REMEDIAL DESIGN/REMEDIAL ACTION WORK PLAN
XEROX BUILDING 801
(NYSDEC SITE NO. 828069)
HENRIETTA, NEW YORK

by

Haley & Aldrich of New York
Rochester, New York

for

Xerox Corporation
Webster, New York

File No. 32077-031
April 2006

25 April 2006
File No. 32077-031

Xerox Corporation
800 Phillips Road, Building 205-99F
Webster, New York 14580

Attention: Mr. Eliott Duffney

Subject: Remedial Design/Remedial Action Work Plan
Xerox Building 801
(NYSDEC Site No. 828069)
Henrietta, New York

Mr. Duffney:

This document comprises the work plan for supplemental remediation activities at the Xerox Corporation building 801 in Henrietta, New York.

This Work Plan contains the following:

- A brief site description and remediation history,
- A summary of site specific data supporting a large scale implementation of a specially formulated Hydrogen Release Compound (HRC®) for enhanced bioremediation under naturally high sulfate conditions found at the Xerox 801 facility,
- A design plan of the selected remediation technology, with a remedial goal of further reducing groundwater concentrations in the Lawn Area,
- A monitoring program designed to track the remediation implementation progress,
- A sub-slab vapor intrusion mitigation plan, and
- Reporting, notification, and scheduling information related to the proposed remediation activities.

Please contact the undersigned with any questions you may have and thank you for the opportunity to continue assisting with this project.

Sincerely yours,
HALEY & ALDRICH OF NEW YORK

Glenn M. White
Senior Scientist

Susan L. Boyle
Senior Engineer

Vincent B. Dick
Vice President

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1 INTRODUCTION

1.1 Site Description

1.1.1 Building and Property Description

Building 801 occupies a portion of the Xerox property located at 1350 Jefferson Road, approximately one half mile west of the intersection of Jefferson and Winton Roads in the Town of Henrietta, Monroe County, New York. The Xerox property is shown on the Project Locus, Figure 1 and Site Plan, Figure 2. The property is bounded by undeveloped land on the north, undeveloped and commercial properties on the east and west, and Jefferson Road on the south.

The Xerox property is an irregularly shaped parcel of approximately 86.6 acres comprised of the 50.4 acre original site and 36.2 acres acquired in 1993 which is located to the north of the original site. The main building on the property covers approximately 12 acres and is located on the southern half of the property. Outside the building, the majority of the site is covered by paved parking areas and roadways, while much of the Northern Area is covered by woody vegetation and weed growth.

This work plan will focus on supplemental work to be performed in the "Lawn Area" as this area contains the highest residual concentrations of contaminants as indicated by prior soil sampling performed and based on routine groundwater monitoring. The lawn area is described as the grassy area located north of the paved drive adjacent to the Northeast Corner, bounded on the west by the fire water tank and by the original property lines on the north and east (see Figure 3).

1.1.2 Subsurface, Geologic, and Groundwater Conditions

The geology of the Xerox Building 801 site is characterized by approximately 35 to 40 feet of soil underlain by shale bedrock (Vernon Shale). Competent bedrock exists between 30 and 40 feet below ground surface. The overburden soil consists of thin deposits of man-placed fill and glacially derived natural deposits.

The overburden consists of three dominant types of materials: fill, glacio-lacustrine deposits and glacial till. Fill material was placed over much of the site to raise the natural grade prior to construction of Building 801. The fill material exists in all areas at the site except the northern, wooded portion. Natural soil materials consisting of medium dense red-brown silty sand, often containing varying amounts of clay or gravel were imported to the site as fill. Lacustrine deposits underlie the fill and are variable in composition. Two separate lacustrine units exist: a silty to sandy layer encountered immediately below the fill and a clay layer situated throughout different portions of the site. Glacial till deposits overlie the shale bedrock. The till composition ranges from very dense, gray-brown, silty sand and dense, clayey silt to a very stiff, brown, silty clay with varying amounts of sand and gravel.

The local hydrogeologic setting of the Xerox Building 801 site consists of two distinct hydrogeologic units: an upper water-table aquifer and a lower confined aquifer which is overlain by a lacustrine clay aquitard. The area of concern for this work plan is within the upper aquifer and is discussed below.

Static groundwater levels in the upper aquifer lie within 2 to 5 feet below ground surface. The general direction of groundwater flow is towards the north. A groundwater velocity maximum of 4 x 10^{-5} cm/s was calculated at the site. This calculation was based on maximum hydraulic conductivity and horizontal gradient and an assumed minimum porosity.

The upper till of the upper aquifer has a hydraulic conductivity of approximately 10^{-6} to 10^{-7} cm/s. The hydraulic conductivity of the upper lacustrine silts/sands within the upper aquifer is approximately 10^{-4} to 10^{-5} cm/s. The extremely low conductivity of the upper till may cause it to act, along with the lacustrine clay layer, as a partially confined layer.

Horizontal gradients within the upper aquifer normally range from 0.001 to 0.023 feet per foot and vary with location on the site as well as seasonality. Vertical gradients within the upper aquifer are also present. Upward vertical gradients range between 0.01 and 0.25 feet per foot. The higher vertical gradients exist in summer months.

1.2 Nature & Extent of Contamination

The contamination at the B801 facility has impacted site soils, groundwater, and surface water. The nature and extent of contamination at the site was delineated through remedial investigations conducted in coordination with and approval by the NYSDEC. The site compounds of concern (COCs) include methylene chloride, 1,1-dichloroethene (DCE), 1,1-dichloroethane (1,1-DCA), cis-1,2-dichloroethene (cis-DCE), 1,2-dichloroethane (1,2-DCA), 1,1,1-trichloroethane (TCA), trichloroethene (TCE), tetrachloroethene (PCE), vinyl chloride (VC), and mineral spirits. The majority of the soil contamination occurs in the upper 8 to 12 feet of soils. The majority of the groundwater impacts are restricted to the site's upper (water table) aquifer. These findings have been previously reported to the agency in the Remedial Investigation Report (RI) dated May 1993. COCs have remained the same since 1993 as identified in routine site groundwater monitoring reports. The most recent groundwater analytical results dated December 2005 indicate that total VOC concentrations in the Lawn Area currently range from non-detect to 386,000 µg/L (see Figure 4). This work plan is intended to define the specific actions Xerox will take to further reduce the observed concentrations in this area as a final remedial action, as discussed with NYSDEC most recently on August 18, 2005.

1.3 Remediation History

Xerox has performed a variety of remedial actions at this site since the early 1990's. An Interim Remedial Measure (IRM) was implemented at the site in the spring of 1990. The IRM consisted primarily of pumping affected groundwater from five recovery wells through an activated carbon treatment system, and diverting clean surface water and runoff away from areas where chlorinated solvent and petroleum distillates were known to be present. The IRM groundwater recovery pumping and treatment system began operation in 1990 and ceased in 1994 with New York State Department of Environmental Conservation (NYSDEC) approval. In late 1994, a more robust IRM was implemented which consisted of the 2-PHASE™ Extraction technology that achieved removal of both groundwater and soil vapor under high vacuum.

A Record of Decision (ROD) naming 2-PHASE™ Extraction as the preferred remedial alternative was subsequently issued by the NYSDEC in April 1995. In addition to 2-PHASE™ Extraction, remediation of surface water, in the form of re-direction of stormwater runoff into a new ditch around the area of contamination was also identified as necessary and completed. The stormwater re-direction activities were completed in 1995 after issuance of the ROD. 2-PHASE™ extraction was performed until mass recovery rates attenuated, indicating the technology had reached the limits of its effectiveness.

A preliminary Monitored Natural Attenuation (MNA) Evaluation was performed in 1999 to determine if natural attenuation is occurring at the B801 site at a rate sufficient to be included as part of future remediation strategies, either as a stand-alone remedy or in conjunction with other technologies.

Additional evaluations included a prolonged (one-year) shutdown of the 2-PHASE™ system in the North-South Ditch Area (associated with the six-month system-wide Rebound Test) and quarterly sampling of several site wells.

The evaluations concluded:

- Natural Attenuation appears to be ongoing at the site and is supported by three lines of evidence: historical plume stability, presence of direct biodegradation breakdown products, and presence of a geochemical MNA footprint.
- Historical concentration trends indicate general stability of the B801 groundwater plume. Long-term shutdown for the rebound test and MNA monitoring did not cause substantial increases in wells outside the source area. Concentration increases were observed for wells in the source area during the rebound test.

Operation of the 2-PHASE™ extraction system was terminated on 14 November 2001 due to asymptotic low mass removal conditions and the lack of substantial rebound that indicated the system had reached the limits of its effectiveness. A total of 9,589 pounds of COCs were removed from the subsurface since the system's inception. Following the shutdown of the 2-Phase Extraction System in November 2001 a Focused Feasibility Study (FFS) was submitted to the NYSDEC to assess supplemental remedial activities. Based on the Risk Assessment included in the RI dated 1993 effects from exposure to compounds found onsite in soil and groundwater do not exceed USEPA recognized thresholds. The actions summarized by this work plan will further reduce site groundwater concentrations and further reduce the potential for risk. Therefore, supplemental remedial activities may position the site for a "No Further Action" decision to be endorsed by the department.

The FFS recommended evaluation of an "Enhanced Bioremediation and Monitored Natural Attenuation" (EBMNA) approach for the site, shifting the focus to the evaluation to EBMNA processes to assess whether these remediation methods are capable of materially enhancing the site remedial effort. The evaluation was performed in accordance with the NYSDEC approved "Enhanced Bioremediation and Monitored Natural Attenuation Work Plan" (EBMNA Work Plan) dated December 2001. The results were described in the "Report on Enhanced Bioremediation and Monitored Natural Attenuation Data Collection and Evaluation Program" (EBMNA Report).

As a result of the EBMNA evaluation program a pilot test injection of electron donor was performed at the site in November 2003 in accordance with the pilot test scoping document entitled "Field Pilot Test Injection of Electron Donor" (Pilot Test Plan) dated 2 October 2003. Pilot test performance monitoring was concluded during October 2005. The results of the pilot test indicated that reductive dechlorination is an active process stimulated by electron donor injection within the injection grid area.

