

January 5, 2012

Mr. Keith Gronwald
Engineering Geologist
New York State Department of Environmental Conservation
Division of Environmental Remediation
Remedial Bureau C, 11th Floor
625 Broadway
Albany, New York 12233-7014

Re: Revised Phase 2 Subsurface Investigation Work Plan
City of Rome Environmental Restoration Project (ERP Site No. 633064)
1030 E. Dominick St., Rome, New York

File: 245.005.001

Dear Mr. Gronwald:

In response to your January 3, 2012 correspondence to the City of Rome regarding the above, Barton & Loguidice, P.C. (B&L) has prepared a revised Phase 2 Subsurface Investigation Work Plan for the Environmental Restoration Program (ERP) site located at 1030 East Dominick Street in the City of Rome (Figure 1). In the process of reviewing the soil and groundwater analytical data generated during the performance of the initial subsurface investigation, and based on visual and olfactory observations documented during the field investigation, B&L has identified several areas of apparent soil and/or groundwater contamination at the site that require further investigation in order to fully delineate the extent of subsurface soil and groundwater quality impacts. At the request of the New York State Department of Environmental Conservation (NYSDEC), B&L has assembled the following Phase 2 Site Investigation Work Plan, as presented herein.

A brief summary of initial investigation activities, findings, and results is provided below. A more detailed account of the investigation, including complete analytical results, will be included in a comprehensive site investigation report following additional investigation.

Soil and Groundwater Investigation Activities

Subsurface drilling activities took place from November 11-23, 2009, and consisted of eighteen (18) exploratory soil borings, six (6) of which were completed as monitoring wells. In addition, a total of four (4) surface soil samples were collected at the site. The soil boring locations (SB-01 through SB-10, SB-12 and SB-13), monitoring well locations (MW-01 through MW-06), and surface soil sample locations (SS-01 through SS-04) are shown on attached Figure 2.

All monitoring wells except for MW-06 (which was damaged, as described below) were developed on February 10, 2009, and groundwater samples were collected from these locations on February 23, 2009.





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Hydraulic conductivity testing was completed at these locations on April 7-8, 2010. The surface completion at MW-06 was damaged by a snowplow shortly after installation, thereby compromising the integrity of this monitoring well. As a result, no development, groundwater sampling, or hydraulic conductivity testing was performed at this location.

Summary of Findings

Subsurface Soil Results

Gross petroleum contamination was observed near the water table interface at borings SB-04, SB-05, and MW-04. Contamination was generally encountered at 12- to 14-feet below ground surface (bgs) and extended to depths of approximately 18- to 20-feet bgs. The analytical soil samples collected at these locations exhibited several volatile organic compounds (VOCs) with concentrations greater than the NYSDEC Part 375 Soil Cleanup Objectives (SCOs) for Restricted Use – Protection of Groundwater. Acetone was detected above the regulatory standard at SB-04, ethylbenzene exceeded the standard at MW-04, and xylenes were reported above the standard at all three locations.

In addition, a petroleum/gasoline odor and staining and/or sheen were observed in the smear zone at the water table interface at SB-08, SB-13, and MW-01. However, the obvious impacts at these three (3) locations appeared limited to the smear zone.

Bubble plot figures 1030ED-01 through 1030ED-06 summarize the total detected VOCs and SVOCs in analytical soil samples collected at various depths, and also show the total detected VOCs and SVOCs plus tentatively identified compounds (TICs) at various sampling intervals.

Groundwater Results

Several VOCs exceeded the NYSDEC Part 703.5 Groundwater standards in the groundwater analytical samples collected from MW-01, MW-04, and MW-05. Specifically, ethylbenzene, isopropylbenzene, toluene, and xylene exceeded the groundwater standard at MW-04, while trichloroethene exceeded the standard at MW-01 and MW-05. Similarly, several semi-volatile organic compounds (SVOCs) exceeded the groundwater standard at MW-04 and MW-05. Benzo(a)anthracene, bis(2-ethylhexyl)phthalate, chrysene, and naphthalene exceeded the standard at MW-04, while 4-nitroaniline exceeded the standard at MW-05.

In accordance with the Work Plan, all monitoring wells were surveyed by a licensed surveyor. Based on the survey data and static water levels collected during the well sampling and testing activities, the groundwater flow direction was determined to be southerly, toward the Erie Canal and Mohawk River. The hydraulic gradient is approximately 0.002 feet per foot.

Figure 1030ED-07 summarizes the total detected VOCs and SVOCs in analytical groundwater samples collected at various depths, while Figure 1030ED-08 shows total detected VOCs and SVOCs, including tentatively identified compounds (TICs), at various sampling intervals.



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Surface Soil Results

In accordance with the Site Investigation Work Plan, B&L collected four surface soil samples (SS-01 through SS-04) from the site for the analysis of VOCs, SVOCs, metals, and PCBs. The analytical results for SS-02, collected roughly 60 ft east-southeast of the east side of the garage, report several SVOCs exceedances of the aforementioned SCOs, including benzo(a)anthracene, benzo(a)pyrene, and benzo(b)fluoranthene, and the total detectable SVOCs concentration was over 64,000 µg/kg (not including TICs). Copper also exceeded the SCOs. There were otherwise no exceedances reported for the surface soil samples, nor were any other total detectable SVOCs concentrations comparable to that of the SS-02 sample (not including TICs).

Additional Subsurface Investigation Tasks

The need for additional soil borings and monitoring well installations is warranted for the purpose of delineating the extent of soil and groundwater contamination. In addition, off-site investigation is warranted, as it is likely given the groundwater flow direction that the encountered petroleum contamination continues beyond the City's property. The approximate locations of the proposed soil borings are depicted on Figure 1030ED-09; the proposed tasks are summarized below.

On-site Tasks:

1. Delineate the extent of encountered VOC and SVOC subsurface soil contamination, as discussed above, by advancing 6 soil borings (SB-14 through SB-20), and collecting subsurface soil samples for the laboratory analysis of VOCs and SVOCs.
2. Determine whether the SVOC contamination detected in surface soil sample SS-02 is widespread by collecting four (4) additional surface soil samples in the same vicinity (designated SS-05 through SS-08 on attached Figure 1030ED-09).
3. Install one (1) additional on-site monitoring well between MW-05 and SB-05 per our conference call discussion on June 28, 2010, for the purpose of determining groundwater quality at this location.
4. Perform well development on the newly installed monitoring well(s).
5. Perform in-situ hydraulic conductivity on the newly installed monitoring well(s).
6. Collect a groundwater sample from the newly installed monitoring well(s) to be analyzed for VOCs, SVOCs, metals, and PCBs, in accordance with the Site Investigation Work Plan.
7. Have the locations and elevations of newly installed monitoring well(s) surveyed by a licensed surveyor and locate the soil borings using GPS methods; the monitoring well and soil boring locations will then be plotted on the existing topographic base map for the site.
8. Install up to five (5) temporary soil vapor points in the area of encountered VOC and SVOC contamination, as depicted on Figure 1030ED-09. The actual soil vapor sample locations may be modified based on conditions encountered at the additional proposed boring locations.



