SOIL VAPOR INTRUSION EVALUATION WORK PLAN

For

CMS ASSOCIATES REMEDIATION SITE
Site no. 9-15-168

210 French Road
Town of Cheektowaga
Erie County NY

Prepared for:

CMS Property Associates, LLC
228 Linwood Avenue
Buffalo NY 14209

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I INTRODUCTION

1.1 Purpose of Work Plan

This document is the work plan for a Soil Vapor Intrusion Evaluation at the CMS Associates groundwater remediation site at 210 French Road in the town of Cheektowaga; Erie County, NY. See Figure 1 for the CMS Site location.

The project area is a Class 4 inactive hazardous waste disposal site (NYSDEC no. 9-15-168) where a leaking outdoor UST was removed in March 1996, and an undetermined volume of tank contents (see Table 1) contaminated the surrounding soil and entered the underlying bedrock and groundwater.

Table 1

Primary Constituents of Leaking UST

Compound	ppm vol
1,1,1-Trichlorethane	200,000
1,1-Dichloroethane	7,900
1,2,4-Trichlorobenzene	10,000
Methylene Chloride	9,900
Tetrachloroethene	110,000

Note: Analytical detection limits at 5,000 ppmv.
Other compounds may have been present < 5,000.

A subsequent investigation led to soil bioremediation, installing nine on-site and two off-site monitoring wells, and an Interim Remedial Measure to extract and treat groundwater. The IRM began operating in June 1998, and is intended to contain the VOC contaminant plume and reduce the concentration of VOCs in the groundwater.

The SVI Evaluation will encompass two parts – additional evaluation of the 210 French Road building proper, and where justified, the evaluations of properties surrounding the CMS Site.

1.2 Prior SVI Investigations

The 210 French Road property was formerly owned by CMS Property Associates, LLC, and was the subject of prior SVI investigations in 2004 and 2005. In 2004 CMS had a pending contract to sell the property to Cugini Ventures, LLC, an affiliate of Rosina Food Products, Inc. (which abuts the CMS site to the west,) and desired to have the site changed from Class 2 to Class 4 on the NYS Registry of Inactive Hazardous Waste Sites.

N

No Scale

CMS Associates Remediation Site
Soil Vapor Intrusion Evaluation Work Plan

Figure 1

SITE LOCATION

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During its review of the reclassification package, the NYS Department of Health and NYS Department of Environmental Conservation verbally requested in 2004 that CMS undertake an Air Intrusion Study to determine if volatile organic compounds from the groundwater plume and contaminated bedrock had entered the building space.

At that time, the SVI program at inactive hazardous waste sites was in its infancy, and NYSDOH had not yet issued its *Guidance For Evaluating Soil Vapor Intrusion in the State of New York* (October 2006.) Therefore, the air intrusion investigations in the CMS building were accomplished using then-available information and guidance based on Radon-related studies and residential building mitigation.

Indoor air and sub-slab samples in 2004, led to the NYSDEC and NYSDOH requiring that CMS Property Associates mitigate high VOC sub-slab concentrations in the building (see Figure 2 for sample locations.)

Seven compounds were found in the indoor air sample 189-A1 that are also present in the groundwater sampling:

