REMEDIAL INVESTIGATION/FEASIBILITY STUDY

INVESTIGATION WORK PLAN

WORK ASSIGNMENT D004433-17

CAMPAGNOLO PROPERTY
CITY OF ITHACA (C)

SITE NO. 7-55-013
TOMPKINS COUNTY, NY

Prepared for:
NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
625 Broadway, Albany, New York

DIVISION OF ENVIRONMENTAL REMEDIATION

URS Corporation
77 Goodell Street
Buffalo, New York 14203

Final
June 2007

G3799K

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DIVISION OF ENVIRONMENTAL REMEDIATION
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Prepared By:

URS CORPORATION
77 GOODELL ST.
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JUNE 2007

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1.0 INTRODUCTION

This Investigation Work Plan has been prepared to identify the activities for the Remedial Investigation/Feasibility Study (RI/FS) at the Campagnolo Property (Site #7-55-013) in the city of Ithaca, Tompkins County, New York. This is Work Assignment No. D004433-17 under URS Corporation – New York (URS) Standby Contract with the New York State Department of Environmental Conservation (NYSDEC). The Field Activities Plan (separated under separate cover) specifies the procedures to be followed during the work activities and includes the Health and Safety Plan (HASP) (including a Community Air Monitoring Plan [CAMP]), Quality Assurance Project Plan (QAPP) and the Field Sampling Plan (FSP).

1.1 Site Background

1.1.1 Site History

The Campagnolo Property Site is located near the intersection of North Meadow Street and Esty Street in Tompkins County, Ithaca, NY (Figure 1-1). The site is in an area of mixed commercial and residential land use. A building occupies a portion of the site, the rest of which is open and predominantly covered by concrete/asphalt parking areas and sidewalks. The Campagnolo property was used for a dry cleaning service from the late 1960s through 1977. An approximately 18 pound dry cleaning machine was located in the building, and an aboveground solvent tank was formerly located outside and on the west side of the original building. This area has been covered by an addition to the structure.

1.1.2 Site Investigation History

A subsurface investigation performed by Buck Engineering, L.L.C., in November 2001, identified chlorinated solvents in the groundwater samples collected using direct-push sampling equipment at six locations on the Campagnolo Property.

In March and April 2002 the RETEC Group, Inc. reportedly collected a sub slab soil gas sample, two indoor air samples and an outdoor air sample for analysis of VOCs. Based on results from these samples a sub-slab depressurization system was reportedly installed in the dry cleaner building in early 2003.

On behalf of NYSDEC, URS Corporation (URS) conducted an investigation in July-August 2005 to assess soil vapor, indoor air, sub-slab vapor, and outdoor air at the site and in five neighboring residences and one restaurant near the site. Results were presented in a Field Investigation Letter Report dated September 2005. Results indicated that chlorinated solvents were present in the soil vapor samples west of the site. Chlorinated solvents included tetrachloroethene, tricholorethene, and their daughter compounds, as well as other chlorinated solvents. Sub-slab vapor, basement air, and air in living areas also reported chlorinated solvents. The highest reported concentration of tetrachloroethene was in a basement sub-slab sample collected south of the site at 53,000 ug/m^3. Based upon these results, URS, on behalf of NYSDEC, installed mitigation systems at two structures.

Based upon the results of the July-August 2005 testing, NYSDEC elected to perform additional structure sampling in the site vicinity. On behalf of NYSDEC, URS conducted the additional investigations in March-April 2006 and presented the results in a Field Investigation Letter Report dated July 2006. First, structures that were sampled in summer 2005 (except for those which were mitigated) had to be re-sampled during the heating season months to measure indoor air VOC concentrations under conditions when VOCs are most likely to accumulate within the building. Secondly, NYSDEC and the New York State Department of Health (NYSDOH) selected additional structures located one or two structures beyond the initial "inner ring" of houses originally sampled because they were within two lots of the site. Four of the six structures sampled in 2005 were re-sampled as part of this investigation. The other two structures sampled in 2005 were not re-sampled as they had received sub-slab depressurization systems as a result of the 2005 sampling. In addition to these four structures, seven structures were sampled for the first time. An additional seven structures were pursued but were not sampled either because the owner declined or did not respond to sampling requests. Results indicated that chlorinated solvents were present in the sub-slab vapor, basement air, and air in living areas. The highest reported concentrations of chlorinated solvents were detected in basement sub-slab

samples collected south and west of the site. Soil and groundwater samples were not collected or analyzed.

1.1.3 Site Geology

Site soils consisted of a persistent layer of fill ranging in thickness from 1 to 4 feet underlain by a medium-stiff to stiff layer of clay inter-bedded with a water-bearing silt and sand layer. The bottom of the clay unit was not penetrated in this investigation. Reportedly, there is a water-bearing silt and sand layer in the site vicinity. Saturated conditions are typically found at approximately 5 to 6 feet below grade in the sand and silt unit. Groundwater in the vicinity of the site flows from east to west with a northwest component.