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Off-site Tasks:

1. Determine if subsurface soil and/or groundwater contamination exists south of the site boundary.
2. Delineate the extent of subsurface soil contamination, if encountered, by advancing soil borings 21-24, and collecting subsurface soil samples for the laboratory analysis of VOCs, SVOCs, metals, and PCBs, in accordance with the Site Investigation Work Plan.
3. Install one (1) off-site monitoring well to determine the groundwater quality at a location downgradient of the area of encountered contamination at the site.
4. Perform well development on the newly installed monitoring well(s).
5. Collect a groundwater sample from the newly installed monitoring well(s) to be analyzed for VOCs, SVOCs, metals, and PCBs, in accordance with the Site Investigation Work Plan.
6. Have the locations and elevations of newly installed monitoring well(s) surveyed by a licensed surveyor and locate the soil borings using GPS methods; the monitoring well and soil boring locations will then be plotted on the existing topographic base map for the site.
7. Install up to one (1) temporary soil vapor point off site as depicted on Figure 1030ED-09. The actual soil vapor sample location may be modified based on conditions encountered at the additional proposed boring locations.

With your concurrence and approval of the above described revised Phase 2 Subsurface Investigation Work Plan, B&L will schedule the work with Lyon Drilling, the subcontracted drilling firm. B&L will also work with the City to obtain permission to access the adjacent property owner(s) located to the south of the site for the purpose of performing the off-site portion of the supplemental subsurface investigation.

Please feel free to contact me at (518) 218-1801 should you have any questions regarding the above.

Very truly yours,

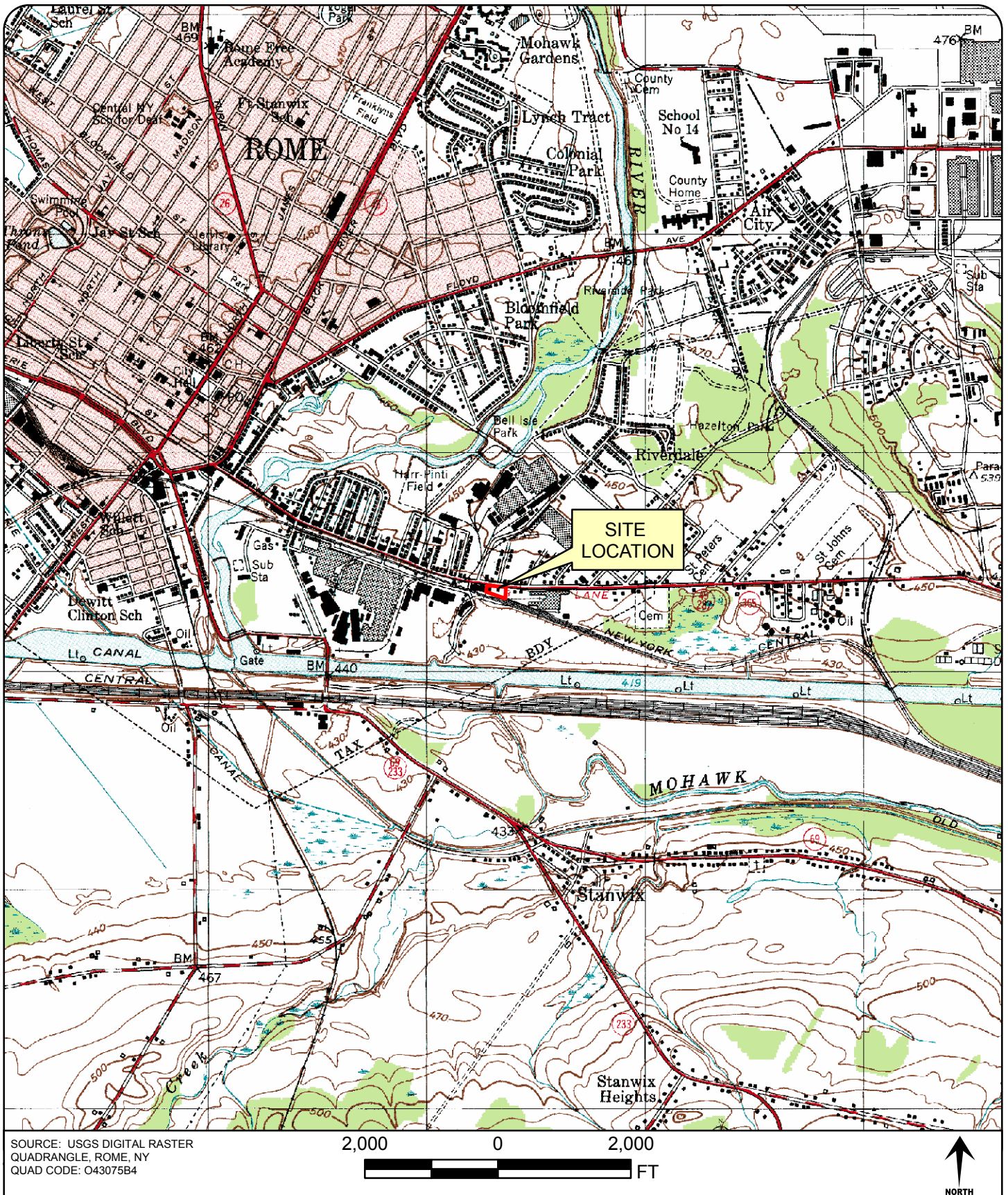
BARTON & LOGUIDICE, P.C.

Stephen B. Le Fevre P.G., C.P.G.
Managing Hydrogeologist

SBL/akg

Attachments

cc: Chris Mercurio, City of Rome



Barton & Loguidice, P.C.
 Engineers • Environmental Scientists • Planners • Landscape Architects

CITY OF ROME - 1030 EAST DOMINICK ST
 ENVIRONMENTAL RESTORATION PROJECT

SITE LOCATION

CITY OF ROME ONEIDA COUNTY NEW YORK

FIGURE NO.
 1
 PROJECT NO.
 245.005

NO ALTERATION PERMITTED
HEREON EXCEPT AS PROVIDED
UNDER SECTION 7209
SUBDIVISION 2 OF THE NEW
YORK STATE EDUCATION LAW.