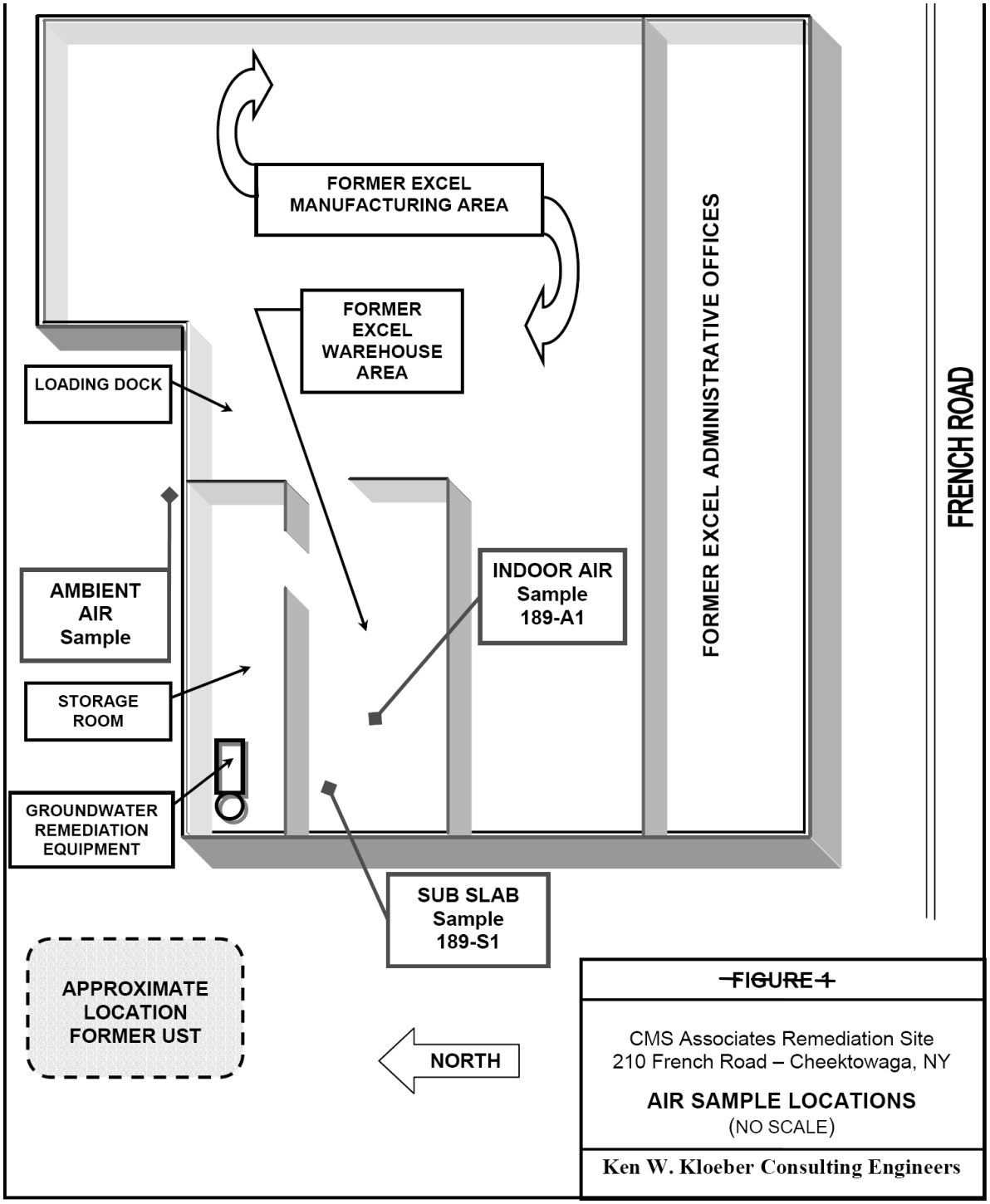
- 1,1,1-Trichloroethane
- 1,2,4-Trimethylbenzene
- Benzene
- Ethylbenzene
- m-Xylene
- p-Xylene
- Toluene

The concentration of *1,1,1-TCA* in the indoor air sample (~4 ug/m3) was such that it was suspected that the contaminant plume migrated under the building slab and that soil vapor had subsequently penetrated the building space.

Sub-slab sampling showed the following compounds present:

• 1,1,1-TCA	3,500 ug/m3
• 1,2,4-Trimethylbenzene	14 ug/m3
• Benzene	5 ug/m3
• Ethylbenzene	8.8 ug/m3
• m & p-Xylene	31.5 ug/m3
• Toluene	170 ug/m3

Because of the high level of *1,1,1-TCA* in sample 189-S1, in December 2004 the NYSDEC required that CMS Property Associates undertake further investigation to mitigate the soil vapor intrusion potential into the building.



Graphic Source: October 2004 Air Intrusion Study

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Soil Vapor Intrusion Evaluation Work Plan

Figure 2

2004 AIR SAMPLE LOCATIONS

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In May 2005 a *Soil Vapor Intrusion Work Plan* was prepared and submitted, and subsequently approved by the NYSDEC and NYSDOH. The NYSDEC also required CMS Property Associates, LLC to install a SVI mitigation system if further testing showed high indoor or sub-slab concentrations.

Initial screening using an OVA meter identified possible locations in the building having potentially high levels of VOCs in the stone head space below the floor slab.

Subsequent indoor and sub-slab air sampling in May 2005 showed high concentrations of the following compounds under the floor slab at various spots inside the building (see Figure 3 for sample locations):

- 1,1,1-Trichloroethane (TCA) 0 – 2,600 ug/m3
- 1,1-Dichloroethane (DCA) 180 – 22,000 ug/m3
- 1,1-Dichloroethene (DCE) 160 – 9,100 ug/m3
- Trichloroethene (TCE) 0 – 900 ug/m3

The highest VOCs below the floor slab were at samples 189-S1, CMS-3, and CMS-2 (see Figure 3.) Interestingly sample CMS-4 exhibited lower VOCs, yet is was virtually mid-point between two of the highest readings.