Regionally, there is a silty clay semi-confining layer beneath the water-bearing silt and sand layer approximately fifteen feet deep and is reportedly ten to twelve feet thick. A lower sand aquifer lies beneath the clay layer. The lateral and vertical extent of this layer is not known but could potentially form a confining unit or partially confining unit in the area. If this is the case, then it may preclude VOC and other groundwater contaminants from migrating vertically into the lower sand aquifer in the vicinity of the site.

1.2 Scope of Project

This work will define the extent of contamination, the extent of risks associated with the contamination, and evaluate alternatives for remediating the site. The work will be sufficient for the Department to prepare a Proposed Remedial Action Plan and issue a Record of Decision. This Investigation Work Plan describes the scope of each of the tasks to be performed under this assignment.

2.0 SCOPE OF WORK

This section describes the three major tasks and associated subtasks to be completed as part of the RI/FS at the Campagnolo Property Site. These tasks include work plan development, RI, and FS. The Department will obtain access from property owners for all site field activities.

2.1 Task 1 – Work Plan Development

URS has prepared a draft PMWP as part of Task 1 and it was submitted and approved in March 2007. In addition URS has prepared a Field Activities Plan that includes a HASP, QAPP, and FSP. The Field Activities Plan was submitted separately to the Department for approval. This Investigation Work Plan summarizes the following work scope elements that will be completed as part of the RI:

- Direct Push Soil Borings/Soil Sampling
- Groundwater Screening/Sampling
- Monitoring Well Installation & Sampling
- Monitoring Well Development/Hydraulic Monitoring/Groundwater Sampling
- Soil Vapor Intrusion Investigation
- Site Survey
- Remedial Investigation Report Preparation
- Feasibility Study Report
- Public Meeting

2.2 Task 2 – Remedial Investigation

More sampling is necessary to determine the full nature and extent of the contamination. It is not known to what extent and in the various media the contamination has migrated from the site. Therefore, additional testing of groundwater, soil, and indoor air must be conducted to delineate the full extent of the groundwater and soil contamination and impacts on soil vapor and indoor air. The location of off-site points will be determined based on the current subsurface conditions and existing knowledge of contamination. It is anticipated these additional points will be to the north, south, west and east of the site boundaries. Components of the RI are described below.

2.2.1 Subtask 2.1: Direct Push Soil Borings/Soil Sampling

Twenty direct push soil borings will be advanced in the vicinity and around the onsite building. The direct push borings will be spaced around this area to delineate the full extent of soil contamination.

Figure 2-1 depicts the proposed locations. Table 2-1 summarizes proposed analytical parameters. Twelve of the proposed locations are located around the perimeter of the on-site structure, and the eight remaining locations will be placed along potential pathways of migration from the site (i.e., such as utility lines, etc.). These locations will be established in the field after the utilities have been marked out.

Budget Assumptions

- Twenty (20) direct push borings will be advanced using a truck mounted direct push unit and at least one soil sample will be collected from each boring using Macrocore samplers.
- The direct push subcontractor will obtain necessary permits prior to drilling activities.

- Utility clearances will be coordinated and confirmed by both URS and the direct push subcontractor.

- Borings will be advanced to a maximum depth no greater than 25 feet, or up to the silty clay confining layer (anticipated to be approximately 15 feet deep) whichever is shallower.

- Drilling rate is approximately 10 borings per 10-hour day drilling approximately 25 feet per boring. Therefore, a two-day effort is assumed.

- 20 samples will be collected and analyzed for TCL VOCs. The samples will be collected from the zone of highest PID readings or just above the water table if there are no PID readings above background.

- All drilling will be completed in Level D personal protective equipment (PPE).

- PPE will be double bagged and disposed of as non-hazardous waste.

- Soil cuttings and Macrocore liners will be placed in labeled 55-gallon drums and stored onsite pending waste characterization analysis. Drums will be secured in a discrete area designated by the Department using temporary fencing. The waste materials will be removed after drilling activities are completed, estimated to be approximately three to four weeks after field work is initiated. The drums will be removed by Frank's Vacuum Truck Service for disposal at a permitted facility.

- The NYSDEC will obtain access from property owners for all drilling locations.

- All drilling points will be surveyed.

2.2.2 Subtask 2.2: Groundwater Screening and Sampling

Eighteen direct push soil borings will be advanced in the vicinity of the site and are around the site to collect grab groundwater screening samples. The direct push borings will be spaced around the area to delineate the full extent of groundwater contamination.

Figure 2-2 depicts the proposed boring locations. Table 2-1 summarizes proposed analytical parameters. Table 2-2 presents the rationale for the proposed locations. These locations will be established in the field after the utilities have been marked out.