COMPLETED CONSTRUCTION

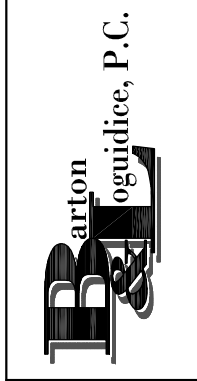
Significant Construction
Changes Are Shown

By _____ Date _____
Ck'd _____ Date _____

REVISIONS

No.	Description

CITY OF ROME
INTERIM REMEDIAL MEASURES (IRM) NO. 2
1030 EAST DOMINICK STREET
MONITORING WELL LOCATIONS
ONEIDA COUNTY, NEW YORK
CITY OF ROME

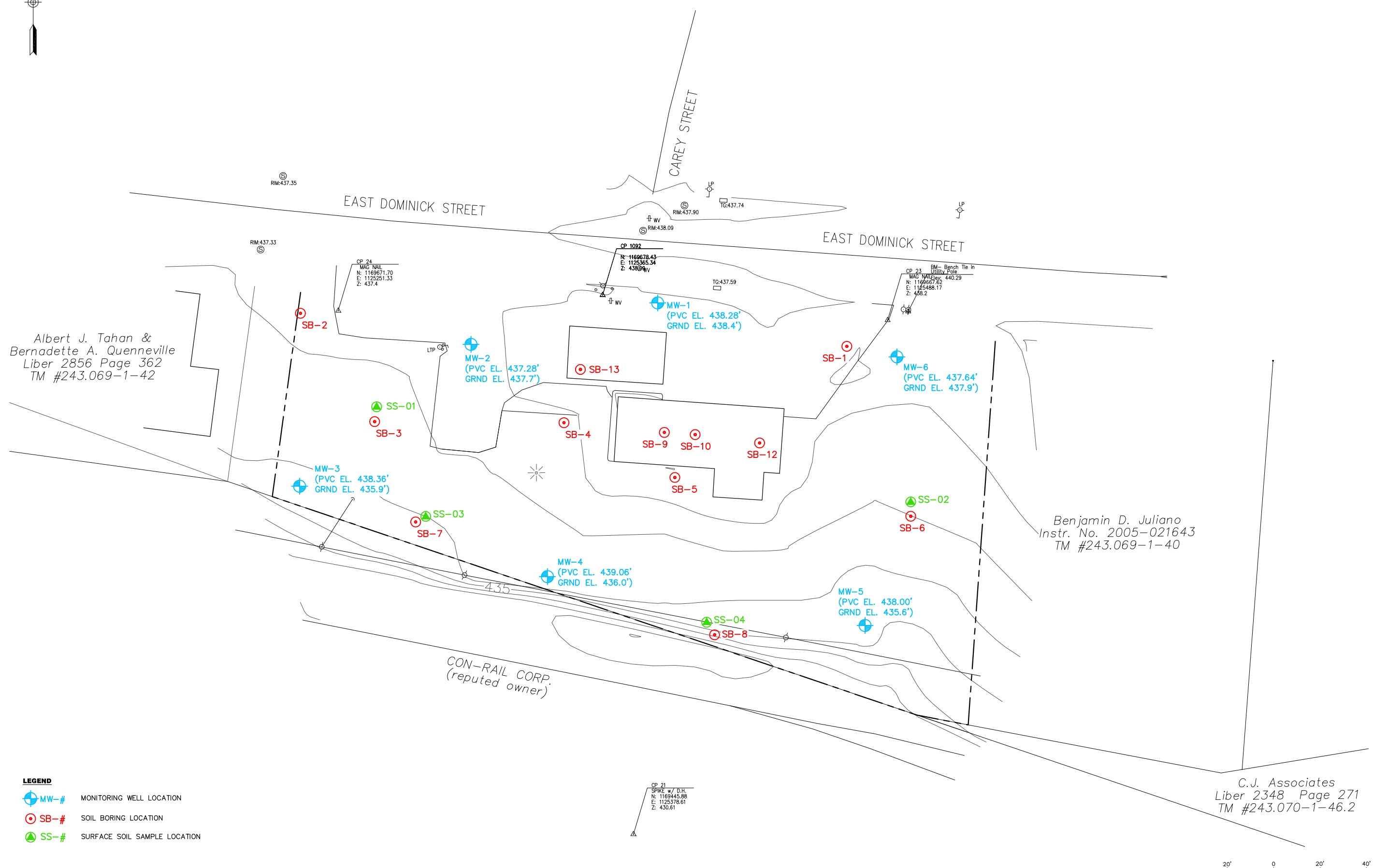