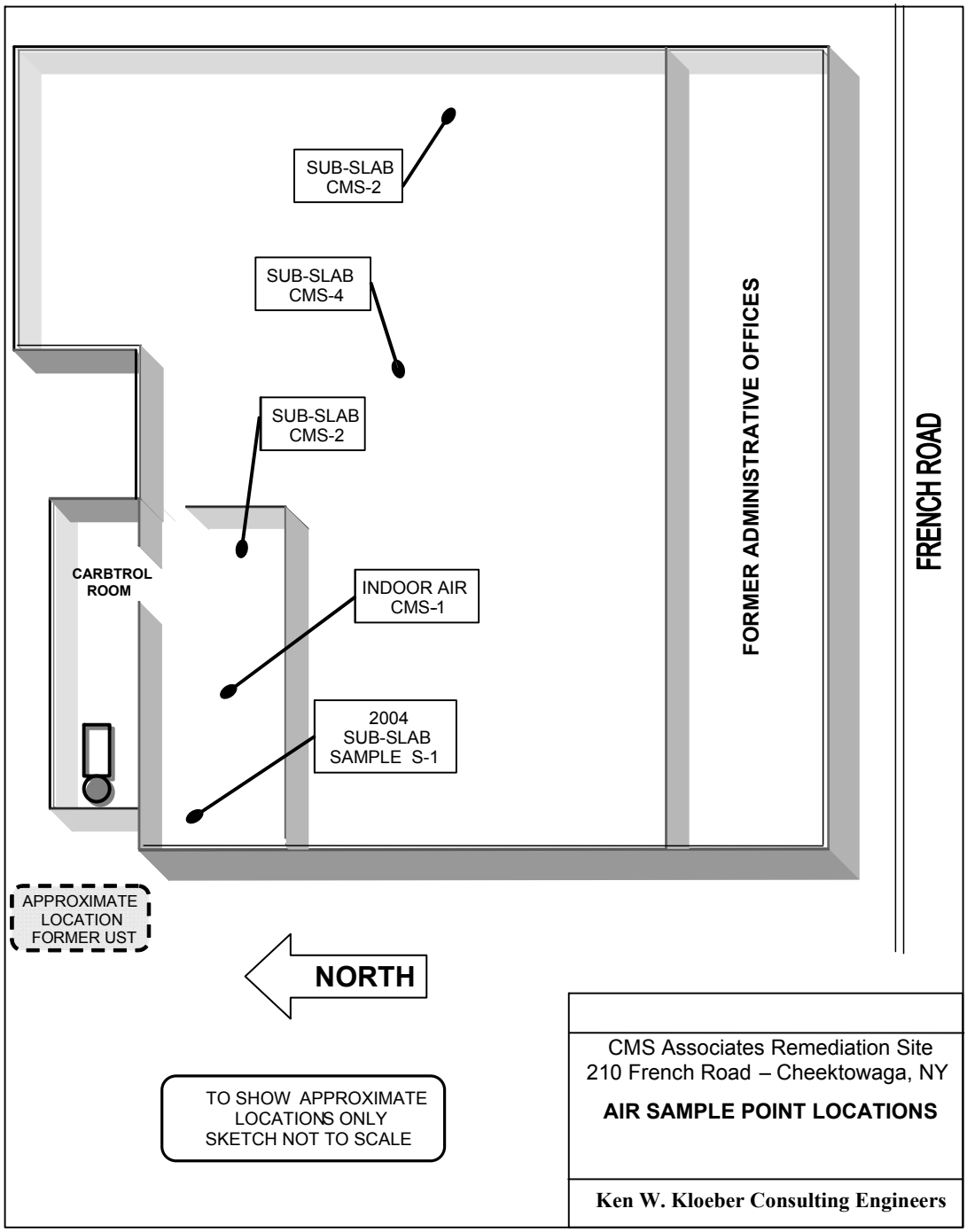
This indicates that the contaminant plume extended under the building slab, or at least soil vapor from the plume has migrated across the underneath floor slab. According to CMS, the floor was poured on 4-inches of compacted stone, so there is an opportunity for good communication underneath the slab, barring a significant anomaly in the composition or compaction of the underlying base material. The lower VOCs in sample CMS-4 may indicate such an inconsistency.

No sub-slab vapor communication tests were preformed because it was evident that SVI mitigation was necessary, and that it would likely involve two locations in the building. The approach then, was to install and later on use the sub-slab depressurization systems to measure communication across the slab when checking the efficiency of the mitigation through follow-up air quality testing.

Note also that there was no indoor or sub-slab air testing in the former office area in the south end of the building (see Figure 3.) The reason for this is that at the time, CMS was unsure if Cugini would conclude the purchase of the building, that area was not going be immediately occupied or otherwise used, and Rosina's plans for the building were uncertain. The property was indeed sold in late 2005, and Rosina currently uses the bulk of the building to warehouse machinery and mechanical equipment, spare parts, and for maintenance, shipping, and other non-food supplies.

1.3 Prior SVI Mitigation

As part of the 2005 *Soil Vapor Intrusion Work Plan*, CMS agreed to mitigate high sub-slab VOCs that could potentially affect indoor air quality. To accomplish that, two active sub-slab depressurization systems were installed in late 2005. The first is on the east (Boxwood Lane) side of the building, with the under-slab suction piping spanning the location of sub-slab air sample CMS-2, with the blower and stack on the outside concrete block wall (see Photo Plate 1.)



Graphic Source: May 2005 Air Sampling Plan

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Soil Vapor Intrusion Evaluation Work Plan

Figure 3

2005 AIR SAMPLE LOCATIONS

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CMS Associates Remediation Site
Soil Vapor Intrusion Evaluation Work Plan

Plate 1

SUB-SLAB DEPRESSURIZATION SYSTEM
East Wall of 210 French Building

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The second SSDS is on the west (Rosina Food Products) side of the building, in the area of sub-slab air samples 189-S1 and CMS-2. This room is nearly adjacent to, and slightly south of the location of the original leaking UST. The suction piping extends to the south side of the interior dividing wall between that room and the remainder of the warehouse. The blower and vent stack is on the outside wall (see Photo Plate 2.)