Budget Assumptions

- Eighteen (18) direct push borings will be advanced to the groundwater table surface using a track mounted direct push unit and one groundwater sample will be collected from each boring using dedicated tubing.
- The direct push subcontractor will obtain necessary permits prior to drilling activities.
- Utility clearances will be coordinated and confirmed by both URS and the direct push subcontractor.
- Drilling rate is approximately 10 borings per 10-hour day. Therefore, approximately two field days are assumed.
- Eighteen (18) groundwater samples will be collected and analyzed for TCL VOCs.
- All drilling will be completed in Level D personal protective equipment (PPE).
- PPE and spent tubing will be double bagged and disposed of as non-hazardous waste.
- No soil cuttings should be generated during this task. Excess purge water will be collected in a temporary onsite storage HDPE tank. The purge water will be retained in the tank until the first round of groundwater sampling is completed, anticipated to be approximately five to six weeks after field work is initiated. After each groundwater sampling event (Subtask 2.3), the waste water will be hauled away to a permitted facility by Frank's Vacuum Truck Service.
- The NYSDEC will obtain access from property owners for all drilling locations.
- All drilling points will be surveyed.

2.2.3 Subtask 2.3: Monitoring Well Installation & Sampling

Ten monitoring wells consisting of three well pairs and four single well locations will be installed to determine water flow direction and the horizontal and vertical extent of the VOC plume. The wells will be spaced around the Campagnolo property and at least one well pair will be up-gradient and two well pairs will be down-gradient. The number and locations may be modified based on findings from the groundwater screening results. Soil samples shall be collected from all monitoring well locations and also sampled for TCL VOCs. Table 2-1 summarizes proposed analytical parameters. Figure 2-3 depicts the proposed monitoring well locations. Table 2-3 presents the rationale for the proposed locations.

Budget Assumptions

- Ten (10) monitoring wells will be installed. Seven of the wells will be terminated at approximately 20 feet bgs. Three of the wells will be advanced through a clay confining/semi-confining layer to a total depth of approximately 40 to 50 feet bgs and at these locations a permanent steel casing will be installed within the clay layer to prevent the potential for downward migration of contamination.
- Drilling will be conducted using a standard rubber tire drill rig.
- The drilling subcontractor will obtain necessary permits prior to the commencement of drilling activities.
- Utility clearances will be coordinated and confirmed by both URS and the drilling subcontractor.
- One soil sample will be collected per location and submitted for laboratory analysis of TCL VOCs.
- All drilling will be completed in Level D PPE.
- PPE will be double bagged and disposed of as non-hazardous waste.

- Soil cuttings will be placed in labeled 55-gallon drums and stored onsite pending waste characterization analysis. Drums will be secured in a discrete area designated by the Department using temporary fencing. The waste materials will be removed after drilling activities are completed, estimated to be approximately three to four weeks after field work is initiated. The drums will be removed by Frank's Vacuum Truck Service for disposal at a permitted facility.

- The NYSDEC will obtain access from property owners for all drilling locations.

- All wells will be surveyed.

2.2.4 Subtask 2.3: Monitoring Well Development/Hydraulic Monitoring/Groundwater Sampling

Description of Work-Well Development

The ten new monitoring wells installed as part of the RI will be developed using a combination of surge block agitation and over-pumping until groundwater effluent turbidity levels are consistently below 50 nephelometric turbidity units (NTUs) or groundwater indicator parameters stabilize (i.e., pH, conductivity, and temperature). Development water will be contained in a 1,500-gallon high density polyethylene (HDPE) tank that will be staged in a discrete area designated by the Department and secured with temporary fencing. The development water will be disposed off-site at a permitted facility.

Budget Assumptions

- Development will be completed in each well before 200 gallons of groundwater have been extracted.

Description of Work-Hydraulic Monitoring

Groundwater elevation measurements will be recorded to evaluate seasonal trends in water table elevations. Water level measurements will be collected with an electronic interface probe from all developed wells and then again before each groundwater sampling round. Measurements will include depth to water (DTW), depth to bottom (DTB). The date and time of each measurement will be recorded, as well as the names and titles of the field personnel conducting the measurements.

Budget Assumptions

- A total of 3 rounds of water level measurements will be collected from all wells, 1 after well development has been completed and once before each of the two anticipated groundwater sampling events.