Date
MAY, 2010

Scale
AS SHOWN

Figure No.
2

File Number
245.005



Albert J. Tahan &
Bernadette A. Quenneville
Liber 2856 Page 362
TM #243.069-1-42

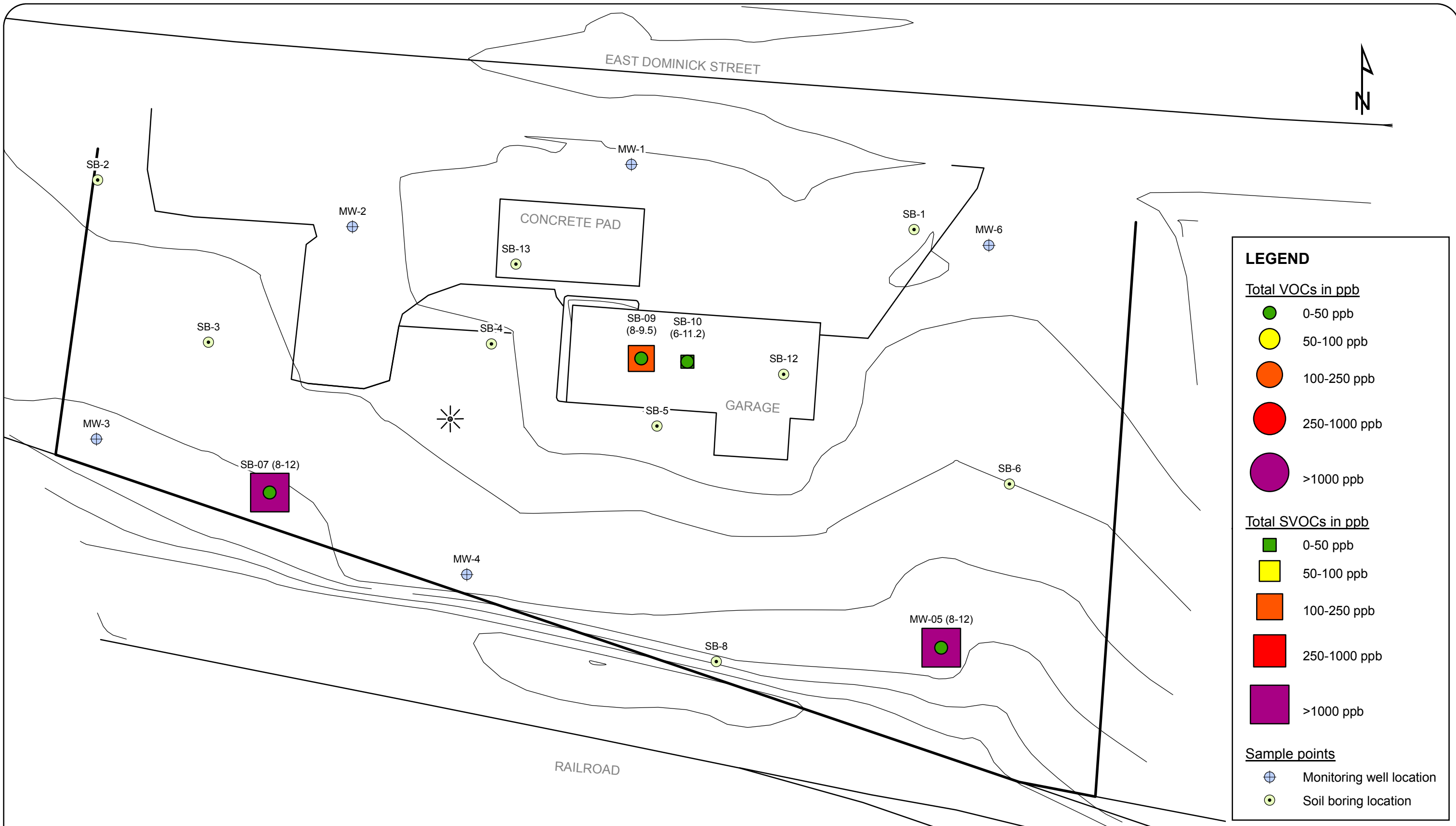
Benjamin D. Juliano
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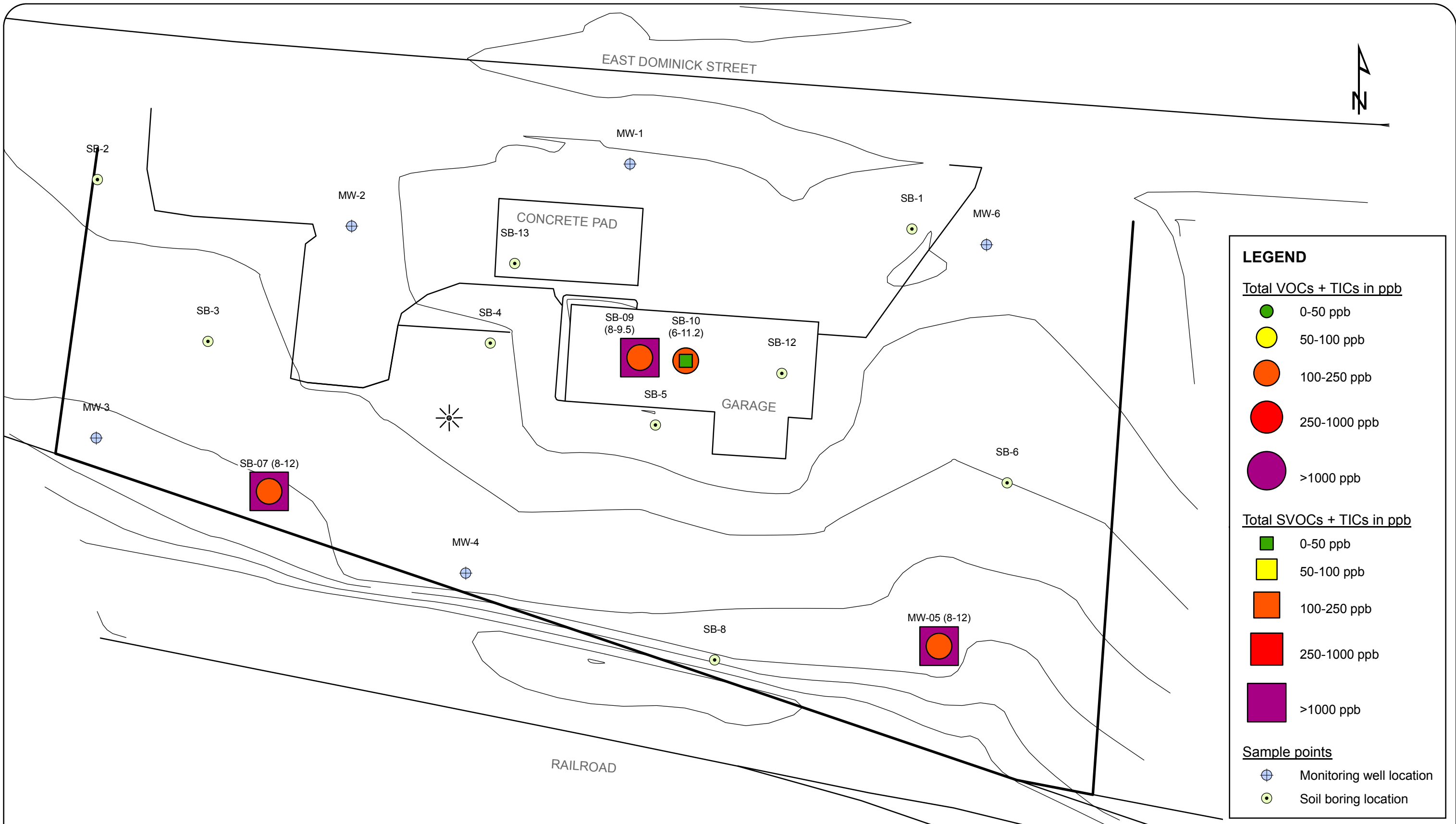
C.J. Associates
Liber 2348 Page 271
TM #243.070-1-46.2