All trenches for the active sub-slab depressurization piping are nominally 24-inches-wide, excavated 24-inches below the slab bottom and filled with no. 1 clean crushed stone. Since the SSDSs were installed, there have been no communication or sub-slab pressure gradient tests to confirm what distance each system is effectively reaching to reduce the under-slab VOCs. Timers currently operate each system for 2-3 hours a day—which allows the opportunity to dramatically increase the run-time if the SVI Evaluation determines that additional venting is advisable.

CMS Associates Remediation Site
Soil Vapor Intrusion Evaluation Work Plan

Plate 2

SUB-SLAB DEPRESSURIZATION SYSTEM
West Wall of 210 French Building

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II SVI EVALUATION of 210 FRENCH ROAD BUILDING

2.1 Current Building Conditions

The 210 French Road building encompasses about 45,000 SF of floor area that Rosina Food Products currently uses to store equipment and machinery, and non-food items such as cleaning/maintenance and packing/shipping materials. The only regular occupation is an employee who is typically in the parts area on the west side of the building. The areas most susceptible to vapor intrusion from the leaking UST were evaluated in May 2005, and active sub-slab depressurization mitigation was subsequently installed (see Section 1.3 of this work plan.)

The southernmost section of the 210 French building—formerly offices for CMS and its tenants—is currently unoccupied. No prior screening, air tests, or mitigation was performed in this area because it had remained unoccupied before and after CMS sold the building, and the future use of the area was undetermined.

2.2 General Methodology of SVI Evaluation

The most effective way to evaluate SVI at 210 French is through sub-slab screening and sub-slab air tests. The warehouse is currently a nearly-open structure because Rosina removed most interior walls after CMS sold the building. Indoor air sampling to determine if sub-slab VOCs are currently or could impact the interior space in the future is problematic because the building currently has so much open floor area. Rosina could in the future divide the interior into office space, or individual walled sections for segmented warehousing or for secure storage locations.

If there are high under-slab VOCs, SVI could in the future be concentrated in selected areas of the building, depending on under-slab hot spot locations and potential SVI pathways in specific locations. Naturally this could produce higher indoor VOCs in areas that might be subject to future worker occupation, versus the current "open floor plan." Thus, current low indoor air VOC concentrations would be a poor indicator for no or low SVI impact in the future.

The approach of this evaluation of the 210 French building will therefore be multi-fold, and will concentrate on sub-slab VOCs as the primary indicator of potential SVI impact—generally following follow the sequence below. This also allows the evaluation to progress at any time of the year because the determinations do not necessarily require indoor air sampling that could likely delay work until the heating season. If there are sub-slab VOCs above appropriate actionable levels, we would evaluate at that time whether indoor air sampling is appropriate.

2.3 SVI Evaluation Tasks for 210 French

This SVIE will be based on the NYSDOH *Guidance For Evaluating Soil Vapor Intrusion in the State of New York,* published October 2006.

For the SVI evaluation tasks 1. – 10. below, the:

- Initial sub-slab screening will be by using a ppb-level-sensitivity PID meter such as the RAE ppb3000 to obtain a decision-level indication of total VOCs.

- Discrete sub-slab air sampling will be with mini-Summa-type canisters with regulators set for a minimum 1-hour capture time, using EPA Method TO-15 to analyze for VOCs (at 1 ug/m3) identified in the UST contents and the ongoing groundwater well sampling. Tracers will be used during sampling to monitor for short-circuiting.

- Analytical work will be by an ELAP-certified laboratory (e.g., Centek Labs, Air Toxics, etc.) Analytical data generated by the laboratory will be reviewed and assessed and invalid data will not be used.

- Under-slab air communication tests will be through differential pressure measurements with a Pa-level-sensitivity meter such as an OmniGuard or similar unit.

- Indoor air tests and a chemical/product inventory (Section 2.11.2 of the NYSDOH *Guidance*) would not typically be made, since the evaluation is based on sub-slab, rather than current indoor air quality. This also allows the evaluation during periods of the year that are less suited to indoor-air testing.

The general sequence of the 210 French SVI evaluation will be to:

1. Inspect the building to evaluate its layout and physical interior setting to identify conditions that may affect or interfere with the intended screening and sampling tasks, and to prepare the floor slab for sampling. NYSDOH *Guidance*, Section 2.11.1, will be used as appropriate to document building interior features and pre-sampling conditions.

2. Screen the remainder of the sub-slab in the warehouse and former office areas for potential VOC hot spots to determine the most appropriate locations for sub-slab air tests.

3. Determine the area of influence of the 2005 mitigation (anticipated to possibly be upwards of 1/3 the total warehouse floor area.) The method will be air communication tests using differential pressure measurements with and without the SSDS operating.

4. Determine the effectiveness of the 2005 mitigation through sub-slab air tests with the SSDS operating to confirm that VOCs are reduced below action levels.

5. Evaluate the remainder of the warehouse floor beyond what was mitigated in 2005 (the anticipated likelihood of VOC SVI impact is moderate in this area.). The method will be sub-slab air testing—with the number and location of tests depending on the screening—but is initially expected to involve four to six test holes.

6. Evaluate the former office area (the anticipated probability of VOC impact is very low in this section of the building.) The method will be sub-slab air testing—with the number and location of tests depending on the initial screening—but is initially expected to involve one to three test holes.

