimum. Once sampling is complete the measurement may be confirmed.

5. Using well construction data, determine the length of tubing necessary to lower the intake to the approximate center of the screened interval. If the water level measures within the screened interval measure to the center of the water column. Mark the tubing to provide a reference point to which the tubing will be lowered into the well. Include an additional 3 to 5 feet of tubing above the mark to extend from the well casing to the peristaltic pump.

6. Attach a stainless steel tubing weight (if necessary) and lower the intake tubing into the well slowly. Once the desired depth has been reached, connect the tubing to the peristaltic pump tubing (already installed).

7. Place the multi probe field meter in the flow cell and connect it to the discharge end of the pump tubing. The outlet tubing from the flow cell shall be 2 to 3 feet in length. All sampling equipment should be positioned down gradient of the sampling point, providing a final discharge of purge water at least 6 feet from the wellhead.

8. Purging may now begin and an initial set of field parameters including: pH, Temperature, Conductivity, Turbidity, Static Water Level, and Purge Rate recorded. Field parameters will be recorded at the completion of each well volume evacuation. Purge rates should be adjusted to maintain limited stress on the formation. These rates shall not exceed 0.5 L/min and may reduced to minimize drawdown.

9. Purging will continue until three volumes of water have been removed or stabilization of field parameters has occurred. The following criteria shall be employed to determine stabilization;

pH	+/- 0.5 s.u.
Temperature	+/- 1.0 °C
Conductivity	+/- 10%
Turbidity	+/- 10% or < 10 ntu

10. Following stabilization or removal of three well volumes, the sample may be collected. The flow cell will be removed allowing samples to be collected directly from the pump discharge line. Sample collection flow rates must be below 250mls/minute. Following sample collection the pump intake tubing should be lifted out of the water column to evacuate it completely for disposal.

11. Empty the flow cell and store for transport. The tubing used in the well and peristaltic pump will be discarded. Insure all equipment is free of debris and returned to the appropriate transport case.

12. Once an initial round of sampling is complete, the field data sheets are designed to provide a detailed reference for future events.

APPENDIX B

CENTEK LABS, LLC

Mini-Can Air Sampling Operating Instructions

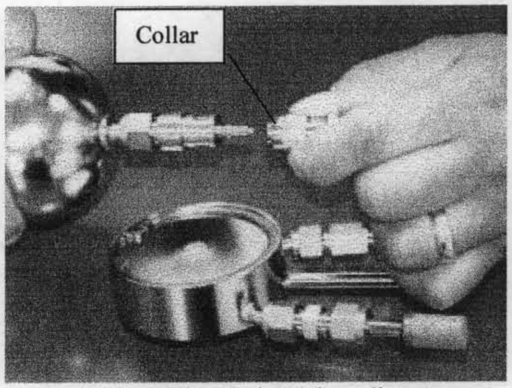


Fig 6: Time Release Sampling

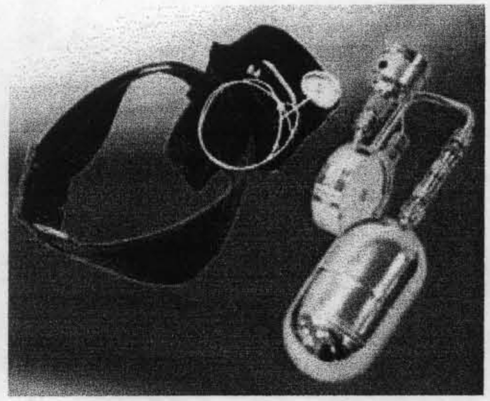


Fig 7: Personal sampling belt

___ Time Released Sampling

Equipment: 1) 400cc can (figure 1)
2) Time released regulator (figure 3)
3) Sampling unit belt if being used as a personal sampler (figure 7)

- Remove protective cap from the can
- Hold the CS1200P regulator in one hand and slide back collar (figure 3)
- Hold can in other and face sampler tip into regulator (figure 6)
- Insert sampler tip into regulator and release collar. There should be **no gap** between the regulator and the can. (figure 5)
- Sampler will automatically start without power. You will see a decrease in vacuum located on vacuum gauge of the regulator over a period of time.

