

Surface Soil Statistical Evaluation

South Minneapolis Soil Contamination Site, Minneapolis, MN

WA No. 016-RICO-B5BY, Contract No. EP-S5-06-01

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Introduction

The following is a summary of the statistical data evaluation performed on the surface soil results from the South Minneapolis Neighborhood Residential Soil Contamination Site (SMNRSCS). Results from sampling events conducted from 2001 through 2005 were combined with the most recent 2006 sampling results. Figure 1 provides the sample locations from the historic and 2006 sampling events. Statistical evaluations were conducted to evaluate differences in historic versus recent sampling events and evaluate sampling precision. Upon determination that the historic and recent data were compatible, a background concentration range was established, and sampling precision was evaluated comparing against the background concentration range and the 95 mg/Kg removal action criteria.

As part of the statistical data evaluation, the arsenic concentrations were evaluated in different directions and at various distances from the CMC Heartland Site (the facility) to determine if the distribution was consistent with aerial dispersion (wind-blown transport of materials) from the facility. Previous investigations had focused primarily on the area to the northwest of the CMC Heartland Site where arsenic based fertilizers were blended during summer months because prevailing winds during these months were from the southeast. The 2006 sampling involved sampling approximately $\frac{3}{4}$ -mile radius in all directions from the CMC Heartland Site. Wind rose data from the Minneapolis area indicate that winds are predominantly from the northwest from November through April, with prevailing winds from the southeast or south from May through October. Wind rose diagrams illustrating the direction from which the wind blows are provided in Attachment 1.

Study Differences: 2006 versus Historic

Table 1 lists the 97 parcel/yard combinations sampled during historic events and resampled in 2006. Records include block and parcel identifier; yard sampled and the reported 2006 and historic concentrations; and the relative percent difference (RPD) between historic and 2006 sample results, followed by the absolute value of the RPD. Two fields also document yes or no (Y/N) if the 2006_historic results exceed either the 10 mg/Kg background or 95 mg/Kg removal action concentrations. The upper panel includes the 13 results where both

2006 and historic results exceed the background. The middle two panels document the 7 cases where there are discrepancies between the two results with respect to exceeding the background. The lower portion of the table includes the remaining 77 parcel | yard results where neither the 2006 nor the historic reported concentration exceeds the 10 mg/Kg background level. Table 2 lists the percentile estimates of the difference between the 2006 and historic results.

Plots of historic versus 2006 arsenic concentrations from parcels or yards sampled during both events are presented in Figure 2, along with a plot of the difference versus the average concentrations. A boxplot is then used to show the distribution of paired differences (2006 concentration minus historic concentration).

The following observations have been made from this evaluation:

- Discrepancies in determining whether a parcel exceeds 10 mg/Kg occur in 7 of 97 cases. In 6 of those, 2006 results indicate that the arsenic level exceeds 10 mg/Kg but the historic result is less. The 7th results in the historic result exceeding 10 mg/Kg while the 2006 result is less than 10 mg/Kg. The remaining 90 cases (93 percent) give consistent results from the paired analyses, including 13 cases where both indicate that the parcel exceeds 10 mg/Kg and 77 where neither result exceeds.
- None of the 97 cases indicates a discrepancy in determining if the 95 mg/Kg removal action criterion has been exceeded.
- Testing the paired differences using a nonparametric test indicates that the reported concentrations differ between the 2006 and historic sampling events. This statistical 'significance' is put into context by the value of the actual reported difference, median of which is -0.7 mg/Kg, where difference is defined as the 2006 result minus the historic result. A 95 percent confidence interval about the median is -1.15 and 0.1 mg/Kg (Table 2). Discrepancies become significant only at the upper bound of the distribution, at the 90th percentile.

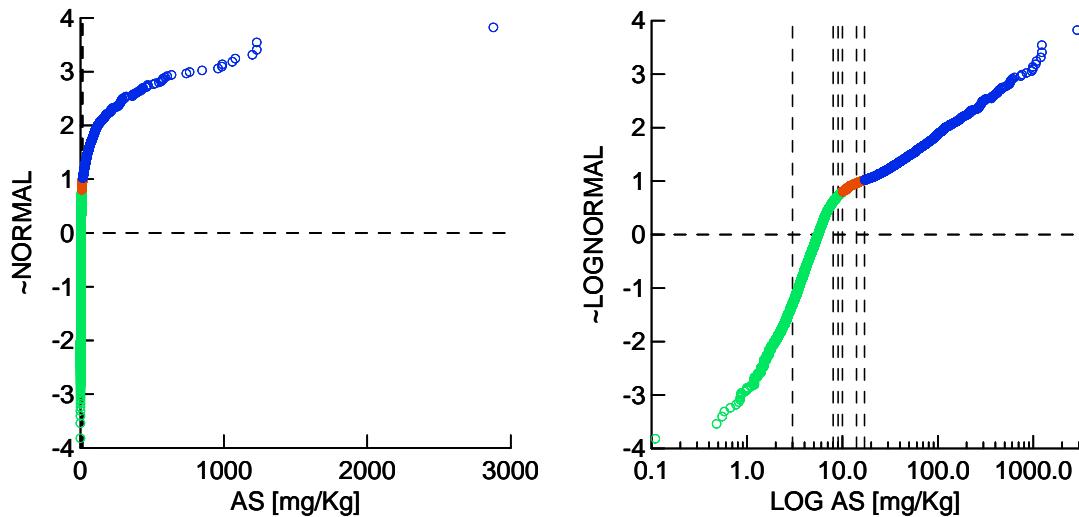
It must be noted that no parcels exceeding 95 mg/Kg were sampled for this comparison because removal actions were already completed on the historic properties exceeding 95 mg/Kg.

Background Determination

Background evaluations were conducted in January 2006 during an evaluation of available historic data. Those evaluations have been regenerated for the combined 2006 and historic sample results, focusing on the probability plots of arsenic values from both the historic and 2006 investigation (7519 sample results total) and the nature of estimates of central tendency and upper bounds of various potential background subsets with differing maximum values. Statistical methods involved the use of probability plots, goodness-of-fit tests and point-interval estimations.

Probability plots are graphical displays used to compare observations to theoretical distributions. Ordered concentrations (x-axis) are plotted against the corresponding estimated cumulative probabilities for the distribution tested, log normal or normal (y-axis). Points which lie on a straight line indicate a positive correlation between the observed

values and the theoretical distribution. The following figures plot the 7519 arsenic concentrations (left panel) and log transformed arsenic concentrations (right panel) against the corresponding probability assuming a normal distribution; thus, testing for normal and log normal distributions:



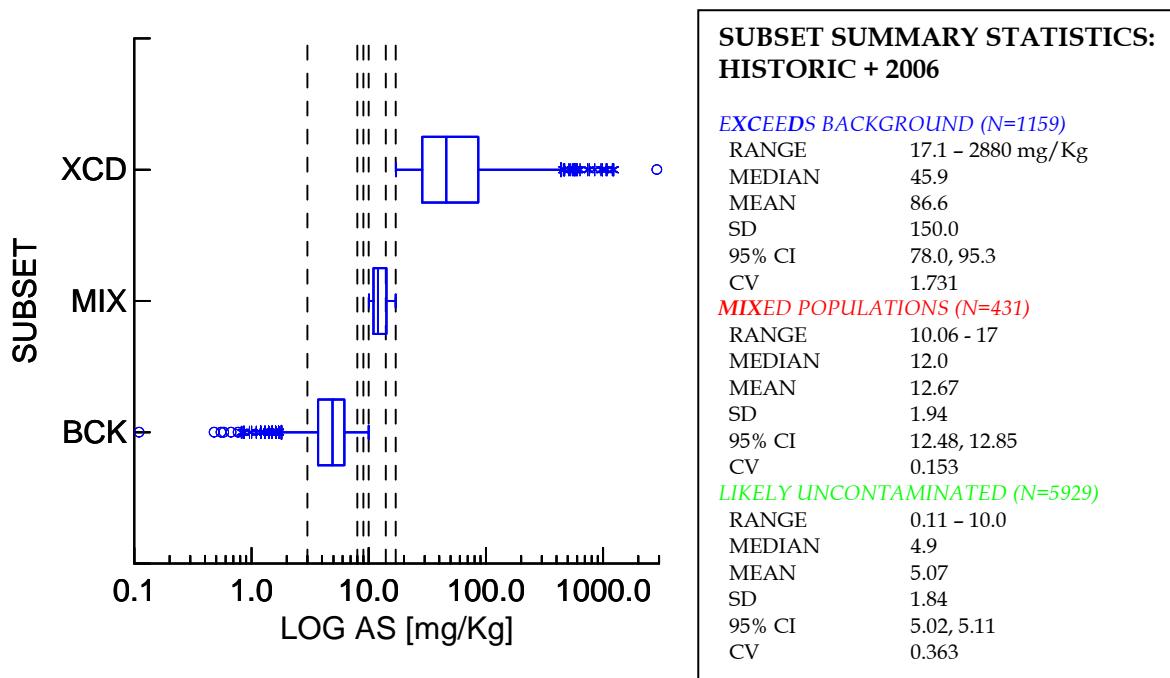
The broken lines cut the x-axis at arsenic concentrations which correspond to literature values originally proposed for background arsenic concentrations at the SMNRSCS, including:

- Minnesota Department of Health (MDH)/Minnesota Department of Agriculture (MDA) determined background concentration of 4–5 mg/kg (Tetra Tech, 2005)
- US Borax investigation neighborhood background concentration of 7.15 mg/kg (Geomega, 2004)
- Background arsenic concentration of 12 mg/kg or lower (MDA, 2003)
- Morris Arsenic Dump background (Morris, MN) of 3 – 14 mg/kg (EPA, 2006).

The untransformed values in the left panel are compressed at the lower range of concentrations so the broken lines which are distinct in the log transform-scaled panel (on the right) collapse into what appears to be a single line.

The above figures indicate several things. First, the arsenic data are neither normally nor log normally distributed. Next, the break in the plots suggests the existence of two distinct and different distributions (bimodal). The set of color-coded green points corresponds to lower ‘background’ levels while the dark blue points indicate a population that is distinctly different, evidencing a flatter slope, limited to concentrations in excess of approximately 16–17 mg/kg. Points coded red suggest a region of potentially ‘mixed’ results, the range over which the highest background and the lowest contaminated results overlap. The subsets indicated in the arsenic probability plot correspond to arsenic levels from the minimum detected to 10 mg/Kg (preliminarily ‘background’), concentrations in excess of 17 mg/Kg (exceeding background) and the intermediate concentrations greater than 10 mg/Kg but less than 17 mg/Kg, which are mixed points, overlapping the upper bound of background

and lower bound of contamination. A boxplot comparing the three subsets, including summary statistics follows:



The arsenic results less than 10 mg/Kg (5929 results) represent the majority of available results. While this lower portion of the probability plot appears to represent a single population, the distribution may be artificially truncated at the upper end. Potential background populations were examined by successively limiting the potential background datasets from <20 mg/Kg, decreasing by 1 mg/Kg, down to <3 mg/Kg. Statistical evaluations of the 19 subsets included goodness-of-fit tests for normal and lognormal distributions using the Shapiro-Francia test; point-interval estimates using nonparametric estimation methods of the 50th, 95th and 99th percentiles of the distribution. Nonparametric estimates are listed in Table 3. Sample size, median and upper 95th and upper 99th upper tolerance levels (UTLs) with confidence intervals are plotted against the subset maximum concentration in Figure 3.

The following observations were made from the evaluation of historic and 2006 surface soil sampling results:

- The background range developed for the project is: <10 mg/Kg represents background; >10 mg/Kg and <17 mg/Kg represents mixed results background and contaminated soils; and > 17mg/Kg soils affected by arsenic contamination.
- The bimodal nature of arsenic concentrations in soils originally observed in the historic data is corroborated in the full data set which includes both the historic and 2006 results.
- Best estimates have been based upon nonparametric rank statistics.
- Comparison of subsets with maximum values ranging from 3 to 20 mg/Kg indicate comparative stability in median values for subsets with maxima ranging from 10 to 20 mg/Kg. The 95th UTL flattens at approximately 17 mg/Kg while the 99th climbs on track with the maximum selected.

- There is subjectivity in selecting the cutpoint maximum of the mixed population when the background is being identified from within the area of investigation as opposed to an unimpacted area with similar features. The maximum 17 mg/Kg strikes a midground in identifying an upper limit on background without clearly extending into the obviously contaminated levels.
- The subset of values less than 17 mg/Kg includes 6325 observations with median, upper 95th and upper 99th percentile estimates of 5.1, 11.0 and 14.4 mg/Kg. Confidence intervals about those estimates are: (5.0, 5.1), (10.6, 11.0) and (14.0, 14.8) mg/Kg, respectively. The upper bound of the background range (14.8 mg/Kg) may be considered for use as background for the risk assessment.

Linking Elevated Arsenic Concentrations to the CMC Site

Direction and distance from the facility are major factors in the analyses provided. Rings around the site at 500, 750, 1000, 1250, 1500, and 1750 meters were utilized to create subsets of data for the evaluation of distance Figure 1. Figure 1 also displays the 8 octants centered around the facility: N, NE, E, SE, S, SW, W and NW. The intended degrees within each octant are defined clockwise from north (0°), with the associated sample counts per direction, as follows:

OCTANT	Target	Actual	Count
	Degrees	Degrees	
1_NW	292.5 - 337.5	292.50 - 337.48	1692
2_W	247.5 - 292.5	247.53 - 292.43	1452
3_SW	202.5 - 247.5	202.55 - 247.45	956
4_S	157.5 - 202.5	157.53 - 202.49	1267
5_N	337.5 - 22.5	0.001 - 359.96	516
6_NE	22.5 - 67.5	22.54 - 67.36	729
7_E	67.5 - 112.5	67.71 - 112.49	470
8_SE	112.5 - 157.5	112.49 - 157.44	437
<i>TOTAL</i>			<i>7519</i>

Arsenic Concentration as Function of Distance from Facility

Figure 4 plots sample size (upper panel), median concentration with confidence intervals (middle panel), and the 95th UTL with confidence intervals, for arsenic concentrations as a function of distance from the facility. Distance breaks are 250 meter increments beyond 500 meters from the facility. Samples closer than 500 meters are limited to 4 directions, including: SE, S, SW and W. Estimated concentrations used in Figure 4 are summarized in Table 4. Plots and estimates include concentrations within individual rings (e.g., from 0 to 500 meters, from >500 up to 750 meters) and within concentric circles of the indicated radius (e.g., 0-500 meters, 0-750 meters). Figure 5 is boxplot of arsenic concentrations corresponding to non-overlapping concentric rings around the facility at distances indicated.

The following observations relate to the evaluation of arsenic concentration as a function of distance from the facility:

- Estimates based upon both ring and circle evaluations document the overall decreasing median arsenic concentration as a function of distance from the facility. The median of samples collected within 500 meters of the facility is 7.8 mg/Kg (with 95 percent confidence interval of 7.1 and 8.5 mg/Kg). This is higher than concentrations observed in the ring between 1250 and 1500 meters where the median concentration is 5.2 mg/Kg or the entire population of samples within a circle of radius 1500 meters where the median estimate is 5.6 mg/Kg. This is also higher than concentrations observed in samples collected between 1500 and 1750 meters where the median concentration is 3.5 mg/Kg. However, samples collected at distances between 1500 and 1750 meters are limited to the NW and N octants which limits the validity of the comparison at these distances.
- Ring and circle estimates of the median concentration track until a distance of approximately 1500 meters, at which point the ring-specific estimates drop markedly. Samples collected at a distance of 1500 meters or greater are limited to the NW and N octants, limiting the validity of the comparison. As a result, ring and circle estimates were prepared by octant to further evaluate the distance trends in each direction. These results are presented later in an evaluation by octants.
- Boxplot comparison of ring subsets corroborates results from a nonparametric test which indicates statistically significant differences among rings. Rings at 1000 and 1500 meters do not differ from each other, but do differ from the intervening 1250 meter ring.
- Boxplots show that exceedances of the 95 mg/Kg removal action limit occur up to the 1500 meter ring but as atypical values at all distances from the facility.
- The 75th percentile exceeds 10 mg/Kg only within the first 500 meter ring.

Arsenic Concentration as Function of Direction from Facility

Figure 6 is a boxplot of arsenic concentration across octants. Figure 7 includes boxplots of arsenic concentrations in the 8 directions from the facility at distances ranging from 500 to 1750 meters. Table 5 documents results comparing octants at the different distances where cell entries indicate the sample size, the probability of the test statistics, where <0.05 indicates statistically significant differences, followed by the average rank where 1 is highest, 8 is lowest, for each direction. The upper panel of the table lists results for distances (750 meters or less) where individual direction sample sizes limit interpretation of results. The lower panel lists results from distances greater than 1000 meters from the facility.

The following observations were made regarding arsenic concentration as a function of direction from the facility:

- At distances greater than 750 meters, concentrations in different octants differ significantly. The trend is consistent with highest concentrations occurring in SE and E (ranks 1 and 2 at all distances greater than 1000 meters); comparatively lower concentrations in S, SW and W (ranks 3-5); with lowest concentrations consistently in NW, NE and N (ranks 6-8).
- There are discrepancies in relative concentrations in different directions at different distances.
- There are individual samples with concentrations which exceed 95 mg/Kg in all directions from the facility at virtually all distances.

Directional Plots at Different Concentration Levels

Figure 7 is a boxplot of the octants at 6 distances from the facility. Figures 8-1 through 8-8 are condition plots of arsenic concentration versus distance from facility in the 8 directions at 8 different levels of arsenic concentration. The arsenic concentrations include: up to 6.5, 10, 17, 30, 50, 75, 95 and 2880 mg/Kg. Table 6 documents regression results from least squares best linear fit using results at all distances in the 8 directions. Data summarized in Table 6 includes: sample size; regression F-test; probability of the F-test where < 0.05 is considered 'significant'; adjusted R-square statistics; and the direction of the slope estimate for 'significant' results. Based upon wind rose evaluations (Attachment 1), predominant winds are from the southeast to the northwest in the summer and from the northwest to the southeast in the winter. Based on the conceptual site model of wind dispersion, contamination is expected to trend outward from the site in both the northwest and southeast directions.

Observations from evaluation of directional plots at different concentration levels include:

- Concentration plots versus distance from facility are consistent across each concentration level in the following directions: northeast and south (increasing), northwest and west (decreasing) and southeast where a localized increase-to-sharp decrease at ~ 1200 meters occurs. Linear regression fits are significant in all five, including a decrease with distance to the southeast. **While the fits are significant, the high variability in the data limits predictability of the relationships.**
- Concentration plots exhibit minor differences in the pattern of concentration with distance from the facility at low concentration levels in three directions: east, north and southwest. Moving east from the facility, low arsenic concentrations are influenced by one or more distant samples which pull the smoothed line upward, while at other concentration levels, there is a fairly consistent downward trend. In the north direction, low levels exhibit an increase with distance from the facility while at mid to higher levels, there is a concave pattern, with initial decreases moving from the facility then increasing at locations farther from the facility. In the southwest direction, low level concentrations appear flat while higher level concentrations exhibit slightly decreasing trends with distance. Regression fits are not significant in these three directions.

Arsenic Concentration Estimates within Octants at Different Distances from the Facility

Figures 9-1 and 9-2 display arsenic concentrations at distances from 500 to 1750 meters from the facility in each of the 8 octants. Figure 9-1 includes panels for northwest, west, southwest and south octants. Figure 9-2 includes panels for north, northeast, east and southeast octants. Octant-specific results in the two figures are displayed in three plots per panel: sample size (upper), median estimate and confidence intervals (middle), and upper 95th UTL estimate and confidence intervals (lower), each plotted against distance from the facility. Similar to the overall plot given in Figure 4, color coding distinguishes between ring and circle subsets. Table 7 lists the estimates used in the plots, including sample size; median best estimate; confidence of the nonparametric interval; the lower and upper limits on the median estimate; the best estimate of the 95th UTL; the confidence of the associated nonparametric interval; and the lower and upper limits on the 95th UTL. Octant-specific results are broken into the subsets of circle (including all points less than the distance from

the facility) and ring (including points between two distances from the facility) and sorted by distance.

Observations from evaluation of directional plots at different distances include:

- Sample distribution among octants is apparent in the plots. East and northeast octants are limited to single observations within the 500 meter radius. Samples at greater than 1500 meters from the facility occur only in the N and NW octants. The sample distribution is a result of the location of commercial and industrial properties (commercial and industrial properties were not sampled in this investigation) as well as the investigation boundary.
- Patterns in the circle estimates corroborate the regressions previously discussed. No 'significant' trend in arsenic concentration with distance from the facility is observable in the north, east or southwest octants. Decreasing trend in median and best estimate arsenic concentration with distance from the facility is observable to the northwest, west (beyond 500 meters) and the southeast. Arsenic concentrations increase with distance from the facility in the northeast and south. **While the trends are significant, the high variability in the data limits predictability of the relationships.**
- Discrepancies between ring and circle estimates are useful to identify where localized behavior differs from observations closer to the facility. For example, in the E and SE octants, ring estimates for the 95th UTL at distances beyond 1250 meters are elevated as compared to the circle estimates. In the case of the E octant, the small sample size influences the observed effect. However, samples sizes in the S octant outer rings (N= 336) are sufficient to document that the elevated concentrations within the outer concentric rings are real.

Evaluation of Replicate and Duplicate Results

Reliability of arsenic quantitation has been examined by comparing paired results collected as replicate or duplicate samples. Replicate samples consisted of two separate composites collected from the same yard. The original five on the dice pattern was rotated 45° for collection of the second sample. A total of 276 paired replicates were collected during the 2006 sampling effort. A duplicate sample was collected by splitting sample volume from a 'parent' sample. A total of 342 paired duplicates were collected during the 2006 sampling effort. Cases in which duplicates and replicates are from the same location (nested) are limited to 4 locations. Potentially different variability structures at different locations means that differences between small-scale (duplicate) and larger-scale (yard replicate) information are not directly comparable.

Three measures have been applied in the evaluations. The first is comparison of the paired results to the conservative background criterion of 10 mg/Kg. Paired results include: 'Y_Y' where both exceed the background; 'N_N' where neither exceeds; and either 'N_Y' or 'Y_N' where one exceeds and the other does not. Additionally, pairs have been used to calculate RPD and absolute RPD (RPDabsolute). RPD is the percentage of the average represented by the difference between the two concentrations. In most instances, it is equally likely that the parent or the paired replicate/duplicate would be greater, meaning theoretically the RPD should average zero. The alternate calculation is the absolute value of the RPD where sign is

not accounted for and which gives a more conservative estimate of the variability between paired results.

Table 8 summarizes duplicate and replicate results from paired sample results by octant. Results have been distinguished by classes of consistent and inconsistent results. Within class, results are summarized by the count of observations per class per octant, followed by the mean RPD_{Absolute}. Figures 10-1 and 10-2 compare replicate and duplicate RPD and RPD absolute, respectively. Paired boxplots show potential differences across octants (left column) and distances from the facility. Tabled values below the plots give results from nonparametric comparisons across type of pair (replicate versus duplicate) and across octants and distances from the facility.

Observations from evaluation of replicate and duplicate results include:

- The majority of replicate and duplicate paired sample results give consistent results; 558 of the 618 total pairs or, 95 percent.
- Segregated by replicates versus duplicates, consistent results account for 334 of the 342 duplicates (98 percent) and 254 of the 276 replicates (92 percent).
- The range of RPD for duplicates is -158.4 to +172.0 percent, averaging -0.9 percent. Range of RPD for replicates is -170.9 to +176.6 percent, averaging +0.4 percent.
- Ranges and averages of absolute RPD are: 0 to 172 percent (14.3 percent average) for duplicates and 0 to 176.6 percent (averaging 25.2 percent) for replicates.
- While there are no acceptable RPD values for either field duplicates or replicates, laboratory replicates on this order for arsenic quantification are acceptable from a QA perspective.
- Comparisons of RPDs indicate no statistically significant differences between replicate and duplicate pairs. There are no significant differences among either direction (octants) or distance (meters) from the facility with respect to duplicate or replicate RPD of arsenic measures.
- Absolute RPDs do differ significantly between replicate and duplicate pairs with replicates, which represent true field variability, exhibiting slightly higher absolute differences between pairs than simple measurement split duplicate pairs.
- Replicate absolute RPDs do not differ as a function of distance from the facility. There are, however, differences among direction with higher variability evidenced in the S octant than in either the SW, E or SE octants.

Multiple Yard Parcel Comparisons

The 7519 arsenic results correspond to samples collected on 3596 individual parcels. Two or more independent samples (non-replicate, non-duplicate) were collected on 2958 of the parcels. Table 9 lists the 2958 cases, including: parcel and block ids; octant; distance class; count of samples; results from the individual yards (back, front, garden, other, side, unknown); binary field Y/N for both the background and removal action criteria, indicating whether the minimum_maximum of the yard results exceeds the criterion; and minimum, maximum and RPD of all yard samples where the RPD is fixed to a positive value by consistently subtracting the minimum from the maximum. Figure 11 compares RPD by octant and distance from the facility.

Observations from evaluation of multiple yard sample results include:

- Of the 2958 multi-yard properties, 2139 parcels (72 percent) would have been considered less than the 10 mg/Kg and/or less than the 95 mg/Kg removal action concentration, regardless of yard sampled. RPDs in this subset of parcels range from 0 to 153 percent, averaging 25 percent.
- 52 of the parcels would have been considered elevated above both criteria, regardless of yard sampled, representing another 2 percent where yard results give internally consistent results. RPDs in the subset range between 4 and 158 percent, averaging 62 percent.
- 321 parcels have results which are all below the 95 mg/Kg removal action limit but have minimum and maximum results which are inconsistent with respect to the 10 mg/Kg background level. The 321 parcels represent 11 percent of the parcels with multiple yard results and RPDs range between 3 and 181 percent, averaging 97 percent.
- 432 parcels have results all of which exceed the 10 mg/Kg background. 326 are consistent with no exceedance of 95 mg/Kg (another 11 percent with overall yards consistent results with respect to both criteria). On the remaining 106 parcels, the minimum yard result is less than the 95 mg/Kg removal action concentration while the maximum exceeds. RPDs for the 326 cases range from 0 to 152 percent, averaging 49 percent. The more inconsistent 106 parcel RPDs range from 12 to 192 percent, averaging 107 percent.
- The final 14 parcels have minimum concentrations which are less than both criteria but maximum concentrations which exceed the two criteria. Results are consistently different at both levels and RPDs are high, ranging between 167 and 195 percent, averaging 184 percent.
- Explicit comparison of the RPDs indicates no statistically significant differences across distances from the facility.
- As indicated in the boxplot of octants, RPDs of results from multiple yards within parcels in the S octant are significantly greater than the remaining octants.

Summary of the Observations

Historic Data and 2006

- Data are comparable, and the datasets can be combined.
- Discrepancies become substantive only at the upper bound of the distribution, at the 90th percentile.

Background Evaluation

- 1159 samples exceed background with a range of 17 mg/Kg to 2880 mg/Kg
- 431 samples are present in the mixed population of higher level background concentrations and low level contamination from 10 mg/kg to 17 mg/kg
- 5929 samples are within the conservative background concentration range of 0.11 mg/kg to 10 mg/kg.

- The combination of the 2006 results with the historic sample results did not result in a significantly different evaluation of the background concentration range than was determined using only the historic sample results.

Arsenic Concentration as a Function of Distance

- The 75th percentile exceeds 10 mg/Kg concentration only within the first 500 meter ring.
- Boxplots show that exceedances of the 95 mg/Kg removal action limit occur up to the 1500 meter ring but as atypical values at all distances from the facility.

Arsenic Concentration as a Function of Direction

- At distances greater than 750 meters, concentrations in different octants are significantly different.
- The trend is consistent with highest concentrations occurring in SE and E (ranks 1 and 2); comparatively lower concentrations in S, SW and W (ranks 3-5); with lowest concentrations consistently in NW, NE and N (ranks 6-8).
- There are individual samples with concentrations which exceed 95 mg/Kg in all directions from the facility at virtually all distances.

Directional Plots at Different Concentration Levels

- Regression fits are significant but weak in 5 directions (Figure 8-1 to 8-8, Table 6):
 - Northeast – increasing
 - South – increasing
 - Northwest – decreasing
 - West – decreasing
 - Southeast – decreasing (localized increase then sharp decrease shown on plots).
- While the fits are significant in all 5 directions, variability in the data limits predictability of the relationships.

Arsenic Concentration Estimates within Octants

- Patterns in the circle estimates for the median concentration corroborate the regressions discussed in the directional plots.

Replicate/Duplicate Results (Figure 10-1 to 10-2 and Table 3)

- Ranges and averages of absolute RPD are 0 – 172% with an average of 14% for duplicates and 0 – 177%, averaging 25% for replicates.
- Absolute RPDs differ significantly between replicate and duplicate pairs. Replicate pairs, which more accurately represent true field variability, exhibit higher variability.
- There are no significant differences among either direction or distance from the facility in terms of the duplicate RPDs.
- There are differences in replicate RPDs with higher variability evidenced in the S octant than in either the SW, E or SE octant.

Multiple Yard Comparisons

- Of the 2958 multi-yard properties, 2139 parcels (72 percent) of the front, side or back yard results fell within the same concentration range with respect to their relative relationship to background or the removal action limit. RPDs in this subset of parcels range from 0 to 153 percent, averaging 25 percent.
- On 106 parcels, the minimum yard result is less than the 95 mg/Kg removal action concentration while the maximum exceeds. The RPDs for the 106 parcels range from 12 to 192 percent, averaging 107 percent.