2.4 General Mitigation Strategy

The need for SVI mitigation will be determined by evaluating whether sub-slab VOCs are above actionable levels, the expected groundwater/soil cleanup period for the CMS Site, SVI pathways, and Rosina Food Products' plans for the building and the potential human exposure. If mitigation is needed, the SVI Evaluation report will include a general strategy (vs. detailed design) that documents the number and locations of mitigation sites inside the building.

If mitigation is necessary, active sub-slab depressurization is initially anticipated to be the cost-effective and most-efficient mode, but other appropriate methods will be considered.

The primary objectives of the SVI Evaluation outlined in this Work Plan have been developed based on the currently available knowledge of the CMS site off-site conditions, and represents an approach to collect air samples to evaluate the presence of and potential future SVI pathways. Changed or unexpected site conditions may necessitate adjustments to the Work Plan.

III SVI EVALUATION of SURROUNDING PROPERTIES

3.1 Properties Surrounding the CMS Associates Site

Figure 4 shows the CMS Remediation Site at 210 French Road in relation to the surrounding properties and estimated extent of the groundwater contaminant plume. The plume is based on the initial groundwater sampling after removing the leaking UST in March 1996, and the continuing sampling of on-site and off-site wells. The depicted contamination is an estimate based on the perimeter wells, so there may be uncertainty as to its extent toward Industrial Parkway and toward Boxwood Drive.

The Periodic Review Report for the CMS Associates remediation site will address the need for further definition of the contaminant plume. If the PRR and any subsequent monitoring indicates greater or less extent, and therefore more or less possibility of soil vapor impact on surrounding properties, the Work Plan would be adjusted accordingly to add or remove parcels proposed for SVI air testing.

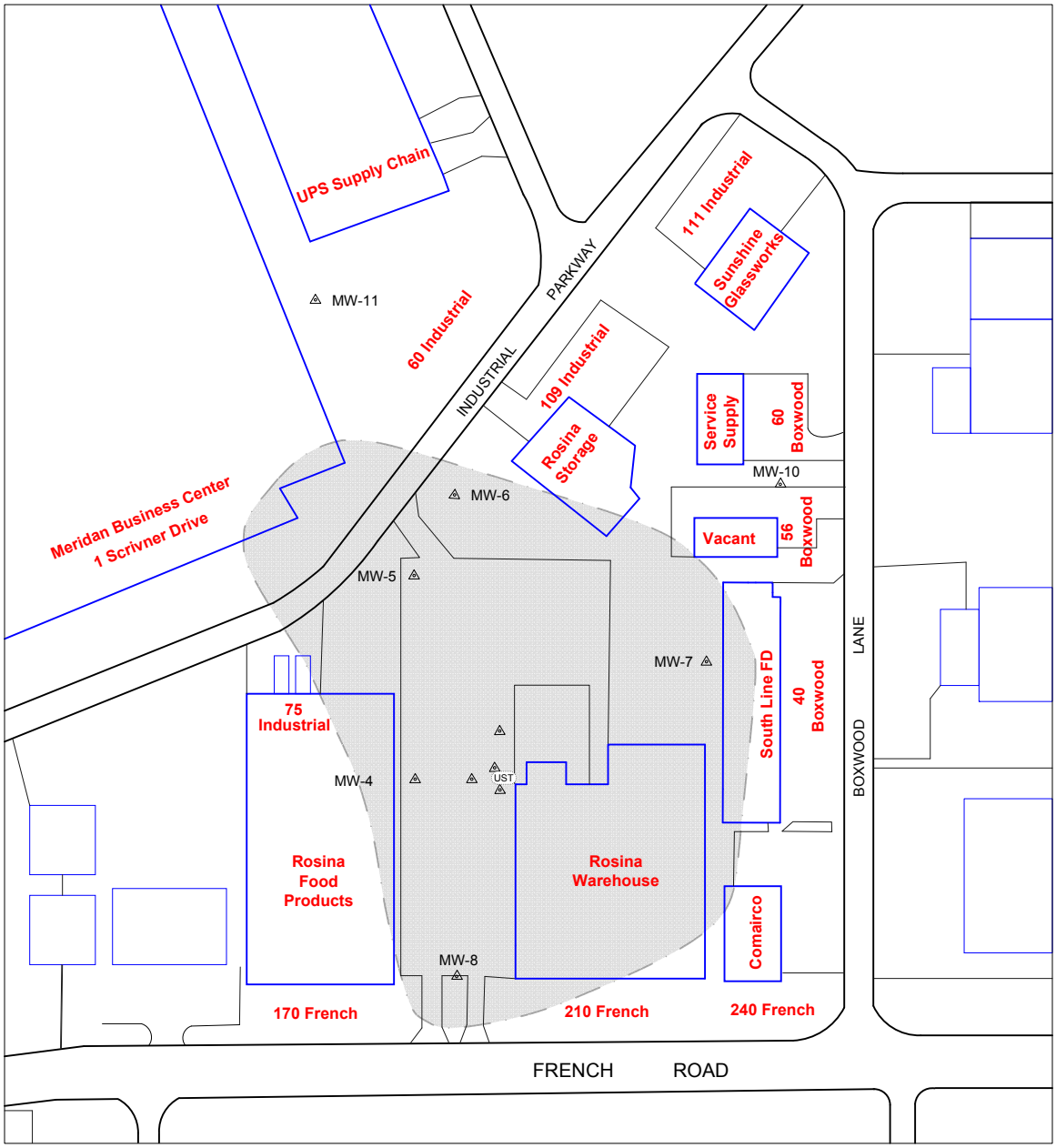
Table 2 shows the properties surrounding the CMS site (clockwise from French Road) and their anticipated likelihood of SVI impact. The rationale on why we chose each specific SVIE methodology is summarized in Section 3.1.1 through Section 3.1.11.