This document summarizes the EBMNA process and provides the design and work plan for a large-scale injection of an electron donor at the Xerox 801 site as a method to further reduce the concentrations of chlorinated compounds in groundwater. In addition, as a final risk mitigation measure, this document provides the proposal for a sub-slab depressurization system in the site building to mitigate potential soil vapor concerns.

1.4 Work Plan Objectives

The objectives of this remedial action work plan are listed below and discussed in the following sections of this document.

- Summarize the pertinent findings the Enhanced Bioremediation/Monitored Natural Attenuation investigation process including the field pilot study.
- Provide justification for enhanced bioremediation via electron donor injection as the final selected remediation enhancement for the site.
- Provide a detailed remediation design and establish performance expectations.
- Discuss the procedures to be used to implement the selected site remedy.
- Provide a design for a sub-slab depressurization system to mitigate potential vapor intrusion concerns in the former centralized refurbishing center (CRC) portion of the building.
- Propose monitoring program that will be used to track remediation progress.
- Propose a schedule for implementation of amendment addition, installation of vapor intrusion abatement and submittal of associated documentation.

2 SUMMARY OF EBMNA EVALUATION PROCESS

2.1 EBMNA Approach

In accordance with the recommendations in the FFS described above, subsequent activities including a field pilot study were conducted to evaluate enhanced bioremediation and monitored natural attenuation processes. The purpose of this evaluation was to determine if bioremediation enhancing amendments could positively impact the subsurface biology so that significant improvement to site bioremediation processes could be realized.

The evaluation consisted of two components, an *in-situ* microbial assessment ("field component") and a laboratory microcosm study ("lab component"). The field component incorporated a recently developed device called a "Bio-Trap", which was used to collect microorganisms (biofilms) from site monitoring wells for analysis. The lab component consisted of a conventional microcosm study to assess the effectiveness of various biodegradation enhancing amendments including HRC-S (described below), benzoate, and inorganic nutrients.

The three primary objectives for the Bio-Evaluation were:

1. Determine health, viability, and activity of subsurface microorganisms.
2. Determine the genetic capability of the microorganisms to complete the reductive dechlorination pathway.
3. Evaluate biodegradation enhancing amendments (electron donors).

The specific results of this study are listed below in order of significance:

1. HRC induced anaerobic conditions and stimulated the growth of microorganisms including *Dehalococcoides sp.*
2. Findings suggest that naturally occurring sulfate levels may be inhibiting dechlorination.
3. Each electron donor tested in the lab microcosm study increased the rate of reductive dechlorination from parent chlorinated ethenes to cis-1,2-Dichloroethene.

The study indicated that the site is lacking electron donor and suggests that the addition of an electron donor will increase the rate of reductive dechlorination. Additionally, the study indicated that high naturally occurring sulfate levels could be a potential concern when electron donor is applied at field scale.

When electron donor was added to the subsurface, the entire microbial population was stimulated to some extent, thus sulfate gets reduced. Faster growing sulfate reducing bacteria (SRB) often out-competes slower growing dechlorinators for the added electron donor limiting the growth of dechlorinators. Sulfide is the product of sulfate reduction and is toxic to dechlorinating bacteria at concentrations greater than 100 mg/L (288 mg/L of sulfate must be reduced to produce 100 mg/L of sulfide). Therefore, electron donor addition must account for competition and potential toxic effects which prevent proliferation of dechlorinating bacteria.

Results from the EBMNA evaluation process indicated that a field pilot test injection of HRC was necessary to determine its potential effectiveness.

2.2 HRC-S Pilot Test

A specially formulated Hydrogen Release Compound (HRC®) referred to as "HRC-S" was injected at the site in November 2003 in accordance with the pilot test scoping document entitled "Field Pilot Test Injection of Electron Donor" dated 2 October 2003 (see Figure 5).

HRC® is a proprietary, environmentally safe, food quality, polylactate ester specially formulated for slow release of lactic acid upon hydration. The HRC® is injected into the subsurface contaminant plume and then left in placed where it passively works to stimulate contamination degradation. The process by which HRC® operates is a complex series of chemical and biologically mediated reactions. Initially, sugars contained in HRC stimulate aerobic population "overgrowth" that ultimately consumes oxygen and promotes onset of enhancement of anaerobic conditions. When in contact with subsurface moisture, the HRC slowly releases lactic acid. Indigenous anaerobic microbes metabolize the lactic acid producing consistent low concentrations of dissolved hydrogen. The resulting hydrogen is then used by other subsurface microbes (dechlorinators) to strip solvent molecules of their chlorine atoms and allow for further biological degradation. When in the subsurface, HRC continues to operate in this fashion for a period of time, which varies with site conditions.

HRC-S is a HRC® formulation for use at site with naturally high sulfate concentrations. HRC-S includes iron gluconate, which will bind with sulfide ions (which can be toxic to dechlorinating bacteria) creating ferrous sulfide precipitate. Once the sulfide has precipitated, it is no longer available or toxic to dechlorinating bacteria.

The pilot test performance was monitored at four well locations including VE-4, VE-12, RW-1, and VE-10. Groundwater samples were collected from the four locations on a quarterly basis using low-flow sampling methods. Samples were analyzed for MNA parameters as well as HRC-S breakdown products. Bio-Traps were also analyzed quarterly to assess the changes in the microbial community.

Enhancement of reductive dechlorination was evident at each test well location as indicated by the analytical results summarized below. Specifically,

- RW-1: Tetrachloroethene (PCE) concentration dropped to below detection. A decrease in TCE and increases in cis-1,2 DCE and vinyl chloride concentrations were observed. Increases in ethene and ethane concentrations indicated that reductive dechlorination of parent compounds PCE, TCE, and TCA were progressing to completion.

- VE-12: The most notable pilot test response to addition of HRC-S was apparent in VE-12. Compared to December 2004 data, significant reductions in DCA (31 mg/L to 16 mg/L) and VC (100 mg/L to 42 mg/L) concentrations were reported. Ethene concentration increased from 1900 mg/L to 4200 mg/L.

- VE-4: Data indicate an overall decrease in CVOC concentrations and an order of magnitude increase in chloride ion concentration (1170 mg/L to 11400 mg/L).

- VE-10: There have been slow but important changes in CVOC concentrations and MNA parameters in VE-10 since November 2003. TCE has now decreased to levels below detection and VC has increased to 1900 mg/L. The biological data indicates that enhanced biodegradation will likely continue as DHC numbers are increasing.

Supporting the overall positive trends in parent compound and breakdown product concentrations were the data from the Bio-Traps. Bio-Traps have proven to be an effective and valuable tool to evaluate the potential for and monitor the progress of enhanced bioremediation. Changes in the microbial population and community structure based on Bio-Trap analysis clearly indicated a beneficial microbial response to HRC-S addition in the pilot test area. Overall, changes to the microbial community included the following:

- Increased overall biomass (clear response to the HRC-S injection).

- Stimulation of the growth of Dehalococcoides ethenogenes (DHC). The presence of DHC proves that completion of the reductive dechlorination process for PCE, TCE and their associated biological breakdown products is possible. Increasing numbers of DHC organisms suggest that reductive dechlorination processes were stimulated by the addition of HRC-S.

- Stimulation of the growth of Dehalobactor Restricus (DHB). The presence of DHB proves that completion of the reductive dechlorination process for TCA and its associated biological breakdown products is possible. Increasing numbers of DHB organisms suggest that reductive dechlorination processes were stimulated by the addition of HRC-S.

- Fluctuating populations versus increasing populations of sulfate and iron reducing bacteria and fermentors are present overall, indicating that conditions are conducive to reductive dechlorination.

The results of the pilot test support the appropriateness of a larger scale injection of HRC-S in the lawn area of the Xerox Building 801 site. The objectives of this proposed application would be to enhance the appropriate microbial communities, attain further groundwater quality improvements, and reduce potential future site risks. The following sections detail the proposed injection design and methodology.

3 ADDITIONAL REMEDIATION DESIGN AND WORK SCOPE

3.1 Objectives

- Stimulate the ongoing natural reductive dechlorination process to further reduce the residual concentrations of chlorinated compounds in groundwater, and to a lesser extent in saturated soils. This enhancement is not expected to reach MCLs, but to improve groundwater quality and reduce the potential future impacts to receptors.

- Achieve "No Further Action" (NFA) status/classification from NYSDEC with continued requirements for semi-annual monitoring at the site through implementation of the remedial enhancement described below.

3.2 Injection Grid Design

The proposed injection area is approximately 7,700 square feet see Figure 6. Throughout the injection area, HRC-S will be installed in a grid formation (10-foot on center). This spacing will result in a total of approximately 100 injection points. HRC-S will be injected over the vertical interval of approximately 5-20 feet below ground surface.

Based on the pilot test injection experience and recommendations from Regenesis, HRC-S will be injected in each of the 100 points at a target rate of 4 pounds per vertical foot. The pilot test design estimated the quantity of residual mass present in the impacted groundwater and attempted to maximize the delivery of amendment based on this estimate. During the pilot test, a maximum of 5 lbs/ft of HRC-S was injected in some, but not all boreholes, as some could sustain that volume. An injection rate of 5 lbs/ft may result in aquifer rejection and subsequent waste of the product. Thus an application rate of 4 lbs/ft should provide the desired coverage, while maintaining good subsurface distribution. Based on field data and experience by Regenesis, an application rate of 4 lbs/ft has been shown at a wide range of sites to be the application rate necessary to achieve good subsurface distribution. Site conditions may limit the amount of HRC that can effectively be delivered. Based on the targeted coverage of impacted areas and anticipated HRC distribution over those areas, a significant improvement in groundwater quality conditions is expected as a result of this injection, with continued long-term attenuation due to stimulation of the appropriate indigenous microbial population.

3.3 Pre-injection Activities

3.3.1 2-Phase Demolition

Approximately 300 feet of existing aboveground 2-Phase Extraction System recovery piping will be removed to allow the injection in accordance with the grid design. Following removal, the piping will be crushed and properly disposed. The remainder of the 2-Phase system will be removed during site closure activities.