Conclusions from the Statistical Evaluation

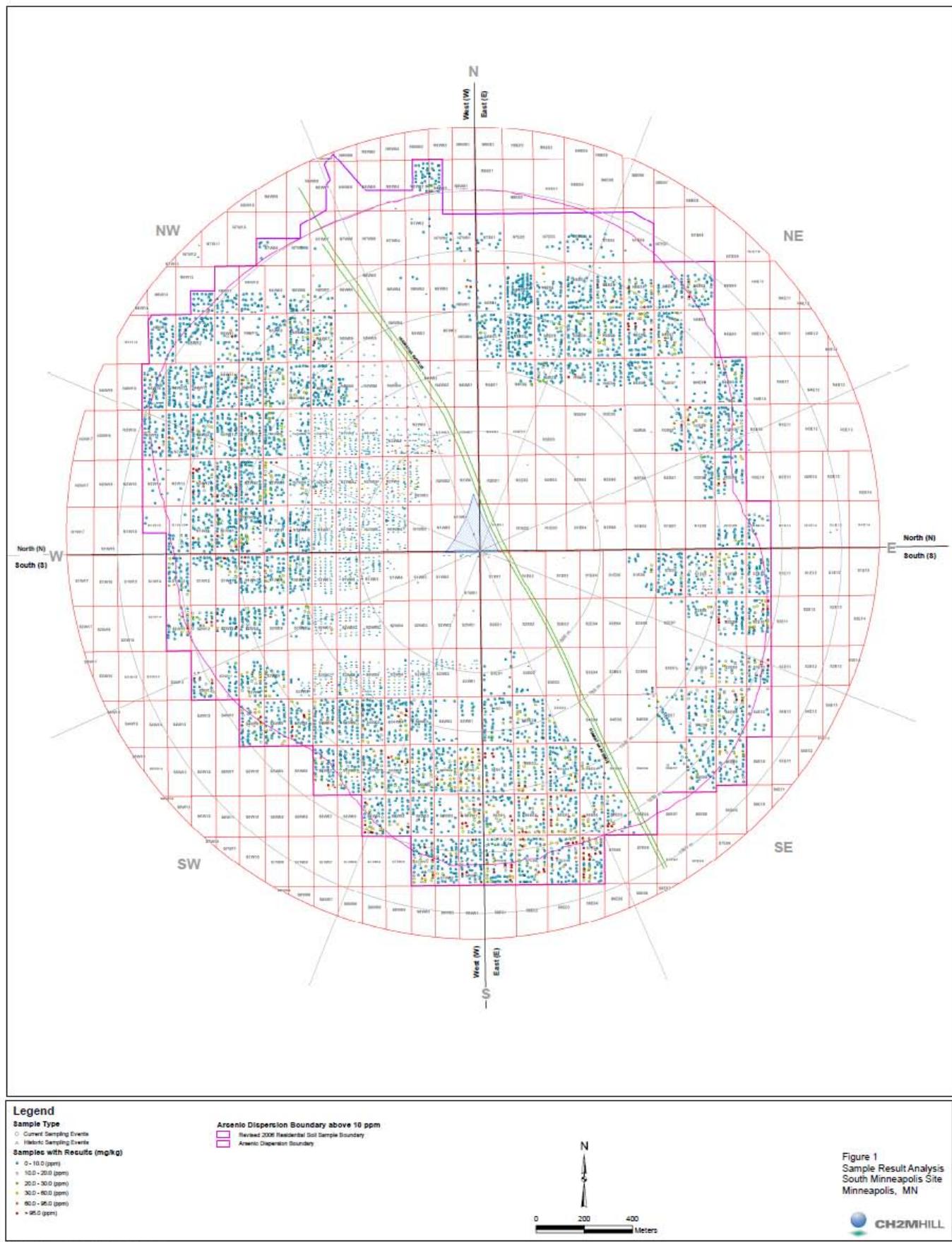
- Historic and 2006 data sets appear to be comparable; the data can be combined into a single data set for evaluation.
- The background concentration of arsenic in surface soils within the study area ranges from 0.11 mg/Kg to 10 mg/Kg. Mixed population of higher level background concentrations and low level contamination appear to be present from 10 mg/kg up to 17 mg/kg. The upper bound of the background range (14.8 mg/Kg) may be considered for use as background for the risk assessment.
- Decreasing trends are present with distance which would be consistent with aerial dispersion. However, the trends are present in only some directions from the CMC Heartland Site and the trends are weak with a high variability in the data limiting predictability of the relationships. The original conceptual site model, which is contamination in the residential areas due to air dispersion, does not appear to be supported by the data for the high concentrations which occur atypically in all directions at virtually all distances.
- Arsenic concentrations greater than background may not be linked to the CMC Heartland Site.

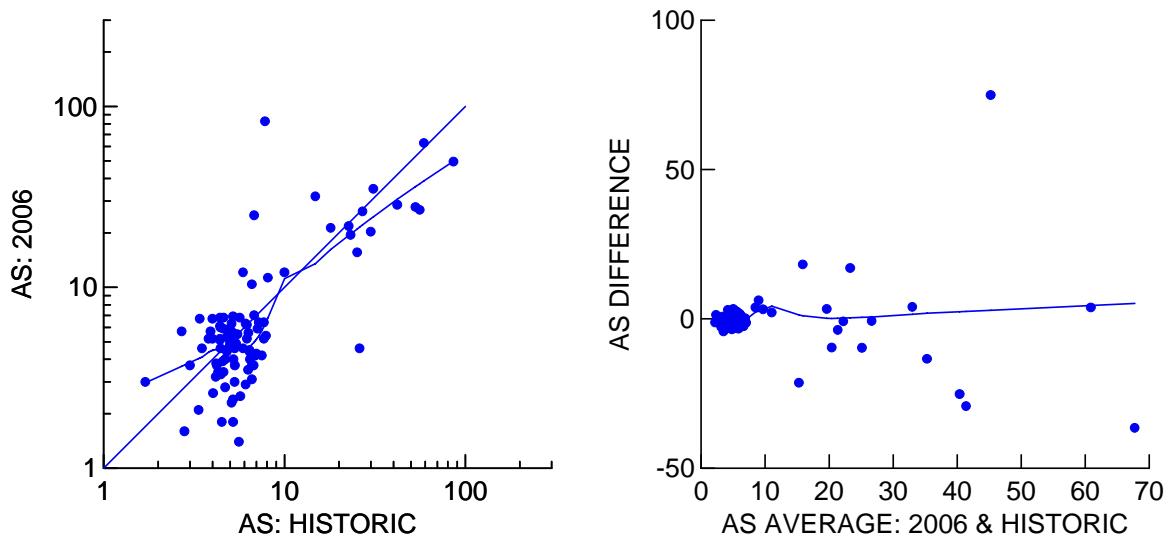
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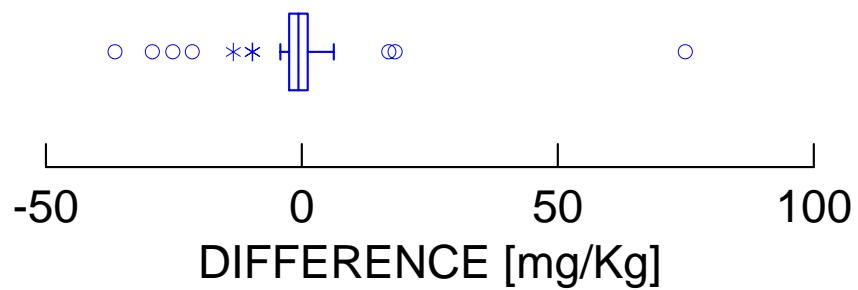
FIGURE

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STUDY-SPECIFIC RESULTS



DIFFERENCE DISTRIBUTION [AS₂₀₀₆ - AS_{HISTORIC}]

Figure 2
STUDY COMPARISONS: 2006 versus HISTORIC

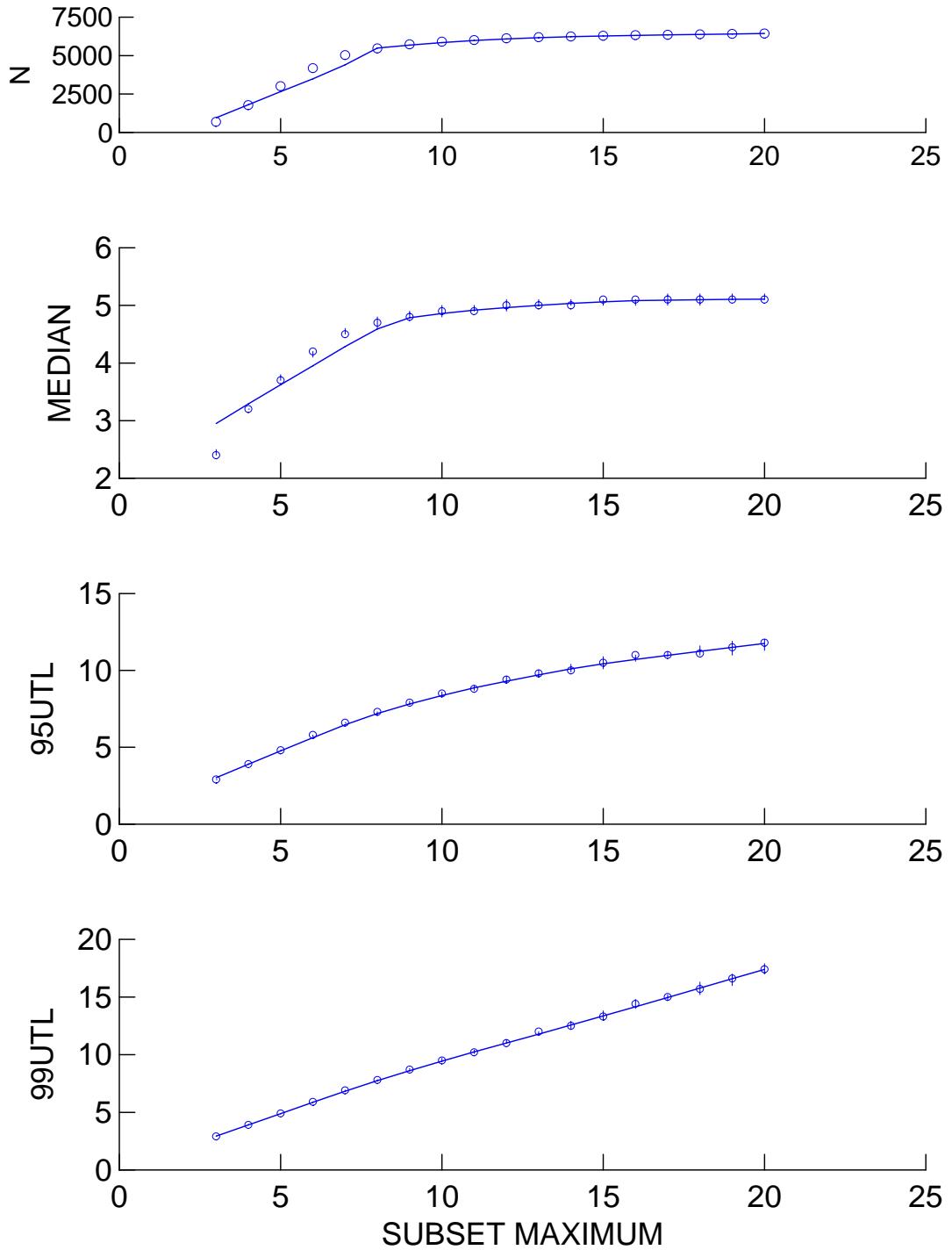


Figure 3
Background Estimate Subset Comparison: N, Median, 95th UTL, 99th UTL

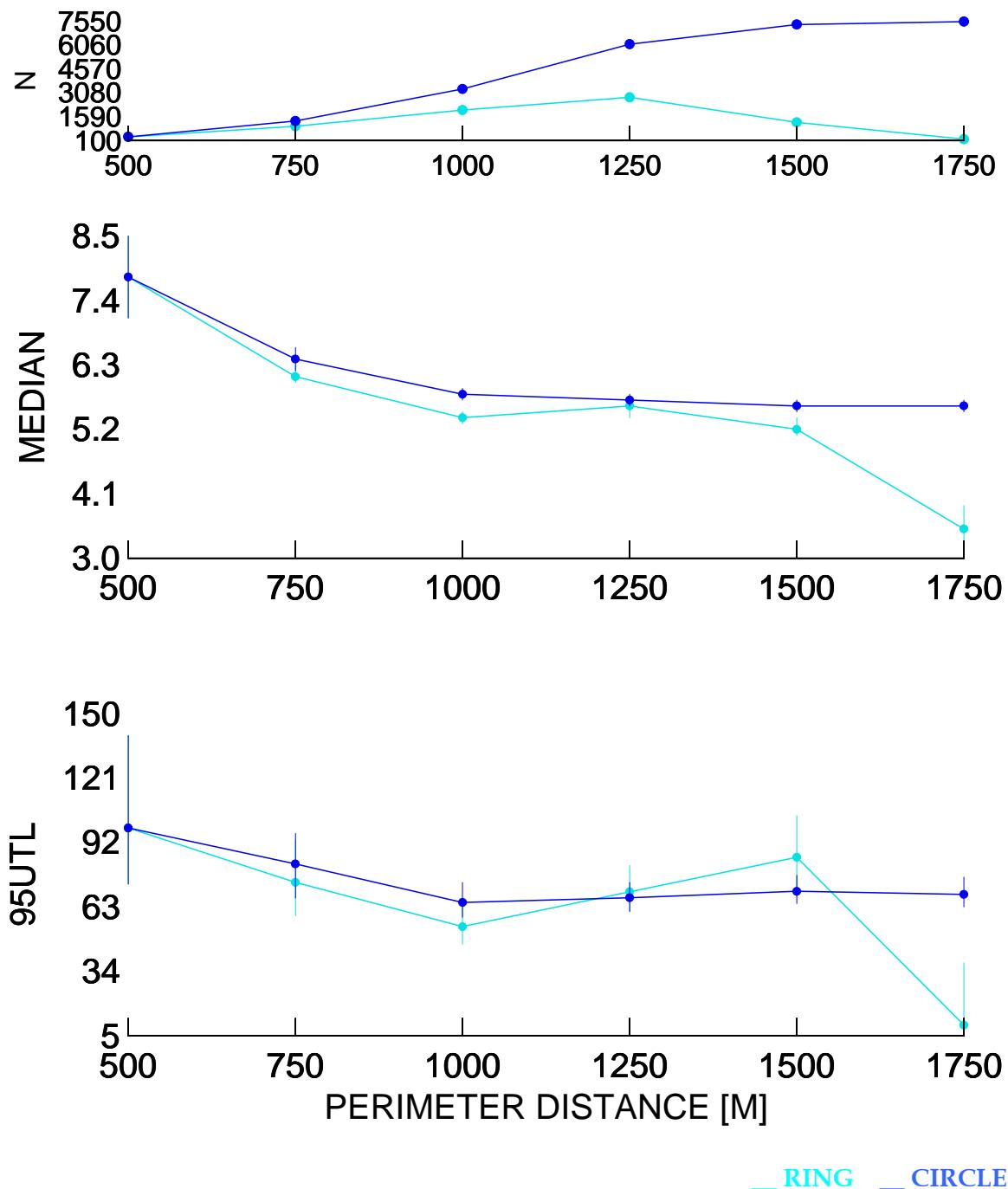


Figure 4
Arsenic Concentration As Function of Distance from Facility

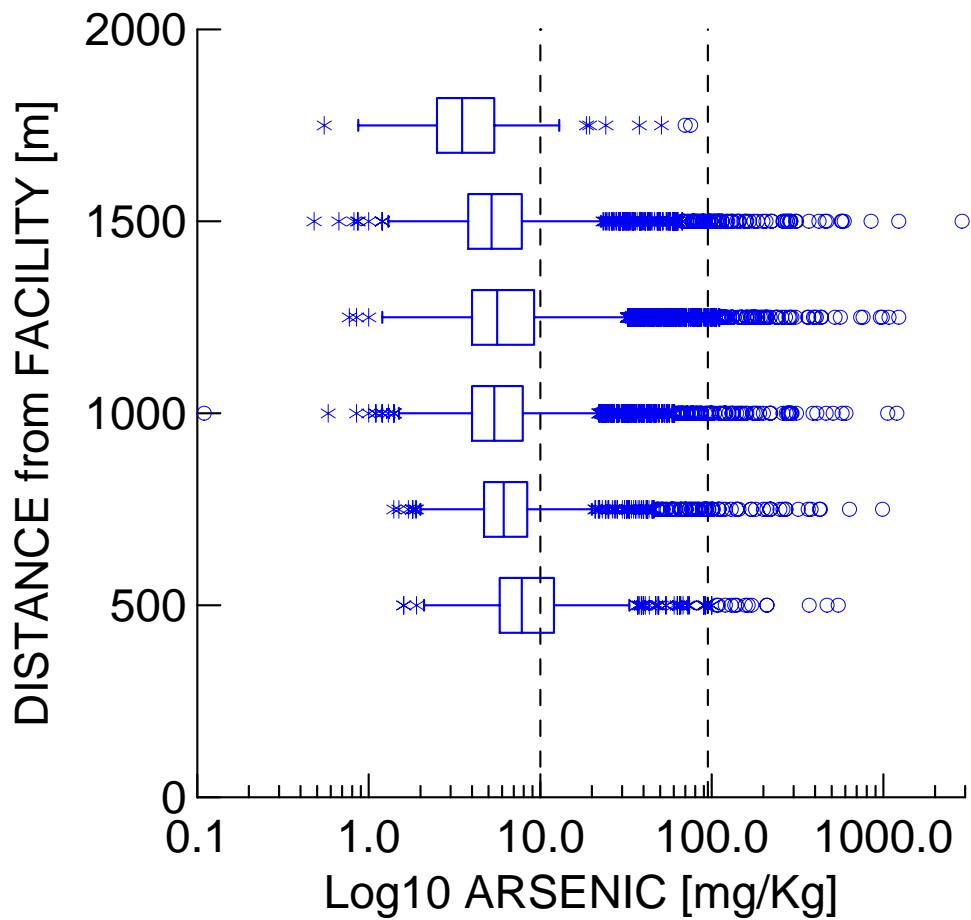


Figure 5
Boxplot of Arsenic Concentration As Function of Distance from Facility

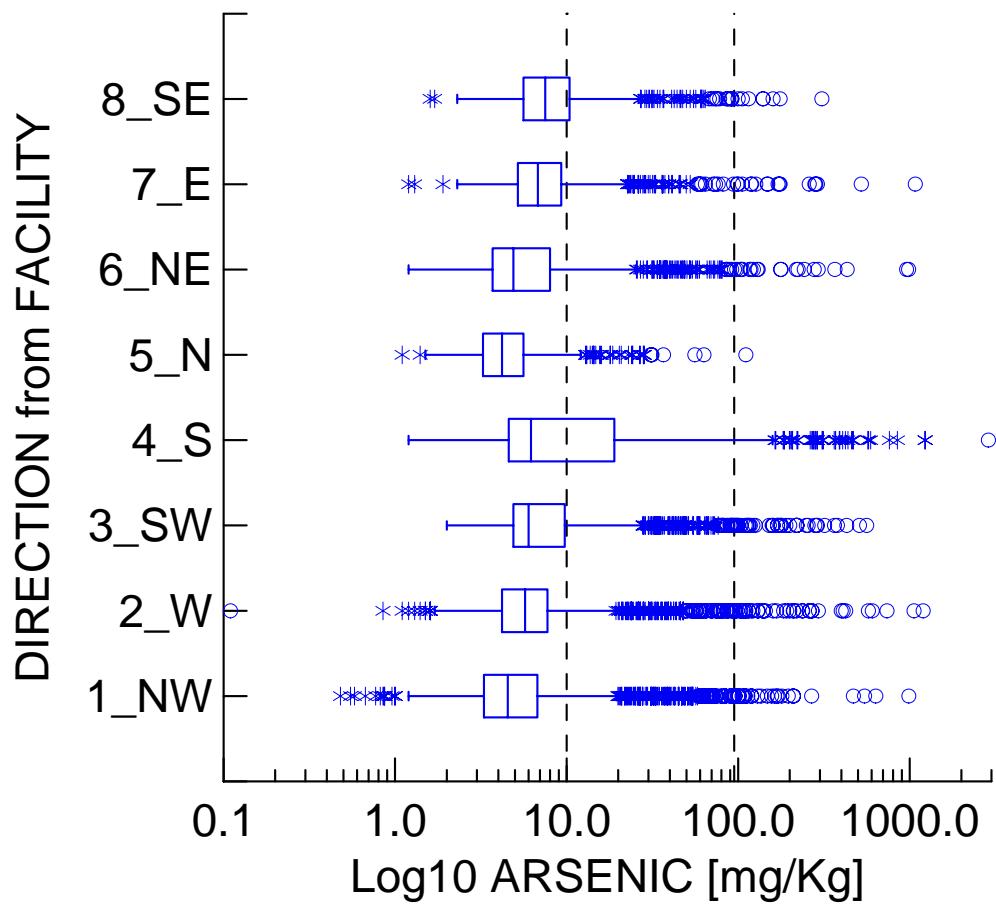


Figure 6
Boxplot of Arsenic Concentration As Function of Direction from Facility

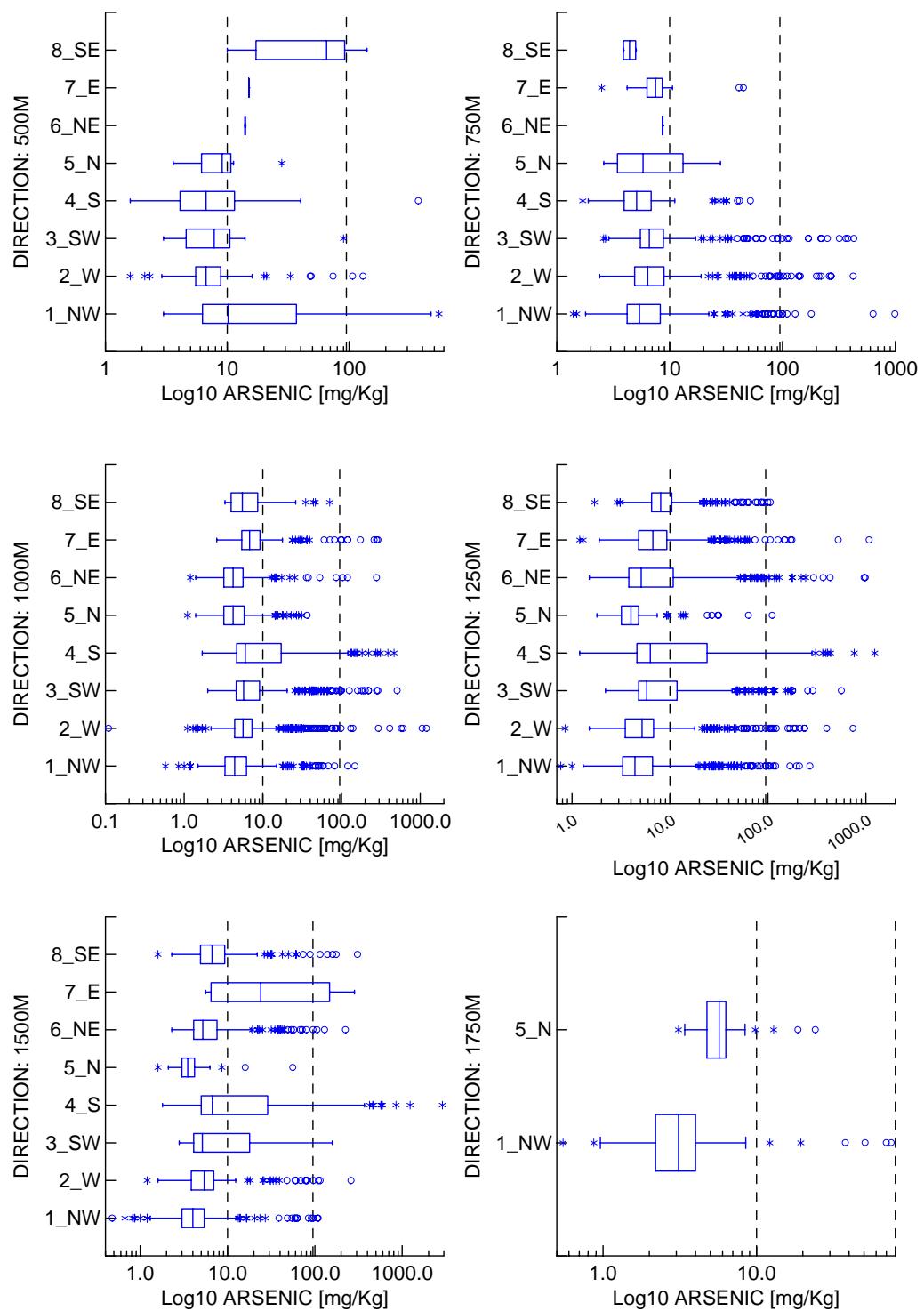


Figure 7
**Boxplot of Arsenic Concentration As Function of Direction from Facility:
 By Distance from Facility**

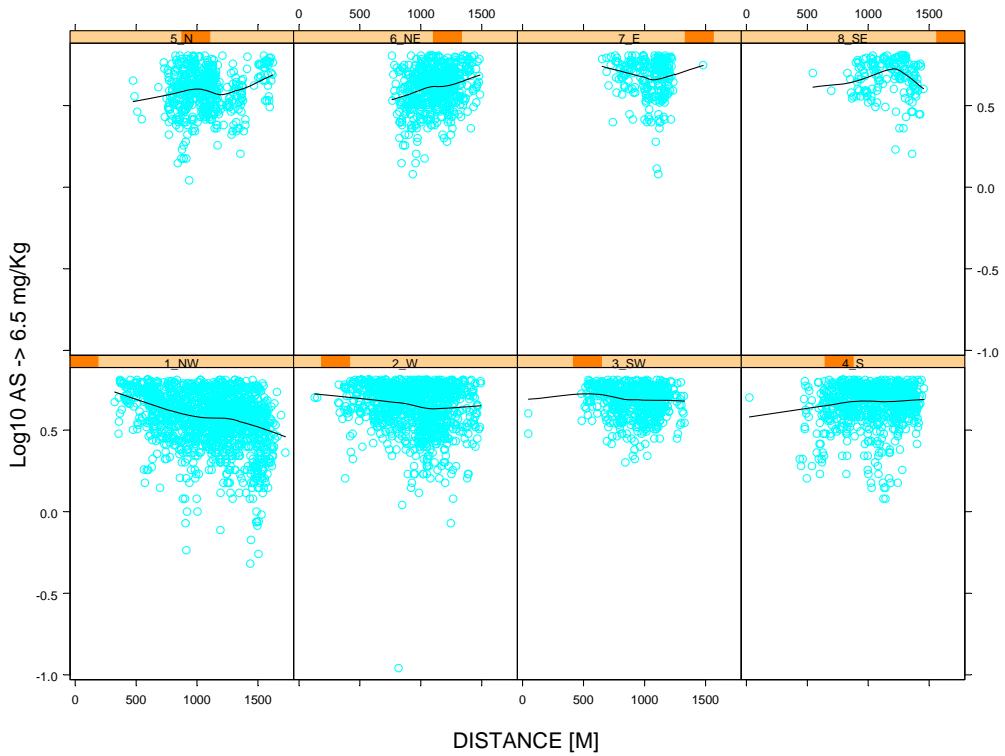


Figure 8-1
**Condition Plot of Arsenic Concentration As Function of Direction from Facility:
Concentrations up to 6.5 mg/Kg**

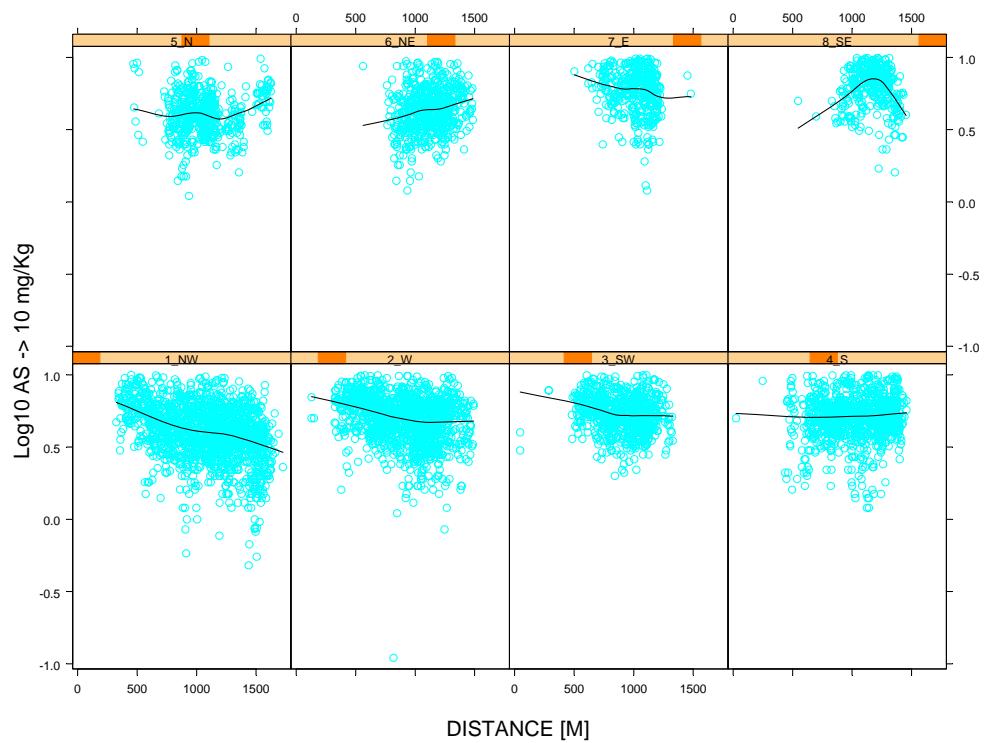


Figure 8-2
**Condition Plot of Arsenic Concentration As Function of Direction from Facility:
Concentrations up to 10 mg/Kg**