Description of Work – Groundwater Sampling

Two rounds of groundwater samples will be collected from all site monitoring wells (10 wells) to establish current conditions and the extent of the dissolved-phase groundwater plume. The first round of samples will be collected a minimum of two weeks after the wells are developed and the second round will be approximately 3 months later. Prior to sample collection, standing water will be purged from each well prior to sampling using low-flow methods; and field parameters (pH, eH, conductivity, temperature, dissolved oxygen, turbidity) will be documented. These parameters will be measured in a flow-through cell and must be stable prior to sampling. Groundwater samples will be collected, immediately following parameter stability or sufficient groundwater recovery (if well goes dry), directly from the discharge tubing. Groundwater samples will be submitted for laboratory analysis of TCL VOCs in accordance with the NYSDEC ASP methodologies. Table 2-1 summarizes proposed analytical parameters. Purge water will be collected in a temporary onsite storage HDPE tank along with water generated during well development. The purge and development water will be retained in the tank until the first round of groundwater sampling is completed, anticipated to be approximately five to six

weeks after field work is initiated. After each groundwater sampling event, the waste water will be hauled away to a permitted facility by Frank's Vacuum Truck Service.

Prior to purging for collection of groundwater samples, water levels will be measured and recorded using an electronic interface probe. Water level measurements will include DTW and DTB. The date and time of each measurement will be recorded as well as the names and titles of the field personnel conducting the measurements.

Budget Assumptions

- 10 samples plus applicable QA/QC samples will be collected during each of the two sampling rounds. Samples will only be analyzed for TCL VOCs.
- Wells will be sampled using low flow techniques, generating approximately 10 gallons of purge water per well.
- Level D PPE will be worn during well sampling.

2.2.5 Subtask 2.4: Soil Vapor Intrusion Investigation

Because Soil Vapor Intrusion sampling needs to be conducted during the heating season, Subtask 2.4 will be performed as soon as NYSDEC issues the Notice to Proceed and prior to the other RI tasks.

URS will collect indoor and sub-slab air samples at 14 residential locations. NYSDEC and NYSDOH selected the locations based on the existing knowledge of the extent of the groundwater plume and from the results of the previous soil vapor intrusion sampling. At each structure, three samples will be collected: a sub-slab sample; a sample from the basement; and a sample from the first floor living area. The indoor air sampling effort requires three visits to each residence: one to perform a survey and inventory of the conditions within the house; a second to set up the sampling equipment; and a third to collect the samples. Table 2-4 summarizes proposed analytical parameters for this task.

Before sampling, URS will fill out the residential questionnaire from the latest version of NYSDOH's Soil Vapor Intrusion guidance document. This effort includes listing all possible contributors to indoor air contamination from common household items such as paints and lubricants. URS will use a low level photoionization detector (e.g. a ppbRAE) to measure whether these materials are emitting vapors. These findings will be recorded on the survey forms. During the survey visits, URS will provide instructions to the residents for preparing for the sampling (e.g. keeping windows shut, avoiding painting activities, etc.).

URS will select and prepare a sub-slab sample collection location by observing the condition of the building floor slab for apparent penetrations such as concrete floor cracks, floor drains or sump holes. The location will ideally be central to the building away from the foundation walls, cracks, and apparent penetrations. The proposed location will be reviewed with the occupant/owner and a description will be given on how the sampling will be performed. After receiving permission for sampling from the occupant/owner, the location of sampling will be marked, documented and photographed. URS will use a ppbRAE to screen indoor air and penetrations such as concrete floor cracks, floor drains, and sump holes prior to collecting the air samples. If practicable, features such as floor drains or sumps will be sealed during the collection of the sub-slab sample.

The basement and first floor samples will be taken from areas frequented by the residents. URS will place the summa canister intakes at breathing zone height where possible.

The samples will be collected using summa canisters using flow controller valves precalibrated at the laboratory. In general, areas near windows or other potential sources of air currents (drafts), and air supply vents will be avoided if possible. Sub-slab samples will be collected through Teflon or polyethylene tubing inserted through a hole in the slab drilled with an electric hammer drill. Complete sampling procedures for collection of the indoor air samples will be presented in the Field Activities Plan.

An outdoor air sample will be collected each day that indoor air sampling is taking place. The location will be selected so that it is relatively close to the residences being sampled on that day. The outdoor air samples will be collected over a 24-hour period.

Budget Assumptions

- Indoor air samples will be collected from up to 14 residences.

- URS will collect the indoor air samples using two two-person crews. URS will attempt to survey, inventory and sample all the houses in one week. This is based on one crew performing the surveys (questionnaires and inventories) in four days (nominally scheduled at three to four houses per day per team), and one team sampling a nominal four to five houses per day. Weekend work will be performed on an as-needed basis to address the needs of individual residences and to complete the three day process (survey/sample setup/sample collection) as necessary. On average, each field team member will log an estimated 60 hours per week. The field effort is estimated to last one week.

- URS will schedule appointments. While URS has historically been successful in developing full or nearly-full schedule for maximizing field crew productivity, achieving a "perfect fit" may not always be achievable and field crews may experience some mid-day down time between appointments. The field crews will be compensated for these down times should they occur, but will maintain productivity through processing paperwork and pursuing on-the-ground scheduling opportunities to the extent practical.