3.3.2 Baseline Groundwater Monitoring State Wells

Prior to HRC-S injection, baseline groundwater analysis will be performed in accordance with the groundwater sampling and analysis plan described in section 4 below.

3.4 Injection

HRC-S will be injected using direct push equipment (Geoprobe). This will involve advancing a 1.5 inch O.D. injection tooling drive rod to the bottom of the desired injection zone. Once the desired depth has been reached, an injection cap and rod grip handle will be installed and an injection hose will be connected to the tooling. After being pre-heated, the HRC-S will be injected through the tool tip under pressure using a Rupe Pump, or equivalent, as the tip is slowly removed from the borehole base. In normal direct-push type injection, pressure is achieved and maintained in the boreholes by friction between the injection tools and the formation. Pressure and the quantity of product injected are measured at the pump.

3.5 Potential Vapor Intrusion Mitigation

A net positive pressure inside the building relative to sub-slab pressure is the performance criterion that must be achieved to mitigate vapor intrusion concerns due to residual concentrations of COCs in soil and groundwater beneath the former CRC portion of the building. Xerox proposes to achieve net positive pressure within the perimeter of the affected area inside the building by installation of a sub-slab depressurization system. This work plan includes a conceptual sub-slab depressurization system design and layout in Appendix A.

A sub-slab communication test was completed on 15 March 2006 with representatives of Haley & Aldrich and Mitigation Tech to determine the most appropriate locations for depressurization points and fans. The testing consisted of applying a known sub-slab vacuum at the intended suction point and measuring sub-slab response at two locations, one at least ten and the other at least twenty feet from each suction point to determine the extent of potential communication/radius of influence and to measure the differential pressure between the indoor ambient air space and the sub-slab air space.

The results of this test dictate the type of equipment and piping configuration used in the system. A minimum differential pressure of 0.002 inches of water between the ambient and sub-slab measurements at 20 feet (from the suction point) was used as a target objective in developing the system requirements. The results of this sub-slab communication test and performance requirements for the proposed sub-slab depressurization system design are included in the Appendix A.

Upon installation of the system, additional testing would be performed under operating conditions to confirm sufficient coverage over the design area. If insufficient coverage is identified, the system design will be re-visited to address the modifications necessary to attain the appropriate coverage.

3.6 Waste Management Plan

Based on the experience during the pilot test, we do not anticipate soil cuttings and/or groundwater will be generated during the injection process. All personal protective equipment, such as disposable gloves and Tyvek suites, will be disposed of in onsite dumpsters.

3.7 Health & Safety Plan

A Health and Safety plan for the work described herein is contained in Appendix B.

4 REMEDIATION PERFORMANCE MONITORING PROGRAM

4.1 Groundwater Sampling and Analysis Plan

The following groundwater sampling and analysis plan (SAP) was designed to monitor the performance of the HRC-S injection. Monitoring locations include eight existing wells within or near the injection grid area. The focus of the groundwater analyses performed will be to monitor the longevity of HRC-S presence and impact by monitoring its breakdown products (i.e. metabolic acids) and dissolved and total organic carbon concentrations. This revised SAP will also evaluate the reductive dechlorination process by assessing COC's concentrations and breakdown product concentrations, and identify potential limiting factors of the reductive dechlorination process (e.g. sulfide concentrations and methanogenesis). Additional water quality parameters will be collected at the well head. The proposed SAP in Table I includes wells currently sampled on a semi-annual schedule as well as the proposed remediation performance monitoring plan (see Figures 2 and 6 for monitoring well locations).

The following QA/QC measures will be followed for the remediation performance monitoring program.

Routine Sampling:

- Field and Method Blank sample analysis at a rate of 10% of the sample event population.
- Analysis of Matrix Spike/Matrix Spike Duplicate and one Duplicate sample per sampling event.

Bio-Traps and associated molecular biological analyses will also be incorporated in the performance monitoring plan. DNA-based analyses will be used to monitor changes in the microbial community. DHC and DHB will be quantified as well as iron and sulfate reducing bacteria and methanogens which compete with dechlorinators for electron donor (see Table I).

4.2 Groundwater Sampling Protocol

Groundwater samples will be collected from the selected monitoring wells utilizing Low Stress/Low Flow Sampling Methods, as described in EPA's Low Flow (Minimal Drawdown) Groundwater Sampling Procedures, EPA/540/S-95/504, April 1996 included in Appendix C. This method will be utilized to obtain natural attenuation parameters that are more representative of in-situ aquifer conditions than samples obtained by conventional purging techniques.

4.3 Sampling Schedule

Sampling will occur semi-annually (twice per year) coinciding with typical seasonal high water periods during the months of April or May and seasonal low water periods during September or October. Water level monitoring will be performed quarterly to track seasonal changes. Based on Haley & Aldrich's experience with HRC injection at this site and others with similar dense soil conditions we anticipate the longevity of HRC-S in the subsurface will be approximately three years at which time the performance monitoring program (analytes and frequency) will be re-evaluated.

5 REPORTING & SCHEDULING

The field work to implement the activities discussed in this work plan could begin within two weeks after NYSDEC's approval of this work plan.

Based on our experience at this site and the proposed injection grid, completion of the field portion of the program including collection of baseline groundwater parameters, is expected to take approximately three weeks.

A remediation construction report will be prepared and submitted to the NYSDEC within three months after completion of the injection.

Remediation progress reports will correspond with semi-annual performance monitoring events. Progress reports will be submitted to NYSDEC within three months subsequent to each monitoring event.

6 CERTIFICATION

Haley & Aldrich of New York hereby states that, to the best of its knowledge and opinion, the supplemental activities described and proposed in this work plan, entitled "Remedial Design/Remedial Action Work Plan" is being undertaken in accordance with NYSDEC's guidelines and with the agency's prior verbal agreement. This work also complies with generally accepted environmental engineering consulting practices with the intent to further improve groundwater quality at the subject site.

The sub-slab depressurization system performance requirements have been completed by Haley & Aldrich based on field work performed by a certified radon mitigation abatement specialist, Mitigation Tech., who will perform the installation. The installation contractor will provide appropriate Environmental Protection Agency and National Environmental Health Association certifications for compliance to vapor intrusion guidance to NYSDEC upon completion of their work, if required.

Paul Tornatore, P.E. — Date

Vice President

7 REFERENCES

1. "Field Pilot Test Injection of Electron Donor, Xerox Building 801, Henrietta, NY," dated 2 October 2003. Prepared for Xerox Corporation, prepared by Haley & Aldrich of New York.

2. "Focused Feasibility Study, Building 801, Henrietta, NY" dated November 2001. Prepared for Xerox Corporation, prepared by Haley & Aldrich of New York.

3. "Remedial Investigation, Xerox Building 801, Henrietta, NY" dated May 1993. Prepared for Xerox Corporation, prepared by Haley & Aldrich of New York.

4. "Report on Enhanced Bioremediation and Monitored Natural Attenuation Data Collection and Evaluation Program, Xerox Building 801, (NYSDEC Site No. 828069), Henrietta, NY" dated September 2003. Prepared for Xerox Corporation, prepared by Haley & Aldrich of New York.

Xerox Incorporated - Building 801
Henrietta, New York
Remediation Performance Monitoring Program
Groundwater Sampling and Analysis Plan