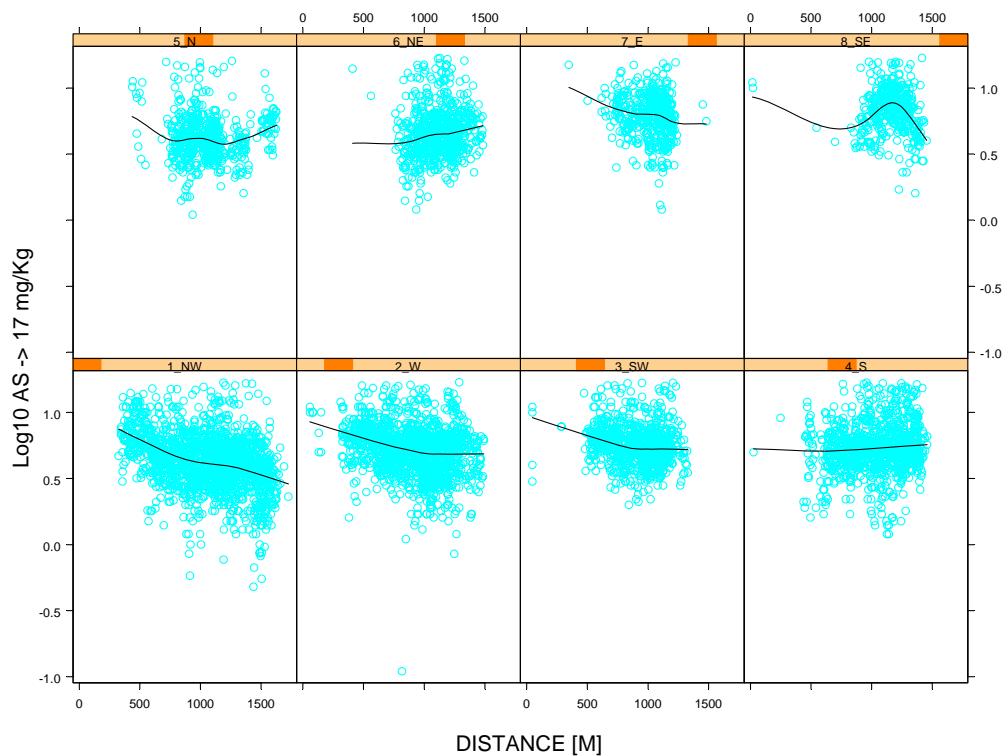


Figure 8-3
**Condition Plot of Arsenic Concentration As Function of Direction from Facility:
Concentrations up to 17 mg/Kg**

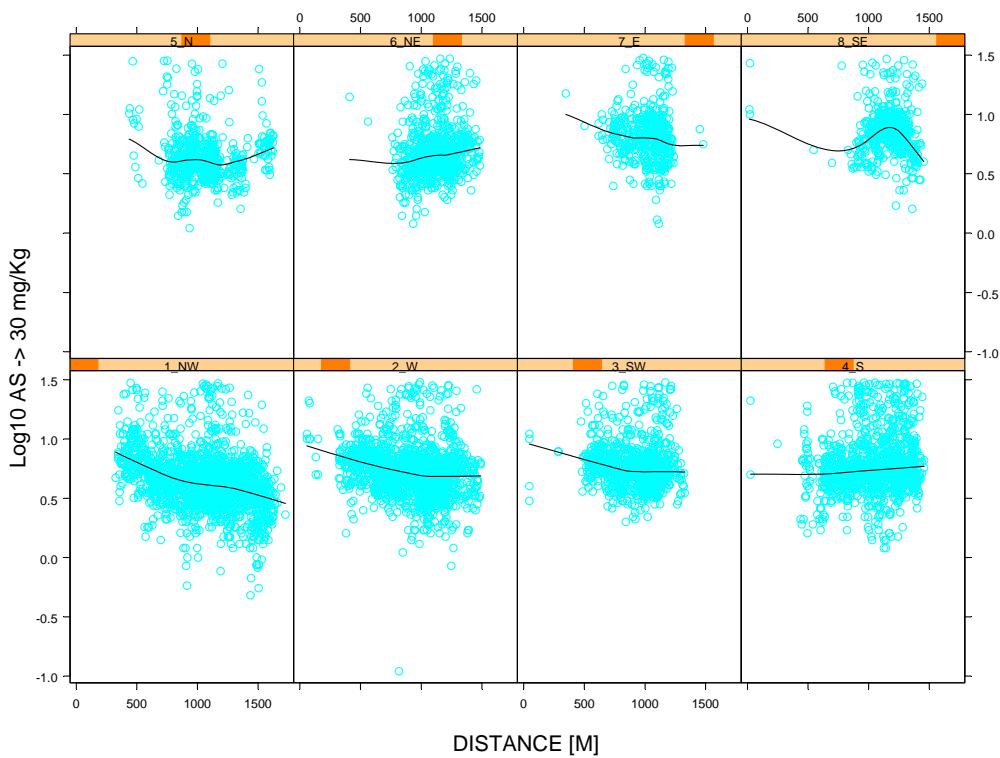


Figure 8-4
**Condition Plot of Arsenic Concentration As Function of Direction from Facility:
Concentrations up to 30 mg/Kg**

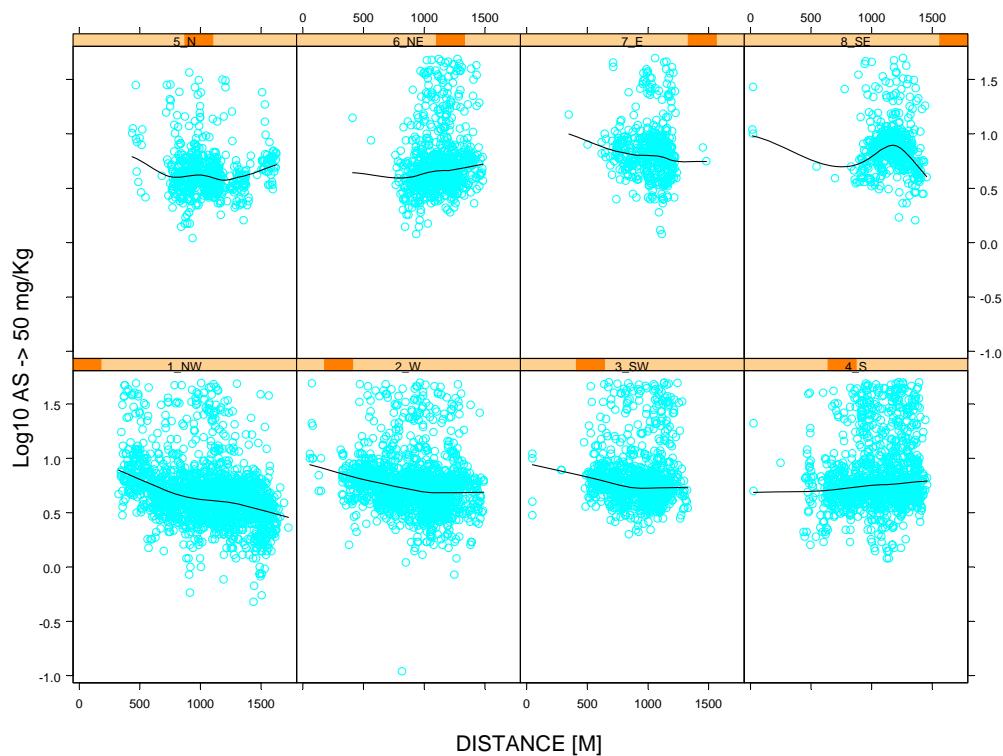


Figure 8- 5
**Condition Plot of Arsenic Concentration As Function of Direction from Facility:
Concentrations up to 50 mg/Kg**

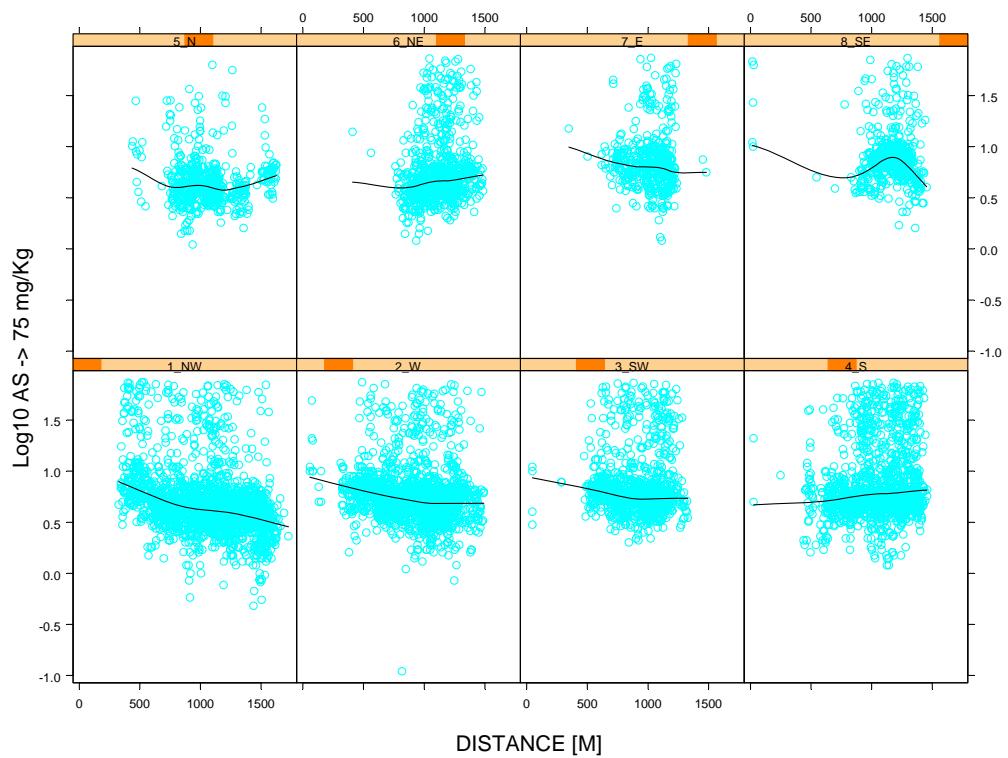


Figure 8-6
**Condition Plot of Arsenic Concentration As Function of Direction from Facility:
Concentrations up to 75 mg/Kg**

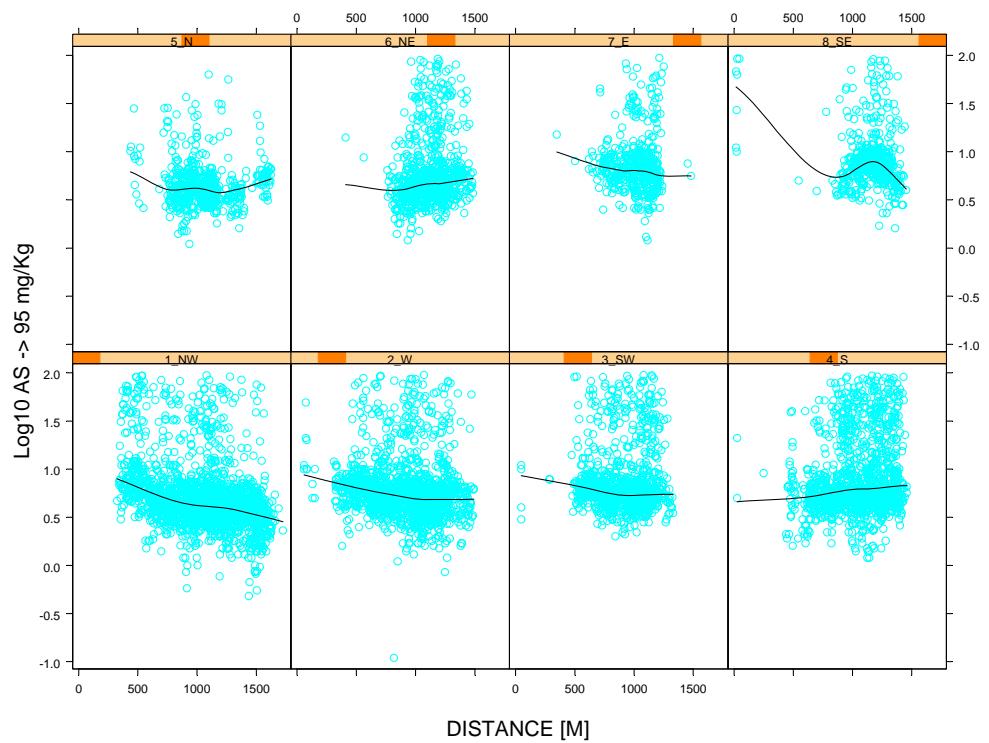


Figure 8-7
**Condition Plot of Arsenic Concentration As Function of Direction from Facility:
Concentrations up to 95 mg/Kg**

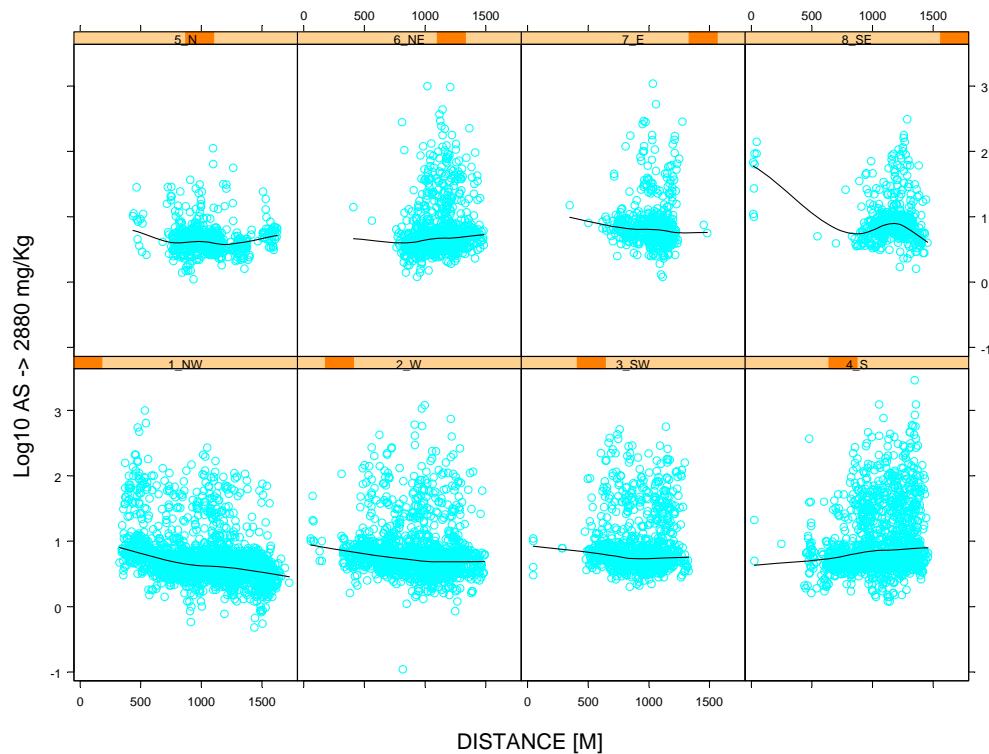


Figure 8-8
**Condition Plot of Arsenic Concentration As Function of Direction from Facility:
Concentrations up to 2880 mg/Kg**

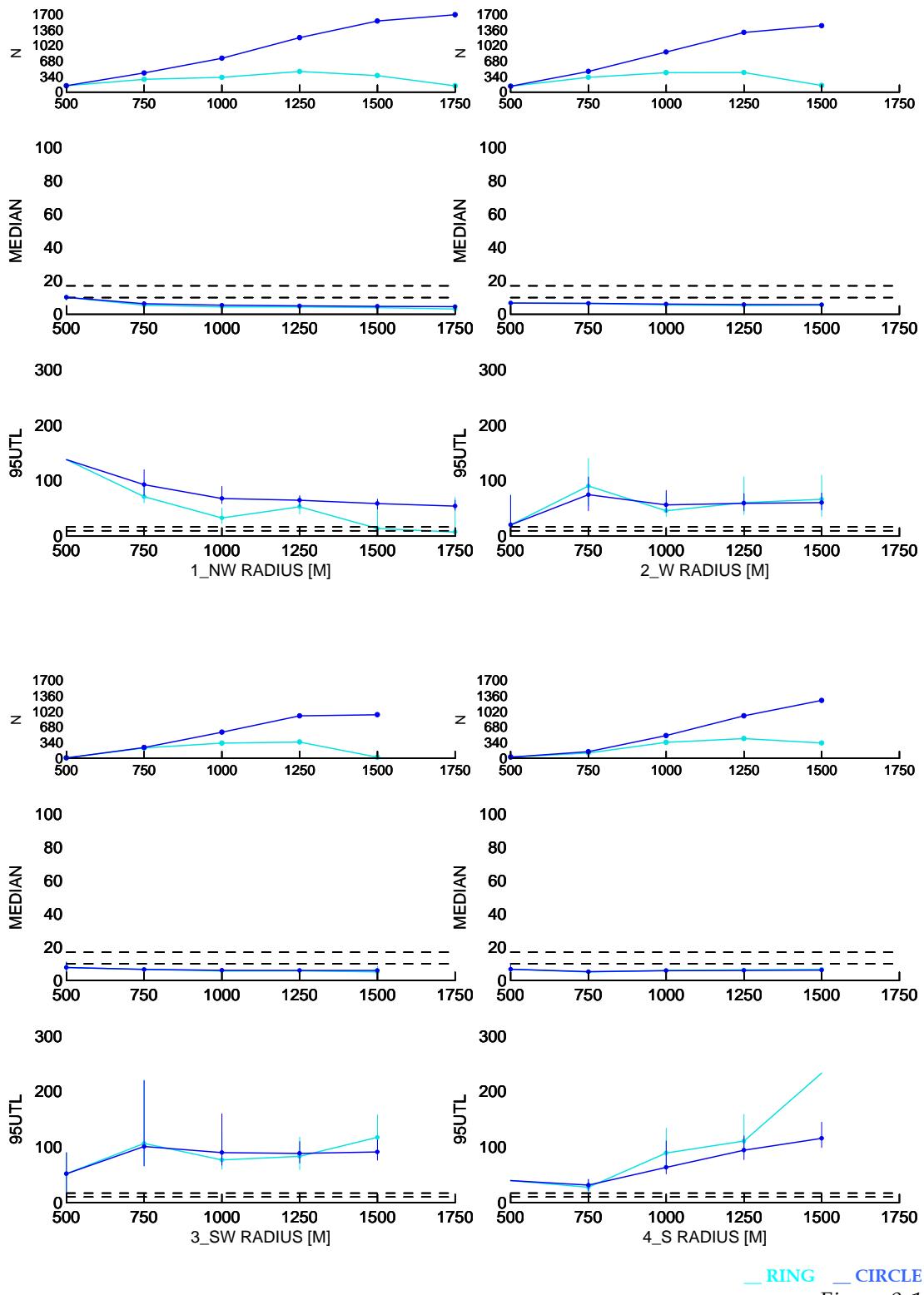
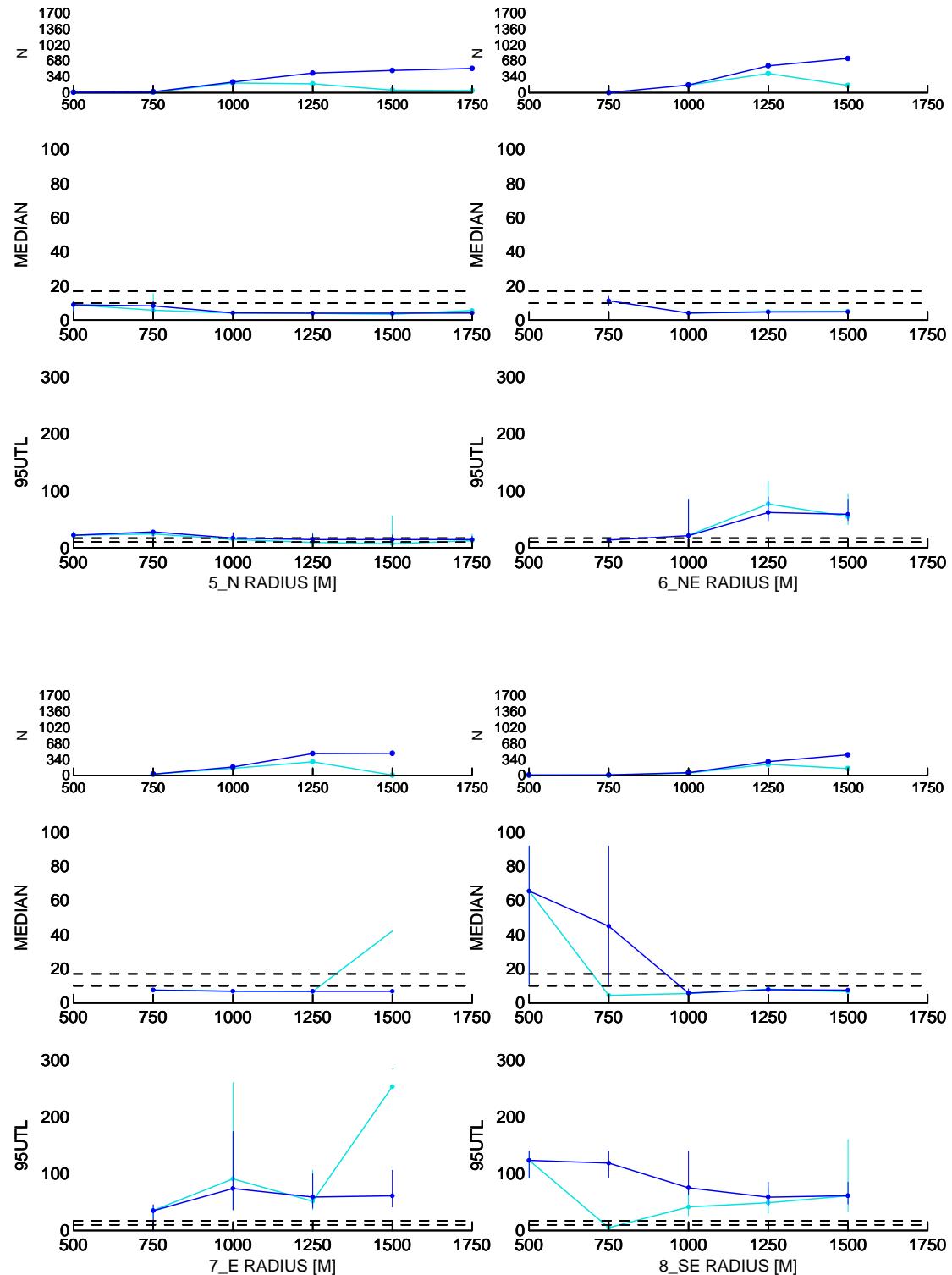


Figure 9-1
Arsenic vs Distance from Facility: NW, W, SW, S



— RING — CIRCLE

Figure 9-2

Arsenic vs Distance from Facility: N, NE, E, SE

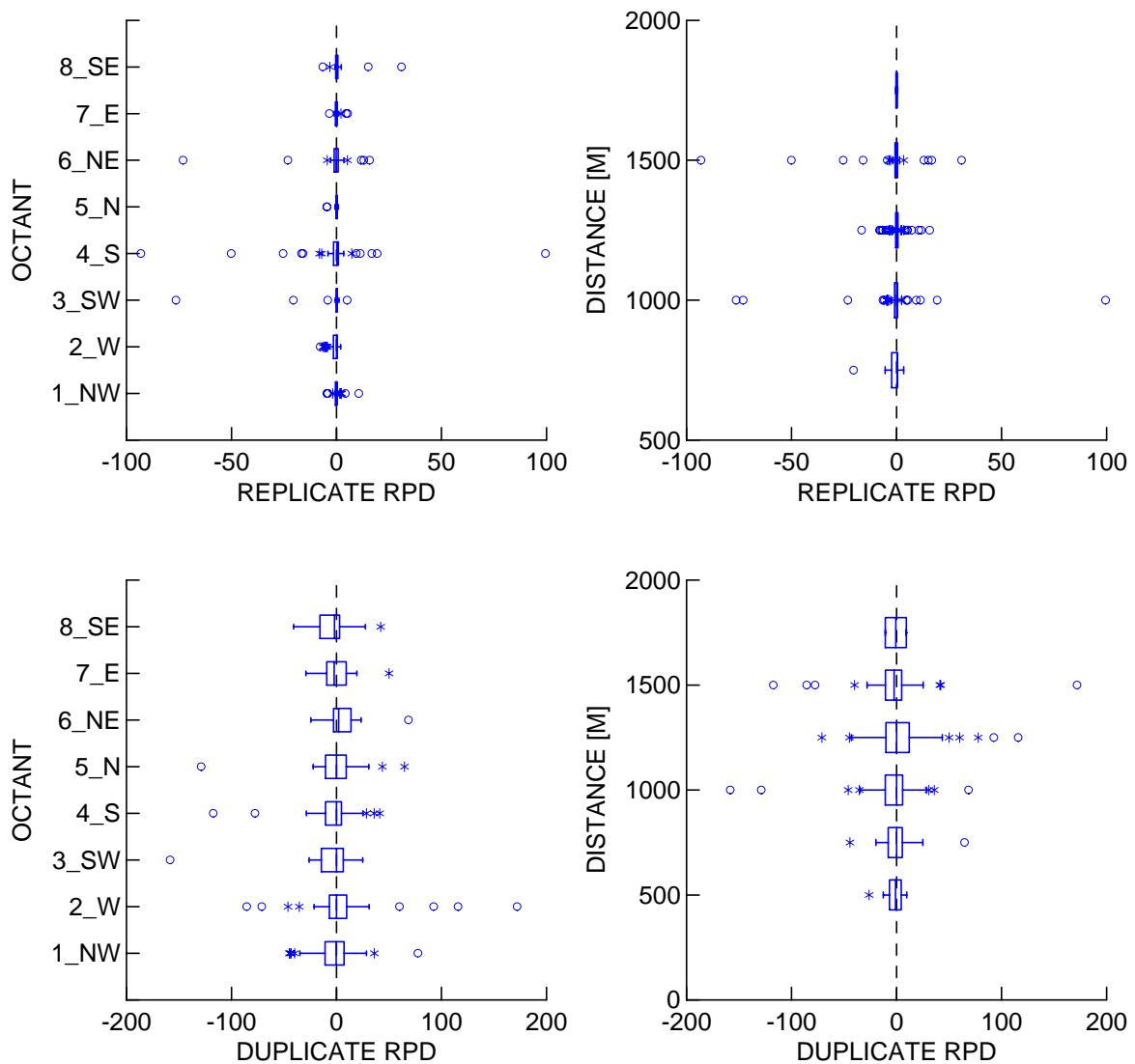


Figure 10-1
REPLICATE | DUPLICATE RPD

NONPARAMETRIC COMPARISON RESULTS

REPLICATE = DUPLICATE	[$p = 0.30$]
OCTANTS COMPARABLE	[$p = 0.82$]
DISTANCES COMPARABLE	[$p = 0.42$]

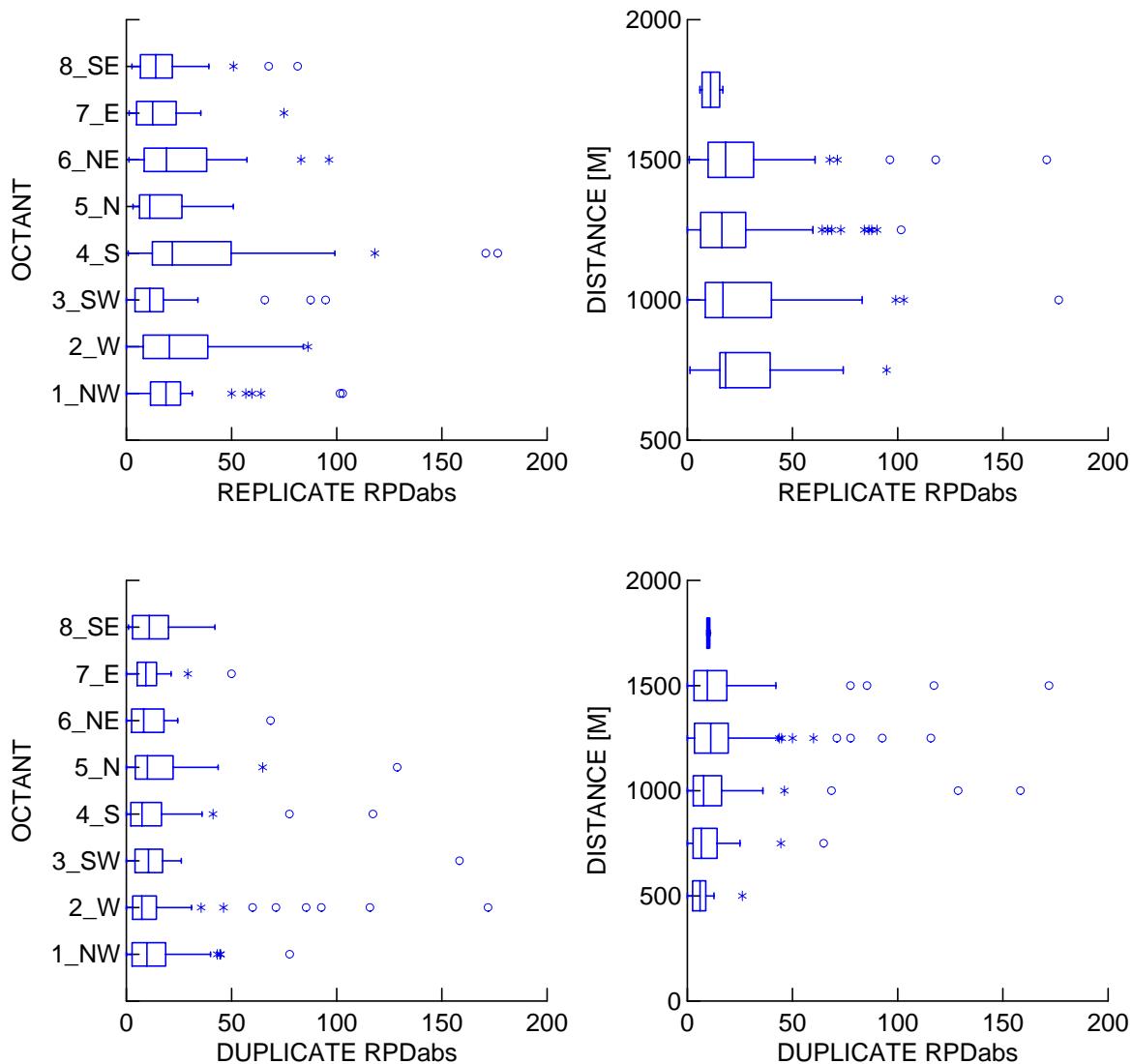


Figure 10-2
REPLICATE | DUPLICATE RPD_{ABSOLUTE}

NONPARAMETRIC COMPARISON RESULTS
REPLICATE > DUPLICATE [p < 0.001]