- LEGEND**
- MW-# MONITORING WELL LOCATION
 - SB-# SOIL BORING LOCATION
 - SS-# SURFACE SOIL SAMPLE LOCATION

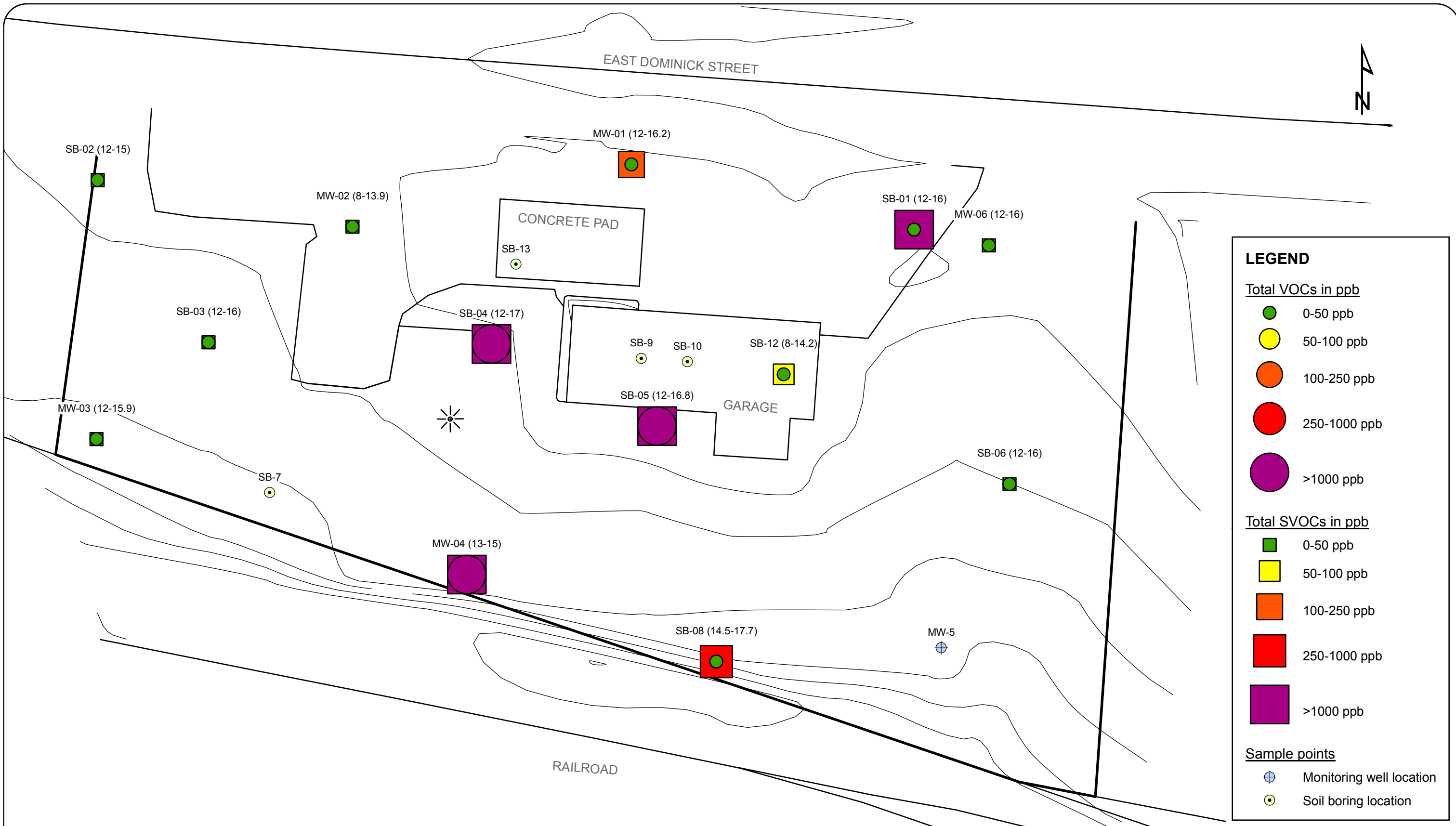
NOTE: SB LOCATIONS ARE APPROXIMATE.

Plotted: May 25, 2010 - 4:16PM
 i:\Shared\200\245005-S\MONITORING WELLS\245005_1030 E DOM_MON WELLS.dwg
 Checked by _____
 Drawn by _____
 JCS
 Designed by _____
 ICT/SBL
 In charge of _____
 SDN





SOURCE: Site survey prepared by Cornerstone Land Surveying



LEGEND

Total VOCs in ppb

- 0-50 ppb
- 50-100 ppb
- 100-250 ppb
- 250-1000 ppb
- >1000 ppb

Total SVOCs in ppb

- 0-50 ppb
- 50-100 ppb
- 100-250 ppb
- 250-1000 ppb
- >1000 ppb

Sample points

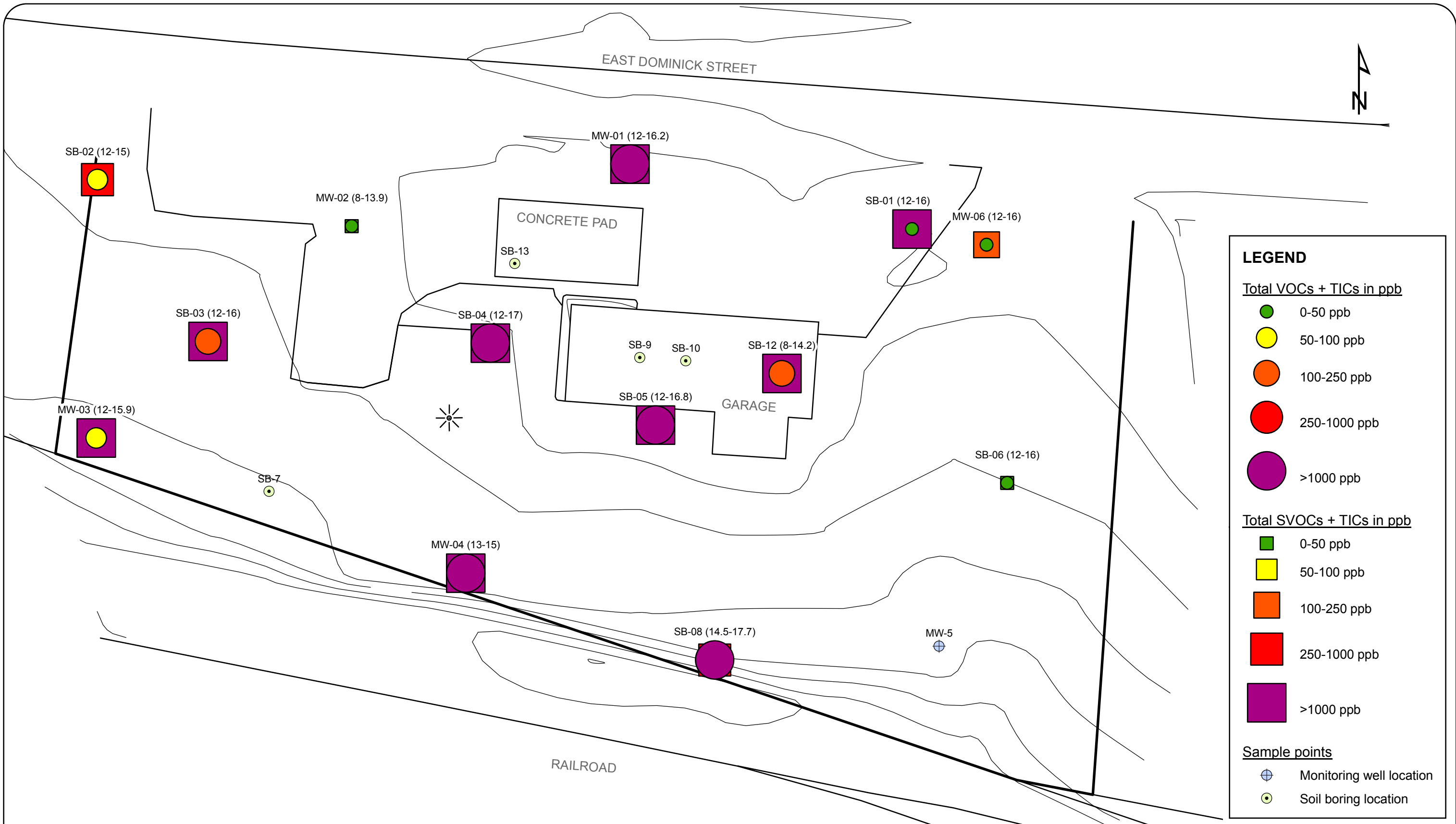
- ⊕ Monitoring well location
- ⊙ Soil boring location