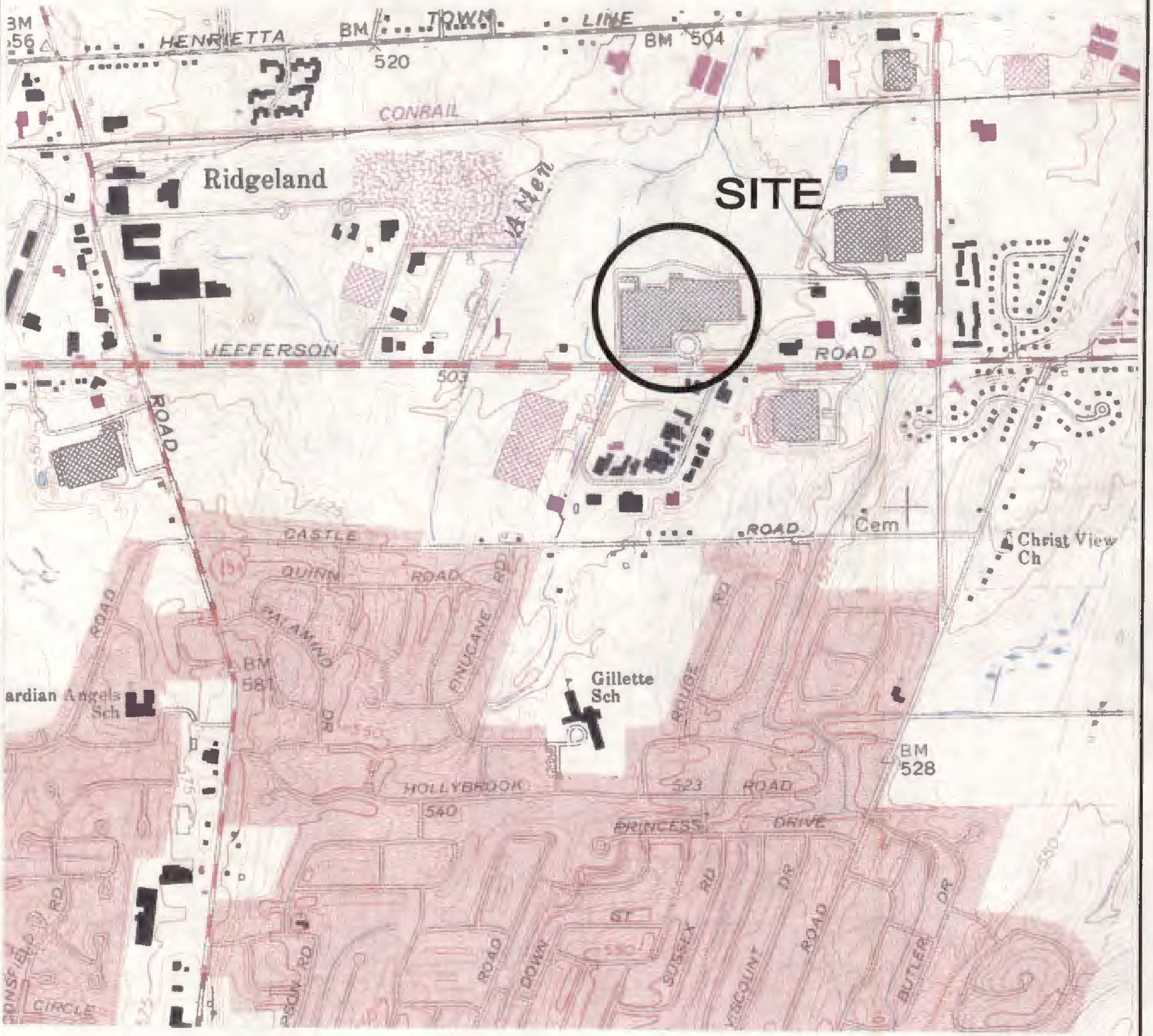
Table 1

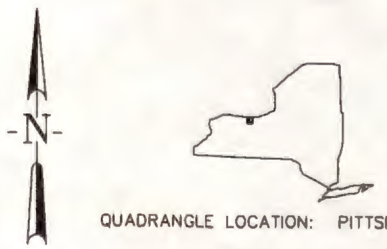
WELL ID	Chlorinated VOCs	Dissolved Gasses	MNA-type Parameters (3, 4)	Bio Traps (8)	Metabolic Acids	Field Parameters (6, 7)	Quarterly Water Level Monitoring
RW-1	x*	x	x	x	x	x	x
RW-4	x						x
VE-2	x	x	x	x	x	x	x
VE-4	x	x	x	x	x	x	x
VE-5	x	x	x	x	x	x	x
VE-6	x	x	x	x	x	x	x
VE-10	x	x	x	x	x	x	x
VE-12	x	x	x	x	x	x	x
VE-15	x	x	x	x	x	x	x
MW-2	x						x
MW-10	x						x
MW-13S	x						x
MW-16	x						x
MW-18S	x						x
MW-19	x						x
MW-24S	x						x
SW-29	x						x
SW-34	x						x
SW-35	x						x

Notes:

1. Chlorinated VOCs will be analyzed by EPA Method 8260.
2. Dissolved Gases - methane, ethane, ethene. Analyzed by Method ASTM D1945 (need low detection limits - 5 ppm)
3. TOC (EPA 9060) - dissoved carbon, SOC
4. Nutrients and Electron Acceptors - Sulfate (EPA 300.0), sulfide (total, EPA 376.2), iron (total EPA 200.7), chloride (EPA 9056).
5. Volatile/Metabolic Acids - including lactic, acetic, pyruvic, propionic, and butyrc acids. Method HPLC/UV.
6. Field Parameters include dissolved oxygen, temperature, conductivity, oxidation-reduction potential, and pH
7. Field/Wellhead measurements - Fe+2, dissolved (Hach colorimetric ModelIR-18C), alkalinity (Hach Model AL-DT, Method 8203), CO2 (Hach - CA - DT)
8. Bio-Trap analyses, Bio-Dechlor Census - 4 Panel (Dehalococcoides, Dehalobacter)

* Indicates that EPA Method 8015 (mineral spirits) is also performed
SW indicates surface water samples





QUADRANGLE LOCATION: PITTSFORD, N.Y.

HALEY & ALDRICH

UNDERGROUND ENGINEERING & ENVIRONMENTAL SOLUTIONS

XEROX CORPORATION
BUILDING 801
HENRIETTA, NY

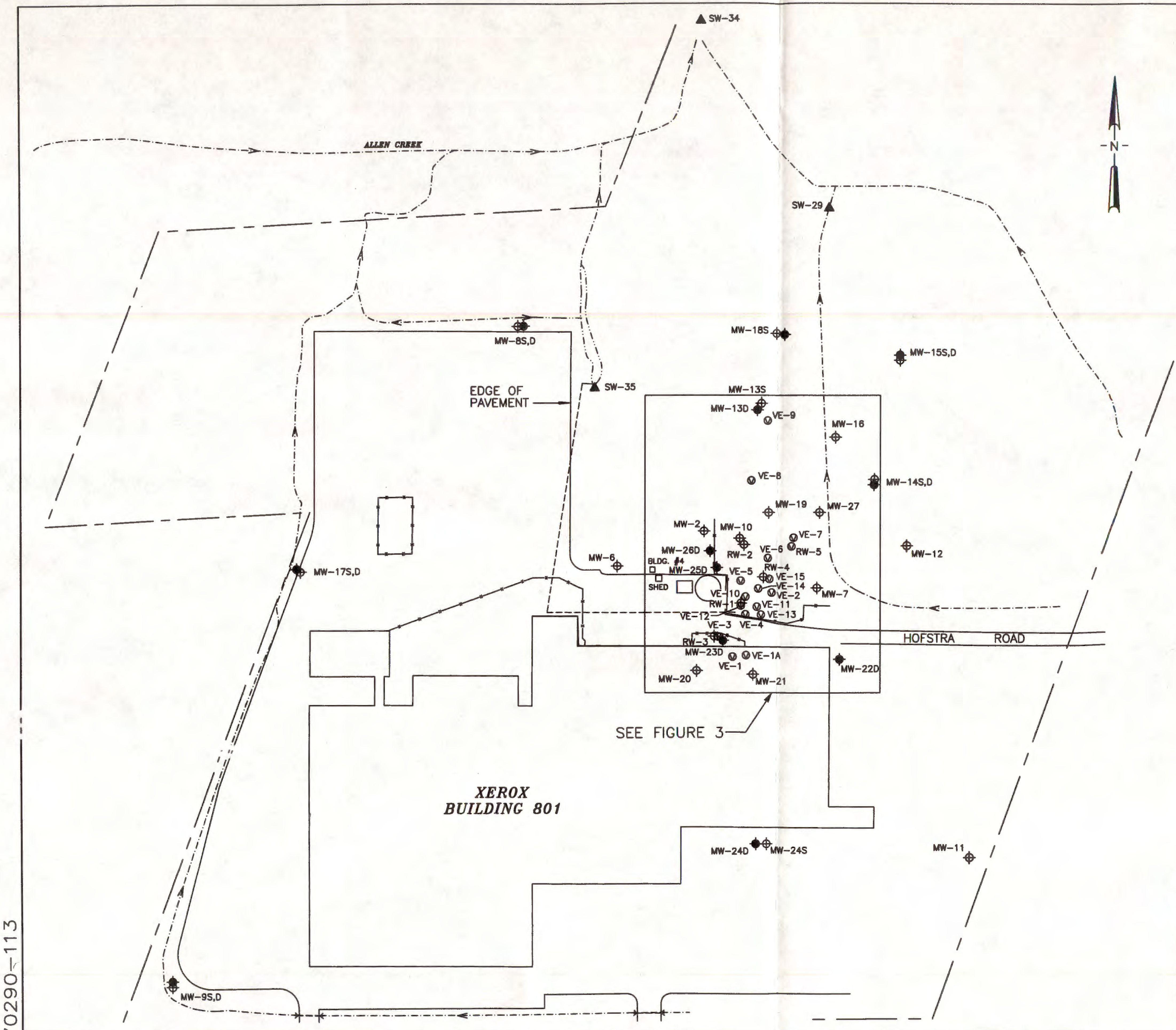
PROJECT LOCUS

SCALE: 1" = 2000'

FEBRUARY 2001

FIGURE 1

70290-113



LEGEND:

MW-1S	SHALLOW GROUNDWATER MONITORING WELL
MW-1D	DEEP GROUNDWATER MONITORING WELL
SW-28	SURFACEWATER SAMPLING LOCATION
VE-1A	2-PHASE EXTRACTION WELL
	STORM SEWER
	STREAM W/ DIRECTION OF FLOW
	PROPERTY LINE

NOTES:

1. BASEMAP DATA FILE PREPARED BY BERGMANN ASSOCIATES, ROCHESTER, NEW YORK UNDER DIRECT CONTRACT WITH XEROX CORPORATION.
2. STREAM LOCATIONS ARE APPROXIMATE.
3. PIEZOMETERS SHOWN ON FIGURE 3.
4. REFER TO TEXT FOR ADDITIONAL INFORMATION.