REPLICATES
OCTANTS DIFFER [p = 0.03]
SW ~ E ~ SE < 2
DISTANCES COMPARABLE [p = 0.55]

DUPLICATES
OCTANTS COMPARABLE [p = 0.24]
DISTANCES COMPARABLE [p = 0.98]

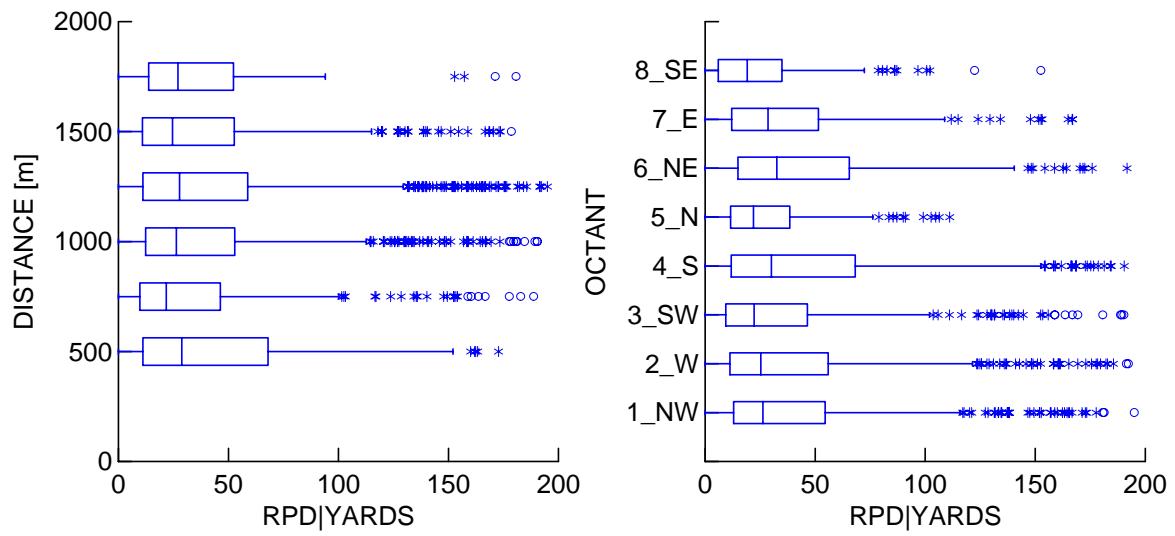


Figure 11
Yard RPD: By Octant | By Distance from Facility

Tables

TABLE 1
Consistency Evaluation of Historic vs 2006 Sample Results for Commonly Sampled Properties
South Minneapolis Soil Arsenic Evaluation

Block_ID	Parcel_ID	YARD AREA	DIFFERENCE [2006-Historic]				RPD	RPD	>10 mg/kg Background Conc. ¹	>95 mg/kg Removal Action Limit ²
			2006	Historic						
BOTH EXCEED BACKGROUND [13 of 97: 13.4%]										
N1W10	N1W10-17	Back	49.5	86	-36.5		-53.9	53.9	Y_Y	N_N
N2W09	N2W09-16	Back	26.8	56	-29.2		-70.5	70.5	Y_Y	N_N
S1W09	S1W09-19	Front	27.8	53	-25.2		-62.4	62.4	Y_Y	N_N
S3W06	S3W06-20	Front	28.6	42	-13.4		-38.0	38.0	Y_Y	N_N
N1W10	N1W10-19	Front	20.3	30	-9.7		-38.6	38.6	Y_Y	N_N
N4W09	N4W09-10	Front	15.6	25.22	-9.6		-47.1	47.1	Y_Y	N_N
N5W07	N5W07-15	Back	19.5	23.21	-3.7		-17.4	17.4	Y_Y	N_N
N5W08	N5W08-12	Front	21.8	22.66	-0.9		-3.9	3.9	Y_Y	N_N
N4W09	N4W09-24	Back	26.3	27	-0.7		-2.6	2.6	Y_Y	N_N
S1W08	S1W08-21	Front	21.3	18	3.3		16.8	16.8	Y_Y	N_N
N1W10	N1W10-16	Front	62.8	59	3.8		6.2	6.2	Y_Y	N_N
S2W07	S2W07-08	Front	35	31	4.0		12.1	12.1	Y_Y	N_N
N3W09	N3W09-10	Front	31.8	14.81	17.0		72.9	72.9	Y_Y	N_N
2006 EXCEEDS BACKGROUND [6 of 97: 6.2%]										
S6W04	S6W04-08	Back	82.7	7.8	74.9		165.5	165.5	Y_N	N_N
N5W07	N5W07-12	Front	25	6.8	18.2		114.5	114.5	Y_N	N_N
N5W08	N5W08-06	Front	12.1	5.9	6.2		68.9	68.9	Y_N	N_N
S1W08	S1W08-24	Front	10.4	6.6	3.8		44.7	44.7	Y_N	N_N
S2W09	S2W09-17	Front	11.3	8.1	3.2		33.0	33.0	Y_N	N_N
S1W10	S1W10-09	Front	12.1	10	2.1		19.0	19.0	Y_N	N_N
HISTORIC EXCEEDS BACKGROUND [1 of 97: 1.0%]										
N1W10	N1W10-18	Back	4.6	26	-21.4		-139.9	139.9	N_Y	N_N
NEITHER EXCEEDS BACKGROUND [77 of 97: 79.4%]										
N1W10	N1W10-06	Front	1.4	5.6	-4.2		-120.0	120.0	N_N	N_N
N2W12	N2W12-07	Front	3.1	6.6	-3.5		-72.2	72.2	N_N	N_N
N2W05	N2W05-21	Front	1.8	5.2	-3.4		-97.1	97.1	N_N	N_N
N1W11	N1W11-12	Front	4.2	7.5	-3.3		-56.4	56.4	N_N	N_N
N6W08	N6W08-15	Front	2.5	5.7	-3.2		-78.0	78.0	N_N	N_N
N2W05	N2W05-22	Front	2.9	6.1	-3.2		-71.1	71.1	N_N	N_N
N3W08	N3W08-02	Front	3.7	6.75	-3.1		-58.4	58.4	N_N	N_N
N3W08	N3W08-04	Front	3.7	6.6	-2.9		-56.3	56.3	N_N	N_N
N1W10	N1W10-10	Front	2.3	5.1	-2.8		-75.7	75.7	N_N	N_N
N1W09	N1W09-13	Side	2.4	5.2	-2.8		-73.7	73.7	N_N	N_N
N2W11	N2W11-13	Front	3.5	6.3	-2.8		-57.1	57.1	N_N	N_N
N6W08	N6W08-14	Side	1.8	4.5	-2.7		-85.7	85.7	N_N	N_N
N1W09	N1W09-10	Front	4.2	6.9	-2.7		-48.6	48.6	N_N	N_N
N1W10	N1W10-04	Front	4.3	6.99	-2.7		-47.7	47.7	N_N	N_N
N3W09	N3W09-29	Front	4.2	6.8	-2.6		-47.3	47.3	N_N	N_N
N1W06	N1W06-27	Front	5.2	7.7	-2.5		-38.8	38.8	N_N	N_N
N5W08	N5W08-25	Front	5.4	7.9	-2.5		-37.6	37.6	N_N	N_N
N1W08	N1W08-12	Front	4	6.45	-2.5		-46.9	46.9	N_N	N_N
N4W11	N4W11-07	Front	3	5.3	-2.3		-55.4	55.4	N_N	N_N
N1W09	N1W09-05	Front	4.4	6.42	-2.0		-37.3	37.3	N_N	N_N
N6E05	N6E05-03	Front	2.8	4.7	-1.9		-50.7	50.7	N_N	N_N
S1W11	S1W11-12	Back	4.5	6.4	-1.9		-34.9	34.9	N_N	N_N
S1W08	S1W08-09	Front	3.7	5.32	-1.6		-35.9	35.9	N_N	N_N
N3W10	N3W10-03	Side	2.6	4.03	-1.4		-43.1	43.1	N_N	N_N
N3W12	N3W12-10	Front	4.6	5.9	-1.3		-24.8	24.8	N_N	N_N
S1W12	S1W12-07	Front	6.4	7.7	-1.3		-18.4	18.4	N_N	N_N
N4W10	N4W10-03	Front	2.1	3.35	-1.3		-45.9	45.9	N_N	N_N
N3W08	N3W08-05	Front	4	5.23	-1.2		-26.7	26.7	N_N	N_N

TABLE 1
Consistency Evaluation of Historic vs 2006 Sample Results for Commonly Sampled Properties
South Minneapolis Soil Arsenic Evaluation

Block_ID	Parcel_ID	YARD AREA	DIFFERENCE [2006-Historic]				RPD	RPD	>10 mg/kg Background Conc. ¹	>95 mg/kg Removal Action Limit ²
			2006	Historic						
N5W12	N5W12-16	Front	1.6	2.8	-1.2		-54.5	54.5	N_N	N_N
N5W08	N5W08-08	Front	3.4	4.6	-1.2		-30.0	30.0	N_N	N_N
S1W10	S1W10-13	Front	5.9	7.1	-1.2		-18.5	18.5	N_N	N_N
N5W07	N5W07-17	Back	3.3	4.45	-1.2		-29.7	29.7	N_N	N_N
S1W10	S1W10-12	Front	5.2	6.2	-1.0		-17.5	17.5	N_N	N_N
N4W10	N4W10-09	Front	3.2	4.17	-1.0		-26.3	26.3	N_N	N_N
N3W11	N3W11-13	Front	3.4	4.3	-0.9		-23.4	23.4	N_N	N_N
S1W06	S1W06-04	Front	6.4	7.2	-0.8		-11.8	11.8	N_N	N_N
N2W09	N2W09-10	Front	5.6	6.32	-0.7		-12.1	12.1	N_N	N_N
N2W10	N2W10-08	Front	4.6	5.31	-0.7		-14.3	14.3	N_N	N_N
S1W10	S1W10-11	Front	4	4.7	-0.7		-16.1	16.1	N_N	N_N
N3W09	N3W09-08	Front	3.9	4.56	-0.7		-15.6	15.6	N_N	N_N
N5W10	N5W10-03	Front	3.7	4.23	-0.5		-13.4	13.4	N_N	N_N
S1W08	S1W08-01	Front	4.9	5.4	-0.5		-9.7	9.7	N_N	N_N
N1W04	N1W04-20	Front	3.8	4.2	-0.4		-10.0	10.0	N_N	N_N
N5W08	N5W08-28	Front	4.8	5.2	-0.4		-8.0	8.0	N_N	N_N
S4W09	S4W09-15	Front	4.4	4.8	-0.4		-8.7	8.7	N_N	N_N
S1W08	S1W08-02	Front	4.6	4.89	-0.3		-6.1	6.1	N_N	N_N
N3W09	N3W09-16	Front	4.8	5	-0.2		-4.1	4.1	N_N	N_N
S3W10	S3W10-05	Front	4.9	5	-0.1		-2.0	2.0	N_N	N_N
S1W08	S1W08-19	Front	5	5.1	-0.1		-2.0	2.0	N_N	N_N
N2W09	N2W09-23	Back	5.5	5.5	0.0		0.0	0.0	N_N	N_N
S3W03	S3W03-10	Front	6.2	6.2	0.0		0.0	0.0	N_N	N_N
S1W09	S1W09-04	Front	4.6	4.43	0.2		3.8	3.8	N_N	N_N
S1W06	S1W06-12	Front	7	6.8	0.2		2.9	2.9	N_N	N_N
S3W04	S3W04-06	Front	6.3	6.1	0.2		3.2	3.2	N_N	N_N
N1W10	N1W10-07	Front	5.6	5.2	0.4		7.4	7.4	N_N	N_N
S3W06	S3W06-19	Front	5.3	4.8	0.5		9.9	9.9	N_N	N_N
S2W08	S2W08-05	Front	5.1	4.4	0.7		14.7	14.7	N_N	N_N
N5W07	N5W07-16	Front	3.7	3	0.7		20.9	20.9	N_N	N_N
S1W10	S1W10-27	Front	5.2	4.4	0.8		16.7	16.7	N_N	N_N
N5W08	N5W08-05	Front	5.9	5	0.9		16.5	16.5	N_N	N_N
N4W09	N4W09-15	Front	5.8	4.8	1.0		18.9	18.9	N_N	N_N
N4W12	N4W12-10	Front	4.6	3.5	1.1		27.2	27.2	N_N	N_N
N3W04	N3W04-02	Front	6.8	5.66	1.1		18.3	18.3	N_N	N_N
S1W10	S1W10-08	Front	6.3	5.1	1.2		21.1	21.1	N_N	N_N
S2W12	S2W12-04	Front	5.2	4	1.2		26.1	26.1	N_N	N_N
S3W06	S3W06-23	Front	5.9	4.6	1.3		24.8	24.8	N_N	N_N
N3W09	N3W09-24	Front	3	1.7	1.3		55.3	55.3	N_N	N_N
S3W11	S3W11-05	Front	5.2	3.8	1.4		31.1	31.1	N_N	N_N
N2W10	N2W10-15	Front	6	4.43	1.6		30.1	30.1	N_N	N_N
S3W05	S3W05-13	Front	6.9	5.2	1.7		28.1	28.1	N_N	N_N
N1W10	N1W10-09	Front	6.1	4.4	1.7		32.4	32.4	N_N	N_N
N6W08	N6W08-16	Front	5.7	3.9	1.8		37.5	37.5	N_N	N_N
S1W10	S1W10-25	Front	6.8	4.6	2.2		38.6	38.6	N_N	N_N
S3W09	S3W09-06	Front	6.8	4.4	2.4		42.9	42.9	N_N	N_N
S1W09	S1W09-20	Front	6.7	4	2.7		50.5	50.5	N_N	N_N
N5W08	N5W08-27	Front	5.7	2.7	3.0		71.4	71.4	N_N	N_N
N3W09	N3W09-30	Back	6.7	3.4	3.3		65.3	65.3	N_N	N_N

TABLE 1
Consistency Evaluation of Historic vs 2006 Sample Results for Commonly Sampled Properties
South Minneapolis Soil Arsenic Evaluation
`RESULTS_061120.2006_HISTORIC.xls`

Block_ID	Parcel_ID	AREA	YARD				RPD	RPD	>10 mg/kg	>95 mg/kg
			2006	Historic	DIFFERENCE	[2006-Historic]			Background	Removal

Notes:

¹ Y_Y indicates both the 2006 and historic results exceed background concentration of 10 mg/kg

Y_N indicates the 2006 result exceed background concentration of 10 mg/kg, but the historic result is less than background

N_Y indicates the 2006 result is less than background concentration of 10 mg/kg, but the historic result exceeds background

N_N indicates neither the 2006 nor historic result exceeds background

² N_N indicates neither the 2006 nor historic result exceeds the removal action limit of 95 mg/kg

TABLE 2
Percentile Estimates of 2006 and Historic Result Differences [AS₂₀₀₆ - AS_{HISTORIC}]
South Minneapolis Soil Arsenic Evaluation

PERCENTILE	BEST ESTIMATE	CONFIDENCE	LCL	UCL
50	-0.7	95%	-1.15	BE
75	1.14	94%	0.4	1.7
80	1.38	94%	1	2.7
85	1.98	94%	1.3	3.3
90	3.08	94%	1.8	4
95	3.84	94%	3.3	74.9
99	20.5	55%	17	74.9

TABLE 3
Background Concentration Evaluation
South Minneapolis Soil Arsenic Evaluation
`RESULTS.ESTIMATES.xls`

	No. of Samples	50th Percentile			95th Percentile			99th Percentile		
		BE	95LCL	95UCL	BE	95LCL	95UCL	BE	95LCL	95UCL
Entire Data Set	7519	5.6	5.5	5.7	68.6	63.0	76.4	235.0	207.0	278.0
Exceeds Background										
>16 mg/Kg	1159	45.9	43.1	48.1	280.0	250.0	312.0	679.0	562.0	1060.0
Mixed										
10-16mg/Kg	431	12	12.0	12.3	16.5	16.0	16.8	17.0	17.0	17.0
Potential Background Subsets										
<20 mg/Kg	6431	5.1	5.1	5.2	11.8	11.3	12.0	17.4	17.0	17.9
<19 mg/Kg	6407	5.1	5.1	5.2	11.5	11.0	11.9	16.6	16.0	17.0
<18 mg/Kg	6383	5.1	5.0	5.2	11.1	11.0	11.6	15.7	15.2	16.3
<17 mg/Kg	6351	5.1	5.0	5.2	11.0	10.9	11.2	15.0	14.7	15.2
<16 mg/Kg	6325	5.1	5.0	5.1	11.0	10.6	11.0	14.4	14.0	14.8
<15 mg/Kg	6282	5.1	5.0	5.1	10.5	10.1	10.9	13.3	13.0	13.8
<14 mg/Kg	6239	5.0	5.0	5.1	10.0	9.9	10.4	12.5	12.2	12.9
<13 mg/Kg	6192	5.0	5.0	5.1	9.8	9.6	10.0	12.0	11.8	12.0
<12 mg/Kg	6121	5.0	4.9	5.1	9.4	9.2	9.6	11.0	11.0	11.3
<11 mg/Kg	6007	4.9	4.9	5.0	8.8	8.7	9.0	10.2	10.1	10.4
≤10 mg/Kg	5929	4.9	4.8	5.0	8.6	8.4	8.7	9.8	9.6	9.8
<10 mg/Kg	5902	4.9	4.8	5.0	8.5	8.3	8.6	9.5	9.5	9.7
< 9 mg/Kg	5726	4.8	4.8	4.9	7.9	7.8	8.0	8.7	8.7	8.8
< 8 mg/Kg	5464	4.7	4.6	4.8	7.3	7.2	7.3	7.8	7.8	7.8
< 7 mg/Kg	5026	4.5	4.5	4.6	6.6	6.6	6.6	6.9	6.8	6.9
< 6 mg/Kg	4181	4.2	4.1	4.2	5.8	5.7	5.8	5.9	5.9	5.9
< 5 mg/Kg	3008	3.7	3.7	3.8	4.8	4.8	4.8	4.9	4.9	4.9
< 4 mg/Kg	1770	3.2	3.2	3.2	3.9	3.9	3.9	3.9	3.9	3.9
< 3 mg/Kg	682	2.4	2.4	2.5	2.9	2.9	2.9	2.9	2.9	3.0

TABLE 4
Arsenic Concentrations at Various Distances from the Facility
South Minneapolis Soil Arsenic Evaluation
RESULTS_061122.BE.xls

RING	Distance¹					
	<500 m	500 - 750 m	750 - 1000 m	1000 - 1250 m	1250 - 1500 m	1500 - 1750 m
DISTRIBUTION	NP	NP	NP	NP	NP	NP
N (number of samples)	324	989	2001	2793	1231	181
Median Concentration	7.8	6.1	5.4	5.6	5.2	3.5
MED_95LCL	7.1	6.0	5.3	5.4	5.1	3.3
MED_95UCL	8.5	6.3	5.5	5.7	5.4	3.9
95th Percentile Concentration	98.5	74	54.1	69.8	85.3	9.8
95_95LCL	73.3	59	46.2	60.8	67.9	7
95_95UCL	140	93	65	81.6	104	37.8

CIRCLE	Distance¹					
	<500 m	<750 m	<1000 m	<1250 m	<1500 m	<1750 m
DISTRIBUTION	NP	NP	NP	NP	NP	NP
N (number of samples)	324	1313	3314	6107	7338	7519
Median Concentration	7.8	6.4	5.8	5.7	5.6	5.6
MED_95LCL	7.1	6.2	5.7	5.6	5.5	5.5
MED_95UCL	8.5	6.6	5.9	5.8	5.7	5.7
95th Percentile Concentration	98.5	82.3	65	67.1	70.0	68.6
95_95LCL	73.3	67	58.3	61	64.5	63
95_95UCL	140	96	74.0	74.0	77.2	76.4

Notes:

¹ Distances are shown in meters from the facility (CMC Heartland Site)

Concentrations are shown in mg/kg

TABLE 5
Ranking of the Octants by Arsenic Concentration
South Minneapolis Soil Arsenic Evaluation
`RESULTS_061122.KW.xls`

Distance ¹	Number of Samples	Probability of Test Statistics ²	Octant ³							
			N	NE	E	SE	S	SW	W	NW
INSUFFICIENT SAMPLES PER OCTANT⁴										
<250 m	27	0.008	-	-	-	1 N=8	3 N=3	4 N=4	2 N=12	-
<500 m	324	<0.001	5 N=8	3 N=1	2 N=1	1 N=8	7	6	8	4
<750 m	1313	<0.001	5 N=19	1 N=2	3	2 N=10	8	4	7	6
SUFFICIENT SAMPLES PER OCTANT										
<1000 m	3314	<0.001	7 N=228	8 N=164	1 N=177	3 N=57	5 N=498	2 N=573	4 N=877	6 N=740
<1250 m	6109	<0.001	8	7	2	1	4	3	5	6
<1500 m	7340	<0.001	8	6	2	1	3	4	5	7
<1750 m	7521	<0.001	8	6	2	1	3	4	5	7
AVERAGE RANK			7.8	6.8	1.8	1.5	3.8	3.3	4.8	6.5

Notes:

¹ Distances are shown in meters from the facility (CMC Heartland Site)

² <0.05 indicates statistically significant differences

³ Octants are ranked with 1 having the highest median concentration and 8 having the lowest.

⁴ For distances <750 meters, the sample distribution was insufficient in 1 or more octants to effectively rank. The number of samples is shown for the octants with limited sample distribution.

TABLE 6
Regression Results from Least Squares Best Linear Fit on the Condition Plots
South Minneapolis Soil Arsenic Evaluation
`RESULTS_061126.TABLE3.xls`

Octant	Number of Samples	F-Test _{DF}	Probability of F-Test ¹	Adjusted R-square	Slope Estimate [sign] ²
N	516	1.0 _{1,514}	0.32	0	
NE	729	9.3 _{1,727}	0.002	0.011	POS
E	470	0.3 _{1,468}	0.568	0.026	
SE	437	14.0 _{1,435}	<0.001	0.029	NEG
S	1267	42.1 _{1,1265}	<0.001	0.031	POS
SW	956	0.8 _{1,954}	0.366	0	
W	1452	9.6 _{1,1450}	0.002	0.006	NEG
NW	1692	238.6 _{1,1690}	<0.001	0.123	NEG

Notes:

¹ <0.05 indicates statistically significant differences

² Direction of the slope estimate is only provided for 'significant' results (probability of F-Test <0.05)

³ Positive sign indicates concentrations are increasing with distance from the CMC Heartland Site (facility). Negative sign indicates concentrations are decreasing with distance from the facility.

TABLE 7
Summary of Arsenic Concentration by Octant as Function of Distance from Facility
South Minneapolis Soil Arsenic Evaluation

Octant and Distance	No. of Samples N	Median				Upper 95 UTL				
		BE50 ¹	CONF50 ²	LCL50 ³	UCL50 ⁴	BE95 ⁵	CONF95 ⁶	LCL95 ⁷	UCL95 ⁸	
NW										
<i>CIRCLE</i>										
0 - 500 m	139	10.15	95%	8.5	11	138.19	95%	100	470	
0 - 750 m	418	6.3	95%	6	6.8	93	95%	73.32	120	
0 - 1000 m	740	5.4	95%	5.2	5.7	68.1	95%	59	90	
0 - 1250 m	1191	5	95%	4.8	5.2	65	95%	54	73.32	
0 - 1500 m	1554	4.7	95%	4.6	4.8	59	95%	48.83	66.8	
0 - 1750 m	1692	4.535	95%	4.4	4.65	54.315	95%	47	65	
<i>RING</i>										
0 - 500 m	139	10.15	95%	8.5	11	138.19	95%	100	470	
500 - 750 m	279	5.4	94%	5.2	5.8	71.3	94%	60	100	
750 - 1000 m	322	4.4	95%	4.2	4.6	33.095	95%	23	51	
1000 - 1250 m	451	4.4	95%	4.1	4.6	53.3	95%	40	71	
1250 - 1500 m	363	4	95%	3.8	4.1	13.98	95%	8	48.5	
1500 - 1750 m	138	3.1	94%	2.8	3.4	7.735	95%	6.1	70	
W										
<i>CIRCLE</i>										
0 - 500 m	128	6.7	95%	6.38	7.2	20.65	93%	12	74	
0 - 750 m	452	6.5	95%	6.3	6.8	74.9	95%	46	106.9	
0 - 1000 m	877	6.1	95%	5.8	6.2	56.6	95%	43.6	82.7	
0 - 1250 m	1305	5.8	95%	5.6	6	59.56	94%	46	77	
0 - 1500 m	1452	5.72	95%	5.6	5.9	60.635	95%	47.9	77.8	
<i>RING</i>										
0 - 500 m	128	6.7	95%	6.38	7.2	20.65	93%	12	74	
500 - 750 m	324	6.4	95%	6.2	6.8	90.55	95%	55	140	
750 - 1000 m	425	5.6	95%	5.4	5.8	46.08	94%	35.4	76.7	
1000 - 1250 m	428	5.2	95%	4.8	5.5	60.415	94%	39.2	107	
1250 - 1500 m	147	5.4	94%	5.1	6	66.63	95%	35.7	110	
SW										
<i>CIRCLE</i>										
0 - 500 m	11	7.8	93%	4	11	52	33%	14	90	
0 - 750 m	239	6.6	95%	6.2	6.9	101	95%	66	220	
0 - 1000 m	573	6.1	95%	5.9	6.3	90	95%	67	160	
0 - 1250 m	930	6	95%	5.9	6.3	88.65	94%	71.2	110	
0 - 1500 m	956	6	95%	5.9	6.2	91.175	95%	76.4	113	
<i>RING</i>										
0 - 500 m	11	7.8	93%	4	11	52	33%	14	90	
500 - 750 m	228	6.6	95%	6.2	6.9	106.5	93%	66	220	
750 - 1000 m	334	5.7	94%	5.4	6	76.61	94%	60	126	
1000 - 1250 m	357	5.8	95%	5.6	6.3	83.4	95%	59.1	118	
1250 - 1500 m	26	5.15	95%	4.5	8.6	117.5	70%	98	158	

TABLE 7
Summary of Arsenic Concentration by Octant as Function of Distance from Facility
South Minneapolis Soil Arsenic Evaluation

Octant and Distance	No. of Samples N	Median				Upper 95 UTL				
		BE50 ¹	CONF50 ²	LCL50 ³	UCL50 ⁴	BE95 ⁵	CONF95 ⁶	LCL95 ⁷	UCL95 ⁸	
S										
<i>CIRCLE</i>										
0 - 500 m	28	6.7	94%	5	9.5	39.65	71%	21	370	
0 - 750 m	147	5.3	94%	4.9	6	31.36	95%	21	41.7	
0 - 1000 m	498	5.9	95%	5.7	6.1	63.47	94%	51.6	111	
0 - 1250 m	931	6	95%	5.8	6.2	94.3	95%	77.4	120	
0 - 1500 m	1267	6.2	95%	6	6.4	115.7	95%	99.2	145	
<i>RING</i>										
0 - 500 m	28	6.7	94%	5	9.5	39.65	71%	21	370	
500 - 750 m	119	5.1	95%	4.7	5.8	27.67	95%	10	41.7	
750 - 1000 m	351	6	95%	5.8	6.4	89.3	93%	60.8	134	
1000 - 1250 m	433	6.3	95%	5.8	6.9	110.8	94%	91.3	159	
1250 - 1500 m	336	6.7	94%	6.4	7.7	233	94%	143	369	
N										
<i>CIRCLE</i>										
0 - 500 m	8	9.08	93%	4.5	11.24	22.134	28%	11.24	28	
0 - 750 m	19	8.4	94%	4.5	11	28.02	56%	20.8	28.2	
0 - 1000 m	228	4.3	95%	4.1	4.7	17.13	93%	14.1	26.8	
0 - 1250 m	418	4.1	95%	4	4.3	14.46	95%	11.8	24	
0 - 1500 m	473	4.1	95%	3.9	4.2	14.4	94%	11.8	22.9	
0 - 1750 m	516	4.2	95%	4.1	4.3	14.4	95%	11.8	20.8	
<i>RING</i>										
0 - 500 m	8	9.08	93%	4.5	11.24	22.134	28%	11.24	28	
500 - 750 m	11	5.8	93%	2.9	15.7	24.5	33%	20.8	28.2	
750 - 1000 m	209	4.2	95%	4	4.5	14.64	95%	11.8	24.3	
1000 - 1250 m	190	4	94%	3.9	4.2	9.465	93%	6.7	26.8	
1250 - 1500 m	55	3.5	94%	3.3	3.9	6.99	88%	5.3	56	
1500 - 1750 m	43	5.7	93%	5.4	5.9	12.59	83%	8.4	24.1	
NE										
<i>CIRCLE</i>										
0 - 750 m	2	11.35	50%	8.7	14	13.735	0%	14	14	
0 - 1000 m	164	4.2	95%	3.8	4.6	21.31	93%	14.1	85.8	
0 - 1250 m	573	4.8	95%	4.5	5	62.1	95%	47.4	89.3	
0 - 1500 m	729	4.9	95%	4.7	5.1	58.94	95%	47.9	85.8	
<i>RING</i>										
0 - 1000 m	162	4.2	94%	3.8	4.6	21.77	93%	14.1	85.8	
1000 - 1250 m	409	5.1	95%	4.7	5.3	77.12	95%	52.3	117	
1250 - 1500 m	156	5.2	94%	4.9	5.8	54.95	93%	40.3	95.3	