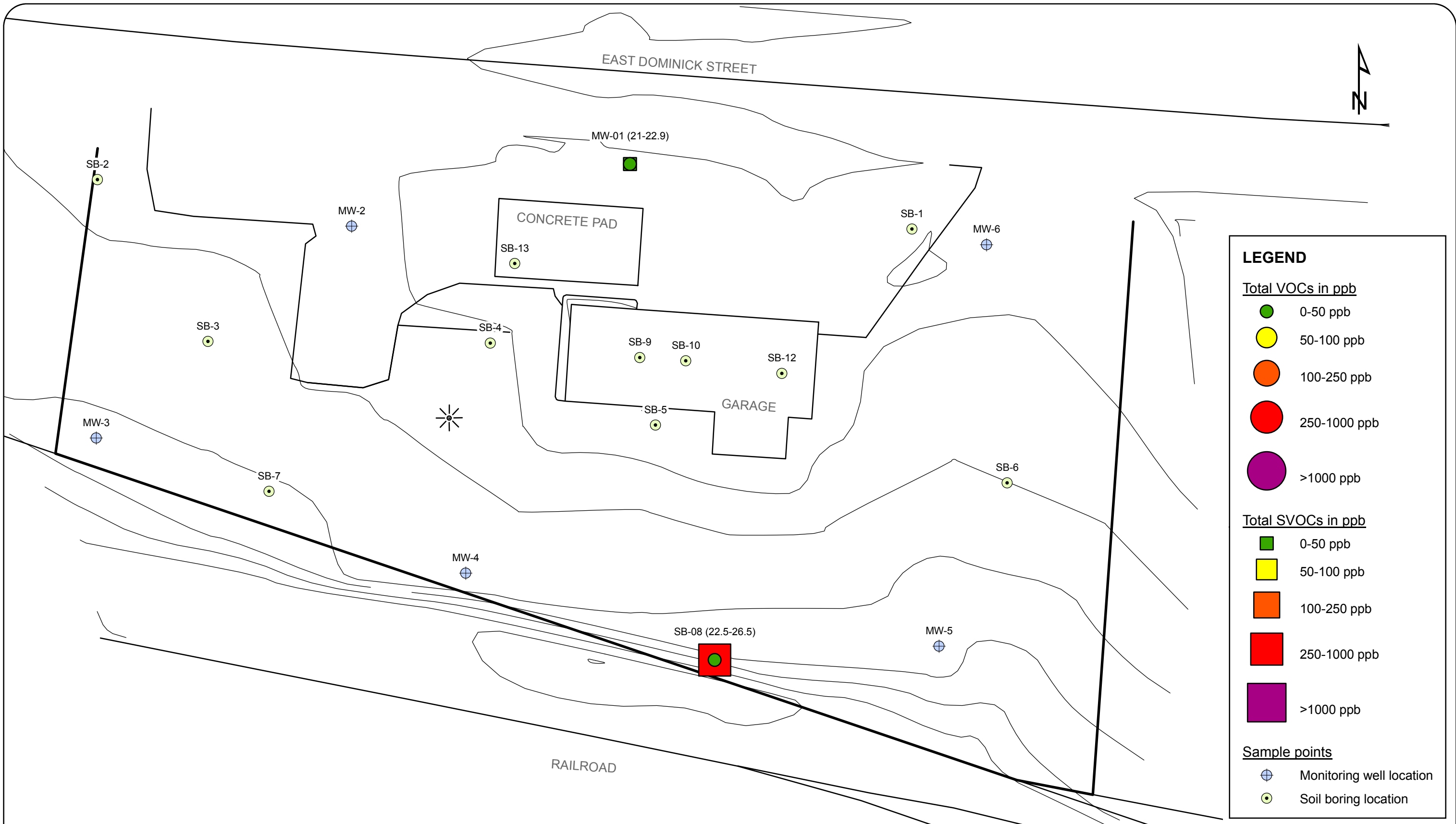


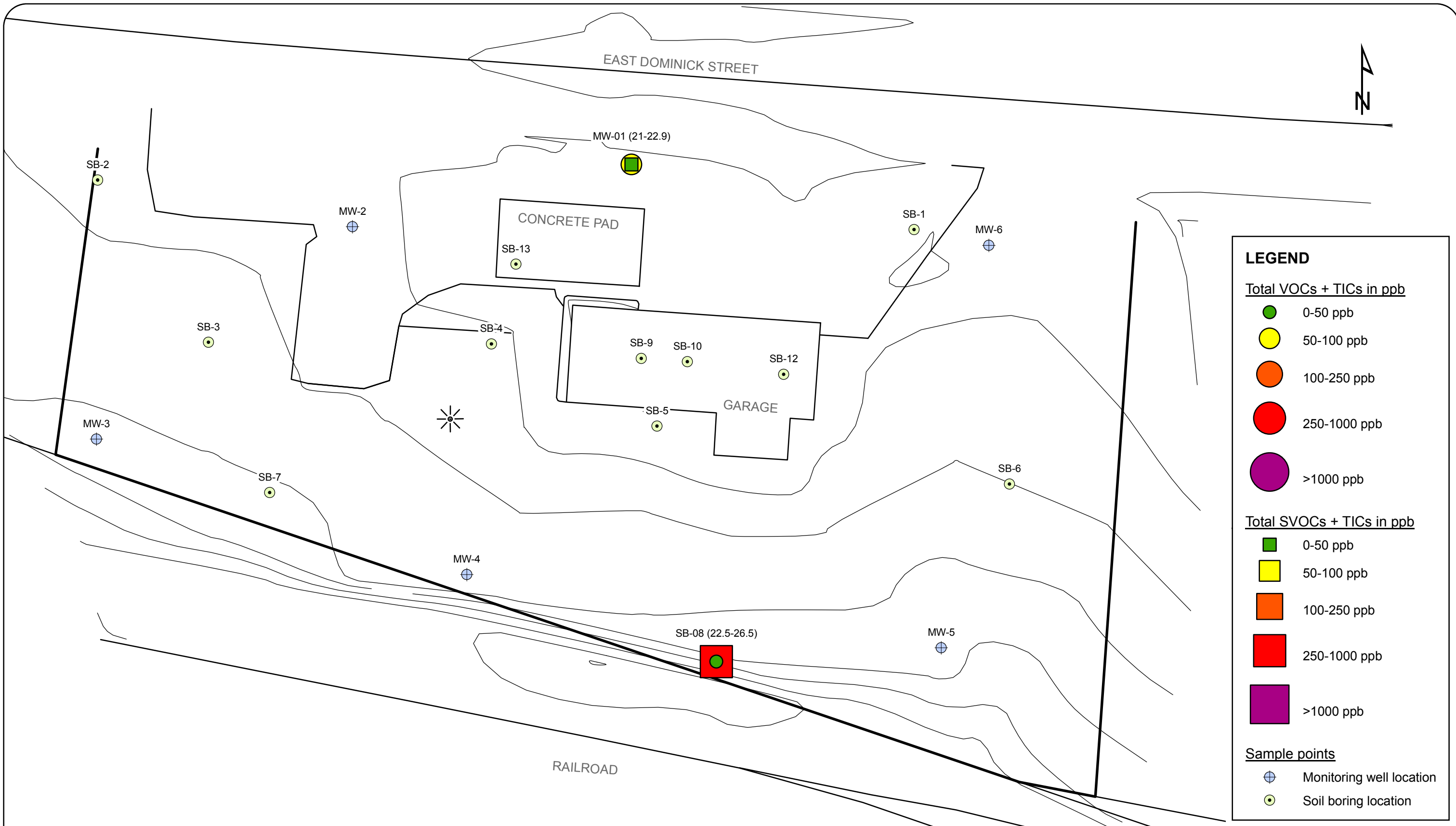
SOURCE: Site survey prepared by Cornerstone Land Surveying