0 200 400
SCALE IN FEET

XEROX CORPORATION
BUILDING 801
HENRIETTA, NEW YORK

SITE PLAN

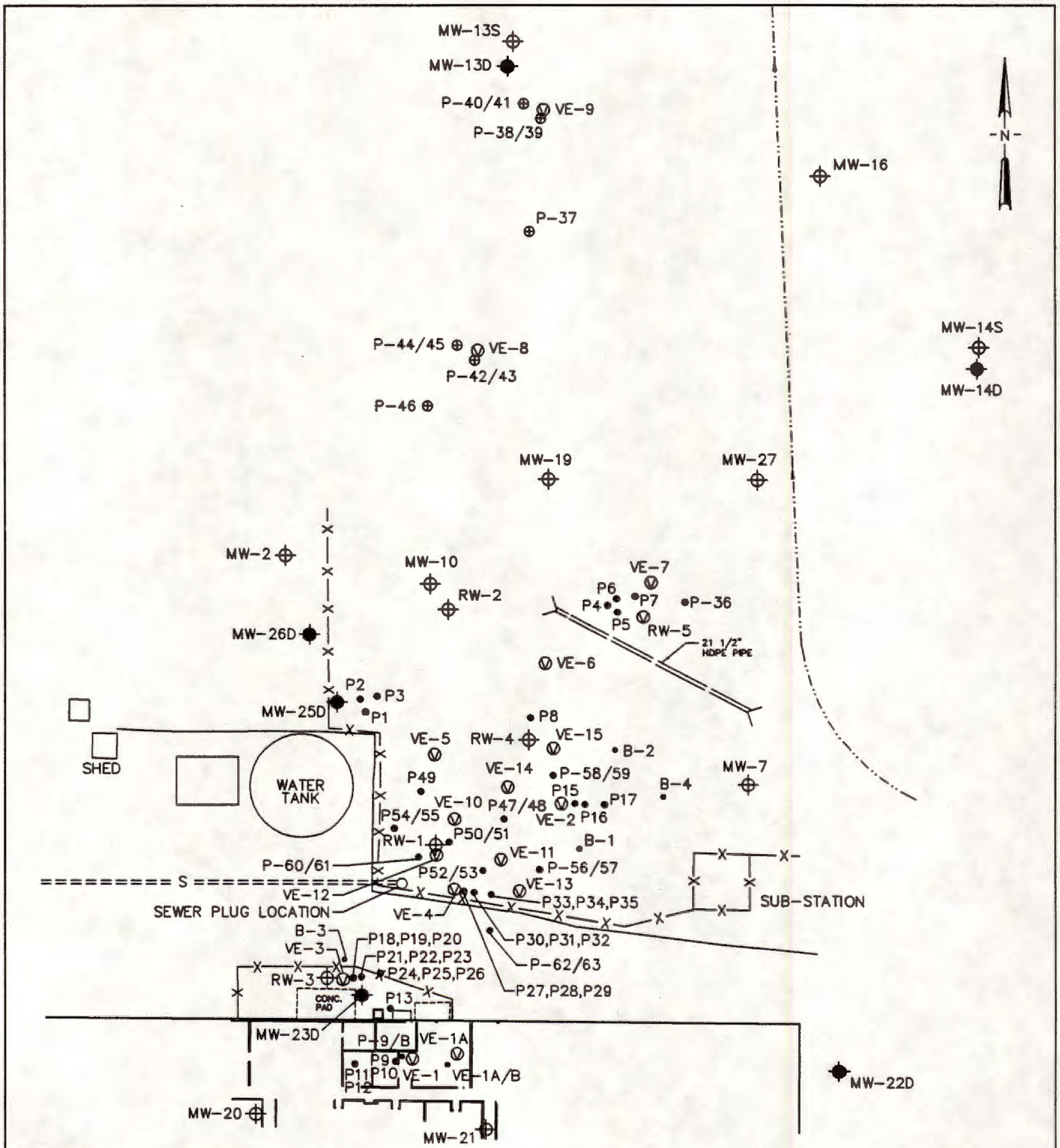
SCALE: AS SHOWN

FEBRUARY 2001

FILENAME: SITE.DWG

FIGURE 2

70290-113



LEGEND:

B-1 •	BORING
MW-20	SHALLOW MONITORING WELL
MW-20	DEEP MONITORING WELL
P18 ⊕	PIEZOMETER
VE-1A	2-PHASE EXTRACTION WELL
—·-→·—	STREAM WITH DIRECTION OF FLOW

0 75
SCALE IN FEET

NOTES:

1. LOCATIONS ARE APPROXIMATE.
2. STORM-SEWER PLUG INSTALLED 18 AUGUST 1993.
3. SEE TEXT FOR ADDITIONAL INFORMATION.

HALEY & ALDRICH

UNDERGROUND ENGINEERING & ENVIRONMENTAL SOLUTIONS

XEROX CORPORATION
BUILDING 801
HENRIETTA, NEW YORK

LAWN AREA WELL LOCATION

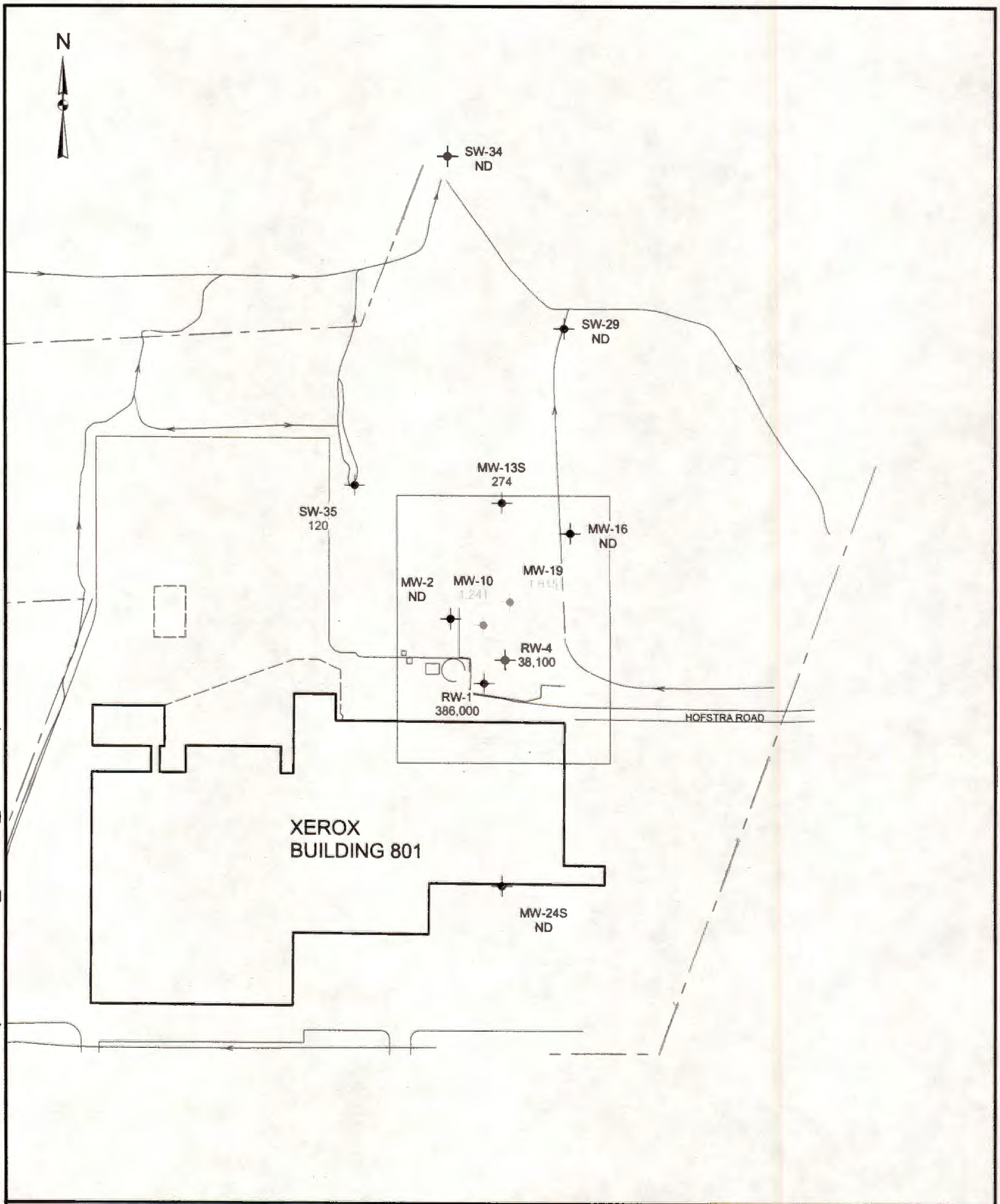
SCALE: AS SHOWN

FEBRUARY 2001

FILENAME: FIG3.DWG

FIGURE 3

70290-113



LEGEND:

TOTAL TARGET VOLATILES (UG/L)

- NOT DETECTED (ND)
- >= ND and <=9.99
- >=10 and <=99.99
- >=100 and <=999.99
- >=1,000 and <=9,999.99
- >10,000

0 125 250 Feet

NOTES:
1. DATE OF VOC SAMPLING: 22 DECEMBER 2005.
2. VE-4, VE-10, VE-12 NOT SAMPLED DURING THIS EVENT.

HALEY & ALDRICH

UNDERGROUND ENGINEERING & ENVIRONMENTAL SOLUTIONS

XEROX CORPORATION
BUILDING 801
HENRIETTA, NEW YORK

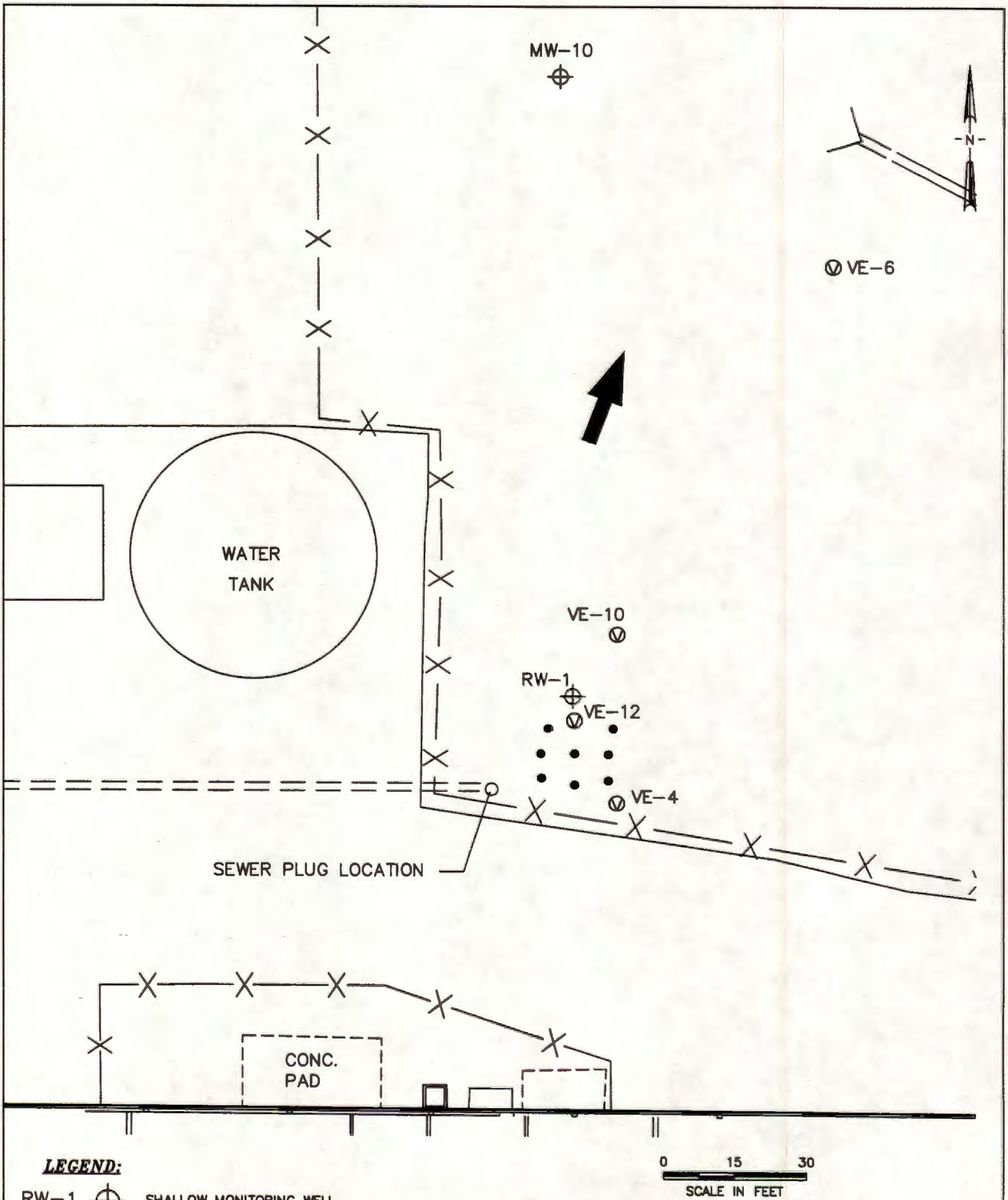
TOTAL TARGET VOLATILES IN GROUNDWATER FOURTH QUARTER 2005