TABLE 7
Summary of Arsenic Concentration by Octant as Function of Distance from Facility
South Minneapolis Soil Arsenic Evaluation

Octant and Distance	No. of Samples N	Median				Upper 95 UTL				
		BE50 ¹	CONF50 ²	LCL50 ³	UCL50 ⁴	BE95 ⁵	CONF95 ⁶	LCL95 ⁷	UCL95 ⁸	
E										
<i>CIRCLE</i>										
0 - 750 m	26	7.55	95%	6.6	8.6	34.725	70%	10.6	45.2	
0 - 1000 m	177	6.9	95%	6.5	7.5	73.68	95%	36.3	174	
0 - 1250 m	466	6.8	95%	6.5	7.1	58.8	95%	39.4	100	
0 - 1500 m	470	6.8	95%	6.6	7.1	60.86	94%	41.3	106	
<i>RING</i>										
0 - 750 m	25	7.5	92%	6.6	8.4	35.16	69%	10	45.2	
750 - 1000 m	151	6.8	95%	6.4	7.4	90.5	94%	36.3	260	
1000 - 1250 m	289	6.7	95%	6.3	7	51.42	94%	36.5	106	
1250 - 1500 m	4	42.1	88%	5.6	284	252.905	0%	284	284	
SE										
<i>CIRCLE</i>										
0 - 500 m	8	65.5	93%	11	92	123.2	28%	92	140	
0 - 750 m	10	45	93%	10	92	118.4	32%	92	140	
0 - 1000 m	57	5.8	94%	5	8.3	75.04	88%	63	140	
0 - 1250 m	293	7.8	95%	7.5	8.4	58.6	94%	44	85.3	
0 - 1500 m	437	7.5	94%	7.1	7.8	61.12	94%	46.4	85.3	
<i>RING</i>										
0 - 500 m	8	65.5	93%	11	92	123.2	28%	92	140	
500 - 750 m	2	4.45	50%	3.9	5	4.945	0%	5	5	
750 - 1000 m	47	5.5	94%	4.8	6.8	41.3	88%	25.8	70.8	
1000 - 1250 m	236	8.05	95%	7.7	8.6	48.775	92%	30.4	75.2	
1250 - 1500 m	144	6.65	95%	6.4	7.4	60.955	95%	32.3	160	

Notes:

¹ Best estimate of the median concentration

² Confidence of the nonparametric interval for the median estimate

³ Lower limit on the median estimate

⁴ Upper limit on the median estimate

⁵ Best estimate of the 95th UTL

⁶ Confidence of the nonparametric interval for the 95th UTL

⁷ Lower limit on the 95th UTL

⁸ Upper limit on the 95th UTL

TABLE 8
Evaluation of Duplicate and Replicate Consistency
South Minneapolis Soil Arsenic Evaluation

Octant	Duplicates Consistently Above or Below 10 mg/kg					Duplicates Inconsistent Relative to 10 mg/kg				
	% Consistent	N_N ¹	RPD	Y_Y ²	RPD	N_Y ³	RPD	Y_N ⁴	RPD	
DUPLICATES										
1_NW	100.0	59	11.2184	10	23.4					
2_W	95.5	57	14.0227	6	26.9	2	10.4	1	172.0	
3_SW	97.5	31	10.4903	8	11.5	1	158.4			
4_S	100.0	39	8.02129	18	24.3					
5_N	95.2	17	10.2501	3	39.7	1	128.8			
6_NE	100.0	28	10.8936	4	18.2					
7_E	100.0	25	11.7	7	11.3					
8_SE	88.0	13	12.4791	9	14.4	2	13.3	1	20.8	

Octant	Replicates Consistently Above or Below 10 mg/kg					Replicates Inconsistent Relative to 10 mg/kg				
	% Consistent	N_N ¹	RPD	Y_Y ²	RPD	N_Y ³	RPD	Y_N ⁴	RPD	
REPLICATES										
1_NW	90.5	32	20.5171	6	24.6	2	66.1	2	42.3	
2_W	93.6	35	22.6108	9	31.3	2	78.5	1	26.1	
3_SW	92.6	22	10.756	3	34.7	1	94.7	1	87.6	
4_S	91.1	30	20.4339	21	53.5	2	38.4	3	78.5	
5_N	100.0	13	17.412	4	21.4					
6_NE	93.5	17	18.16	12	34.2	1	39.6	1	40.0	
7_E	96.4	24	12.7498	3	23.0			1	74.9	
8_SE	82.1	19	11.5762	4	32.3	3	48.2	2	28.7	

¹ N_N indicates neither the 2006 nor historic result exceeds background

² Y_Y indicates both the 2006 and historic results exceed background concentration of 10 mg/kg

³ N_Y indicates the 2006 result is less than background concentration of 10 mg/kg, but the historic result exceeds background

⁴ Y_N indicates the 2006 result exceed background concentration of 10 mg/kg, but the historic result is less than background

TABLE 9
Evaluation of Yard Specific Variability
South Minneapolis Soil Arsenic Evaluation

Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
S1W10-26	S1W10	2_W	1000	2	Y_Y	Y_Y	1200	140	158.21	140	1200				
S7E04-24	S7E04	4_S	1500	2	Y_Y	Y_Y	2880	369	154.57	369	2880				
S7E04-26	S7E04	4_S	1500	2	Y_Y	Y_Y	592	132	127.07	132	592				
S7E03-27	S7E03	4_S	1500	2	Y_Y	Y_Y	458	115	119.72	115	458				
S6W01-15	S6W01	4_S	1250	2	Y_Y	Y_Y	363	101	112.93	363	101				
N2W12-30	N2W12	2_W	1250	3	Y_Y	Y_Y	739	211	111.16	739	211				399
S7W01-20	S7W01	4_S	1500	2	Y_Y	Y_Y	577	166	110.63	577	166				
N2W04-21	N2W04	1_NW	500	2	Y_Y	Y_Y	547.2	163.3	108.06		163.3				547.2
S6W01-04	S6W01	4_S	1250	2	Y_Y	Y_Y	1230	407	100.55	407	1230				
S5E02-16	S5E02	4_S	1000	2	Y_Y	Y_Y	389	144	91.932	389	144				
N4E04-08	N4E04	6_NE	1000	2	Y_Y	Y_Y	278	104	91.099	104	278				
S1E08-15	S1E08	7_E	1000	2	Y_Y	Y_Y	260	99	89.694	260	99				
S7W03-13	S7W03	4_S	1500	2	Y_Y	Y_Y	269	103	89.247	103	269				
S1E08-14	S1E08	7_E	1000	2	Y_Y	Y_Y	280	120	80	120	280				
S7E02-02	S7E02	4_S	1250	2	Y_Y	Y_Y	308	132	80	132	308				
S7E03-06	S7E03	4_S	1500	2	Y_Y	Y_Y	223	99.4	76.675	99.4	223				
S3W05-11	S3W05	3_SW	750	2	Y_Y	Y_Y	220	100	75	100	220				
S6W05-13	S6W05	4_S	1500	2	Y_Y	Y_Y	289	132	74.584	132	289				
S7E02-16	S7E02	4_S	1500	2	Y_Y	Y_Y	1230	569	73.485	569	1230				
S2E09-22	S2E09	7_E	1250	2	Y_Y	Y_Y	1080	523	69.495	523	1080				
S7E04-07	S7E04	4_S	1500	2	Y_Y	Y_Y	849	422	67.191	422	849				
N1W06-03	N1W06	2_W	750	2	Y_Y	Y_Y	270	140	63.415	270	140				
S3E10-05	S3E10	8_SE	1500	2	Y_Y	Y_Y	308	160	63.248	160	308				
S3W05-29	S3W05	3_SW	750	2	Y_Y	Y_Y	320	170	61.224	170	320				
N5E07-23	N5E07	6_NE	1250	2	Y_Y	Y_Y	219	117	60.714	219	117				
S1W10-02	S1W10	2_W	1000	2	Y_Y	Y_Y	1060	575	59.327	575	1060				
S5E01-26	S5E01	4_S	1000	2	Y_Y	Y_Y	220	120	58.824	120	220				
S1W07-23	S1W07	2_W	750	2	Y_Y	Y_Y	210	120	54.545	120	210				
S5E01-25	S5E01	4_S	1000	2	Y_Y	Y_Y	272	157	53.613	272	157				
N5E06-11	N5E06	6_NE	1250	2	Y_Y	Y_Y	177	103	52.857	177	103				
N2E09-23	N2E09	7_E	1250	2	Y_Y	Y_Y	176	106	49.645	106	176				
N5W07-09	N5W07	1_NW	1250	2	Y_Y	Y_Y	165	103.65	45.673	165	103.65				
N3W04-04	N3W04	1_NW	750	2	Y_Y	Y_Y	990	635.8	43.572	635.8	990				
N5E06-29	N5E06	6_NE	1250	2	Y_Y	Y_Y	367	243	40.656	243	367				
S7E01-14	S7E01	4_S	1500	2	Y_Y	Y_Y	469	312	40.205	469	312				
N5E06-30	N5E06	6_NE	1250	2	Y_Y	Y_Y	433	293	38.567	433	293				
S4W10-05	S4W10	3_SW	1250	2	Y_Y	Y_Y	256	175	37.587	175	256				
S1E07-14	S1E07	7_E	1000	2	Y_Y	Y_Y	174	119	37.543	119	174				
S2W12-06	S2W12	2_W	1250	2	Y_Y	Y_Y	160	111	36.162	160	111				

TABLE 9
Evaluation of Yard Specific Variability
South Minneapolis Soil Arsenic Evaluation

Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
S6E02-08	S6E02	4_S	1250	2	Y_Y	Y_Y	282	201	33.54	282	201				
S3W07-11	S3W07	3_SW	1000	2	Y_Y	Y_Y	280	200	33.333	280	200				
S5W01-06	S5W01	4_S	1000	2	Y_Y	Y_Y	183	134	30.915	183	134				
S2E10-07	S2E10	7_E	1250	2	Y_Y	Y_Y	171	127	29.53	127	171				
S3W07-14	S3W07	3_SW	1000	2	Y_Y	Y_Y	290	220	27.451	290	220				
S3W12-16	S3W12	3_SW	1500	2	Y_Y	Y_Y	158	122	25.714	122	158				
S6E05-05	S6E05	8_SE	1500	2	Y_Y	Y_Y	176	140	22.785	140	176				
S6E03-24	S6E03	4_S	1250	2	Y_Y	Y_Y	164	132	21.622	164	132				
S1W07-19	S1W07	2_W	750	2	Y_Y	Y_Y	110	96	13.592	96	110				
S2W07-09	S2W07	3_SW	750	2	Y_Y	Y_Y	250	220	12.766	220	250				
S5E01-19	S5E01	4_S	1000	2	Y_Y	Y_Y	312	284	9.396	284	312				
S7E04-28	S7E04	4_S	1500	2	Y_Y	Y_Y	275	263	4.461	275	263				
S5W04-06	S5W04	4_S	1000	2	Y_Y	Y_Y	116	111	4.4053	111	116				
N4W08-10	N4W08	1_NW	1250	2	N_Y	N_Y	268.6	3.4	195	3.4					268.6
S2W11-06	S2W11	2_W	1250	2	N_Y	N_Y	184	3.6	192.32	3.6	184				
N6E05-23	N6E05	6_NE	1250	2	Y_Y	N_Y	960	20.3	191.72	20.3	960				
N2W12-22	N2W12	2_W	1250	2	N_Y	N_Y	192	4.2	191.44	4.2	192				
S5E03-28	S5E03	4_S	1000	2	Y_Y	N_Y	464	11.4	190.41	11.4	464				
S3W08-10	S3W08	3_SW	1000	2	N_Y	N_Y	190	4.7	190.34	4.7	190				
S4W05-12	S4W05	3_SW	1000	3	N_Y	N_Y	179	4.9	189.34	4.9	179				11.8
S3W05-10	S3W05	3_SW	750	2	Y_Y	N_Y	380	11	188.75	11	380				
N1W11-23	N1W11	2_W	1250	3	N_Y	N_Y	237	8.9	185.52	54	237				8.9
S5E03-29	S5E03	4_S	1000	2	N_Y	N_Y	112	4.5	184.55	4.5	112				
S6W03-10	S6W03	4_S	1250	2	N_Y	N_Y	99.2	4.1	184.12	99.2	4.1				
N1W07-07	N1W07	2_W	750	2	Y_Y	N_Y	424	19	182.84	19					424
N2W12-29	N2W12	2_W	1250	2	N_Y	N_Y	107	5	182.14	5	107				
S2W09-15	S2W09	2_W	1000	2	N_Y	N_Y	98.7	5.3	179.62	98.7	5.3				
S7W01-16	S7W01	4_S	1500	2	Y_Y	N_Y	289	16.3	178.64	16.3	289				
N1W08-21	N1W08	2_W	1000	2	N_Y	N_Y	131	7.5	178.34	7.5	131				
N3W06-04	N3W06	1_NW	750	3	N_Y	N_Y	110	6.5	177.68	110					6.5 27.333
N5E06-28	N5E06	6_NE	1250	2	N_Y	N_Y	98.2	6.3	175.89	6.3	98.2				
S7E01-15	S7E01	4_S	1500	2	Y_Y	N_Y	143	10.1	173.61	10.1	143				
S6E02-24	S6E02	4_S	1250	2	Y_Y	N_Y	208	15.2	172.76	15.2	208				
N3E08-24	N3E08	6_NE	1250	2	Y_Y	N_Y	987	72.9	172.49	72.9	987				
S4W10-04	S4W10	3_SW	1250	2	Y_Y	N_Y	562	46.6	169.37	562					46.6
N1W10-08	N1W10	2_W	1000	2	Y_Y	N_Y	410	34	169.37	34	410				
S7W02-22	S7W02	4_S	1500	2	Y_Y	N_Y	185	15.7	168.71	185	15.7				
S6W01-06	S6W01	4_S	1250	2	Y_Y	N_Y	762	65	168.56	65	762				
S1E08-04	S1E08	7_E	1000	2	N_Y	N_Y	100	9	166.97	9	100				

TABLE 9
Evaluation of Yard Specific Variability
South Minneapolis Soil Arsenic Evaluation

Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
S2E09-23	S2E09	7_E	1250	2	Y_Y	N_Y	148	13.4	166.79	13.4	148				
S7E01-16	S7E01	4_S	1500	2	Y_Y	N_Y	111	10.1	166.64	10.1	111				
S6E01-11	S6E01	4_S	1250	2	Y_Y	N_Y	186	17.2	166.14	17.2	186				
N2W11-21	N2W11	2_W	1250	2	Y_Y	N_Y	122	11.6	165.27	11.6	122				
S3W04-14	S3W04	3_SW	750	2	Y_Y	N_Y	170	17	163.64	17	170				
N3W03-01	N3W03	1_NW	500	2	Y_Y	N_Y	100	10.105	163.29	100					10.105
N2W04-23	N2W04	1_NW	500	2	Y_Y	N_Y	470	48.83	162.35	48.83	470				
S3W01-09	S3W01	4_S	500	2	Y_Y	N_Y	370	39	161.86	39	370				
N1W10-12	N1W10	2_W	1000	2	Y_Y	N_Y	605.3	65	161.21	65	605.3				
N2W03-03	N2W03	1_NW	500	2	Y_Y	N_Y	157	17.42	160.05	17.42	157				
S6E03-19	S6E03	4_S	1250	2	Y_Y	N_Y	205	23.7	158.55	23.7	205				
S6E02-15	S6E02	4_S	1250	2	Y_Y	N_Y	112	15.1	152.48	15.1	112				
N1W06-16	N1W06	2_W	750	2	Y_Y	N_Y	200	27	152.42	27	200				
S7E03-04	S7E03	4_S	1500	2	Y_Y	N_Y	111	15.5	150.99	111	15.5				
N6E05-13	N6E05	6_NE	1250	2	Y_Y	N_Y	123	18	148.94	123	18				
S1W10-10	S1W10	2_W	1000	2	Y_Y	N_Y	294.1	46	145.9	46	294.1				
S7E01-34	S7E01	4_S	1500	2	Y_Y	N_Y	277	43.7	145.49	43.7	277				
S6E02-09	S6E02	4_S	1250	2	Y_Y	N_Y	437	77.2	139.95	77.2	437				
N6E08-18	N6E08	6_NE	1500	2	Y_Y	N_Y	224	39.8	139.65	39.8	224				
N3E08-01	N3E08	6_NE	1250	3	Y_Y	N_Y	131	23.9	138.28	23.9	89.3				131
N2W03-13	N2W03	1_NW	500	2	Y_Y	N_Y	210	39	137.35	39	210				
S1W07-25	S1W07	2_W	750	2	Y_Y	N_Y	220	42	135.88	42	220				
S4W08-04	S4W08	3_SW	1000	2	Y_Y	N_Y	219	46.4	130.07	219	46.4				
S6E03-01	S6E03	4_S	1250	2	Y_Y	N_Y	132	28.5	128.97	132	28.5				
S5W05-15	S5W05	3_SW	1250	2	Y_Y	N_Y	152	33.3	128.12	33.3	152				
N1W12-20	N1W12	2_W	1250	2	Y_Y	N_Y	110	25.6	124.48	25.6	110				
S4W08-20	S4W08	3_SW	1250	2	Y_Y	N_Y	118	27.9	123.51	27.9	118				
S6E02-16	S6E02	4_S	1250	2	Y_Y	N_Y	392	93.4	123.03	93.4	392				
S5E03-16	S5E03	4_S	1250	2	Y_Y	N_Y	121	29	122.67	29	121				
N6E06-13	N6E06	6_NE	1250	2	Y_Y	N_Y	178	43.5	121.44	43.5	178				
N2W04-19	N2W04	1_NW	500	2	Y_Y	N_Y	99.67	25.84	117.65	99.67	25.84				
S3W04-11	S3W04	3_SW	750	2	Y_Y	N_Y	220	58	116.55	58	220				
N5W07-14	N5W07	1_NW	1250	2	Y_Y	N_Y	168.6	45	115.73	168.6	45				
N3W14-11	N3W14	2_W	1500	2	Y_Y	N_Y	115	31	115.07	31					115
S3E10-04	S3E10	7_E	1500	2	Y_Y	N_Y	284	76.7	114.94	76.7	284				
N3W10-26	N3W10	1_NW	1250	2	Y_Y	N_Y	114	30.9	114.7	114	30.9				
S1E08-09	S1E08	7_E	1000	2	Y_Y	N_Y	290	82	111.83	82	290				
S6E02-02	S6E02	4_S	1250	2	Y_Y	N_Y	143	42.8	107.86	42.8	143				
N4E09-32	N4E09	6_NE	1500	2	Y_Y	N_Y	129	40.3	104.78	40.3	129				

TABLE 9
Evaluation of Yard Specific Variability
South Minneapolis Soil Arsenic Evaluation

Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
S1W11-03	S1W11	2_W	1250	2	Y_Y	N_Y	238	75.2	103.96	238					75.2
S4W08-17	S4W08	3_SW	1250	2	Y_Y	N_Y	287	94.5	100.92	94.5	287				
S5W05-02	S5W05	3_SW	1000	2	Y_Y	N_Y	126	41.7	100.54	41.7	126				
S1W06-14	S1W06	2_W	750	2	Y_Y	N_Y	102.2	34	100.15	34	102.2				
N3W04-05	N3W04	1_NW	750	2	Y_Y	N_Y	180	61	98.755	61	180				
N3W10-08	N3W10	1_NW	1250	2	Y_Y	N_Y	196	67.2	97.872	67.2	196				
S3W07-23	S3W07	3_SW	1000	2	Y_Y	N_Y	160	55	97.674	160	55				
N2W07-20	N2W07	2_W	750	2	Y_Y	N_Y	270	93	97.521	93	270				
N2W07-19	N2W07	2_W	750	2	Y_Y	N_Y	260	91	96.296	91	260				
S6E03-09	S6E03	4_S	1250	2	Y_Y	N_Y	104	36.6	95.875	104	36.6				
S6W01-17	S6W01	4_S	1250	2	Y_Y	N_Y	159	56.2	95.539	56.2	159				
N3W07-31	N3W07	1_NW	1000	2	Y_Y	N_Y	120	42.9	94.659	42.9	120				
N6E06-21	N6E06	6_NE	1500	2	Y_Y	N_Y	106	37.9	94.649	37.9	106				
S3W06-09	S3W06	3_SW	750	2	Y_Y	N_Y	110	40	93.333	40	110				
N6E08-23	N6E08	6_NE	1500	2	Y_Y	N_Y	95.3	34.9	92.78	34.9	95.3				
N1W07-29	N1W07	2_W	750	2	Y_Y	N_Y	96	36	90.909	36	96				
S6W01-14	S6W01	4_S	1250	2	Y_Y	N_Y	110	42.3	88.903	110	42.3				
S2E10-05	S2E10	7_E	1250	2	Y_Y	N_Y	105.2	41.1	87.628	41.1					105.2
S5E03-19	S5E03	4_S	1250	2	Y_Y	N_Y	148	59	85.99	59	148				
S5W04-24	S5W04	3_SW	1000	3	Y_Y	N_Y	96.2	39	84.615	39	96.2				76.4
S4W04-06	S4W04	3_SW	750	2	Y_Y	N_Y	115	48.6	81.174	48.6	115				
S7E04-19	S7E04	4_S	1500	2	Y_Y	N_Y	145	61.3	81.144	61.3	145				
S7W01-02	S7W01	4_S	1250	2	Y_Y	N_Y	100	42.4	80.899	42.4	100				
S7E04-01	S7E04	4_S	1500	2	Y_Y	N_Y	207	89	79.73	89	207				
S6W04-08	S6W04	4_S	1250	2	Y_Y	N_Y	98.1	45.25	73.736	45.25	98.1				
S5W01-03	S5W01	4_S	1000	2	Y_Y	N_Y	95.2	44.4	72.779	44.4	95.2				
S5W02-18	S5W02	4_S	1000	2	Y_Y	N_Y	151	71.4	71.583	71.4	151				
S5W06-09	S5W06	3_SW	1250	2	Y_Y	N_Y	170	81	70.916	81	170				
N2W04-15	N2W04	1_NW	500	2	Y_Y	N_Y	136.1	65	70.711	65					136.1
N1W11-16	N1W11	2_W	1250	2	Y_Y	N_Y	115	57.3	66.976	57.3	115				
S4W10-21	S4W10	3_SW	1250	2	Y_Y	N_Y	113	57.4	65.258	57.4	113				
S7W03-08	S7W03	4_S	1500	2	Y_Y	N_Y	154	78.5	64.946	78.5	154				
S6W05-22	S6W05	3_SW	1250	2	Y_Y	N_Y	178	91.7	63.997	91.7	178				
S5W07-14	S5W07	3_SW	1250	2	Y_Y	N_Y	179	93.9	62.367	179	93.9				
S7E01-18	S7E01	4_S	1500	2	Y_Y	N_Y	124	67.1	59.55	67.1	124				
N1W07-04	N1W07	2_W	750	2	Y_Y	N_Y	139.8	76	59.129	76	139.8				
S5W07-15	S5W07	3_SW	1250	2	Y_Y	N_Y	160	87	59.109	87	160				
S6E04-17	S6E04	4_S	1250	2	Y_Y	N_Y	119	65.2	58.415	119	65.2				
S6E01-12	S6E01	4_S	1250	2	Y_Y	N_Y	99.2	54.9	57.495	54.9	99.2				

TABLE 9
Evaluation of Yard Specific Variability
South Minneapolis Soil Arsenic Evaluation

Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
N3W13-20	N3W13	2_W	1500	2	Y_Y	N_Y	110	61.1	57.16	61.1	110				
N2W11-11	N2W11	2_W	1250	2	Y_Y	N_Y	168	94.7	55.805	94.7	168				
N6W01-03	N6W01	5_N	1250	2	Y_Y	N_Y	111	63.3	54.733	63.3	111				
N2W06-10	N2W06	1_NW	750	2	Y_Y	N_Y	100.7	57.595	54.462	57.595	100.7				
N4W11-03	N4W11	1_NW	1500	2	Y_Y	N_Y	109	63.4	52.9	109	63.4				
N5W11-04	N5W11	1_NW	1500	3	Y_Y	N_Y	107	62.4	52.656	62.4	107				84.4
S7E04-21	S7E04	4_S	1500	2	Y_Y	N_Y	98.8	59.2	50.127	59.2	98.8				
N3W12-28	N3W12	1_NW	1500	2	Y_Y	N_Y	95.7	59.6	46.491	59.6	95.7				
N2W07-10	N2W07	1_NW	750	2	Y_Y	N_Y	130	84	42.991	84	130				
S5W01-18	S5W01	4_S	1000	2	Y_Y	N_Y	132	91.3	36.453	91.3	132				
N3E07-09	N3E07	6_NE	1000	2	Y_Y	N_Y	119	85.8	32.422	85.8	119				
S4E09-03	S4E09	8_SE	1250	2	Y_Y	N_Y	106	78.1	30.31	106	78.1				
N5W08-04	N5W08	1_NW	1250	2	Y_Y	N_Y	96	71	29.94	71	96				
S3W05-19	S3W05	3_SW	1000	2	Y_Y	N_Y	100	77	25.989	77	100				
S2W13-09	S2W13	2_W	1500	2	Y_Y	N_Y	96.3	79.7	18.864	79.7	96.3				
S7E04-18	S7E04	4_S	1500	2	Y_Y	N_Y	102	90.5	11.948	90.5	102				
N5W07-11	N5W07	1_NW	1250	4	N_Y	N_N	53.25	2.6	181.38	2.6	4.2			53.25	22.45
S5W01-07	S5W01	4_S	1000	2	N_Y	N_N	59.1	2.9	181.29	2.9	59.1				
N6W12-09	N6W12	1_NW	1750	3	N_Y	N_N	75.3	3.8	180.78	3.8	75.3			4.5	
S4W07-10	S4W07	3_SW	1000	2	N_Y	N_N	65	3.3	180.67	65	3.3				
N1W10-16	N1W10	2_W	1000	3	N_Y	N_N	60.9	3.6	177.67	12.9	60.9			3.6	
S6E02-01	S6E02	4_S	1250	2	N_Y	N_N	59.3	3.7	176.51	59.3	3.7				
N2W11-10	N2W11	2_W	1250	2	N_Y	N_N	57	3.7	175.62	57	3.7				
S5E03-22	S5E03	4_S	1250	2	N_Y	N_N	83.2	5.5	175.2	5.5	83.2				
N3W07-23	N3W07	1_NW	1000	2	N_Y	N_N	53	3.78	173.37	53				3.78	
S2W13-08	S2W13	2_W	1500	2	N_Y	N_N	69	5	172.97	5	69				
N2W04-03	N2W04	1_NW	500	3	N_Y	N_N	60.24	4.4	172.77	4.4	6.8			60.24	
N5E07-25	N5E07	6_NE	1250	2	N_Y	N_N	91.6	7	171.6	91.6	7				
N4W14-23	N4W14	1_NW	1750	2	N_Y	N_N	19.4	1.5	171.29	1.5	19.4				
N6E07-12	N6E07	6_NE	1500	2	N_Y	N_N	79.9	6.4	170.34	79.9	6.4				
S7W03-10	S7W03	4_S	1500	2	N_Y	N_N	78.1	6.7	168.4	78.1	6.7				
S5W05-03	S5W05	3_SW	1000	2	N_Y	N_N	85.4	7.7	166.92	85.4	7.7				
N3W03-10	N3W03	1_NW	750	2	N_Y	N_N	93	8.44	166.72	93				8.44	
S7E02-01	S7E02	4_S	1250	2	N_Y	N_N	91.3	8.3	166.67	8.3	91.3				
N3W09-10	N3W09	1_NW	1000	2	N_Y	N_N	23.305	2.2	165.5	2.2	23.305				
N5W08-02	N5W08	1_NW	1250	2	N_Y	N_N	66.3	6.3	165.29	66.3				6.3	
S2E10-13	S2E10	7_E	1250	2	N_Y	N_N	64.5	6.2	164.92	6.2	64.5				
N4W06-07	N4W06	1_NW	1000	3	N_Y	N_N	16.5	1.61	164.44	4.8	16.5			1.61	
N5E07-14	N5E07	6_NE	1250	2	N_Y	N_N	66	6.5	164.14	66	6.5				