CITY OF ROME - 1030 EAST DOMINICK ST
 ENVIRONMENTAL RESTORATION PROJECT
**BUBBLE PLOT SHOWING TOTAL DETECTABLE
 VOCs AND SVOCs IN SUBSURFACE SOIL
 SAMPLES FROM APPROX. 12'-16' DEPTH (PPB)**
 CITY OF ROME ONEIDA COUNTY NEW YORK

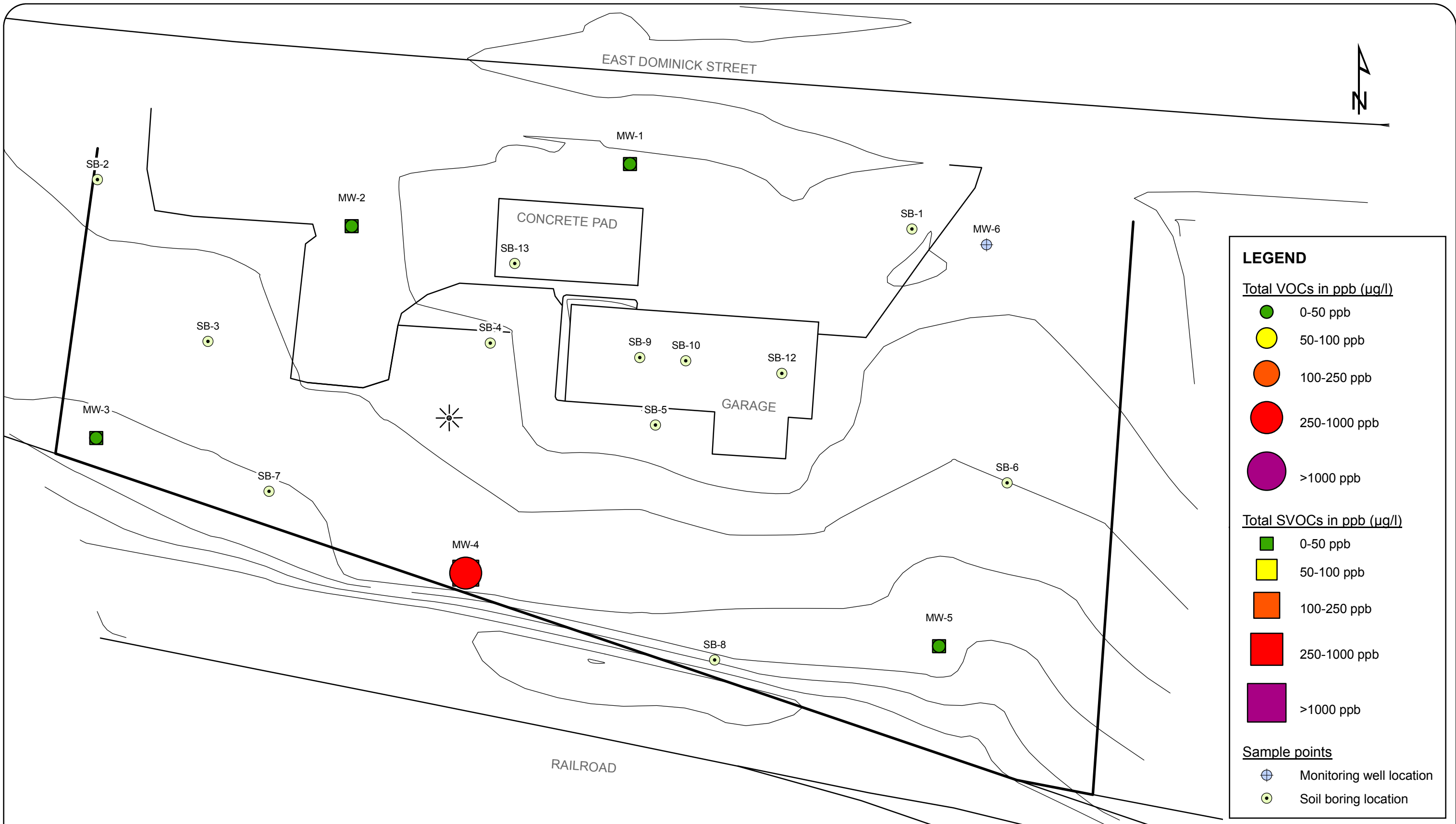
FIGURE NO.
 1030ED-03
 PROJECT NO.
 245.005