SCALE: AS SHOWN

FEBRUARY 2006

FIGURE 4

70290-123 2005_Q4_ POSTINGMAP.MXD (XER801\SRA_XEROX_801.MDB)



LEGEND:

RW-1 — SHALLOW MONITORING WELL

VE-1A — FORMER 2-PHASE EXTRACTION WELL

ELECTRON DONOR INJECTION POINT

GROUNDWATER FLOW DIRECTION

NOTE:

ELECTRON DONOR INJECTION LOCATIONS ARE APPROXIMATE.

HALEY & ALDRICH

XEROX CORPORATION
BUILDING 801
HENRIETTA, NEW YORK

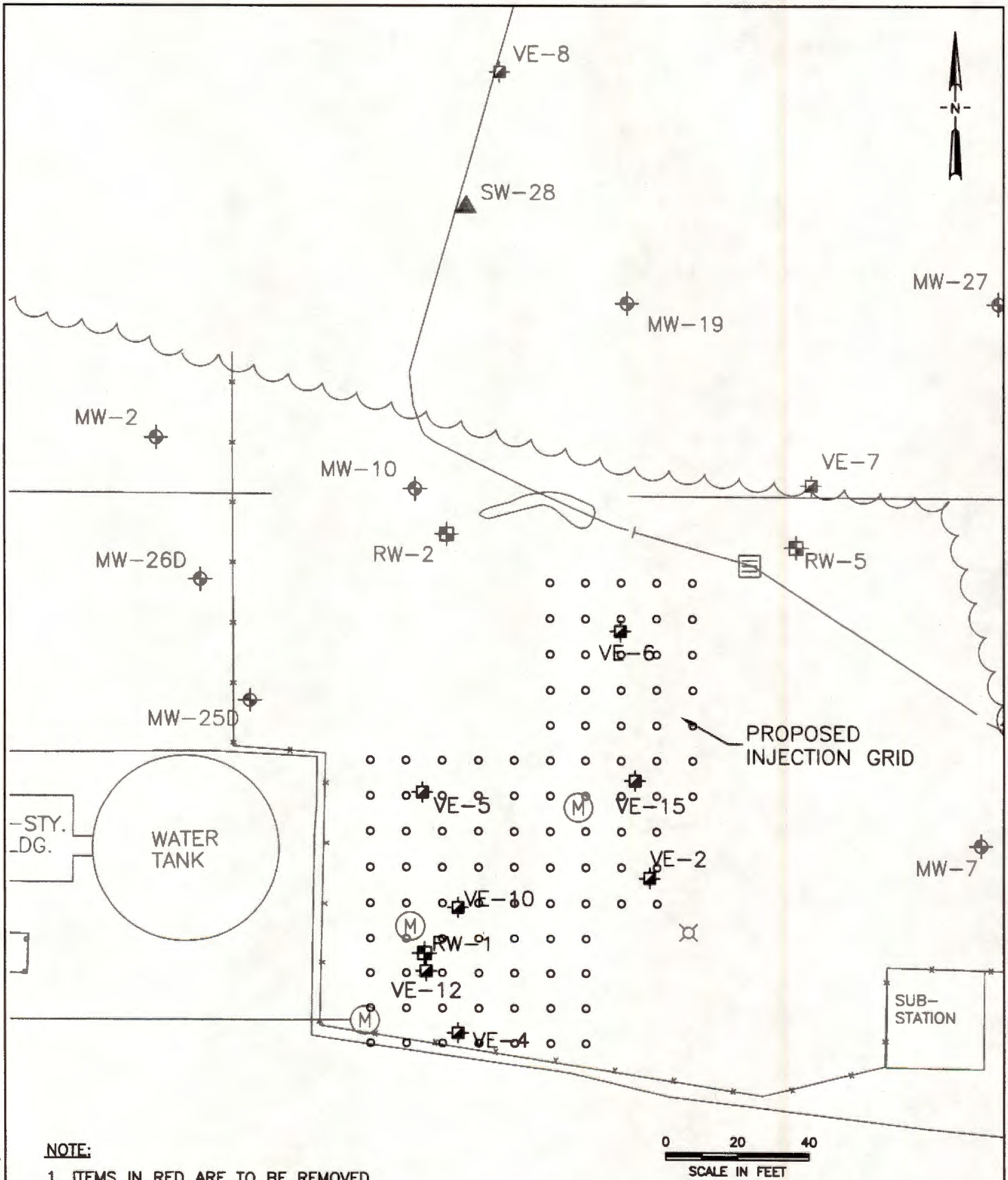
ELECTRON DONOR
PILOT TEST INJECTION

SCALE: AS SHOWN

NOVEMBER 2003

FIGURE 5

70290-120\PILOT.DWG



NOTE:

1. ITEMS IN RED ARE TO BE REMOVED.
2. HRC INJECTION POINTS – 100 COUNT.

LEGEND:

- Ⓜ MANHOLE
- • PROPOSED HRC INJECTION POINT
- ¤ FIRE HYDRANT

HALEY & ALDRICH

UNDERGROUND ENGINEERING & ENVIRONMENTAL SOLUTIONS

XEROX CORPORATION
BUILDING 801
HENRIETTA, NEW YORK

PROPOSED HRC-S
INJECTION GRID

SCALE: AS SHOWN

MARCH 2006

FIGURE 6

PROJECTS\XER\XER801\PROPOSED FS GRID WITH 2 PHASE.DWG

APPENDIX A

Potential Sub-Slab Soil Vapor Intrusion Mitigation Work Plan

mitigation tech *radon correction specialists*

April 3, 2006

Mr. Scott Amrozowicz
Haley & Aldrich of New York
20 Town Center Dr., Suite 200
Rochester, NY 14623
Via fax: 585-486-8222
Via email:

Re: **Project No. 32077**
Xerox Corp., Bldg 801

Soil Vapor Intrusion Mitigation System
Results of Pilot Test
Recommendations for Work Plan

Dear Scott:

Background

On March 15, 2006, we performed a series of sub-slab air communication tests at this location to determine the general appropriateness of the technique known as sub-slab ventilation, and sub-slab depressurization (SSD), to the mitigation of soil vapor intrusion, and further to predict appropriate suction point configuration and the performance requirements of vacuum fans. The specific objective of this procedure is to specify a design that will provide a minimum average air pressure differential of .002 water column inches to substantially all designated areas of the sub-slab or sub-floor by installing efficient independent sub-slab vapor extraction systems of the type commonly used in the radon mitigation industry. Testing was done under the general supervision of Mr. Scott Amrozowicz of Haley & Aldrich of New York

Test Procedure

The test procedure consisted of drilling small diameter test holes into the slab at potential typical system suction point locations and at likely useful vacuum monitoring points. We drilled enough holes to gain a working understanding of the sub-slab characteristics of each particular section. We applied a known vacuum (2.6 water column inches) to various points and made differential pressure measurements at various neighboring points to estimate, by interpolation or extrapolation, the expected area of influence for each point. The known vacuum applied represents a conservative simulation of a higher performance (i.e., over 3 inches of water column) soil vapor extract fan. We have plotted our findings on a foundation sketch that can serve as an installation guideline. We have repaired all test holes with urethane caulk (MSDS available) applied over a closed cell backer rod. Additionally, we have examined the floor surfaces for material defects and potential leaks that would diminish the effectiveness of the SSD system and have included herein provisions to rectify these.

Test results (see attachment for point locations)

Vacuum pt	Test point	Reading in wci	Distance in feet
1	2	0	24
1	3	0	24
2	3	.045	10
3	4	.004	25
2	4	.001	23
5	1	0	24
5	2	0	22
6	2	0	21
5	3	0	16
6	1	.003	14
6	2	.025	10
6	3	.004	12
6	5	0	14
7	5	.004	15
8	9	.001	2
4	9	0	32

Work Plan Overview

Based on these findings and upon our understanding of the objective, our work plan proposal consists of the installation of two independent multi-point depressurization systems. Fan locations are based on proximity and accessibility to proposed suction points and on practical considerations. Suction point locations are based in part on creating a minimum impact on client's premises. Final suction point location is subject to field determination and to approval of supervising personnel. The proposed system will provide measurable influence to the non-office area of the first row of sub-slabs sections bounded by column rows BC to BG.

Proposed Work Plan

NYSDOH Guidance Compliance

This work plan shall comply with Section 4 of the NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York, dated February, 2005.