- Three samples will be collected at each residence: sub-slab; basement; and first floor. An outdoor ambient air sample will be collected every day that indoor air sampling is being performed.

- Samples will be collected using summa canisters fitted with 24-hour flow regulators. The indoor and ambient outdoor summa canisters will be analyzed by an off-site laboratory using EPA method TO-15, with a minimum-reporting limit of 0.25 ug/m^3

for TCE. The sub-slab summa canisters will be analyzed by an off-site laboratory using EPA method TO-15, with a minimum-reporting limit of 1.0 ug/m^3

- Preliminary sample results will be available within three weeks after the collection of each individual sample, with full data packages available one week after that. URS will provide unvalidated and validated results tables on a password-protected web site for NYSDEC and NYSDOH review prior to validated tables being produced.

- URS will perform a data usability review on all analytical data prior to release to NYSDEC and NYSDOH.

Deliverables

- Validated data tables provided electronically on an as-ready basis.

2.2.6 Subtask 2.5: Site Survey

Description of Work

A survey will be conducted to locate direct push borings, sampling points, monitoring wells and key site features. The existing site basemap will be updated with the new information. Vertical control will reference to the New York State Plane Coordinates, North American Vertical Datum of 1988 (NAVD 1988) and horizontal control will be referenced to the New York State Plane West, 1983 North American Datum (NAD 1983). The site survey will be conducted at the completion of the field activities. The elevation of the monitoring well casings will be established to within +/- 0.01 feet (NAVD 88). A notch will be placed in all interior casings to provide the reference point for future groundwater elevation measurements. All maps created during this project will be delivered to the NYSDEC in hard copy and in electronic file format. All surveying and mapping will be performed under the supervision of a New York State-licensed land surveyor.

Budget Assumptions

- The NYSDEC will obtain access agreements with the site owners of the site and adjacent properties, as identified by URS.

2.2.7 Subtask 2.6: Remedial Investigation Report Preparation

Description of Work

Upon completion of the Remedial Investigation (RI) field program and the receipt of analytical data, a report will be prepared which details the findings of the site investigation. The report will address:

- Site History/Background
- Summary of Previous Investigations
- Any Variation/Modification of Planned Scope of Work
- Contamination Assessment
- Data gaps (if any)
- Qualitative Human Health Exposure Assessment
- Data Quality Evaluation and submittal of DUSR
- Conclusions and recommendations

Data generated during the RI will be used to define the concentrations and extent of site contamination in subsurface soil and groundwater. The data of the RI will be reduced to findings and provided to the NYSDEC and NYSDOH for review. The findings will be used to determine if additional investigations and data are required, or if sufficient data exists to initiate the feasibility study. Data generated during the Soil Vapor Intrusion Study will be used to evaluate

the concentrations and extent of site contamination in subsurface soil and groundwater. The data will be reduced to findings and provided to the NYSDEC and NYSDOH for review. The findings will be used to determine if additional investigations and data are required, or if sufficient data exist.

URS will critically evaluate the patterns of groundwater and soil gas contamination to attempt to elucidate migration patterns, mechanisms, and barriers for transport of contaminant vapors from groundwater to indoor air. URS will identify where attenuation is higher or lower and seek for clues in the geologic record to describe why different behaviors are observed, if present.

URS will conduct a data quality evaluation for analytical data gathered as part of the remedial investigation. The laboratory selected for analysis of project samples will be certified under the New York State Department of Health Environmental Laboratory Accreditation Program (ELAP). URS will perform a limited validation of laboratory data, sufficient to prepare a Data Usability Summary Report (DUSR). The DUSR will be developed from a full NYSDEC ASP Category B deliverables package. Upon validation, all sample results will be grouped by media (e.g. soil, groundwater) and tabulated.

Once the RI Report is approved by the NYSDEC, the feasibility study will be initiated.

Budget Assumptions

- The *Remedial Investigation Report* draft will be available for NYSDEC review approximately 45 days following the completion of data validation.
- No migration modeling will be performed.
- The NYSDEC will review and comment on the *Remedial Investigation Report* draft within 30 days.

- After the draft RI report is reviewed by the NYSDEC and NYSDOH, a meeting will be held at the NYSDEC Region 7 offices to determine whether additional RI activities are required and to finalize the scope of the Feasibility Study.

- The final *Remedial Investigation Report* will be completed 30 days following the receipt of comments on the draft from the NYSDEC.

Deliverables

- Six double-sided copies of the final *Remedial Design Investigation Report* will be submitted to NYSDEC, as well as an electronic version of the report.

- Two double-sided copies of the final DUSR will be submitted to NYSDEC, as well as an electronic version of the report (final only).