Table 2

Properties Surrounding CMS Associates Remediation Site

Property	Address	Anticipated SVI Impact	Expected SVIE Methodology
Rosina Food Products	170 French	None	No sampling
Rosina Food Products (rear)	75 Industrial	Moderate	Sub-slab PID screening/one sample
Meridan Business Center	1 Scrivner	Low	Sub-slab PID screening/one sample
UPS / Supply Chain	40 Industrial	None	No sampling
Rosina storage	109 Industrial	Moderate	Sub-slab PID screening/one sample
Sunshine Glassworks	111 Industrial	None	No sampling
Wurth Service Supply	60 Boxwood	None	No sampling
Uni-Punch (vacant)	56 Boxwood	Moderate	Sub-slab PID screening/one sample
South Line Fire Co. #10	40 Boxwood	Moderate	Confirm details of vapor barrier. Possible sub-slab PID screening and sample.
Comairco Equipment	240 French	Low	Sub-slab PID screening/one sample

Each property in Table 2 is assigned a potential for SVI impact based on its proximity to the former leaking UST, its relationship to the regional groundwater migration (generally toward the



Notes:

UST ***Former UST Location***

Groundwater Monitoring Well

Locations of structures are approximate

Extent of groundwater contaminant plume is based on available information and an estimate only

N

0 100
Approx Feet

CMS Associates Remediation Site
Soil Vapor Intrusion Evaluation Work Plan

Figure 4

Properties Surrounding CMS Site

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north-northwest), the effectiveness of the of the IRM as indicated by the continued sampling of on- and off-site monitoring wells, and the VOC compounds found in the groundwater wells. In addition, some compounds of higher concern and concentration—as indicated by the original contents of the leaking UST and initial groundwater sampling—have likely degraded over time to other associated compounds.

Naturally, if the off-site SVI Evaluation reveals sub-slab VOCs that were or are currently present in groundwater on the CMS site, additional investigation will be necessary to rule out other sources of contamination. The surrounding area is industrial/commercial, and there could be other sole or contributing source(s) of soil-vapor or groundwater VOCs.

The relationship of each property to the above is summarized below:

3.1.1 170 French Road (no anticipated SVI impact)

Results of the IRM, as evidenced by sampling at on-site monitoring well MW-8, indicates that the southern portion of the Rosina Food Products building would have no anticipated SVI impact.

Regional groundwater movement is away from MW-8, and the highest level of total VOCs was 282 ug/l in 1999, which the IRM has reduced to ~60 ug/l in April 2009 sampling—including *Dichloroethane* (27 mg/l) and *cis-1,1-Dichloroethene* (31 ug/l). There are no NYSDOH SVI action level guidelines for those compounds, and groundwater VOC concentrations do not necessarily correlate to sub-slab VOC vapor concentrations, but both the initial and current VOC levels indicate that SVI impact is not anticipated at the 170 French Road building.

3.1.2 75 Industrial Parkway (anticipated moderate potential for SVI impact)

This building is the rear portion of Rosina Food Products and contains the security offices, employee break room area, and other offices. Sampling two months after removing the leaking UST showed on-site monitoring well MW-4 containing high *1,1,1-Tricholorethane* (20,000 ug/l)—which for unknown reasons has not reappeared. The *1,1,1-TCE* may have been due to cross-contamination or possibly been misidentified during analysis due to interferences with other compounds (the lab report does not indicate the analysis detection limit.) Sampling at MW-4 before the IRM began operating, indicated total VOCs of ~600 ug/l—the highest being *Benzene* (120 ug/l,) *Toluene* (230 ug/l), and *Xylenes* (229 ug/l.) In April 2009, the total VOC at MW-4 was 4 ug/l.

The Rosina Food Products building is about 25 feet from MW-4 and 120 feet from the former leaking UST, and the micro-gradient of the groundwater surface on the CMS site proper indicates flow can at times be toward Rosina (as evidenced by prior groundwater elevations of on-site wells.) Those conditions indicate that the plume likely extended beneath the Rosina building, although it may have been a short distance.

Although groundwater VOC levels do not necessarily correlate to sub-slab vapor concentration, the site conditions coupled with the possibility MW-4 contained high *1,1,1-TCE*, at least suggest a moderate potential for SVI impact at the rear portion of the Rosina building.