Furnish and Install:

- Professional design and supervision; post installation performance evaluation to measure and document extent and degree of sub-slab pressure influence
- (2) RADONAWAY GP-501 [or as determined by field evaluation] high performance centrifugal in-line soil vapor extract fans, (150w average continuous draw) to provide sub-

slab ventilation via 3" schedule 40 pvc pipe to sidewall exit vertical discharge, at each of two locations as follows: 1) Ground water treatment area adjacent to area 7700, 2) secure equipment room west of ground water treatment area

- Suction points per fan as follows: (2) cavities in sub-slab to 3" pvc pipe, with urethane seal, located within 15' of base of fan pipe building entry point and per consultation with project engineer; all locations subject to field approval by client, client's consultants and DOH representative
- (2) Vacuum indicators on vertical pipe runs
- Balancing valves as required
- Height of discharge stacks: 2' above roof line
- Customer to provide 117v power source (2 amp maximum draw) in immediate vicinity (min 1', max 4') of each fan concurrent or prior to mechanical installation
- Vacuum testing to measure effective pressure field and report
- Miscellaneous sealing with urethane caulk
- Excluded costs: Permits an portion of work requiring licensed electrical contractor
- Workmanship to best standards of trade
- Three year warranty; labor and installed components; although system design is based on achieving a sufficient pressure differential, no specific warranty of effectiveness – effectiveness shall be determined by continuing field measurement provided by others; additional or modified suction points or fans may be required by others at other's expense

System Description

The purpose of the system is to maintain a depressurized zone below the designated portion of the slab or floor compared to the ambient air pressure above. The system shall be of the type typically used in radon mitigation, shall be designed and constructed in accordance with the standards detailed in the following documents: US Environmental Protection Agency (EPA) 402-R-93-078, Radon Mitigation Standards; NYS DEC document, Guidance for Evaluating Soil Vapor Intrusion in the State of New York. Actual configurations of the suction holes and pipe runs will be determined by the Contractor in the field.

System Design

1.1 The sub slab depressurization system shall be designed and installed as permanent, integral addition to the buildings.

1.2 The sub slab depressurization unit shall be designed to avoid the creation of other health, safety, or environmental hazards to building occupants, such as back drafting of natural draft combustion appliances.

1.3 The sub slab depressurization unit shall be designed to maximize soil vapor reduction above the slab and in consideration of the need to minimize excess energy usage, to avoid compromising moisture and temperature controls and other comfort features, and to minimize noise.

1.4 The sub slab depressurization unit and its components shall be designed to comply with the laws, ordinances, codes, and regulations of relevant jurisdictional authorities, including applicable mechanical, electrical, building, plumbing, energy, and fire prevention codes.

System Installation

General Requirements

2.1.1 All components of the sub slab depressurization unit shall be installed in compliance with the applicable mechanical, electrical, building, plumbing, energy and fire prevention codes, standards, and regulations of the local jurisdiction.

2.1.2 The Contractor or Supervising Engineer shall obtain all required local licenses and permits, and display them in the work areas as required by local ordinances.

2.1.3 Where portions of structural framing material must be removed to accommodate vent pipes, material removed shall be no greater than that permitted for plumbing installations by applicable building or plumbing codes.

2.1.4 Where installation of the sub slab depressurization unit requires pipes or ducts to penetrate a firewall or other fire resistance rated wall or floor, penetrations shall be protected in accordance with applicable building, mechanical, fire, and electrical codes.

Vent Pipe Installation Requirements

2.2.1 All joints and connections in sub slab depressurization unit using plastic vent pipes shall be permanently sealed with adhesives as specified by the manufacturer of the pipe material used. Joints or connections in other vent pipe materials shall be made airtight.

2.2.2 Vent pipes shall be fastened to the structure of the building with hangers, strapping, or other supports that will adequately secure the vent material. Existing plumbing pipes, ducts, or mechanical equipment shall not be used to support or secure a vent pipe.

2.2.3 Supports for vent pipes shall be installed at least every 6 feet on horizontal runs. Vertical runs shall be secured either above or below the points of penetration through floors, ceilings, and roofs, or at least every 8 feet on runs that do not penetrate floors, ceilings, or roofs.

2.2.4 To prevent the blockage of air flow into the bottom of vent pipes, these pipes shall be supported or secured in a permanent manner that prevents their downward movement to the bottom of suction pits or sump pits, or into the soil beneath an aggregate layer under a slab.

2.2.5 Vent pipes shall be installed in a configuration that ensures that any rain water or condensation within the pipes drains downward into the ground beneath the slab.

2.2.6 Vent pipes shall not block access to any areas requiring maintenance or inspection. Vents shall not be installed in front of or interfere with any light, opening, door, window or equipment access area required by code. If vent pipes are installed in sump pits, the system shall be designed with removable or flexible couplings to facilitate removal of the sump pit cover for sump pump maintenance.

2.2.7 To prevent re-entrainment of vapors, the point of discharge from vents of fan-powered soil depressurization and block wall depressurization systems shall meet all of the following requirements: (1) be above the eave of the roof, (2) be ten feet or more above ground level,

(3) be ten feet or more from any window, door, or other opening into conditioned spaces of the structure that is less than two feet below the exhaust point, and (4) be ten feet or more from any opening into an adjacent building. The total required distance (ten feet) from the point of discharge to openings in the structure may be measured either directly between the two points or be the sum of measurements made around intervening obstacles. Whenever possible, the exhaust point should be positioned above the highest eave of the building and as close to the roof ridge line.

Vent Fan Installation Requirements

2.3.1 Vent fans used in the subslab depressurization unit shall be designed or otherwise sealed to reduce the potential for leakage of soil gas from the fan housing.

2.3.2 The vent fan system shall be equipped with a vacuum indicator mounted in an easily visible location.

2.3.3 Vent fans shall be installed on the exterior of the building or in the interior above the conditioned air space..

2.3.5 Vent fans shall be installed in a configuration that avoids a condensation buildup in the fan housing. Fans should be installed in vertical runs of the vent pipe.

2.3.6 Vent fans mounted on the exterior of buildings shall be rated for outdoor use or installed in a water tight protective housing.

2.3.7 Vent fans shall be mounted and secured in a manner that minimizes transfer of vibration to the structural framing of the building.

2.3.8 To facilitate maintenance and future replacement, vent fans shall be installed in the vent pipe using removable couplings or flexible connections that can be tightly secured to both the fan and the vent pipe.

Suction Pit Requirement for Subslab Depressurization Systems

2.4.1 To provide optimum pressure field extension of the sub slab communication zone, adequate material shall be excavated from the area immediately below the slab penetration point of system vent pipes. The Contractor will make a determination on the adequate amount of material to be removed based on field conditions and experience.

2.5.1 Sump pits that permit entry of soil-gas or that would allow conditioned air to be drawn into a sub-slab depressurization system shall be covered and sealed. The covers on sumps that previously provided protection or relief from surface water collection shall be fitted with a water or mechanically trapped drain. Water traps should be fitted with an automatic supply of priming water.

2.5.2 Openings around vent pipe penetrations of the slab and the foundation walls, shall be cleaned, prepared, and sealed in a permanent, airtight manner using compatible caulks or other sealant materials. (See paragraph 3.5.) Openings around other utility penetrations of the slab, walls, or soil-gas retarder shall also be sealed.

2.5.3 Openings, perimeter channel drains, or cracks that exist where the slab meets the foundation wall (floor-wall joint), shall be sealed with urethane caulk or equivalent material. When the opening or channel is greater than 0.50 inches in width, a foam backer rod or other comparable filler material shall be inserted in the channel before application of the sealant. This sealing technique shall be done in a manner that retains the channel feature as a water control system. Other openings or cracks in slabs or at expansion or control joints should also be sealed. Openings or cracks that are determined to be inaccessible or beyond the ability of the Contractor to seal shall be disclosed to the client and included in the documentation.

Electrical Requirements

2.6.1 Wiring for the subslab depressurization unit shall conform to provisions of the National Electric Code and any additional local regulations.

2.6.2 Wiring may not be located in or chased through the mitigation installation ducting or any other heating or cooling duct work.

2.6.3 Mitigation fans installed on the exterior of buildings shall be hardwired into an electrical circuit. Plugged fans shall not be used outdoors.

2.6.4 If the rated electricity requirement of a sub slab depressurization unit fan exceeds 50 percent of the circuit capacity into which it will be connected, or if the total connected load on the circuit (including the vent fan) exceeds 80 percent of the circuit's rated capacity, a separate, dedicated circuit shall be installed to power the fan.

2.6.5 An electrical disconnect switch or a circuit breaker shall be installed in sub slab depressurization unit fan circuits to permit deactivation of the fan for maintenance or repair by the building owner or servicing Contractor (Disconnect switches are not required with plugged fans).

Materials

3.1 All mitigation system electrical components shall be U.L. listed or of equivalent specifications.

3.2 All plastic vent pipes in mitigation systems shall be made of Schedule 40 PVC.

3.3 Vent pipe fittings in a mitigation system shall be of the same material as the vent pipes. (See paragraph 2.3.7 for exception when installing vent fans, and paragraph 2.2.7 for exception when installing vent pipes in sump pit covers.)

3.4 Cleaning solvents and adhesives used to join plastic pipes and fittings shall be as recommended by manufacturers for use with the type of pipe material used in the mitigation system.

3.5 When sealing cracks in slabs and other small openings around penetrations of the slab and foundation walls, caulks and sealants designed for such application shall be used.

3.6 When sealing holes for plumbing rough-in or other large openings in slabs and foundation walls that are below the ground surface, non-shrink mortar, grouts, expanding foam, or similar materials designed for such application shall be used.

3.7 Sump pit covers shall be made of durable plastic or other rigid material and designed to permit airtight sealing. To permit easy removal for sump pump servicing, the cover shall be sealed using silicone or other nonpermanent type caulking materials or an airtight gasket.

3.8 Penetrations of sump covers to accommodate electrical wiring, water ejection pipes, or vent pipes shall be designed to permit airtight sealing around penetrations, using caulk or grommets.

Sump covers that permit observation of conditions in the sump pit are recommended.