2.3 Task 3 –Feasibility Study Report

The results of the remedial investigation will be used to develop a FS that will evaluate appropriate remedial technologies and remedial alternatives for the site. The FS will be initiated by using information generated in Tasks 1 and 2 to develop a list of potential remedial alternatives that may be used to remediate the site and/or mitigate risks to potential receptors. These alternatives will be screened based on effectiveness, implementability and cost. The initial list of remedial alternatives and the screened list, along with discussion and justifications, will be submitted in the form of a Preliminary Screening of Alternatives Letter Report to the NYSDEC Project Manager for review. Upon completion of this task, URS will meet with NYSDEC representatives to review the screening process and examine the alternatives that pass the screening. Following authorization from the NYSDEC Project Manager, the consultant will perform a detailed analysis of the remaining remedial alternatives. Each alternative will be first evaluated against the following criteria, and then a comparative analysis will be performed.

- Overall protection of human health and the environment

- Compliance with SCG's

- Long term effectiveness and permanence
- Reduction of toxicity, mobility and volume
- Short term effectiveness
- Implementability
- Cost

Upon review of the Draft FS report by the NYSDEC, URS will prepare a Final FS Report and, under a separate cover letter, recommend a preferred alternative that fulfills the requirements of 6NYCRR Part 375 and is consistent with the National Contingency Plan (NCP).

Deliverables

- Six double-sided copies of the draft and final *Feasibility Report* will be submitted to NYSDEC, as well as an electronic version of the report.

2.4 Task 4 – Public Meeting

After the *Feasibility Study Report* is finalized, a public informational meeting will be scheduled by NYSDEC to explain the findings of the study to the public. NYSDEC will organize and direct the meeting and URS personnel will attend the meeting to answer technical questions regarding methodologies and findings of the study. URS will supply visual aids (maps, slides, data sheets and photographs), as required, for the meeting.