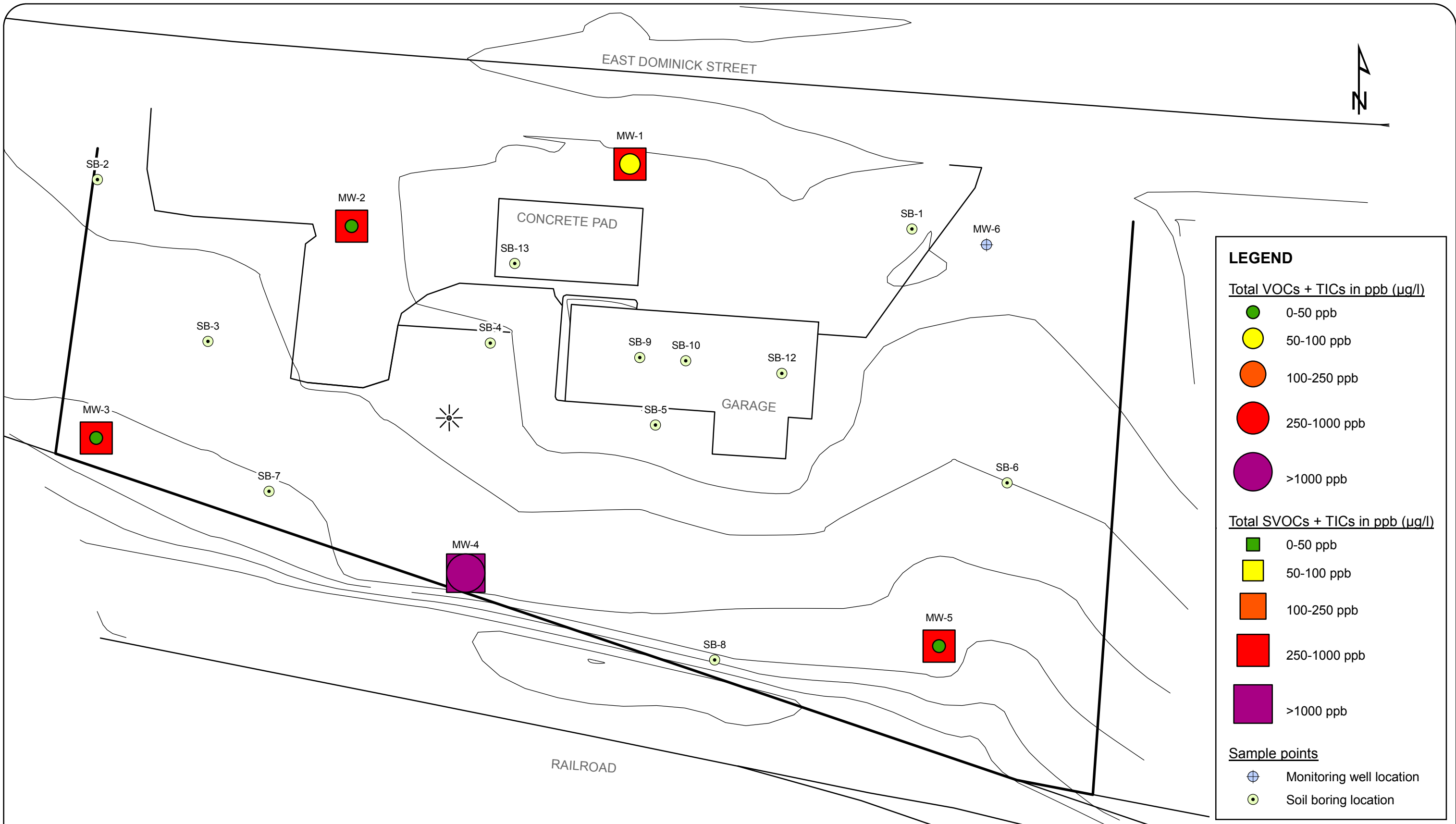


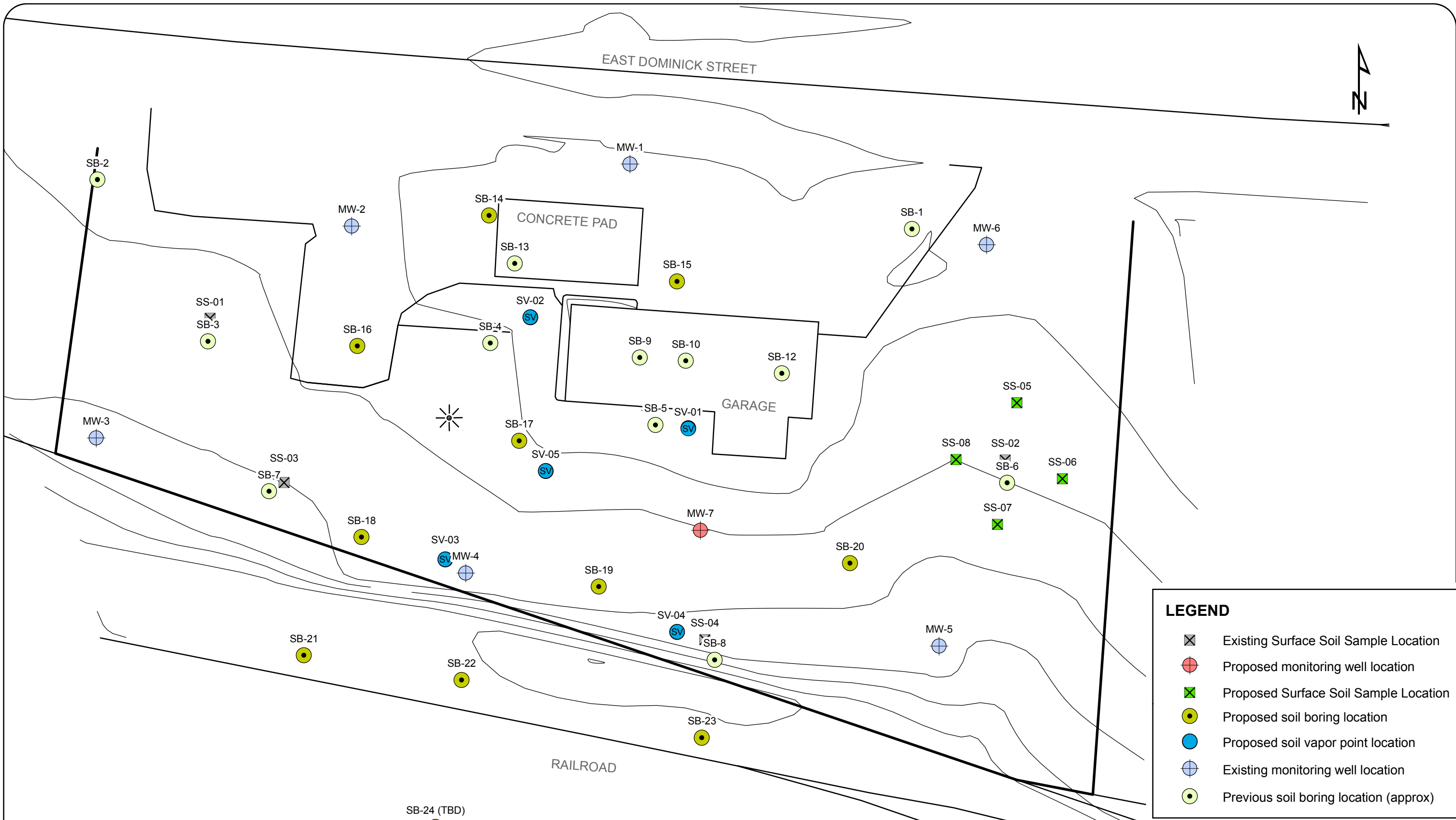




SOURCE: Site survey prepared by Cornerstone Land Surveying

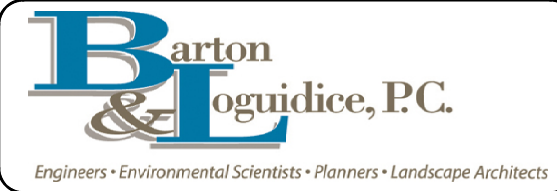






LEGEND

- ⊗ Existing Surface Soil Sample Location
- ⊕ Proposed monitoring well location
- ⊗ Proposed Surface Soil Sample Location
- Proposed soil boring location
- Proposed soil vapor point location
- ⊕ Existing monitoring well location
- Previous soil boring location (approx)



SOURCE: Site survey prepared by Cornerstone Land Surveying

CITY OF ROME - 1030 EAST DOMINICK ST
 ENVIRONMENTAL RESTORATION PROJECT
**PROPOSED ADDITIONAL SOIL BORING
 AND MONITORING WELL LOCATIONS**
 CITY OF ROME ONEIDA COUNTY NEW YORK

FIGURE NO.
1030ED-09
 Rev122011
 PROJECT NO.
 245.005