3.1.3 1 Scrivner Drive (anticipated low potential for SVI impact)

The Meridan Business Center is a 450,000-SF warehouse/distribution center north of Industrial Parkway. The southeastern-most corner of the facility is 140 feet northwest of on-site monitoring well MW-5, which has contained high total VOCs after the IRM was instituted (~1,500 to ~3,000 ug/l.) After removing the leaking UST, MW-5 contained high total VOCs, including *1,1,1-Trichloroethane* (8,900 ug/l,) *1,1-Dichloroethane* (3,300 ug/l,) and *cis-1,2-Dichloroethene* (790 ug/l.)

The regional groundwater movement being toward the building, coupled with the high initial VOCs at MW-5, suggests that the contaminant plume may have extended under at least a portion of the floor slab nearest Industrial Parkway.

The IRM has reduced the initial total VOCs at MW-5 (12,990 ug/l) to 3,000 ug/l, and the *1,1,1-TCE* has been eliminated or has degraded to associated compounds. In addition, MW-5 was tied into the groundwater extraction system in September 2008, and the total VOC level has dropped to the lowest observed at that location.

Although groundwater VOCs at MW-5 do not necessarily correlate to soil vapor or sub-slab VOC concentrations, the site conditions coupled with the apparent elimination of *1,1,1-TCE* indicates a low potential for SVI impact at this building.

3.1.4 60 Industrial Parkway (no anticipated SVI impact)

This 41,000-SF building is a warehouse/distribution center north of Industrial Parkway, and is about 60 feet north of off-site monitoring well MW-11 and 580 feet from the former leaking UST.

All sampling at MW-11 shows no VOCs in the groundwater, which indicates that the contaminate plume never travelled that far north. Therefore, no SVI impact is anticipated at this building.

3.1.5 109 Industrial Parkway (anticipated moderate potential for SVI impact)

This is a 9,300-SF building used by Rosina Food Products for storage and there is no employee occupation. It is about 115 feet east of on-site monitoring well MW-6, which prior to instituting the IRM had moderately low total VOCs (86 - 277 ug/l.) Its primary groundwater VOCs were *1,1-Dichloroethane* (10 – 66 ug/l,) *cis-1,2-Dichloroethene* (24 – 76 ug/l,) *Toluene* (1 – 34 ug/l,) and *Xylenes* (11 – 125 ug/l.) The IRM has reduced total VOCs at MW-6 to the range ~20 to ~40 ug/l.

The moderately low VOCs at MW-6 after removing the leaking UST would suggest a low potential for SVI impact. However, the local groundwater movement is generally toward the north, which places 109 French Road in a direct path from the former leaking UST location. Additionally, high VOCs at MW-5 and MW-7 suggest localized transmission paths due to bedrock fractures and bedding planes. For these reasons, we anticipate a moderate potential for soil vapor intrusion at the 109 Industrial Parkway building.

3.1.6 **111 Industrial Parkway** (no anticipated SVI impact)

This is a 10,600-SF building at the corner of Boxwood drive that houses Sunshine Glassworks—a retail and wholesale specialty stained-glass business, which employees occupy on weekdays during the summer, and additionally Saturdays during fall/winter/spring. It is located about 550 feet northeast of the former leaking UST, and due north of off-site monitoring well MW-10—which has been free of any groundwater VOCs.

Given its distance from the UST, the general direction of groundwater movement, and lack of groundwater VOCs at MW-10, indicates that no SVI impact is anticipated at this building.

3.1.7 **60 Boxwood Lane** (no anticipated SVI impact)

This 5,000-SF building houses Wurth Service Supply, a supplier of industrial fasteners, materials, and tools. It is about 400 feet northeast of the former leaking UST and directly north of off-site monitoring well MW-10. Based on the local direction of groundwater movement and lack of groundwater VOCs at MW-10, the contaminant plume appears not to have reached this building, and therefore no SVI impact is anticipated.

3.1.8 **56 Boxwood Lane** (anticipated moderate potential for SVI impact)

This is a vacant, 3,500-SF building that formerly housed Uni-Punch Products—a manufacturer of industrial dies and hole-punching equipment. It is directly south of off-site monitoring well MW-10, and 120 feet north of on-site well MW-7. After removing the leaking UST, MW-7 contained high *1,1-Dichloroethane* (~2,000 ug/l)—which the IRM has not significantly reduced—and *1,2-Dichloroethane* (~100 ug/l).

Although MW-10 consistently shows no groundwater VOCs and no *TCE* appears in MW-7, the building's proximity to and lack of significant reduction in VOCs at MW-7, suggests that the contaminant plume may be more stagnant in that area and less affected by the IRM. This indicates that the plume could have migrated under the floor slab at 56 Boxwood, and therefore the anticipated potential is moderate for SVI impact.

3.1.9 40 Boxwood Lane (anticipated moderate potential for SVI impact)

This is the location of Cheektowaga's South Line Fire District #10 station, which was reconstructed and enlarged to 14,300 SF in 2005(?)—and is 15 feet east of on-site monitoring well MW-7 and about 140 feet east of the former leaking UST.

The proximity to MW-7 with its initial high VOCs suggests that the contaminant plume extends under the floor slab of the reconstructed building. The general contractor for the reconstruction reported that a vapor barrier was installed under the slab to minimize vapor from transmitting to the building—but we have been unable to confirm the details after repeated unanswered attempts to contact the project Architect.