- **If using sampler as a stationary unit:**
  1. Place unit on its side
  2. Check vacuum gauge periodically for loss in vacuum (starts @ -30'Hg / ends @ approx -1-5"Hg)

- **If using sampler as a personal unit:**
  1. Place sampler in holster belt.(figure 7)
  2. Clip belt around waste
  3. Pin sampling tube to your collar (**remember no perfume or colognes should be worn)
  4. Check vacuum gauge periodically for loss in vacuum (starts @ -30'Hg / ends @ approx -1-5"Hg)

- When done pull back on the collar of the regulator and slide the can out.
- Put protective cap back on sampler tip.
- Ship back to Centek Laboratories, LLC.

CENTEK LABS, LLC

Mini-Can Air Sampling Operating Instructions

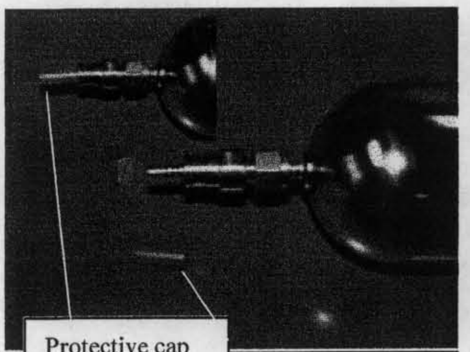


Fig 1: Can with cap

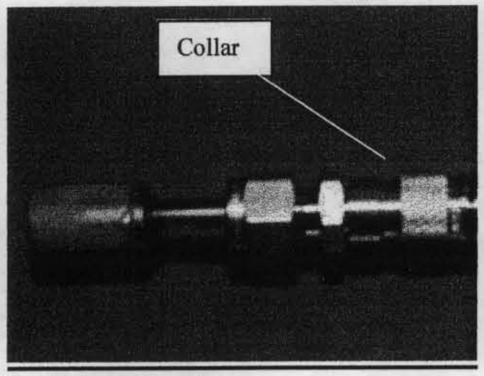


Fig 2: Grab Regulator

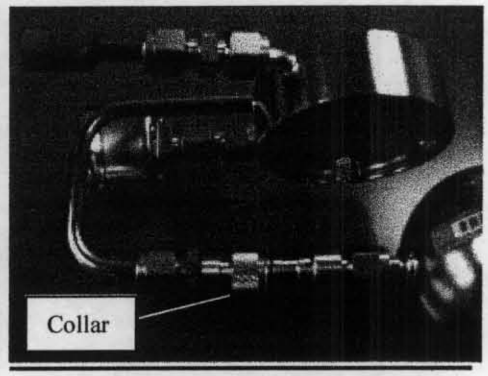


Fig 3: Time Regulator w/ Can

Principle of Operation

The CS1200P is a high purity flow regulation system used to fill the canisters at a constant rate from vacuum pressure. The whole air-sampling unit consists of 2 parts; the 400cc can (fig 1) and a regulator (figure 2 or 3). The cans are under vacuum no power is required to run your sampling.

****NOTE*****- When sampling the area or personal **should not** be wearing any perfumes or colognes. This is whole air sampling, what you wear will become part of the sample such as isopropyl alcohol.

Depending on the type of sampling you have requested the following procedures are used:

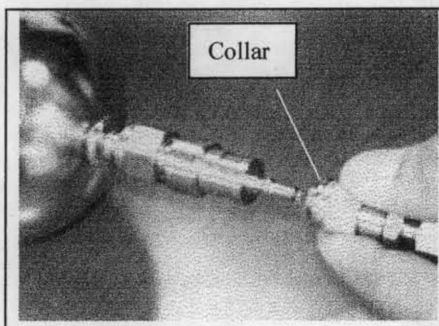


Fig 4: Quick Grab Sampling

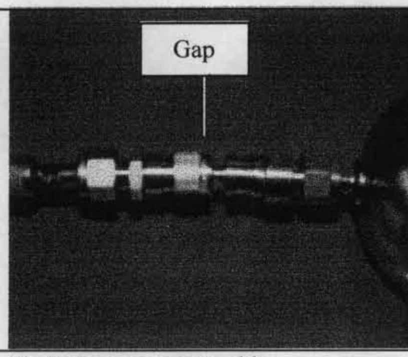


Fig 5: Incorrect Assembly

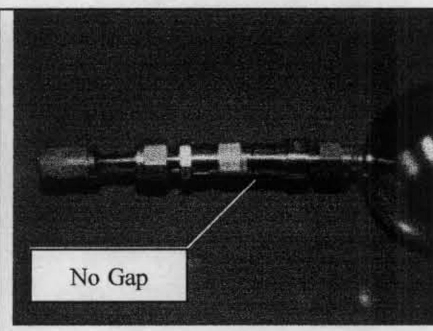


Fig 5: Correct Assembly

Quick Grab Sampling:

Equipment: 1) 400cc can (figure 1)
2) Quick grab regulator (figure 2)

- Remove protective cap from the can
- Hold quick grab regulator (figure 2) in one hand and slide the collar back.
- Hold can in other and face sampler tip into regulator (figure 4)
- Insert sampler tip into regulator and release collar. There should be **no gap** between the regulator and the can. (figure 5)
- You will immediately start to sample the area; you may hear a vacuum being pulled.
- Point to the source of odor and sample. The can should only take 20-30 seconds to fill.
- When done pull back on the collar of the regulator and slide the can out.
- *Put protective cap back on sampler tip*.
- Ship back to Centek Laboratories, LLC.

TO-15

Polar and Non-polar Volatile Compounds

	CAS#
acetone	67-64-1
allyl chloride	107-05-1
benzene	71-43-2
benzyl chloride	100-44-7
bromodichloromethane	75-27-4
bromoform	75-25-2
bromomethane	74-83-9
1,3-butadiene	106-99-0
2-butanone (Methyl Ethyl Ketone)	78-93-3
carbon disulfide	75-15-0
carbon tetrachloride	56-23-5
chlorobenzene	108-90-7
chloroethane	75-00-3
chloroform	67-66-3
chloromethane	74-87-3
cyclohexane	110-82-7
dibromochloromethane	124-48-1
trans-1,2-dichloroethene	156-60-5
1,2-dibromoethane	106-93-4
1,2-dichlorobenzene	95-50-1
1,3-dichlorobenzene	541-73-1
1,4-dichlorobenzene	106-46-7
1,1-dichloroethane	75-34-3
1,2-dichloroethane	107-06-2
1,1-dichloroethene	75-35-4
cis-1,2-dichloroethene	156-59-2
1,2-dichloropropane	78-87-5
cis-1,3-dichloropropene	10061-01-5
trans-1,3-dichloropropene	10061-02-6
1,4-dioxane	123-91-1
ethylbenzene	100-41-4
ethyl acetate	141-78-6
4-ethyltoluene	622-96-8
halocarbon 11	75-69-4
halocarbon 12	75-71-8
halocarbon 113	76-13-1
halocarbon 114	76-14-2
hexachloro-1,3-butadiene	87-68-3
hexane	110-54-3
2-hexanone (Methyl Butyl Ketone)	591-78-6
4-methyl-2-pentanone (Methyl Isobutyl Ketone)	108-10-1
methyl *tert*-butyl ether	163-04-4
methylene chloride	75-09-2
2-propanol (isopropyl alcohol)	67-63-0
propylene	115-07-1
styrene	100-42-5
1,1,2,2,-tetrachloroethane	71-55-6
tetrachloroethene	127-18-4
tetrahydrofuran	109-99-9
toluene	108-88-3
1,2,4-trichlorobenzene	120-82-1
1,1,1-trichloroethane	71-55-6
1,1,2-trichloroethane	79-00-5
trichloroethene	79-01-6
1,2,4-trimethylbenzene	95-63-6
1,3,5-trimethylbenzene	108-67-8
2,2,4-trimethylpentane	540-84-1
vinyl chloride	75-01-4
vinyl acetate	108-05-4
vinyl bromide	593-60-02
m-xylene	108-38-3
o-xylene	95-47-6
p-xylene	106-42-3

CENTEK LABORATORIES, LLC

Chain of Custody

143 Midler Park Drive * Syracuse, New York 13206
Phone (315) 431-9730 * Fax (315) 431-9731

NELAC No. 11830

Company Name:		Site Name	
Client Contact:		Phone #	Project #:

	Send Report To:	Send Invoice To:
Name		
Company		
Address		
Phone		
Fax		
e-mail		

Payment Choice:

Purchase order #	Credit Card (type)	
Authorization:	Card #	Date exp:

Turnaround Time Requested:

Same Day:	Next Day (24hr)		Normal (5 business days)	Other (specify)	
Reporting units: Please circle choice/s	**ppbV**	**ug/m3**	**mg/m3**		

Sample Identification	Date Sampled	Canister Number	Regulator Number	Analysis Requested	Comments

Sampled By: Company:		Name of Courier	
Relinquished by: (sign)	Date	Time	Received by: (sign)
Relinquished by: (sign)	Date	Time	Received by: (sign)
Relinquished by: (sign)	Date	Time	Received for lab by: (sign)