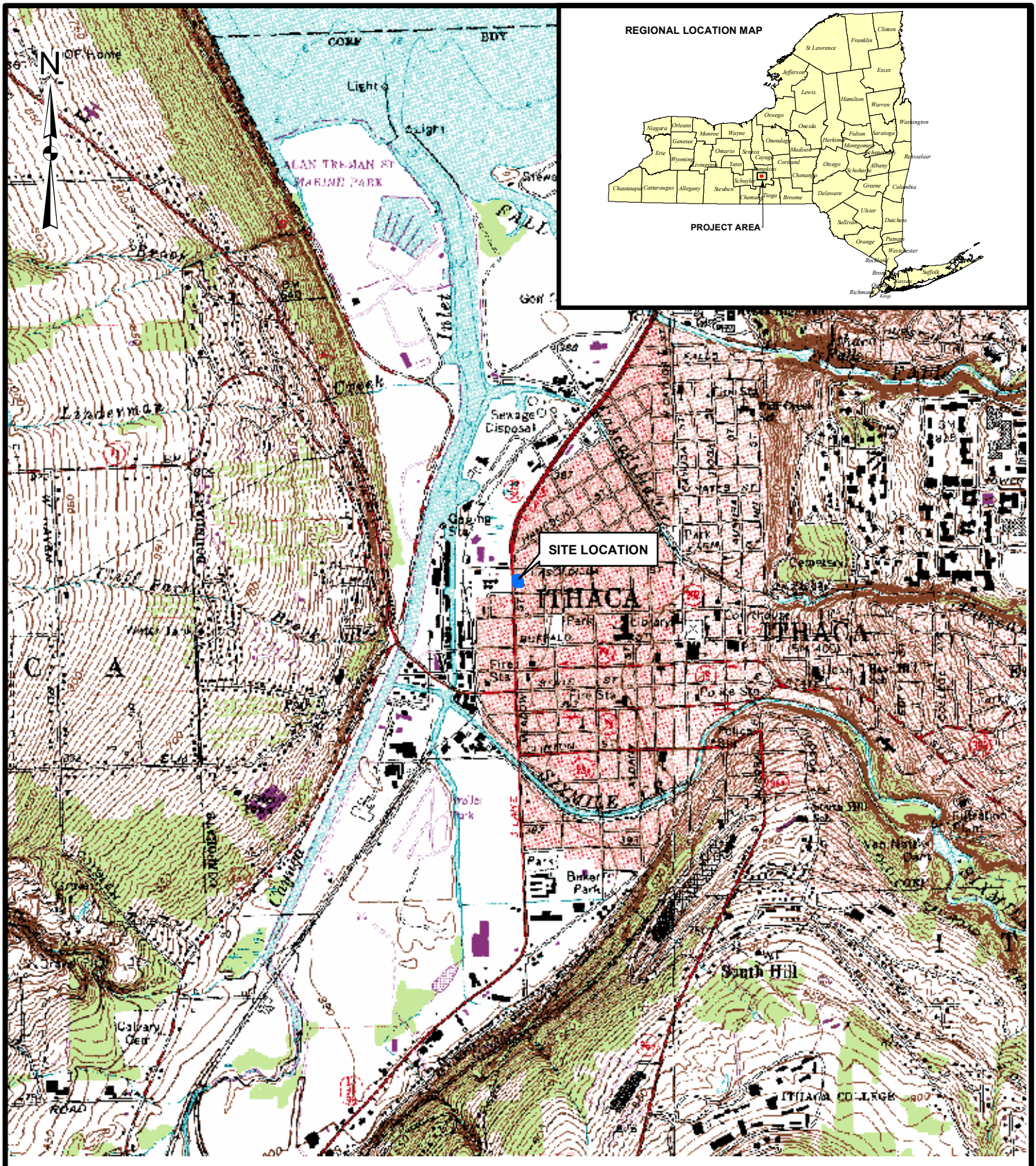
Budget Assumptions

- The URS Project Manager will attend one public meeting in Ithaca.

Deliverables

- Electronic copy of the public presentation.
- Up to four mounted posters describing the study's findings.

FIGURES



N:\11174258.00000\DB\GIS\Site Location Campagnalo Fig 1.mxd Date: 02/15/07 5:00:29 9M Name: Raza_A

URS

CAMPAGNOLO PROPERTY
SITE LOCATION MAP

FIGURE 1

Legend

- Site Boundary
- Proposed Geoprobe Boring Location

NOTES:

(1) 10 Geoprobe borings at approximate locations shown

(2) 10 Discretionary locations to be determined based on observed field conditions and locations of underground utilities / potential pathways

150 75 0 150 Feet

URS

CAMPAGNOLO PROPERTY
PROPOSED GEOPROBE LOCATION MAP

FIGURE 2-1

N:\11174258.00000\DB\GIS\Proposed Geoprobe Location.mxd 10/3/2007 1:39:25 PM Lumb, M

Legend

- Site Boundary
- Proposed Geoprobe Groundwater Screening Sample Location

150 75 0 150 Feet

URS

CAMPAGNOLO PROPERTY
PROPOSED GEOPROBE GROUNDWATER
SCREENING SAMPLE LOCATIONS

FIGURE 2-2

N:\11174258.00000\DB\GIS\Proposed Geoprobe GW Locations.mxd 06/07/2007

Legend

- Site Boundary
- Proposed Monitoring Well Location

150 75 0 150

Feet

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URS

CAMPAGNOLO PROPERTY
PROPOSED MONITORING WELL
LOCATION MAP

FIGURE 2-3

TABLES

Table 2-1
SUMMARY OF ANALYTICAL PARAMETERS (Life Science)
Campagnolo Property, Site Number 7-55-013
Work Assignment No. D004433-17

Parameter	Method Number / Reference[1]	Estimated Number of Samples	Field QA/QC Samples				Total No. of Samples
			Field Duplicates	MS/MSD	Rinsate Blanks	Trip Blanks	
I. Soils - Geoprobe							
TCL VOCs [2]	8260B	20	2	1	2	0	28
II. Groundwater - Geoprobe Screening							
TCL VOCs [2]	8260B	18	2	2/2	2	2	28
III. Soils - Monitoring Well							
TCL VOCs [2]	8260B	7	1	1/1	1	0	11
IV. Groundwater - Monitoring Well							
TCL VOCs [2] - Round 1	8260B	10	1	1/1	1	2	16
TCL VOCs [2]- Round 2	8260B	10	1	1/1	1	2	16
V. Soil - Waste Characterization							
TCLP Volatiles (Extraction) - ZHE	1311	1	0	0/0	0	0	1
TCLP Volatiles (Analysis)	8260B	1	0	0/0	0	0	1
TCLP Extraction - Non-ZHE	1311	1	0	0/0	0	0	1
TCLP Semivolatiles	8270C	1	0	0/0	0	0	1
TCLP Metals	6010B	1	0	0/0	0	0	1
PCBs	8082	1	0	0/0	0	0	1
Ignitability	1030	1	0	0/0	0	0	1
Corrosivity	9045C	1	0	0/0	0	0	1
Reactivity	Chapter 7, Section 7.3	1	0	0/0	0	0	1
VI. Groundwater - Waste Characterization							
TCLP Volatiles (Extraction) - ZHE	1311	1	0	0/0	0	0	1
TCLP Volatiles (Analysis)	8260B	1	0	0/0	0	0	1
TCLP Extraction - Non-ZHE	1311	1	0	0/0	0	0	1
TCLP Semivolatiles	8270C	1	0	0/0	0	0	1
TCLP Metals	6010B	1	0	0/0	0	0	1
PCBs	8082	1	0	0/0	0	0	1
Ignitability	1030	1	0	0/0	0	0	1
Corrosivity	9045C	1	0	0/0	0	0	1
Reactivity	Chapter 7, Section 7.3	1	0	0/0	0	0	1

NOTES:

1. NYSDEC Analytical Services Protocol (ASP), June 2000 Edition.
2. Target compound list VOCs as listed in USEPA OLM04.2.