MW-7 remains high in groundwater VOCs (see Section 3.1.8, above) but no *TCE* appears in the samples. Until the details of the sub-slab vapor barrier mitigation can be evaluated, the anticipated potential is moderate for SVI impact.

3.1.10 240 French Road (anticipated low potential for SVI impact)

This 5,800-SF building houses Comairco Equipment, a supplier of industrial paint spray guns, and air compressors, blowers, and vacuum pumps. It is at the corner of Boxwood Lane, about 25 feet east side of the 210 French building and 270 feet southeast of the former leaking UST.

The 210 French building had very high sub-slab total VOCs (~30,000 ug/l) near its east wall when tested in 2005 (see sample point CMS-2 on Figure 3 in Work Plan Section 1.2,) and it is unknown whether the contaminant plume extended that far, or alternately if vapors simply travelled through the sub-slab stone. If it is the former, it would then suggest that the plume possibly extended onto the 240 French property. Despite that possibility, given the regional groundwater movement and distance from the leaking UST, there is a low anticipated potential for SVI impact at this building.

3.2 General Methodology to Evaluate Surrounding Properties

The most effective way to evaluate SVI at the surrounding properties is through sub-slab screening and sub-slab air tests. However, the various buildings are not controlled by CMS Property Associates, LLC, and it has no right to enter or test for SVI. A similar situation existed when off-site monitoring wells MW-10 and MW-11 were installed in 1998. Therefore, the approach will be for CMS to contact property owners in writing, and explain the situation and offer to evaluate the property for SVI.

If a sub-slab contains VOC compounds above actionable levels, the location will be assessed to determine whether conditions warrant additional sub-slab or indoor air tests (at appropriate times during the year—generally the heating season.)

The approach of this evaluation of the surrounding properties will therefore be multi-fold, concentrating on sub-slab VOCs as the primary indicator of potential SVI impact—generally following the sequence below. This also allows the off-site evaluation to progress at any time of the year because it does not necessarily require indoor air sampling that could delay work until the heating season.

3.3 SVI Evaluation Tasks for Surrounding Properties

This SVIE will be based on the NYSDOH *Guidance For Evaluating Soil Vapor Intrusion in the State of New York*, published October 2006.

For the SVI evaluation tasks 1. – 10. below, the:

- Initial sub-slab screening will be by using a ppb-level-sensitivity PID meter such as the RAE ppb3000 to obtain a decision-level indication of total VOCs at an appropriate location on the slab.

- Discrete sub-slab air sampling will be with mini-Summa-type canisters with regulators set for a minimum 1-hour capture time, using EPA Method TO-15 to analyze for VOCs (at 1 ug/m3) identified in the UST contents and by the ongoing groundwater well sampling. Tracers will be used during sampling to monitor for short-circuiting.

- Analytical work will be by an ELAP-certified laboratory (e.g., Centek Labs, Air Toxics, etc.) Analytical data from the lab will be reviewed and assessed and invalid data will not be used.

- Indoor air tests and a chemical/product inventory (Section 2.11.2 of the NYSDOH *Guidance*) would not typically be made, since the evaluation is based on sub-slab, rather than current indoor air quality. This also allows the evaluation during periods of the year that are less suited to indoor-air testing.

The general sequence of the evaluation at each off-site property will be to:

1. Inspect the building to evaluate its layout and physical interior setting to identify conditions that may affect or interfere with the intended screening and sampling tasks, and to prepare the floor slab for sampling. NYSDOH *Guidance*, Section 2.11.1, will be used as appropriate to document building interior features and pre-sampling conditions.

2. Screen the sub-slab for potential VOC hot spots and to determine the most appropriate location for a sub-slab air test.

3. Test sub-slab air—with the location dependant on the initial screening—but generally expected to involve one test hole in each building having an anticipated low to moderate potential for SVI impact. Buildings with no anticipated SVI impact will not be sampled.

3.4 General Mitigation Strategy for Off-Site Buildings

The need for mitigation at any of the surrounding properties/buildings will be determined by evaluating the presence of sub-slab VOCs and whether they are above actionable levels, the expected groundwater/soil cleanup period for the CMS site, SVI pathways, and the future plans for each building and associated potential human exposure. However, if the SVI Evaluation reveals off-site sub-slab or groundwater VOCs that were or are currently present in groundwater on the CMS Site, they are not necessarily due to the former leaking UST. Further investigation will be necessary to rule out other sources of contamination since the area surrounding the CMS Site is industrial/commercial, and there could be other sole or contributing source(s) of soil-vapor or groundwater VOCs.

If mitigation is needed, the SVI Evaluation report will include a general strategy (versus detailed engineering design) that documents the recommended approach for each building. Active sub-slab depressurization is initially anticipated to be the cost-effective and most-efficient mode, but other appropriate methods will be considered.

The primary objectives of the SVI Evaluation outlined in this Work Plan were developed based on currently available knowledge of the CMS site conditions and conditions at each off-site property, and represents the general approach to collect air samples to evaluate the presence of and potential for future SVI pathways. Changed or unexpected site conditions may require adjustments to the Work Plan.