3.9 A sub membrane depressurization system may be installed in crawlspaces and on soil exposed basements and shall be a minimum of 6 mils (3 mils cross-laminated) polyethylene or equivalent flexible material. Heavier gauge sheeting should be used when areas are used for storage, or frequent entry is required for maintenance of utilities.

<u>Post-Mitigation Testing</u>

4.1 After installation, the Contractor shall reexamine and verify the integrity of the fan mounting seals and all joints in the interior vent piping.

4.2 After installation, the Contractor shall measure suctions or flows in system piping or ducting to assure that the system is operating as designed. A test of pressure field extension shall be performed using established test points. The Contractor shall test the vacuum achieved at each test hole by using a digital manometer, document the findings and prepare a report for the client.

4.3 The Contractor shall verify that the mitigation system delivers a minimum static pressure differential of .002 wci to all designated areas of the sub-slab. In the event that such performance is not achieved by the mitigation system, the Contractor shall develop a supplemental work plan to effect such performance. This plan may include, but is not limited to the installation, at others' expense, of additional or modified suction points or fans.

<u>Worker Health and Safety</u>

5.1 Contractors shall comply with all OSHA, state and local standards or regulations relating to worker safety and occupational vapor exposure.

5.2.1 In addition to the OSHA and NIOSH standards, the following requirements that are specific or uniquely applicable for the safety and protection of vapor mitigation workers shall be met:

5.2.2 The Contractor shall have a worker protection plan on file that is available to all employees and is approved by any state or local regulating agencies that require such a plan.

5.2.3 The Contractor shall ensure that appropriate safety equipment such as hard hats, face shields, ear plugs, steel-toe boots and protective gloves are available on the job site during cutting, drilling, grinding, polishing, demolishing or other activity associated with vapor mitigation projects.

5.2.4 All electrical equipment used during mitigation projects shall be properly grounded. Circuits used as a power source should be protected by Ground-fault Circuit Interrupters (GFCI).

5.2.5 When work is required at elevations above the ground or floor, the Contractor shall ensure that ladders or scaffolding are safely installed and operated.

5.2.6 The Contractor shall ensure that respiratory protection conforms with the requirements in the NIOSH Guide to Industrial Respiratory Protection.

5.2.7 Where combustible materials exist in the specific area of the building where vapor mitigation work is to be conducted, and the Contractor is creating temperatures high enough to induce a flame, the Contractor shall ensure that fire extinguishers suitable for type A, B, and C fires are available in the immediate work area.

5.2.8 In any planned work area where the Contractor or Consultant believes friable asbestos may exist and be disturbed, vapor mitigation work shall not be conducted until a determination is made by a properly trained or accredited person that such work will be undertaken in a manner which complies with applicable asbestos regulations.

5.2.10 When mitigation work requires the use of sealants, adhesives, paints, or other substances that may be hazardous to health, Contractors shall provide employees with the applicable Material Safety Data Sheets (MSDS) and explain the required safety procedures.

End of proposed work plan

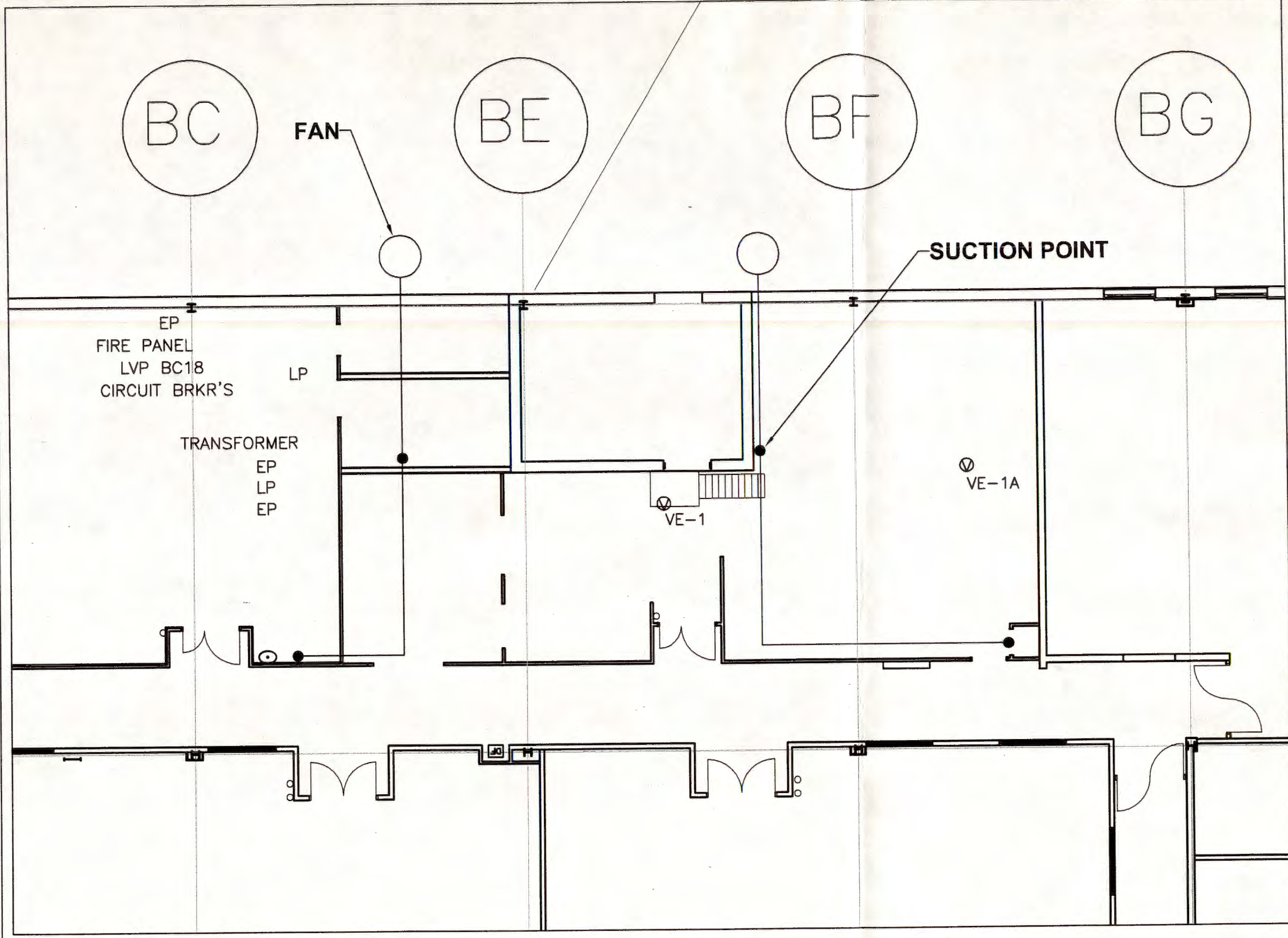
If you have any questions, please contact me.

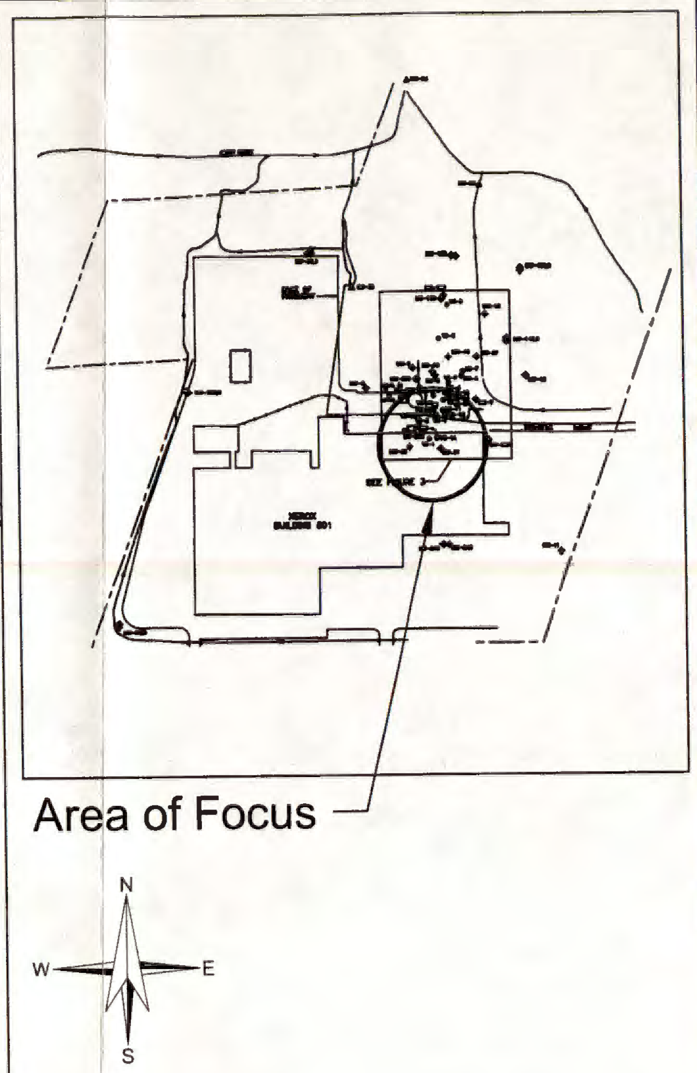
Thank you.

MITIGATION TECH

Nicholas E. Mouganis EPA listing # 15415-I ; NEHA ID# 100722

attachments





PRELIMINARY

NOTES:

1. ADDITIONAL SUCTION POINTS MAY BE NECESSARY BASED ON POST INSTALLATION PERFORMANCE EVALUATION

0 10.00 20.00
SCALE IN FEET

HALEY & ALDRICH

XEROX CORPORATION
BUILDING 801
HENRIETTA, NEW YORK

SUB-SLAB DEPRESSURIZATION SYSTEM LAYOUT

SCALE: AS SHOWN
MARCH 2006

FIGURE 1

G:\PROJECTS\32077\031\SOIL VAPOR MITIGATION.DWG

APPENDIX B

Health and Safety Plan

APPENDIX C

Low Flow (Minimal Drawdown) Groundwater Sampling Procedures