TCL - Target Compound List
VOCs - Volatile Organic Compounds
SVOCs - Semivolatile Organic Compounds
NA - Not applicable
MS/MSD - Matrix spike/matrix spike duplicate

TABLE 2-2
CAMPAGNOLO PROPERTY
GEOPROBE GROUNDWATER SCREENING LOCATION RATIONALE

Location ID	Rationale
GP-01	Assess groundwater quality in the shallow overburden sidegradient from the site.
GP-02	Assess groundwater quality in the shallow overburden downgradient from the site.
GP-03	Assess groundwater quality in the shallow overburden sidegradient from the site.
GP-04	Assess groundwater quality in the shallow overburden sidegradient from the site.
GP-05	Assess groundwater quality in the shallow overburden downgradient from the site.
GP-06	Assess groundwater quality in the shallow overburden sidegradient from the site.
GP-07	Assess groundwater quality in the shallow overburden upgradient from the site.
GP-08	Assess groundwater quality in the shallow overburden downgradient from the site.
GP-09	Assess groundwater quality in the shallow overburden downgradient from the site.
GP-10	Assess groundwater quality in the shallow overburden sidegradient from the site.
GP-11	Assess groundwater quality in the shallow overburden downgradient from the site.
GP-12	Assess groundwater quality in the shallow overburden downgradient from the site.
GP-13	Assess groundwater quality in the shallow overburden upgradient from the site.
GP-14	Assess groundwater quality in the shallow overburden upgradient from the site.
GP-15	Assess groundwater quality in the shallow overburden downgradient from the site.
GP-16	Assess groundwater quality in the shallow overburden downgradient from the site.
GP-17	Assess groundwater quality in the shallow overburden sidegradient from the site.
GP-18	Assess groundwater quality in the shallow overburden sidegradient from the site.

TABLE 2-3
315 N. MEADOW STREET
MONITORING WELL LOCATION RATIONALE

Location ID	Type	Rationale
MW-01S	Shallow Overburden Monitoring Well	Assess groundwater quality in the shallow overburden upgradient from the site.
MW-01D	Deep Overburden Monitoring Well	Assess groundwater quality in the deep overburden upgradient from the site.
MW-02S	Shallow Overburden Monitoring Well	Assess groundwater quality in the shallow overburden immediately downgradient from the site.
MW-02D	Deep Overburden Monitoring Well	Assess groundwater quality in the deep overburden immediately downgradient from the site.
MW-03S	Shallow Overburden Monitoring Well	Assess groundwater quality in the shallow overburden across N. Meadow Street from the site.
MW-03D	Deep Overburden Monitoring Well	Assess groundwater quality in the deep overburden across N. Meadow Street from the site.
MW-04S	Shallow Overburden Monitoring Well	Assess groundwater quality in the shallow overburden downgradient to sidegradient and northwest of the site.
MW-05S	Shallow Overburden Monitoring Well	Assess groundwater quality in the shallow overburden onsite in the vicnity of the most contaminated soil sample collected from the site.
MW-06S	Shallow Overburden Monitoring Well	Assess groundwater quality in the shallow overburden sidegradient and south-southwest of the site nearby structures where elevated subslab soil vapor results were indicated.
MW-07S	Shallow Overburden Monitoring Well	Assess groundwater quality in the shallow overburden sidegradient and south-southwest of the site nearby structures where elevated subslab soil vapor results were indicated.

TABLE 2-4
SUMMARY OF ANALYTICAL PARAMETERS (Con-Test)
Remedial Investigation - Air Sampling
Campagnolo Property, Site No. 7-55-013
Work Assignment No. D004433-17

Parameter	Method Number / Reference[1]	Estimated Number of Samples [3]
I. Air Samples [3]		
TCL Volatiles - reporting limits (RL) 1 ug/m3 [2]	TO-15	16
TCL Volatiles - RL 1 ug/m3, TCE 0.25 ug/m3 [2]	TO-15	48
Summa Cans (6 Liter) rental	N/A	64
Flow Regulator/Vacuum Gauge - 24 Hr.	N/A	64
T-Fitting	N/A	2

NOTES:

1. Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, Second Edition, January 1999.
2. Holding time: 7 days from date of collection for polar compounds/14 days non-polar compounds based on USEPA Region II validation guidelines.
3. Analytical Services Protocol (ASP) Category B report w/edd - 4 week turn from validated time of sample receipt (VTSR).

TCL - Target Compound List as specified in OLMO4.2.
*All reporting limits must be less than 1 ug/m3, trichloroethene (TCE) must be less than 0.25 ug/m3.