TABLE 9
Evaluation of Yard Specific Variability
South Minneapolis Soil Arsenic Evaluation

Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
N5E07-22	N5E07	6_NE	1250	2	N_Y	N_N	46.7	4.8	162.72	4.8	46.7				
N2W12-10	N2W12	2_W	1250	2	N_Y	N_N	62.5	6.7	161.27	62.5	6.7				
N1W12-09	N1W12	2_W	1250	2	N_Y	N_N	38.4	4.2	160.56	38.4	4.2				
N2W07-21	N2W07	2_W	750	2	N_Y	N_N	43	4.73	160.36	43					4.73
S5E02-14	S5E02	4_S	1250	2	N_Y	N_N	55.4	6.3	159.16	6.3	55.4				
S5W05-06	S5W05	3_SW	1000	2	N_Y	N_N	59.4	6.8	158.91	6.8	59.4				
S2W06-15	S2W06	3_SW	750	2	N_Y	N_N	82	9.4	158.86	82	9.4				
N3W06-02	N3W06	1_NW	1000	2	N_Y	N_N	68	7.8	158.84	68	7.8				
N6E06-08	N6E06	6_NE	1500	2	N_Y	N_N	38.3	4.4	158.78	4.4	38.3				
N1W11-15	N1W11	2_W	1250	2	N_Y	N_N	47.4	5.5	158.41	5.5	47.4				
S6W03-16	S6W03	4_S	1250	2	N_Y	N_N	10.3	1.2	158.26	1.2					10.3
N4W14-24	N4W14	1_NW	1750	2	N_Y	N_N	50.9	6.1	157.19	50.9	6.1				
N3W09-11	N3W09	1_NW	1000	2	N_Y	N_N	33.9	4.1	156.84	4.1	33.9				
S5W07-20	S5W07	3_SW	1250	2	N_Y	N_N	47.6	5.9	155.89	5.9	47.6				
N5E06-15	N5E06	6_NE	1250	2	N_Y	N_N	48.9	6.3	154.35	6.3	48.9				
S4E02-04	S4E02	4_S	750	2	N_Y	N_N	30.1	3.9	154.12	30.1	3.9				
S3W04-18	S3W04	3_SW	750	2	N_Y	N_N	50	6.6	153.36	50	6.6				
S2E09-24	S2E09	7_E	1250	2	N_Y	N_N	73.8	9.8	153.11	9.8	73.8				
N5W12-12	N5W12	1_NW	1750	2	N_N	N_N	6.5	0.87	152.78	6.5	0.87				
S5E07-04	S5E07	8_SE	1250	2	N_Y	N_N	40.9	5.5	152.59	5.5	40.9				
N1E09-09	N1E09	7_E	1250	3	N_Y	N_N	49.8	6.7	152.57	49.8	6.7				22.8
S2W06-16	S2W06	3_SW	750	2	N_Y	N_N	66	8.9	152.47	66	8.9				
N3W02-04	N3W02	1_NW	500	2	Y_Y	N_N	88	12	152	12					88
N5W08-11	N5W08	1_NW	1250	2	Y_Y	N_N	84.1	11.5	151.88	11.5	84.1				
N2E09-24	N2E09	7_E	1250	2	N_Y	N_N	28.3	3.9	151.55	3.9	28.3				
S1W09-23	S1W09	2_W	1000	2	Y_Y	N_N	76.7	10.7	151.03	10.7	76.7				
N3W06-08	N3W06	1_NW	750	2	N_Y	N_N	25	3.62	149.41	25					3.62
N1W09-09	N1W09	2_W	1000	2	Y_Y	N_N	82.7	12.1	148.95	12.1	82.7				
N1W10-25	N1W10	2_W	1000	2	N_Y	N_N	32.35	4.8	148.32	32.35	4.8				
N1W12-12	N1W12	2_W	1250	2	N_Y	N_N	40.4	6	148.28	40.4					6
N3E07-18	N3E07	6_NE	1000	2	N_Y	N_N	25.5	3.8	148.12	25.5	3.8				
S1E06-08	S1E06	7_E	750	2	N_Y	N_N	41.3	6.2	147.79	6.2	41.3				
N5W07-07	N5W07	1_NW	1250	3	N_Y	N_N	53.66	8.1	147.54	8.1	26.6				53.66
N5E06-04	N5E06	6_NE	1250	2	Y_Y	N_N	76.1	11.7	146.7	11.7	76.1				
N6W08-10	N6W08	1_NW	1500	2	Y_Y	N_N	91	14	146.67	91	14				
S5W05-14	S5W05	3_SW	1250	2	N_Y	N_N	19.9	3.2	144.59	3.2	19.9				
N1W11-27	N1W11	2_W	1250	3	N_Y	N_N	28.2	4.7	142.86	17.4	28.2				4.7
S3W07-12	S3W07	3_SW	1000	2	N_Y	N_N	32	5.4	142.25	5.4	32				
S6E02-17	S6E02	4_S	1250	2	Y_Y	N_N	72.9	12.5	141.45	12.5	72.9				

TABLE 9
Evaluation of Yard Specific Variability
South Minneapolis Soil Arsenic Evaluation

Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
S1W09-16	S1W09	2_W	1000	2	N_Y	N_N	23.7	4.1	141.01	23.7	4.1				
N6E08-09	N6E08	6_NE	1500	2	N_Y	N_N	22.3	3.9	140.46	22.3	3.9				
S5W01-09	S5W01	4_S	1000	2	N_Y	N_N	52	9.1	140.43	9.1	52				
S2W05-01	S2W05	3_SW	750	2	N_Y	N_N	33	5.8	140.21	5.8	33				
S6E03-20	S6E03	4_S	1250	2	Y_Y	N_N	65.2	11.5	140.03	11.5	65.2				
N3E09-10	N3E09	6_NE	1250	2	N_Y	N_N	17	3	140	3	17				
S5W07-26	S5W07	3_SW	1250	2	Y_Y	N_N	80.6	14.4	139.37	80.6	14.4				
N6E08-20	N6E08	6_NE	1500	2	Y_Y	N_N	57.5	10.4	138.73	10.4	57.5				
S6E02-13	S6E02	4_S	1250	3	Y_Y	N_N	67.4	12.2	138.69	12.2	14.4				67.4
S7E02-30	S7E02	4_S	1500	2	N_Y	N_N	24.8	4.5	138.57	4.5	24.8				
S3W07-13	S3W07	3_SW	1000	2	N_Y	N_N	45	8.2	138.35	45	8.2				
N5W07-04	N5W07	1_NW	1250	2	N_Y	N_N	48.1	8.8	138.14	8.8	48.1				
N4W09-07	N4W09	1_NW	1250	2	N_Y	N_N	44.8	8.2	138.11	8.2	44.8				
N5W08-27	N5W08	1_NW	1250	2	N_N	N_N	4.2	0.77	138.03	0.77	4.2				
N3W03-02	N3W03	1_NW	500	2	N_Y	N_N	37	6.88	137.28	37	6.88				
S1W08-25	S1W08	2_W	1000	2	N_Y	N_N	37.4	7	136.94	7	37.4				
N3E09-11	N3E09	6_NE	1250	2	Y_Y	N_N	69.5	13.1	136.56	13.1	69.5				
N2W12-26	N2W12	2_W	1250	2	Y_Y	N_N	70.5	13.3	136.52	13.3	70.5				
S3W10-11	S3W10	3_SW	1250	2	Y_Y	N_N	79.3	15.1	136.02	15.1	79.3				
S3W05-14	S3W05	3_SW	750	2	N_Y	N_N	28	5.4	135.33	28	5.4				
S6W01-19	S6W01	4_S	1250	2	N_Y	N_N	13.4	2.6	135	13.4	2.6				
N4W09-05	N4W09	1_NW	1250	2	N_Y	N_N	38.5	7.5	134.78	38.5					7.5
N3W07-28	N3W07	1_NW	1000	2	N_Y	N_N	51	10	134.43	51	10				
S4E02-24	S4E02	4_S	750	3	N_Y	N_N	41.7	8.2	134.27	8.2	41.7				11.1
S1E10-06	S1E10	7_E	1250	2	N_Y	N_N	19.8	3.9	134.18	3.9	19.8				
N1W10-09	N1W10	2_W	1000	2	N_Y	N_N	26.5	5.25	133.86	26.5	5.25				
N4W07-20	N4W07	1_NW	1000	2	N_N	N_N	2.9	0.58	133.33	0.58	2.9				
N2W09-01	N2W09	1_NW	1000	2	N_Y	N_N	35.9	7.2	133.18	7.2	35.9				
S6E01-14	S6E01	4_S	1250	2	N_Y	N_N	19.6	4	132.2	4	19.6				
S5W02-19	S5W02	4_S	1000	2	N_Y	N_N	19	3.9	131.88	3.9	19				
N3W10-17	N3W10	1_NW	1250	2	N_Y	N_N	28.7	5.9	131.79	5.9	28.7				
S6E03-16	S6E03	4_S	1250	2	N_Y	N_N	31.1	6.4	131.73	6.4	31.1				
S7E03-10	S7E03	4_S	1500	2	N_Y	N_N	34.5	7.1	131.73	7.1	34.5				
S3W10-09	S3W10	3_SW	1250	2	N_Y	N_N	48	9.9	131.61	9.9	48				
N5W12-06	N5W12	1_NW	1500	2	N_N	N_N	4.2	0.87	131.36	4.2	0.87				
S3W09-16	S3W09	3_SW	1250	2	N_Y	N_N	22.2	4.6	131.34	4.6	22.2				
N1W10-02	N1W10	2_W	1000	3	N_N	N_N	7.2	1.5	131.03	7.2	1.5				1.7
S4W05-23	S4W05	3_SW	1000	2	N_Y	N_N	16.6	3.5	130.35	3.5				16.6	
S7E02-09	S7E02	4_S	1500	2	Y_Y	N_N	48.3	10.2	130.26	48.3	10.2				

TABLE 9
Evaluation of Yard Specific Variability
South Minneapolis Soil Arsenic Evaluation

Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
S4W04-08	S4W04	3_SW	1000	2	N_Y	N_N	39.9	8.5	129.75	39.9	8.5				
N2E09-11	N2E09	7_E	1250	2	N_N	N_N	5.6	1.2	129.41	1.2	5.6				
S1W13-14	S1W13	2_W	1250	2	N_Y	N_N	30.1	6.5	128.96	30.1	6.5				
N3W05-12	N3W05	1_NW	750	2	N_Y	N_N	17	3.7	128.5	3.7	17				
N2W12-06	N2W12	2_W	1250	2	N_Y	N_N	22.8	5	128.06	5	22.8				
N6E06-07	N6E06	6_NE	1500	2	N_Y	N_N	41	9	128	9	41				
S5W04-07	S5W04	4_S	1000	2	N_Y	N_N	32.5	7.2	127.46	7.2	32.5				
N3W12-27	N3W12	1_NW	1500	2	N_Y	N_N	27	6	127.27	27	6				
S5E02-17	S5E02	4_S	1000	2	N_Y	N_N	25.9	5.8	126.81	5.8	25.9				
N5E07-06	N5E07	6_NE	1500	2	N_Y	N_N	23.2	5.2	126.76	5.2	23.2				
N5E06-02	N5E06	6_NE	1250	2	N_Y	N_N	17.1	3.9	125.71	3.9	17.1				
N5E04-23	N5E04	6_NE	1000	2	N_Y	N_N	14.9	3.4	125.68	3.4					14.9
N1W11-14	N1W11	2_W	1250	2	N_Y	N_N	25.8	5.9	125.55	5.9	25.8				
S5W01-12	S5W01	4_S	1000	2	N_Y	N_N	38	8.7	125.48	8.7	38				
S1W05-21	S1W05	2_W	500	2	Y_Y	N_N	48	11	125.42	48	11				
S5E03-17	S5E03	4_S	1250	2	N_Y	N_N	31.3	7.2	125.19	7.2	31.3				
S4W07-24	S4W07	3_SW	1000	2	N_Y	N_N	16.7	3.9	124.27	16.7	3.9				
S2E10-03	S2E10	7_E	1250	2	N_Y	N_N	32.4	7.6	124	32.4	7.6				
N1W06-26	N1W06	2_W	750	2	N_Y	N_N	42	9.9	123.7	9.9	42				
N2W08-09	N2W08	2_W	1000	2	N_Y	N_N	18.6	4.4	123.48	18.6	4.4				
S4E09-04	S4E09	8_SE	1250	2	N_Y	N_N	25.8	6.2	122.5	6.2	25.8				
N1W12-06	N1W12	2_W	1250	2	N_N	N_N	6.55	1.6	121.47	1.6	6.55				
N5E05-13	N5E05	6_NE	1250	2	N_Y	N_N	22.9	5.6	121.4	5.6	22.9				
N3E08-25	N3E08	6_NE	1250	2	Y_Y	N_N	47.4	11.6	121.36	11.6	47.4				
N4W09-06	N4W09	1_NW	1250	2	N_Y	N_N	27.7	6.8	121.16	6.8	27.7				
S6E03-15	S6E03	4_S	1250	2	Y_Y	N_N	59.8	14.7	121.07	14.7	59.8				
N3E06-03	N3E06	6_NE	1000	2	N_Y	N_N	13	3.2	120.99	3.2	13				
N5E05-28	N5E05	6_NE	1250	2	N_Y	N_N	21.8	5.4	120.59	21.8	5.4				
S5W02-06	S5W02	4_S	1000	2	Y_Y	N_N	60.8	15.1	120.42	15.1	60.8				
N1W10-18	N1W10	2_W	1000	3	N_Y	N_N	15.3	3.8	120.42	15.3	14.6				3.8
N2W03-02	N2W03	1_NW	500	2	N_Y	N_N	31	7.73	120.17	7.73	31				
N4E09-10	N4E09	6_NE	1500	2	N_Y	N_N	25.2	6.3	120	6.3	25.2				
N6E07-16	N6E07	6_NE	1500	2	N_Y	N_N	17.5	4.4	119.63	17.5	4.4				
S7E01-36	S7E01	4_S	1250	2	N_N	N_N	5.9	1.5	118.92	5.9	1.5				
S7E03-30	S7E03	4_S	1500	2	N_Y	N_N	18.6	4.8	117.95	4.8	18.6				
N2W05-07	N2W05	1_NW	750	2	N_Y	N_N	21.78	5.7	117.03	5.7					21.78
N4E06-03	N4E06	6_NE	1250	2	N_Y	N_N	35	9.2	116.74	35	9.2				
S6W03-08	S6W03	4_S	1250	2	N_N	N_N	5.3	1.4	116.42	1.4	5.3				
S6E04-16	S6E04	4_S	1250	2	Y_Y	N_N	43.9	11.7	115.83	11.7	43.9				

TABLE 9
Evaluation of Yard Specific Variability
South Minneapolis Soil Arsenic Evaluation

Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
N4E05-04	N4E05	6_NE	1000	2	N_Y	N_N	12	3.2	115.79	12	3.2				
N4W07-33	N4W07	1_NW	1000	2	N_N	N_N	8.5	2.3	114.81	8.5	2.3				
N5W09-14	N5W09	1_NW	1250	2	N_Y	N_N	20.2	5.5	114.4	5.5					20.2
S4E02-15	S4E02	4_S	1000	2	Y_Y	N_N	78.9	21.5	114.34	21.5	78.9				
S6W03-19	S6W03	4_S	1250	2	N_N	N_N	5.5	1.5	114.29	5.5	1.5				
N5W07-05	N5W07	1_NW	1250	2	N_Y	N_N	17.4	4.8	113.51	4.8	17.4				
N6E05-14	N6E05	6_NE	1250	2	N_Y	N_N	31.4	8.7	113.22	8.7	31.4				
N5W08-07	N5W08	1_NW	1250	3	Y_Y	N_N	42.5	11.8	113.08	11.8	42.5				42
S6E04-14	S6E04	4_S	1250	2	N_Y	N_N	30.9	8.6	112.91	30.9	8.6				
S5W03-01	S5W03	4_S	1000	2	N_Y	N_N	29.7	8.3	112.63	29.7	8.3				
N4W07-22	N4W07	1_NW	1000	3	N_N	N_N	4.25	1.2	111.93	1.2	1.2				4.25
N7E01-06	N7E01	5_N	1500	2	Y_Y	N_N	56	16	111.11	16	56				
S4W06-13	S4W06	3_SW	1000	2	Y_Y	N_N	41.6	11.9	111.03	11.9	41.6				
S2W12-03	S2W12	2_W	1250	2	N_Y	N_N	21.2	6.1	110.62	6.1	21.2				
N1W13-07	N1W13	2_W	1500	3	N_N	N_N	6.5	1.9	109.52	6.5	1.9				4.6
S2E10-06	S2E10	7_E	1250	2	Y_Y	N_N	94.2	27.8	108.85	27.8	94.2				
S7W01-23	S7W01	4_S	1500	2	N_Y	N_N	15.2	4.5	108.63	4.5	15.2				
N1W11-03	N1W11	2_W	1250	2	N_N	N_N	6.4	1.9	108.43	1.9	6.4				
N4W07-21	N4W07	1_NW	1000	2	N_N	N_N	6.7	2	108.05	6.7	2				
N1E10-15	N1E10	7_E	1250	2	N_Y	N_N	11	3.3	107.69	11	3.3				
N5E06-10	N5E06	6_NE	1250	2	Y_Y	N_N	78.6	23.6	107.63	23.6					78.6
S1E09-07	S1E09	7_E	1250	2	N_Y	N_N	26.3	7.9	107.6	26.3	7.9				
N5W08-29	N5W08	1_NW	1250	2	Y_Y	N_N	53	16	107.25	16	53				
N3W11-11	N3W11	1_NW	1250	2	N_Y	N_N	12.5	3.8	106.75	3.8	12.5				
S7E01-07	S7E01	4_S	1250	2	Y_Y	N_N	34.2	10.4	106.73	34.2	10.4				
N6E06-18	N6E06	6_NE	1250	2	N_Y	N_N	19.4	5.9	106.72	5.9	19.4				
N3E07-10	N3E07	6_NE	1000	2	N_Y	N_N	14.1	4.3	106.52	14.1	4.3				
N6E04-26	N6E04	5_N	1250	2	N_Y	N_N	14.4	4.4	106.38	14.4	4.4				
N2W12-28	N2W12	2_W	1250	2	N_N	N_N	6.2	1.9	106.17	6.2	1.9				
S2E10-11	S2E10	7_E	1250	3	N_Y	N_N	24.7	7.6	105.88	7.6	15.6				24.7
S3W07-10	S3W07	3_SW	1000	2	N_Y	N_N	26	8	105.88	8	26				
S3E01-01	S3E01	4_S	500	3	N_N	N_N	6.8	2.1	105.62	6.8	2.1				2.4
N6E05-10	N6E05	6_NE	1250	2	Y_Y	N_N	86.4	26.9	105.03	26.9	86.4				
S5W04-08	S5W04	4_S	1000	2	N_Y	N_N	15.4	4.8	104.95	15.4	4.8				
S1W11-10	S1W11	2_W	1250	2	Y_Y	N_N	77	24	104.95	24	77				
S7E01-06	S7E01	4_S	1250	4	N_Y	N_N	12.8	4	104.76	5.6	12.8	4			4.5
N5E01-12	N5E01	5_N	1000	2	N_Y	N_N	14.4	4.5	104.76	4.5	14.4				
S7E01-27	S7E01	4_S	1500	2	N_Y	N_N	30.4	9.5	104.76	9.5	30.4				
S6E03-17	S6E03	4_S	1250	3	Y_Y	N_N	71	22.2	104.72	25.6	71				22.2

TABLE 9
Evaluation of Yard Specific Variability
South Minneapolis Soil Arsenic Evaluation

Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
N3W14-10	N3W14	2_W	1500	2	N_N	N_N	5.4	1.7	104.23	5.4	1.7				
S6W01-09	S6W01	4_S	1250	2	Y_Y	N_N	83.9	26.5	103.99	26.5	83.9				
S6W03-05	S6W03	4_S	1250	2	N_Y	N_N	19.3	6.1	103.94	19.3	6.1				
S4W06-21	S4W06	3_SW	1000	2	N_Y	N_N	17	5.4	103.57	5.4	17				
N4W14-18	N4W14	1_NW	1500	2	N_Y	N_N	13.8	4.4	103.3	13.8	4.4				
N5E06-09	N5E06	6_NE	1250	2	N_Y	N_N	18.5	5.9	103.28	5.9	18.5				
N2W06-27	N2W06	1_NW	750	2	N_Y	N_N	31	9.9	103.18	9.9	31				
N3W10-05	N3W10	1_NW	1250	2	N_Y	N_N	14.4	4.6	103.16	4.6					14.4
S1W10-30	S1W10	2_W	1000	2	N_Y	N_N	19.4	6.2	103.13	6.2	19.4				
N6W10-05	N6W10	1_NW	1500	3	N_N	N_N	7.8	2.5	102.91	7.8	2.5				4.2
S4E02-11	S4E02	4_S	1000	2	N_Y	N_N	10.9	3.5	102.78	10.9	3.5				
N5E01-22	N5E01	5_N	1000	2	Y_Y	N_N	36.7	11.8	102.68	36.7					11.8
N2W05-03	N2W05	1_NW	750	2	N_Y	N_N	31	10	102.44	10	31				
N4W14-13	N4W14	1_NW	1500	2	N_N	N_N	6.5	2.1	102.33	6.5	2.1				
S5E03-07	S5E03	8_SE	1000	2	N_Y	N_N	14.2	4.6	102.13	14.2	4.6				
S7E02-15	S7E02	4_S	1500	2	N_Y	N_N	14.2	4.6	102.13	4.6	14.2				
S4W07-08	S4W07	3_SW	1000	2	N_Y	N_N	11.1	3.6	102.04	11.1	3.6				
N2W04-10	N2W04	1_NW	500	2	Y_Y	N_N	43.15	14	102.01	14	43.15				
N1W06-23	N1W06	2_W	750	2	N_Y	N_N	15.3	5	101.48	15.3	5				
S4W07-09	S4W07	3_SW	1000	2	N_N	N_N	6.4	2.1	101.18	6.4	2.1				
S4E08-05	S4E08	8_SE	1250	2	N_Y	N_N	21.5	7.1	100.7	21.5	7.1				
N4W07-35	N4W07	1_NW	1000	2	N_Y	N_N	10.9	3.6	100.69	3.6	10.9				
N5E06-14	N5E06	6_NE	1250	2	Y_Y	N_N	33.9	11.2	100.67	33.9	11.2				
N1W07-19	N1W07	2_W	750	2	N_Y	N_N	11	3.7	99.32	3.7	11				
N7E01-02	N7E01	5_N	1500	3	N_N	N_N	8.6	2.9	99.13	3.6	2.9				8.6
N4W11-13	N4W11	1_NW	1250	2	N_N	N_N	8.3	2.8	99.099	2.8	8.3				
S7E01-35	S7E01	4_S	1500	2	N_N	N_N	7.1	2.4	98.947	2.4	7.1				
N6W11-07	N6W11	1_NW	1500	2	N_Y	N_N	16.5	5.6	98.643	5.6	16.5				
N5W08-30	N5W08	1_NW	1250	2	N_Y	N_N	26.2	8.9	98.575	8.9	26.2				
S7W03-23	S7W03	4_S	1500	2	Y_Y	N_N	86.2	29.3	98.528	29.3	86.2				
N3W03-13	N3W03	1_NW	750	2	N_N	N_N	10	3.4	98.507	3.4	10				
S5W04-13	S5W04	4_S	1250	2	N_Y	N_N	12.9	4.4	98.266	12.9	4.4				
N3E08-11	N3E08	6_NE	1250	2	N_Y	N_N	12.2	4.2	97.561	12.2	4.2				
S5W03-12	S5W03	4_S	1000	2	N_Y	N_N	16.8	5.8	97.345	5.8	16.8				
S6E01-15	S6E01	4_S	1250	2	N_Y	N_N	21.4	7.4	97.222	7.4	21.4				
S1W06-09	S1W06	2_W	750	2	N_Y	N_N	24	8.3	97.214	24	8.3				
S7E01-01	S7E01	4_S	1250	3	N_Y	N_N	19.9	6.9	97.015	6.9	11.3				19.9
S5W01-16	S5W01	4_S	1000	2	Y_Y	N_N	56.8	19.7	96.993	19.7	56.8				
S2W06-17	S2W06	3_SW	750	2	N_Y	N_N	19	6.6	96.875	19	6.6				

TABLE 9
Evaluation of Yard Specific Variability
South Minneapolis Soil Arsenic Evaluation

Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
S5E04-12	S5E04	8_SE	1000	2	N_Y	N_N	15.8	5.5	96.714	5.5	15.8				
S6E02-05	S6E02	4_S	1250	2	N_Y	N_N	18	6.3	96.296	6.3	18				
S1W10-07	S1W10	2_W	1000	2	N_N	N_N	10	3.5	96.296	3.5					10
N1W11-10	N1W11	2_W	1250	2	N_N	N_N	9.7	3.4	96.183	3.4	9.7				
N4W07-24	N4W07	1_NW	1000	3	N_Y	N_N	19.88	7	95.833	7.2					7 19.88
S2W05-17	S2W05	3_SW	750	2	N_Y	N_N	17	6	95.652	17	6				
S5W01-20	S5W01	4_S	1000	2	N_Y	N_N	17.5	6.2	95.359	17.5	6.2				
N3W07-01	N3W07	1_NW	1000	2	N_Y	N_N	23	8.2	94.872	8.2	23				
N5E06-06	N5E06	6_NE	1250	2	Y_Y	N_N	46.2	16.5	94.737	16.5	46.2				
N2W12-27	N2W12	2_W	1250	2	N_N	N_N	4.2	1.5	94.737	1.5	4.2				
S3W06-26	S3W06	3_SW	1000	2	N_Y	N_N	14	5	94.737	14	5				
S3W10-12	S3W10	3_SW	1250	2	N_Y	N_N	11.2	4	94.737	11.2					4
N2W08-02	N2W08	1_NW	1000	3	N_N	N_N	9.3	3.33	94.537	9.3	6				3.33
S2W11-08	S2W11	2_W	1250	2	N_N	N_N	5.3	1.9	94.444	5.3	1.9				
S6W01-01	S6W01	4_S	1250	2	N_N	N_N	3.9	1.4	94.34	3.9	1.4				
N2W10-17	N2W10	2_W	1000	2	N_Y	N_N	24.5	8.8	94.294	8.8	24.5				
S1E08-26	S1E08	7_E	1000	2	N_Y	N_N	17.8	6.4	94.215	17.8	6.4				
N2W09-15	N2W09	2_W	1000	2	N_Y	N_N	22.2	8	94.04	8	22.2				
N7W09-02	N7W09	1_NW	1750	2	N_Y	N_N	12.2	4.4	93.976	12.2	4.4				
S4W10-06	S4W10	3_SW	1250	2	Y_Y	N_N	37.3	13.5	93.701	13.5	37.3				
N3E09-24	N3E09	6_NE	1250	2	N_Y	N_N	14	5.1	93.194	5.1	14				
S1E07-10	S1E07	7_E	1000	2	N_Y	N_N	24.1	8.8	93.009	8.8	24.1				
N3E08-07	N3E08	6_NE	1250	2	N_Y	N_N	17.5	6.4	92.887	17.5	6.4				
S2E10-08	S2E10	7_E	1250	2	N_Y	N_N	17.2	6.3	92.766	17.2	6.3				
S6E03-25	S6E03	4_S	1250	2	Y_Y	N_N	37.9	13.9	92.664	13.9	37.9				
S3W10-19	S3W10	3_SW	1250	2	N_Y	N_N	10.9	4	92.617	10.9	4				
N6E06-14	N6E06	6_NE	1250	2	Y_Y	N_N	50.4	18.5	92.598	50.4	18.5				
S5E03-32	S5E03	4_S	1000	2	N_Y	N_N	17.4	6.4	92.437	6.4	17.4				
S1W08-04	S1W08	2_W	750	2	N_Y	N_N	13.8	5.1	92.063	13.8	5.1				
S6W01-22	S6W01	4_S	1250	2	Y_Y	N_N	50.6	18.7	92.063	18.7	50.6				
N3E05-02	N3E05	6_NE	1000	2	N_N	N_N	5.4	2	91.892	2	5.4				
N2W04-04	N2W04	1_NW	500	2	Y_Y	N_N	29.64	11	91.732	11	29.64				
N4E09-29	N4E09	6_NE	1250	2	N_Y	N_N	14	5.2	91.667	5.2	14				
N2W11-03	N2W11	2_W	1250	2	N_Y	N_N	26.9	10	91.599	26.9	10				
S3W04-19	S3W04	3_SW	750	2	N_Y	N_N	16	6	90.909	16	6				
N1W12-23	N1W12	2_W	1250	3	N_N	N_N	6.4	2.4	90.909	6.4	2.4				3.8
N6E04-04	N6E04	5_N	1250	2	N_N	N_N	6.4	2.4	90.909	6.4	2.4				
N2E08-03	N2E08	7_E	1250	2	N_N	N_N	6.9	2.6	90.526	2.6	6.9				
S5W02-14	S5W02	4_S	1250	2	N_N	N_N	4.5	1.7	90.323	1.7	4.5				

TABLE 9
Evaluation of Yard Specific Variability
South Minneapolis Soil Arsenic Evaluation

Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
S7E03-28	S7E03	4_S	1500	2	N_Y	N_N	17.7	6.7	90.164	17.7	6.7				
N5E02-05	N5E02	5_N	1000	2	N_N	N_N	5.8	2.2	90	5.8	2.2				
N2W13-02	N2W13	2_W	1500	2	N_N	N_N	3.15	1.2	89.655			3.15	1.2		
N5E06-26	N5E06	6_NE	1250	2	N_N	N_N	6.3	2.4	89.655	6.3	2.4				
S4W03-20	S4W03	4_S	1000	3	N_Y	N_N	14.4	5.5	89.447	14.4	5.5				6.3
N1W13-05	N1W13	2_W	1250	2	N_N	N_N	6.8	2.6	89.362	6.8	2.6				
S2W10-05	S2W10	2_W	1000	2	N_Y	N_N	14.9	5.7	89.32	5.7	14.9				
N4W08-24	N4W08	1_NW	1000	3	N_N	N_N	8.35	3.2	89.177	8.35	3.8				3.2
N1W07-25	N1W07	2_W	750	2	Y_Y	N_N	39	15	88.889	15	39				
N4W09-24	N4W09	1_NW	1250	2	Y_Y	N_N	69.2	26.65	88.785	26.65	69.2				
N2E09-22	N2E09	7_E	1250	2	N_Y	N_N	24.6	9.5	88.563	9.5	24.6				
N2W11-17	N2W11	2_W	1250	2	N_N	N_N	8.8	3.4	88.525	3.4	8.8				
N5W13-06	N5W13	1_NW	1750	2	N_N	N_N	4.4	1.7	88.525	4.4	1.7				
S4W07-22	S4W07	3_SW	1000	2	N_N	N_N	8	3.1	88.288	8	3.1				
S6W05-23	S6W05	3_SW	1250	2	N_Y	N_N	14.7	5.7	88.235	5.7	14.7				
S4W05-26	S4W05	3_SW	1000	2	N_Y	N_N	10.3	4	88.112	10.3	4				
S4W05-13	S4W05	3_SW	1000	2	N_Y	N_N	12.1	4.7	88.095	4.7	12.1				
N2W07-08	N2W07	1_NW	750	2	N_Y	N_N	19	7.4	87.879	19	7.4				
N3W13-12	N3W13	2_W	1500	3	N_N	N_N	9.5	3.7	87.879	9.5	5.8				3.7
N5E05-21	N5E05	6_NE	1000	2	N_Y	N_N	11.8	4.6	87.805		4.6				11.8
N5W13-15	N5W13	1_NW	1750	2	N_N	N_N	5.9	2.3	87.805	5.9	2.3				
S6W01-05	S6W01	4_S	1250	3	N_Y	N_N	10.5	4.1	87.671	4.1	8.8				10.5
N3E09-14	N3E09	6_NE	1250	2	N_Y	N_N	13.3	5.2	87.568	13.3	5.2				
N3W12-30	N3W12	1_NW	1500	2	N_Y	N_N	11.5	4.5	87.5	11.5	4.5				
N3E09-03	N3E09	6_NE	1250	2	N_N	N_N	6.9	2.7	87.5	6.9	2.7				
S4E09-01	S4E09	8_SE	1250	2	N_Y	N_N	11.7	4.6	87.117	11.7	4.6				
N5E02-40	N5E02	5_N	1000	2	N_N	N_N	6.1	2.4	87.059	6.1	2.4				
N2W12-04	N2W12	2_W	1250	3	N_N	N_N	4.8	1.9	86.567	3.2	1.9				4.8
S3W05-16	S3W05	3_SW	750	2	N_N	N_N	7.3	2.9	86.275	2.9	7.3				
S5E09-27	S5E09	8_SE	1500	2	N_N	N_N	8.8	3.5	86.179	3.5	8.8				
S3E09-10	S3E09	8_SE	1250	2	N_Y	N_N	23.6	9.4	86.061	9.4	23.6				
N5W07-15	N5W07	1_NW	1250	2	Y_Y	N_N	53.6	21.355	86.038	21.355					53.6
S2W07-18	S2W07	3_SW	750	2	N_Y	N_N	16	6.4	85.714	16	6.4				
N1W04-20	N1W04	2_W	500	2	N_N	N_N	4	1.6	85.714	1.6	4				
N2W05-22	N2W05	1_NW	750	2	N_N	N_N	4.5	1.8	85.714	1.8	4.5				
N6E05-21	N6E05	6_NE	1250	2	N_Y	N_N	15	6	85.714	6	15				
S5W04-01	S5W04	3_SW	1000	3	N_N	N_N	10	4	85.714	10	4			4	
S1W09-19	S1W09	2_W	1000	3	Y_Y	N_N	40.4	16.2	85.512	23.4	40.4				16.2
N3W02-02	N3W02	5_N	500	2	Y_Y	N_N	28	11.24	85.423	28	11.24				

TABLE 9
Evaluation of Yard Specific Variability
South Minneapolis Soil Arsenic Evaluation

Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
S7W03-11	S7W03	4_S	1500	2	N_Y	N_N	13.2	5.3	85.405	13.2	5.3				
N2W09-06	N2W09	2_W	1000	2	N_Y	N_N	10.2	4.1	85.315	4.1	10.2				
S2E10-28	S2E10	7_E	1250	3	Y_Y	N_N	57.9	23.3	85.222	35.9	57.9				23.3
N1W12-19	N1W12	2_W	1250	3	N_N	N_N	6.7	2.7	85.106	2.7	6.7				3.1
N5W08-19	N5W08	1_NW	1250	3	N_N	N_N	5.6	2.26	84.987	5.6	4.3				2.26
N5E04-21	N5E04	6_NE	1000	2	N_N	N_N	9.4	3.8	84.848	9.4	3.8				
S3W04-20	S3W04	3_SW	750	2	N_Y	N_N	23	9.3	84.83	23	9.3				
N2W10-04	N2W10	2_W	1250	2	N_N	N_N	8.4	3.4	84.746	8.4	3.4				
N3W09-24	N3W09	1_NW	1000	3	N_N	N_N	5.8	2.35	84.663	5.8	2.35				2.7
N4W09-10	N4W09	1_NW	1250	2	N_Y	N_N	20.41	8.3	84.361	8.3	20.41				
N4W11-06	N4W11	1_NW	1250	2	N_N	N_N	5.4	2.2	84.211	5.4	2.2				
S2W11-09	S2W11	2_W	1250	2	N_N	N_N	5.4	2.2	84.211	5.4	2.2				
N5E04-20	N5E04	6_NE	1000	3	N_Y	N_N	12	4.9	84.024	5.6	4.9				12
N4E09-09	N4E09	6_NE	1500	2	Y_Y	N_N	54.1	22.1	83.99	22.1	54.1				
N3W06-14	N3W06	1_NW	750	2	N_Y	N_N	11	4.5	83.871	4.5					11
N1W08-19	N1W08	2_W	1000	3	N_N	N_N	9.5	3.9	83.582	9.5	3.9				5.72
N5E03-08	N5E03	5_N	1000	2	N_Y	N_N	18	7.4	83.465	7.4	18				
N1W11-24	N1W11	2_W	1250	2	N_N	N_N	8.5	3.5	83.333	3.5	8.5				
S3E09-11	S3E09	8_SE	1250	2	N_Y	N_N	20	8.3	82.686	20	8.3				
S2W11-05	S2W11	2_W	1250	3	N_N	N_N	5.3	2.2	82.667	2.4	2.2				5.3
N1E10-04	N1E10	7_E	1250	2	N_Y	N_N	21.9	9.1	82.581	21.9	9.1				
N1W13-09	N1W13	2_W	1500	2	N_N	N_N	7.7	3.2	82.569	7.7	3.2				
S1W13-27	S1W13	2_W	1500	2	Y_Y	N_N	25.4	10.6	82.222	10.6	25.4				
N5E07-12	N5E07	6_NE	1250	2	N_N	N_N	9.1	3.8	82.171	9.1	3.8				
S1W09-24	S1W09	2_W	1000	2	N_N	N_N	9.8	4.1	82.014	9.8	4.1				
N3W10-12	N3W10	1_NW	1250	3	N_N	N_N	7.4	3.1	81.905	7.4	3.1				3.3
S7E01-09	S7E01	4_S	1250	2	Y_Y	N_N	39.6	16.6	81.851	16.6	39.6				
N5W08-06	N5W08	1_NW	1250	2	N_Y	N_N	16.8	7.0667	81.564	16.8	7.0667				
S7W03-16	S7W03	4_S	1500	2	Y_Y	N_N	24	10.1	81.525	10.1	24				
N2W08-06	N2W08	1_NW	1000	3	N_N	N_N	8.6	3.62	81.506	6	8.6				3.62
N5W08-01	N5W08	1_NW	1250	3	N_N	N_N	9.5	4	81.481	9.5	5.8				4
N3E07-16	N3E07	6_NE	1000	2	N_N	N_N	7.6	3.2	81.481	7.6	3.2				
S7E03-25	S7E03	4_S	1500	2	N_N	N_N	9.7	4.1	81.159	9.7	4.1				
S7W03-12	S7W03	4_S	1500	2	N_Y	N_N	21	8.9	80.936	8.9	21				
N1W11-22	N1W11	2_W	1250	2	N_N	N_N	6.6	2.8	80.851	6.6	2.8				
N3W09-09	N3W09	1_NW	1000	2	N_N	N_N	7.3	3.1	80.769	3.1	7.3				
S3W01-08	S3W01	4_S	500	2	Y_Y	N_N	40	17	80.702	17	40				
N1W10-04	N1W10	2_W	1000	2	N_N	N_N	5.645	2.4	80.671	2.4	5.645				
S4E09-02	S4E09	8_SE	1250	2	Y_Y	N_N	36.4	15.5	80.539	36.4	15.5				

TABLE 9
Evaluation of Yard Specific Variability
South Minneapolis Soil Arsenic Evaluation

Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
S1E08-05	S1E08	7_E	1000	2	Y_Y	N_N	71.6	30.6	80.235	71.6	30.6				
S6E01-23	S6E01	4_S	1250	2	Y_Y	N_N	87.2	37.3	80.161	87.2	37.3				
N2W05-21	N2W05	1_NW	750	2	N_N	N_N	3.5	1.5	80	1.5	3.5				
N4E04-15	N4E04	6_NE	1000	2	N_N	N_N	5.6	2.4	80	5.6	2.4				
S1W08-20	S1W08	2_W	1000	2	N_N	N_N	10	4.3	79.72	4.3	10				
S7E04-20	S7E04	4_S	1500	2	Y_Y	N_N	67.9	29.2	79.712	67.9	29.2				
N2W06-19	N2W06	1_NW	750	2	N_Y	N_N	13	5.6	79.57	5.6	13				
S7E01-30	S7E01	4_S	1500	2	N_Y	N_N	13	5.6	79.57	5.6	13				
N1E09-06	N1E09	7_E	1250	2	N_N	N_N	5.8	2.5	79.518	2.5	5.8				
N4W14-21	N4W14	1_NW	1750	2	N_N	N_N	5.8	2.5	79.518	5.8	2.5				
S7E02-14	S7E02	4_S	1500	2	Y_Y	N_N	30.6	13.2	79.452	13.2	30.6				
N1W06-18	N1W06	2_W	750	2	Y_Y	N_N	51	22	79.452	51	22				
S1W06-13	S1W06	2_W	750	2	Y_Y	N_N	88	38	79.365	88	38				
N8W03-06	N8W03	5_N	1750	2	N_Y	N_N	12.9	5.6	78.919	12.9	5.6				
N4E09-11	N4E09	6_NE	1500	2	N_N	N_N	7.6	3.3	78.899	7.6	3.3				
S7E04-17	S7E04	4_S	1500	2	Y_Y	N_N	51.9	22.6	78.658	22.6	51.9				
S2W10-07	S2W10	2_W	1000	2	Y_Y	N_N	28.7	12.5	78.641	28.7	12.5				
S3E10-09	S3E10	8_SE	1500	3	N_Y	N_N	14	6.1	78.607	7.4	14			6.1	
N3W12-19	N3W12	2_W	1500	2	N_N	N_N	3.9	1.7	78.571		1.7			3.9	
S2E10-32	S2E10	7_E	1250	2	N_Y	N_N	22.2	9.7	78.37	22.2	9.7				
S1W07-26	S1W07	2_W	750	2	N_Y	N_N	16	7	78.261	7	16				
S3W12-15	S3W12	3_SW	1500	2	N_N	N_N	8	3.5	78.261	8	3.5				
N5W13-23	N5W13	1_NW	1750	2	N_N	N_N	4.8	2.1	78.261	4.8	2.1				
N6W08-15	N6W08	1_NW	1500	2	N_N	N_N	4.1	1.8	77.966	1.8	4.1				
N4W07-36	N4W07	1_NW	1000	3	N_N	N_N	2.73	1.2	77.863	1.8	1.2			2.73	
S6W05-07	S6W05	4_S	1250	2	N_Y	N_N	11.6	5.1	77.844	11.6				5.1	
N2W09-23	N2W09	2_W	1000	2	N_Y	N_N	12.5	5.5	77.778	5.5	12.5				
S7E01-05	S7E01	4_S	1250	2	Y_Y	N_N	40.9	18	77.759	18	40.9				
N3W14-22	N3W14	2_W	1500	2	Y_Y	N_N	59.4	26.2	77.57	26.2	59.4				
S1W13-13	S1W13	2_W	1250	2	N_Y	N_N	17.9	7.9	77.519	7.9	17.9				
N5E07-24	N5E07	6_NE	1250	2	Y_Y	N_N	29.4	13	77.358	13	29.4				
N1E10-03	N1E10	7_E	1250	2	N_Y	N_N	10.6	4.7	77.124	10.6	4.7				
S2W09-05	S2W09	2_W	1000	2	N_Y	N_N	12.4	5.5	77.095	12.4	5.5				
N2W04-07	N2W04	1_NW	500	2	N_Y	N_N	11	4.88	77.078	11	4.88				
S6W01-13	S6W01	4_S	1250	2	Y_Y	N_N	33.3	14.8	76.923	14.8	33.3				
N3E09-12	N3E09	6_NE	1250	2	Y_Y	N_N	33.7	15	76.797	15	33.7				
S1E07-03	S1E07	7_E	1000	3	N_N	N_N	9.2	4.1	76.692	4.7	4.1			9.2	
N1W05-20	N1W05	2_W	500	2	Y_Y	N_N	74	33	76.636	33	74				
N5W09-15	N5W09	1_NW	1250	2	N_Y	N_N	16.8	7.5	76.543	16.8	7.5				

TABLE 9
Evaluation of Yard Specific Variability
South Minneapolis Soil Arsenic Evaluation

Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
N3W14-17	N3W14	2_W	1500	2	N_N	N_N	5.6	2.5	76.543	5.6	2.5				
S3E01-02	S3E01	4_S	750	3	N_N	N_N	5.15	2.3	76.51	2.3	5.15				2.5667
S5W06-17	S5W06	3_SW	1250	2	N_Y	N_N	22.1	9.9	76.25	9.9	22.1				
N5E02-06	N5E02	5_N	1000	2	N_N	N_N	5.8	2.6	76.19	5.8	2.6				
N2W06-12	N2W06	1_NW	750	2	Y_Y	N_N	24.53	11	76.161	11	24.53				
S6W01-03	S6W01	4_S	1250	2	Y_Y	N_N	32.9	14.8	75.891	14.8	32.9				
N4W14-27	N4W14	1_NW	1750	2	N_N	N_N	4	1.8	75.862	1.8	4				
N2W05-17	N2W05	1_NW	750	2	N_Y	N_N	22.22	10	75.854	10					22.22
N4W06-05	N4W06	1_NW	1000	4	N_N	N_N	7.32	3.3	75.706	4.5	3.3				6.5 7.32
N6E08-21	N6E08	6_NE	1500	2	N_N	N_N	5.1	2.3	75.676	2.3	5.1				
S1E10-29	S1E10	7_E	1250	2	Y_Y	N_N	45.5	20.6	75.34	45.5					20.6
S7E01-17	S7E01	4_S	1500	2	Y_Y	N_N	77.1	35	75.112	35	77.1				
N2W04-24	N2W04	1_NW	500	2	Y_Y	N_N	26.405	12	75.016	12					26.405
S2W06-09	S2W06	3_SW	750	2	Y_Y	N_N	33	15	75	33	15				
S5W03-14	S5W03	4_S	1000	3	N_Y	N_N	12.1	5.5	75	5.5	12.1				5.9
N1W05-01	N1W05	2_W	750	2	N_Y	N_N	14	6.4	74.51	14	6.4				
S1W10-04	S1W10	2_W	1000	2	N_N	N_N	7	3.2	74.51	7	3.2				
S6W01-12	S6W01	4_S	1250	2	N_N	N_N	3.5	1.6	74.51	3.5	1.6				
N2W04-20	N2W04	1_NW	500	2	N_N	N_N	10	4.58	74.348	4.58	10				
N3E08-06	N3E08	6_NE	1250	2	Y_Y	N_N	56.5	25.9	74.272	56.5	25.9				
S7W03-14	S7W03	4_S	1500	2	Y_Y	N_N	44.9	20.6	74.198	44.9	20.6				
S7E04-30	S7E04	4_S	1500	2	Y_Y	N_N	62.6	28.8	73.961	28.8	62.6				
N3W13-06	N3W13	1_NW	1500	2	N_Y	N_N	11.5	5.3	73.81	5.3	11.5				
S2E10-27	S2E10	7_E	1250	2	N_Y	N_N	14.3	6.6	73.684	6.6	14.3				
S4E02-22	S4E02	4_S	750	2	Y_Y	N_N	52	24	73.684	24	52				
N2E08-02	N2E08	7_E	1000	2	Y_Y	N_N	23.6	10.9	73.623	23.6					10.9
S5W01-13	S5W01	4_S	1000	2	Y_Y	N_N	34.4	15.9	73.559	15.9	34.4				
S2W13-22	S2W13	2_W	1500	2	Y_Y	N_N	39.3	18.2	73.391	39.3	18.2				
S5W01-05	S5W01	4_S	1000	2	Y_Y	N_N	77.4	35.9	73.257	35.9	77.4				
N3W04-11	N3W04	1_NW	750	2	N_N	N_N	3.9	1.81	73.205	1.81	3.9				
S4W08-01	S4W08	3_SW	1000	2	Y_Y	N_N	54.8	25.5	72.976	25.5	54.8				
N4E02-10	N4E02	5_N	750	2	N_N	N_N	5.8	2.7	72.941	5.8	2.7				
S1E09-11	S1E09	7_E	1250	2	Y_Y	N_N	24.9	11.6	72.877	11.6	24.9				
S7W03-21	S7W03	4_S	1500	2	N_Y	N_N	19.3	9	72.792	19.3	9				
S7E01-26	S7E01	4_S	1500	2	Y_Y	N_N	43.3	20.2	72.756	43.3	20.2				
N6E02-18	N6E02	5_N	1250	2	N_N	N_N	6	2.8	72.727	6	2.8				
N1W05-21	N1W05	2_W	500	2	N_N	N_N	8.9	4.155	72.692	8.9					4.155
N3W07-24	N3W07	1_NW	1000	2	Y_Y	N_N	32	15	72.34	15	32				
N2W10-27	N2W10	2_W	1250	2	N_Y	N_N	12.8	6	72.34	12.8	6				

TABLE 9
Evaluation of Yard Specific Variability
South Minneapolis Soil Arsenic Evaluation

Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
S5E08-19	S5E08	8_SE	1500	2	Y_Y	N_N	61	28.6	72.321	61	28.6				
N6E05-19	N6E05	6_NE	1250	2	Y_Y	N_N	24.2	11.4	71.91	11.4	24.2				
S1W09-25	S1W09	2_W	1000	2	N_N	N_N	7	3.3	71.845	7	3.3				
N5E06-27	N5E06	6_NE	1250	2	N_Y	N_N	10.6	5	71.795	10.6	5				
N4W09-25	N4W09	1_NW	1250	2	N_Y	N_N	13.1	6.2	71.503	6.2	13.1				
S5E01-13	S5E01	4_S	1000	3	N_Y	N_N	11.4	5.4	71.429	11.4	5.4				6.4
N5E02-09	N5E02	5_N	1000	2	N_N	N_N	3.8	1.8	71.429	3.8	1.8				
S7E01-33	S7E01	4_S	1500	2	N_N	N_N	3.8	1.8	71.429	3.8	1.8				
S7E01-02	S7E01	4_S	1250	2	N_N	N_N	9.9	4.7	71.233	9.9	4.7				
S5E09-25	S5E09	8_SE	1500	2	Y_Y	N_N	31.8	15.1	71.215	15.1	31.8				
N1W04-05	N1W04	2_W	500	2	N_N	N_N	8.5	4.04	71.132	8.5	4.04				
N6W12-02	N6W12	1_NW	1750	2	N_N	N_N	4.2	2	70.968	4.2	2				
N2E08-12	N2E08	7_E	1000	2	N_N	N_N	9.4	4.5	70.504	9.4	4.5				
N2W05-16	N2W05	1_NW	750	2	Y_Y	N_N	66.8	32	70.445	32	66.8				
S6E05-04	S6E05	8_SE	1500	2	Y_Y	N_N	88.3	42.4	70.237	42.4	88.3				
S3W09-15	S3W09	3_SW	1250	2	Y_Y	N_N	43.1	20.7	70.219	20.7					43.1
S5W01-04	S5W01	4_S	1000	2	Y_Y	N_N	23.1	11.1	70.175	23.1	11.1				
N5W08-21	N5W08	1_NW	1250	2	Y_Y	N_N	23.2	11.15	70.16	11.15	23.2				
N5W09-17	N5W09	1_NW	1250	2	N_N	N_N	5.4	2.6	70	5.4	2.6				
N6W10-11	N6W10	1_NW	1500	2	N_N	N_N	2.7	1.3	70	1.3	2.7				
N1W10-07	N1W10	2_W	1000	3	N_N	N_N	5.6	2.7	69.88	2.7	5.4				5.6
N3E09-22	N3E09	6_NE	1250	2	N_N	N_N	5.8	2.8	69.767	2.8					5.8
N5W13-21	N5W13	1_NW	1750	2	N_N	N_N	2.9	1.4	69.767	2.9	1.4				
N4E09-28	N4E09	6_NE	1250	2	N_Y	N_N	12	5.8	69.663	5.8	12				
N1W10-06	N1W10	2_W	1000	3	N_N	N_N	6	2.9	69.663	2.9	3.5				6
N2W07-06	N2W07	1_NW	750	2	N_N	N_N	2.89	1.4	69.464	1.4					2.89
N4W10-22	N4W10	1_NW	1250	3	Y_Y	N_N	68.9	33.4	69.404	33.4	68.9				62.1
N2W08-08	N2W08	2_W	1000	3	Y_Y	N_N	31.1	15.1	69.264	31.1					15.1
N1W11-07	N1W11	2_W	1250	2	N_N	N_N	3.5	1.7	69.231	3.5	1.7				15.81
S6W04-03	S6W04	4_S	1250	2	N_N	N_N	3.5	1.7	69.231	3.5	1.7				
N2W12-12	N2W12	2_W	1250	2	N_Y	N_N	10.7	5.2	69.182	10.7	5.2				
S4W05-21	S4W05	3_SW	1000	3	N_N	N_N	4.1	2	68.852	4.1	3				2
N3W09-15	N3W09	1_NW	1000	2	Y_Y	N_N	42.6	20.8	68.77	20.8	42.6				
N5E01-27	N5E01	5_N	1000	2	Y_Y	N_N	26.8	13.1	68.672	26.8	13.1				
S2E10-29	S2E10	7_E	1250	2	Y_Y	N_N	59.1	28.9	68.636	59.1	28.9				
S5E01-15	S5E01	4_S	1000	3	N_Y	N_N	13.7	6.7	68.627	13.7	6.7				9.5
N8W02-06	N8W02	5_N	1750	2	N_N	N_N	9.8	4.8	68.493	9.8	4.8				
S1E10-24	S1E10	7_E	1250	2	N_N	N_N	9.8	4.8	68.493	4.8	9.8				
S5E02-22	S5E02	4_S	1000	2	Y_Y	N_N	80.1	39.3	68.342	39.3	80.1				

TABLE 9
Evaluation of Yard Specific Variability
South Minneapolis Soil Arsenic Evaluation

Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
N6E02-39	N6E02	5_N	1250	2	N_N	N_N	6.3	3.1	68.085	3.1	6.3				
S5W01-10	S5W01	4_S	1000	2	N_Y	N_N	19.5	9.6	68.041	9.6	19.5				
S1W11-22	S1W11	2_W	1250	2	Y_Y	N_N	45.9	22.6	68.029	22.6	45.9				
N5E03-13	N5E03	5_N	1000	2	N_N	N_N	7.7	3.8	67.826	7.7	3.8				
S7E03-05	S7E03	4_S	1500	2	Y_Y	N_N	29.3	14.5	67.58	14.5	29.3				
N6E03-21	N6E03	5_N	1250	2	N_Y	N_N	13.7	6.8	67.317	6.8	13.7				
S3W10-10	S3W10	3_SW	1250	2	Y_Y	N_N	71.2	35.4	67.167	35.4	71.2				
N4W07-13	N4W07	1_NW	1000	3	N_N	N_N	3.62	1.8	67.159	3.5				1.8	3.62
N5E05-08	N5E05	6_NE	1250	2	N_N	N_N	4.8	2.4	66.667	2.4	4.8				
S1W12-02	S1W12	2_W	1250	2	N_N	N_N	7.8	3.9	66.667	7.8	3.9				
S4W08-16	S4W08	3_SW	1250	2	N_Y	N_N	11.8	5.9	66.667	5.9	11.8				
N1W11-09	N1W11	2_W	1250	3	N_N	N_N	5.4	2.7	66.667	5.4	2.7			4	
N6W11-09	N6W11	1_NW	1500	3	N_N	N_N	7	3.5	66.667	7	5.4			3.5	
N1W12-27	N1W12	2_W	1250	2	N_N	N_N	6	3	66.667	6	3				
N3E09-02	N3E09	6_NE	1250	2	N_N	N_N	7.4	3.7	66.667	7.4	3.7				
N5E04-13	N5E04	6_NE	1000	2	N_N	N_N	7.2	3.6	66.667	3.6	7.2				
N6E05-12	N6E05	6_NE	1250	2	N_N	N_N	8	4	66.667	8	4				
S2W10-20	S2W10	2_W	1250	2	N_N	N_N	6.4	3.2	66.667	3.2	6.4				
S5E01-04	S5E01	4_S	1000	2	N_N	N_N	4.4	2.2	66.667	4.4				2.2	
N3W03-12	N3W03	1_NW	750	2	N_N	N_N	7.5	3.76	66.43	3.76	7.5				
S6E01-21	S6E01	4_S	1250	2	N_Y	N_N	11.5	5.8	65.896	11.5	5.8				
S6E02-04	S6E02	4_S	1250	3	N_Y	N_N	10.7	5.4	65.839	5.6	10.7			5.4	
N4W08-05	N4W08	1_NW	1250	2	N_N	N_N	6	3.03	65.781	6					3.03
N3W11-22	N3W11	1_NW	1250	3	N_N	N_N	9.5	4.8	65.734	7.3	9.5			4.8	
S3W03-03	S3W03	3_SW	750	2	Y_Y	N_N	91	46	65.693	46	91				
S5W03-04	S5W03	4_S	1000	2	N_Y	N_N	17.4	8.8	65.649	8.8	17.4				
S1W07-01	S1W07	2_W	750	2	Y_Y	N_N	77	39	65.517	39	77				
S7E03-23	S7E03	4_S	1500	2	N_Y	N_N	14.8	7.5	65.471	7.5	14.8				
S4W10-26	S4W10	3_SW	1250	2	Y_Y	N_N	36.5	18.5	65.455	18.5	36.5				
N2W04-12	N2W04	1_NW	500	2	Y_Y	N_N	23.65	12	65.358	12				23.65	
N3W09-03	N3W09	1_NW	1250	2	Y_Y	N_N	78.8	40	65.32	40	78.8				
N1W08-16	N1W08	2_W	1000	3	N_N	N_N	5.9	3	65.169	3	5.9				5.81
S1W06-02	S1W06	2_W	750	2	N_Y	N_N	11	5.6	65.06	5.6	11				
S5E09-13	S5E09	8_SE	1500	2	N_N	N_N	5.5	2.8	65.06	2.8	5.5				
S3W10-18	S3W10	3_SW	1250	2	N_Y	N_N	15.9	8.1	65	8.1	15.9				
N6E02-35	N6E02	5_N	1250	2	N_N	N_N	5.3	2.7	65	5.3	2.7				
S6E04-15	S6E04	4_S	1250	2	Y_Y	N_N	65.4	33.5	64.51	33.5	65.4				
N2W10-01	N2W10	2_W	1250	2	N_N	N_N	3.9	2	64.407	3.9	2				
N6E06-16	N6E06	6_NE	1250	2	N_N	N_N	7.6	3.9	64.348	7.6	3.9				

TABLE 9
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South Minneapolis Soil Arsenic Evaluation

Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
S1E07-09	S1E07	7_E	1000	2	N_Y	N_N	10.9	5.6	64.242	5.6	10.9				
S7E01-31	S7E01	4_S	1500	2	Y_Y	N_N	67.1	34.5	64.173	34.5	67.1				
N3W14-16	N3W14	2_W	1500	2	N_N	N_N	6.4	3.3	63.918	6.4	3.3				
N5W07-17	N5W07	1_NW	1250	2	N_N	N_N	3.875	2	63.83	3.875	2				
S5E09-06	S5E09	8_SE	1500	2	Y_Y	N_N	60.5	31.3	63.617	31.3	60.5				
S5E04-10	S5E04	8_SE	1250	2	Y_Y	N_N	21.8	11.3	63.444	21.8	11.3				
N4E06-16	N4E06	6_NE	1000	3	N_N	N_N	5.4	2.8	63.415	2.8	5.4				3.5
S4W07-06	S4W07	3_SW	1000	2	N_N	N_N	5.4	2.8	63.415	5.4	2.8				
S6W01-08	S6W01	4_S	1250	2	N_Y	N_N	18.1	9.4	63.273	18.1	9.4				
N6E06-15	N6E06	6_NE	1250	3	N_N	N_N	7.7	4	63.248	7.7	4				4.1
N4W12-15	N4W12	1_NW	1500	2	N_Y	N_N	12.5	6.5	63.158	6.5	12.5				
S4W06-06	S4W06	3_SW	1000	2	Y_Y	N_N	65.1	33.9	63.03	33.9	65.1				
S6E04-06	S6E04	8_SE	1250	2	Y_Y	N_N	91.1	47.5	62.915	91.1	47.5				
N2W05-05	N2W05	1_NW	750	2	N_N	N_N	6.9	3.6	62.857	3.6	6.9				
N4W10-05	N4W10	1_NW	1250	3	N_N	N_N	9.2	4.8	62.857	4.8	9				9.2
N1W09-10	N1W09	2_W	1000	3	N_N	N_N	5.55	2.9	62.722	2.9	5.55				4.7
N5E06-25	N5E06	6_NE	1250	2	N_N	N_N	8.4	4.4	62.5	8.4	4.4				
N5E06-12	N5E06	6_NE	1250	2	N_N	N_N	8	4.2	62.295	8	4.2				
N6W08-14	N6W08	1_NW	1500	2	N_N	N_N	6	3.15	62.295	6					3.15
S4E08-01	S4E08	8_SE	1250	2	N_Y	N_N	15.6	8.2	62.185	8.2	15.6				
N4W12-13	N4W12	1_NW	1500	2	N_N	N_N	7.8	4.1	62.185	4.1	7.8				
N5W08-12	N5W08	1_NW	1250	2	Y_Y	N_N	22.23	11.7	62.069	11.7	22.23				
N5W07-08	N5W07	1_NW	1250	3	N_N	N_N	9.5	5	62.069	5	9				9.5
N4W07-10	N4W07	1_NW	1000	2	N_N	N_N	3.04	1.6	62.069		1.6				3.04
N4W14-28	N4W14	1_NW	1750	2	N_N	N_N	3.8	2	62.069	2	3.8				
S2W12-16	S2W12	2_W	1250	2	Y_Y	N_N	24.1	12.7	61.957	12.7	24.1				
S2W08-16	S2W08	3_SW	1000	2	N_Y	N_N	14.4	7.6	61.818	7.6	14.4				
N5W07-12	N5W07	1_NW	1250	2	N_Y	N_N	15.9	8.4	61.728	8.4	15.9				
S7E03-08	S7E03	4_S	1500	2	N_Y	N_N	10.2	5.4	61.538	5.4	10.2				
N4E09-23	N4E09	6_NE	1250	2	N_N	N_N	6.8	3.6	61.538	6.8	3.6				
S7E03-18	S7E03	4_S	1500	2	N_N	N_N	4.9	2.6	61.333	2.6	4.9				
N2W07-01	N2W07	1_NW	750	2	N_N	N_N	9.6	5.1	61.224	5.1	9.6				
S5W01-22	S5W01	4_S	1000	2	Y_Y	N_N	59.9	31.9	61.002	31.9	59.9				
S5E09-11	S5E09	8_SE	1500	2	N_Y	N_N	10.5	5.6	60.87	10.5	5.6				
S4W07-17	S4W07	3_SW	1250	2	N_N	N_N	7.5	4	60.87	7.5	4				
S3W11-03	S3W11	3_SW	1250	2	Y_Y	N_N	27.1	14.5	60.577	14.5	27.1				
N4W07-14	N4W07	1_NW	1000	2	N_N	N_N	2.8	1.5	60.465	1.5	2.8				
S4E09-14	S4E09	8_SE	1500	2	N_Y	N_N	17.9	9.6	60.364	9.6	17.9				
S3W03-05	S3W03	3_SW	750	2	N_Y	N_N	11	5.9	60.355	11	5.9				

TABLE 9
Evaluation of Yard Specific Variability
South Minneapolis Soil Arsenic Evaluation

Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
N3E07-14	N3E07	6_NE	1000	2	N_N	N_N	6.15	3.3	60.317	3.3					6.15
N2E09-28	N2E09	7_E	1250	2	N_N	N_N	6.7	3.6	60.194	3.6	6.7				
S3W03-08	S3W03	3_SW	750	2	N_N	N_N	6.7	3.6	60.194	6.7	3.6				
N2W07-07	N2W07	1_NW	750	2	N_N	N_N	7.8	4.2	60	7.8	4.2				
N5E02-28	N5E02	5_N	1000	2	N_N	N_N	2.6	1.4	60	2.6					1.4
S1W13-02	S1W13	2_W	1500	2	N_N	N_N	7.6	4.1	59.829	7.6	4.1				
N4W14-29	N4W14	1_NW	1750	2	Y_Y	N_N	70	37.8	59.74	70	37.8				
S7E01-04	S7E01	4_S	1250	2	N_N	N_N	5	2.7	59.74	2.7	5				
N3W10-20	N3W10	1_NW	1250	2	N_N	N_N	6.1	3.3	59.574	3.3	6.1				
N1W04-13	N1W04	2_W	500	2	N_Y	N_N	12	6.5	59.459	6.5					12
N4E05-11	N4E05	6_NE	1000	3	N_N	N_N	5.35	2.9	59.394	2.9	4.1				5.35
S7E02-08	S7E02	4_S	1250	2	Y_Y	N_N	82.2	44.6	59.306	44.6					82.2
S4W09-20	S4W09	3_SW	1250	2	Y_Y	N_N	32.6	17.7	59.245	17.7	32.6				
N4W09-22	N4W09	1_NW	1250	2	N_N	N_N	4.6	2.5	59.155	4.6	2.5				
S1E08-18	S1E08	7_E	1000	2	N_Y	N_N	14.9	8.1	59.13	8.1	14.9				
N3W09-20	N3W09	1_NW	1000	2	N_Y	N_N	13.6	7.4	59.048	7.4	13.6				
N1W13-03	N1W13	2_W	1250	2	N_Y	N_N	11	6	58.824	11	6				
N3W12-13	N3W12	2_W	1250	2	N_N	N_N	4.4	2.4	58.824	4.4	2.4				
S5W02-01	S5W02	4_S	1000	2	N_N	N_N	6.6	3.6	58.824	3.6	6.6				
N6E07-24	N6E07	6_NE	1500	2	N_Y	N_N	16.1	8.8	58.635	16.1	8.8				
N1W11-12	N1W11	2_W	1250	2	N_N	N_N	5.85	3.2	58.564	3.2	5.85				
N3W11-23	N3W11	1_NW	1250	2	N_N	N_N	5.3	2.9	58.537	5.3	2.9				
S5W03-18	S5W03	4_S	1250	2	Y_Y	N_N	44.7	24.5	58.382	44.7	24.5				
S1W13-26	S1W13	2_W	1500	2	N_N	N_N	9.3	5.1	58.333	5.1	9.3				
N2W10-30	N2W10	2_W	1250	2	N_N	N_N	5.1	2.8	58.228	5.1	2.8				
N2W07-15	N2W07	2_W	750	2	N_N	N_N	9.1	5	58.156	9.1	5				
S3W06-21	S3W06	3_SW	1000	2	N_Y	N_N	12	6.6	58.065	6.6	12				
N1W06-09	N1W06	2_W	750	2	N_N	N_N	10	5.5	58.065	5.5	10				
N4E03-04	N4E03	5_N	1000	2	N_N	N_N	6	3.3	58.065	6					3.3
N2W10-14	N2W10	2_W	1000	2	N_N	N_N	8	4.4	58.065	4.4	8				
S4W09-07	S4W09	3_SW	1250	2	N_N	N_N	8	4.4	58.065	4.4	8				
S4E07-03	S4E07	8_SE	1250	2	Y_Y	N_N	27.2	15	57.82	15	27.2				
S5W03-16	S5W03	4_S	1250	2	N_N	N_N	8.5	4.7	57.576	8.5	4.7				
N3W11-10	N3W11	1_NW	1250	2	N_N	N_N	6.5	3.6	57.426	3.6	6.5				
N4E09-16	N4E09	6_NE	1250	2	N_N	N_N	7.2	4	57.143	4	7.2				
S6W01-02	S6W01	4_S	1250	2	N_N	N_N	2.7	1.5	57.143	1.5	2.7				
N1E09-10	N1E09	7_E	1250	2	N_N	N_N	9	5	57.143	9	5				
N4E04-03	N4E04	6_NE	1000	2	N_N	N_N	4.5	2.5	57.143	2.5	4.5				
S3W10-22	S3W10	3_SW	1250	2	N_N	N_N	8.1	4.5	57.143	4.5	8.1				

TABLE 9
Evaluation of Yard Specific Variability
South Minneapolis Soil Arsenic Evaluation

Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
N5E05-07	N5E05	6_NE	1250	2	Y_Y	N_N	58.1	32.3	57.08	58.1					32.3
N4E02-11	N4E02	5_N	750	2	Y_Y	N_N	28.2	15.7	56.948	15.7	28.2				
S4E02-21	S4E02	4_S	750	2	N_N	N_N	8.8	4.9	56.934	8.8	4.9				
N5E02-17	N5E02	5_N	1000	2	N_N	N_N	7	3.9	56.881	7					3.9
N5E06-05	N5E06	6_NE	1250	2	Y_Y	N_N	80.7	45	56.802	45	80.7				
S6W03-06	S6W03	4_S	1250	2	N_N	N_N	9.5	5.3	56.757	9.5	5.3				
N1W10-17	N1W10	2_W	1000	2	Y_Y	N_N	67.75	37.8	56.75	67.75	37.8				
N5W12-19	N5W12	1_NW	1500	2	N_N	N_N	1.2	0.67	56.684	1.2	0.67				
S3W02-07	S3W02	4_S	750	2	N_N	N_N	6.8	3.8	56.604	3.8	6.8				
N5E07-13	N5E07	6_NE	1250	2	N_N	N_N	9.3	5.2	56.552	9.3	5.2				
S5W03-03	S5W03	4_S	1000	2	N_N	N_N	5.9	3.3	56.522	3.3					5.9
N4E04-05	N4E04	6_NE	1000	2	N_N	N_N	2.5	1.4	56.41	2.5	1.4				
N5E07-17	N5E07	6_NE	1250	2	Y_Y	N_N	41.6	23.3	56.394	41.6	23.3				
S3W06-27	S3W06	3_SW	1000	2	N_N	N_N	9.1	5.1	56.338	9.1	5.1				
S4W08-24	S4W08	3_SW	1250	2	N_N	N_N	9.8	5.5	56.209	5.5	9.8				
S1W13-01	S1W13	2_W	1500	2	Y_Y	N_N	30.1	16.9	56.17	16.9	30.1				
S3W05-08	S3W05	3_SW	750	2	N_Y	N_N	13	7.3	56.158	7.3	13				
S4W10-10	S4W10	3_SW	1250	2	N_N	N_N	7.3	4.1	56.14	4.1	7.3				
N5E06-01	N5E06	6_NE	1250	3	N_N	N_N	6.4	3.6	56	6.4	3.6				5.3
N1W09-01	N1W09	2_W	1000	2	N_N	N_N	6.4	3.6	56	3.6	3.6				6.4
N2W07-27	N2W07	1_NW	1000	2	N_N	N_N	3.73	2.1	55.918	2.1					3.73
N2W11-14	N2W11	2_W	1250	3	N_N	N_N	7.1	4	55.856	6.3	7.1				4
S5W05-16	S5W05	3_SW	1250	2	N_Y	N_N	10.1	5.7	55.696	5.7	10.1				
S3W12-10	S3W12	3_SW	1500	2	N_N	N_N	6.2	3.5	55.67	6.2	3.5				
N4W14-22	N4W14	1_NW	1750	2	N_N	N_N	1.7	0.96	55.639	1.7	0.96				
S4W05-14	S4W05	3_SW	1000	2	N_Y	N_N	10.8	6.1	55.621	10.8					6.1
N2E09-15	N2E09	7_E	1250	2	N_N	N_N	2.3	1.3	55.556	1.3	2.3				
S1E09-03	S1E09	7_E	1250	2	N_N	N_N	7.6	4.3	55.462	7.6	4.3				
N6E04-12	N6E04	6_NE	1250	2	N_N	N_N	9	5.1	55.319	9	5.1				
N3W05-03	N3W05	1_NW	750	2	N_N	N_N	3.3	1.87	55.319	3.3					1.87
N6W10-09	N6W10	1_NW	1500	2	N_N	N_N	4.4	2.5	55.072	2.5	4.4				
N4W09-20	N4W09	1_NW	1250	2	N_N	N_N	5.1	2.9	55	5.1	2.9				
N5E04-01	N5E04	5_N	1250	2	N_N	N_N	6.5	3.7	54.902	3.7					6.5
N5E04-09	N5E04	6_NE	1250	2	Y_Y	N_N	36.7	20.9	54.861	20.9	36.7				
S1W08-08	S1W08	2_W	750	2	N_Y	N_N	12.8	7.3	54.726	12.8	7.3				
N2W09-20	N2W09	2_W	1000	2	N_N	N_N	9.8	5.6	54.545	5.6	9.8				
N4W13-25	N4W13	1_NW	1500	2	N_N	N_N	4.9	2.8	54.545	4.9	2.8				
N5W13-28	N5W13	1_NW	1750	2	N_N	N_N	3.5	2	54.545	2	3.5				
S2W06-18	S2W06	3_SW	750	2	N_N	N_N	7	4	54.545	4	7				

TABLE 9
Evaluation of Yard Specific Variability
South Minneapolis Soil Arsenic Evaluation

Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
N1W04-04	N1W04	1_NW	500	2	N_Y	N_N	13	7.44	54.403	13	7.44				
S4W08-03	S4W08	3_SW	1000	2	N_Y	N_N	11	6.3	54.335	6.3	11				
S4W06-30	S4W06	3_SW	1000	2	N_N	N_N	8.2	4.7	54.264	8.2	4.7				
N5W12-09	N5W12	1_NW	1500	2	N_N	N_N	1.5	0.86	54.237	1.5	0.86				
N5E06-13	N5E06	6_NE	1250	3	N_N	N_N	5.4	3.1	54.118	5.4	3.1			3.8	
N3W07-13	N3W07	1_NW	1000	2	N_N	N_N	5.4	3.1	54.118	5.4				3.1	
S5W02-15	S5W02	4_S	1250	2	N_N	N_N	4.7	2.7	54.054	2.7	4.7				
S5E08-23	S5E08	8_SE	1500	2	N_N	N_N	8	4.6	53.968		8			4.6	
S1E08-28	S1E08	7_E	1000	2	N_N	N_N	9.2	5.3	53.793	9.2	5.3				
N4E09-02	N4E09	6_NE	1500	2	N_N	N_N	5.9	3.4	53.763	5.9	3.4				
N5W01-01	N5W01	5_N	1000	3	N_N	N_N	4.5	2.6	53.521	4.1	2.6			4.5	
S5E01-11	S5E01	4_S	1000	2	N_N	N_N	9	5.2	53.521	9	5.2				
N5E01-16	N5E01	5_N	1000	3	N_N	N_N	6.4	3.7	53.465	6.4	4.4			3.7	
N4E02-03	N4E02	5_N	1000	2	N_N	N_N	5.7	3.3	53.333	3.3	5.7				
N2W09-22	N2W09	2_W	1000	2	Y_Y	N_N	75.3	43.6	53.322	43.6	75.3				
N4W08-01	N4W08	1_NW	1250	3	N_N	N_N	4.6	2.67	53.095	2.7	4.6			2.67	
N3W09-28	N3W09	1_NW	1250	3	N_N	N_N	6.2	3.6	53.061	6.2	3.6			3.6	
N3E09-28	N3E09	6_NE	1250	2	N_N	N_N	6.2	3.6	53.061	6.2	3.6				
N2W05-04	N2W05	1_NW	750	2	N_N	N_N	9.46	5.5	52.941	5.5				9.46	
N6W12-03	N6W12	1_NW	1750	2	N_N	N_N	4.3	2.5	52.941	4.3	2.5				
S7E02-13	S7E02	4_S	1500	2	N_Y	N_N	11	6.4	52.874	11	6.4				
N1W11-13	N1W11	2_W	1250	3	N_N	N_N	5.5	3.2	52.874	5.5	4.2			3.2	
N5E01-08	N5E01	5_N	1000	2	N_N	N_N	6.7	3.9	52.83	6.7	3.9				
S6E03-21	S6E03	4_S	1250	2	Y_Y	N_N	81.6	47.5	52.827	47.5	81.6				
N1W06-12	N1W06	2_W	750	2	Y_Y	N_N	79	46	52.8	46	79				
S6W01-18	S6W01	4_S	1250	2	Y_Y	N_N	28.5	16.6	52.772	28.5	16.6				
S2W07-19	S2W07	3_SW	750	2	N_N	N_N	6	3.5	52.632	6	3.5				
N2W03-04	N2W03	1_NW	500	2	N_N	N_N	6.1	3.56	52.588	3.56	6.1				
N3W07-06	N3W07	1_NW	1000	2	N_N	N_N	8.9	5.2	52.482	8.9	5.2				
S1W05-02	S1W05	2_W	500	2	N_Y	N_N	13	7.6	52.427	13	7.6				
N6E08-25	N6E08	6_NE	1500	2	N_N	N_N	5.3	3.1	52.381	5.3	3.1				
N1E09-08	N1E09	7_E	1250	2	N_N	N_N	9.4	5.5	52.349	9.4	5.5				
S1W07-24	S1W07	2_W	750	2	N_N	N_N	9.9	5.8	52.229	5.8	9.9				
N5E04-24	N5E04	6_NE	1000	2	N_N	N_N	8.7	5.1	52.174	5.1	8.7				
S6E05-08	S6E05	8_SE	1250	2	N_N	N_N	2.9	1.7	52.174	2.9	1.7				
S2W11-03	S2W11	2_W	1250	2	N_N	N_N	6.3	3.7	52	6.3	3.7				
N3W04-03	N3W04	1_NW	750	2	Y_Y	N_N	18.39	10.81	51.918	10.81	18.39				
S2W08-03	S2W08	2_W	1000	2	Y_Y	N_N	31.3	18.4	51.911		31.3			18.4	
S6E03-14	S6E03	4_S	1250	2	Y_Y	N_N	50	29.4	51.889	50	29.4				

TABLE 9
Evaluation of Yard Specific Variability
South Minneapolis Soil Arsenic Evaluation

Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
S3E08-01	S3E08	8_SE	1000	3	N_N	N_N	8.5	5	51.852	6.2	5				8.5
S2W06-10	S2W06	3_SW	750	2	N_N	N_N	9	5.3	51.748	5.3	9				
S1E07-20	S1E07	7_E	1000	3	N_Y	N_N	13.4	7.9	51.643	13.4	7.9				11.7
N7W12-ROW	N7W12	1_NW	1750	2	N_N	N_N	3.9	2.3	51.613	3.9	2.3				
N3W12-10	N3W12	1_NW	1250	2	N_N	N_N	5.25	3.1	51.497	3.1	5.25				
S1E10-04	S1E10	7_E	1250	2	N_N	N_N	4.4	2.6	51.429	4.4	2.6				
S2E10-15	S2E10	7_E	1250	2	N_N	N_N	4.4	2.6	51.429	2.6	4.4				
S5E01-16	S5E01	4_S	1000	2	N_N	N_N	8.8	5.2	51.429	5.2	8.8				
S7E04-22	S7E04	4_S	1500	2	N_N	N_N	6.6	3.9	51.429	6.6	3.9				
N5E02-37	N5E02	5_N	1000	2	N_N	N_N	4.9	2.9	51.282	4.9	2.9				
S1W11-08	S1W11	2_W	1250	2	N_Y	N_N	15.2	9	51.24	9	15.2				
S2W08-01	S2W08	2_W	1000	3	N_N	N_N	8.1	4.8	51.163	8.1	4.8				4.8
S4E02-19	S4E02	4_S	1000	2	N_N	N_N	8.1	4.8	51.163	8.1	4.8				
S6W01-11	S6W01	4_S	1250	2	N_N	N_N	8.1	4.8	51.163	8.1	4.8				
N5W12-31	N5W12	1_NW	1750	2	N_N	N_N	2.7	1.6	51.163	2.7	1.6				
N2E08-04	N2E08	7_E	1250	2	N_N	N_N	4.55	2.7	51.034	2.7					4.55
N2E09-06	N2E09	7_E	1250	2	N_N	N_N	4.2	2.5	50.746	4.2	2.5				
S2W12-07	S2W12	2_W	1250	2	Y_Y	N_N	60.8	36.2	50.722	36.2	60.8				
S7E03-24	S7E03	4_S	1500	2	Y_Y	N_N	56.9	33.9	50.661	33.9	56.9				
N4E02-08	N4E02	5_N	1000	3	N_N	N_N	5.2	3.1	50.602	5.2	3.1				3.1
N1W09-04	N1W09	2_W	1000	2	N_Y	N_N	10.9	6.5	50.575	10.9	6.5				
N3E08-15	N3E08	6_NE	1250	2	N_N	N_N	5.7	3.4	50.549	5.7	3.4				
S1W13-23	S1W13	2_W	1500	2	N_N	N_N	5.7	3.4	50.549	5.7	3.4				
N6W10-06	N6W10	1_NW	1500	3	N_N	N_N	6.2	3.7	50.505	3.75	3.7				6.2
S1E10-10	S1E10	7_E	1250	2	N_N	N_N	6.2	3.7	50.505	6.2	3.7				
N6W10-08	N6W10	1_NW	1500	2	N_N	N_N	6.7	4	50.467	6.7	4				
S7E03-16	S7E03	4_S	1500	2	N_N	N_N	7.2	4.3	50.435	4.3	7.2				
S6W01-20	S6W01	4_S	1250	2	Y_Y	N_N	40	23.9	50.391	40	23.9				
S1W07-22	S1W07	2_W	750	2	N_N	N_N	8.7	5.2	50.36	5.2	8.7				
S5W02-21	S5W02	4_S	1000	2	Y_Y	N_N	21	12.6	50	12.6	21				
N4E03-16	N4E03	5_N	1000	2	N_N	N_N	5	3	50	3	5				
N6E05-16	N6E05	6_NE	1250	2	N_N	N_N	5.5	3.3	50	5.5	3.3				
S4W06-24	S4W06	3_SW	1000	2	N_N	N_N	4.5	2.7	50	4.5	2.7				
S7W01-03	S7W01	4_S	1250	2	N_N	N_N	8.5	5.1	50	5.1	8.5				
N2W06-25	N2W06	1_NW	750	2	N_N	N_N	4.5	2.71	49.653	4.5					2.71
N3W05-15	N3W05	1_NW	750	3	N_N	N_N	6.3	3.8	49.505	3.8	6.3				4.45
S1W09-06	S1W09	2_W	1000	2	Y_Y	N_N	43.6	26.3	49.499	43.6					26.3
S5W06-10	S5W06	3_SW	1250	2	N_N	N_N	9.6	5.8	49.351	5.8	9.6				
S7E02-12	S7E02	4_S	1500	2	N_N	N_N	9.1	5.5	49.315	9.1	5.5				

TABLE 9
Evaluation of Yard Specific Variability
South Minneapolis Soil Arsenic Evaluation

Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
S6E01-25	S6E01	4_S	1250	2	Y_Y	N_N	73.2	44.4	48.98	44.4	73.2				
S6E03-13	S6E03	4_S	1250	2	N_Y	N_N	12.2	7.4	48.98	12.2	7.4				
N4E09-08	N4E09	6_NE	1500	2	N_Y	N_N	11.2	6.8	48.889	11.2	6.8				
S3W09-06	S3W09	3_SW	1000	2	N_N	N_N	5.6	3.4	48.889	3.4	5.6				
N3W06-18	N3W06	1_NW	750	2	Y_Y	N_N	34.5	21	48.649	21					34.5
N5E05-11	N5E05	6_NE	1250	2	N_N	N_N	4.6	2.8	48.649	4.6	2.8				
N6E02-28	N6E02	5_N	1250	2	N_N	N_N	4.6	2.8	48.649	4.6	2.8				
N4E03-03	N4E03	5_N	1000	2	Y_Y	N_N	24.3	14.8	48.593	14.8	24.3				
S4E03-08	S4E03	4_S	1000	2	N_N	N_N	6.4	3.9	48.544	3.9	6.4				
N2W04-02	N2W04	1_NW	500	2	N_N	N_N	5.2	3.17	48.507	5.2	3.17				
N1W11-17	N1W11	2_W	1250	3	N_N	N_N	4.1	2.5	48.485	4.1	3.3				2.5
N1W06-07	N1W06	2_W	750	2	N_N	N_N	4.1	2.5	48.485	4.1					2.5
S5E01-18	S5E01	4_S	1000	2	Y_Y	N_N	32.3	19.7	48.462	19.7	32.3				
N4W12-18	N4W12	1_NW	1500	2	N_N	N_N	5.9	3.6	48.421	5.9	3.6				
S5W01-21	S5W01	4_S	1000	2	Y_Y	N_N	55	33.6	48.307	33.6	55				
N3E07-8	N3E07	6_NE	1000	2	Y_Y	N_N	36	22	48.276	22	36				
N4W12-02	N4W12	1_NW	1500	2	N_N	N_N	9	5.5	48.276	5.5	9				
N5W12-16	N5W12	1_NW	1500	2	N_N	N_N	3.6	2.2	48.276	3.6	2.2				
N3W06-25	N3W06	1_NW	1000	2	N_N	N_N	7.8	4.77	48.21	7.8					4.77
S4W04-10	S4W04	3_SW	1000	2	N_Y	N_N	15.2	9.3	48.163	9.3	15.2				
S1E07-02	S1E07	7_E	1000	2	N_N	N_N	6.2	3.8	48	6.2	3.8				
N6E05-03	N6E05	6_NE	1500	2	N_N	N_N	3.75	2.3	47.934	2.3	3.75				
S1E10-08	S1E10	7_E	1250	2	N_N	N_N	7.5	4.6	47.934	7.5	4.6				
S3W11-13	S3W11	3_SW	1250	2	N_Y	N_N	10.1	6.2	47.853	10.1	6.2				
N1W13-10	N1W13	2_W	1500	3	N_N	N_N	5.7	3.5	47.826	3.5	5.2				5.7
S5E03-24	S5E03	4_S	1250	2	N_N	N_N	5.7	3.5	47.826	5.7	3.5				
S1W09-10	S1W09	2_W	1000	2	N_N	N_N	8.3	5.1	47.761	8.3	5.1				
N2W06-26	N2W06	1_NW	750	2	N_N	N_N	9.6	5.9	47.742	5.9	9.6				
S5W01-26	S5W01	4_S	1000	2	Y_Y	N_N	68.4	42.1	47.602	42.1	68.4				
S6W04-16	S6W04	4_S	1250	2	N_N	N_N	9.7	6	47.134	6	9.7				
S2E10-02	S2E10	7_E	1250	2	N_Y	N_N	11.3	7	46.995	11.3	7				
S5E02-11	S5E02	4_S	1000	2	N_N	N_N	9.2	5.7	46.98	9.2	5.7				
S1E10-19	S1E10	7_E	1250	2	N_Y	N_N	14.2	8.8	46.957	14.2	8.8				
N5W11-09	N5W11	1_NW	1500	2	N_N	N_N	5	3.1	46.914	3.1	5				
N5E07-27	N5E07	6_NE	1250	2	N_Y	N_N	10.8	6.7	46.857	10.8	6.7				
S4E08-03	S4E08	8_SE	1250	2	N_Y	N_N	10.8	6.7	46.857	10.8	6.7				
N5E05-02	N5E05	6_NE	1250	2	Y_Y	N_N	35.1	21.8	46.749	21.8	35.1				
S5W04-17	S5W04	4_S	1250	2	Y_Y	N_N	47.9	29.8	46.589	47.9	29.8				
N3W12-07	N3W12	1_NW	1250	2	N_N	N_N	4.5	2.8	46.575	2.8	4.5				

TABLE 9
Evaluation of Yard Specific Variability
South Minneapolis Soil Arsenic Evaluation

Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
S7W03-27	S7W03	4_S	1500	2	N_N	N_N	9	5.6	46.575	5.6	9				
S5W06-12	S5W06	3_SW	1250	2	N_N	N_N	6.1	3.8	46.465	6.1	3.8				
N2W07-04	N2W07	1_NW	750	2	N_Y	N_N	13	8.1	46.445	13	8.1				
S4W07-05	S4W07	3_SW	1000	2	N_N	N_N	6.9	4.3	46.429	6.9	4.3				
S6E03-26	S6E03	4_S	1250	2	N_N	N_N	6.9	4.3	46.429	4.3	6.9				
S6W05-10	S6W05	4_S	1250	2	Y_Y	N_N	34.5	21.5	46.429	34.5					21.5
S4E01-20	S4E01	4_S	1000	3	Y_Y	N_N	26.3	16.4	46.37	26.3	16.4				23
S3W03-13	S3W03	4_S	750	2	N_N	N_N	8.8	5.5	46.154	5.5	8.8				
S5W02-09	S5W02	4_S	1000	2	Y_Y	N_N	37.6	23.5	46.154	37.6	23.5				
N1W08-13	N1W08	2_W	750	3	N_N	N_N	8	5	46.154	5.7	5				8
N4W13-03	N4W13	1_NW	1500	2	N_N	N_N	6.4	4	46.154		4				6.4
N5W12-02	N5W12	1_NW	1750	2	N_N	N_N	2.4	1.5	46.154	2.4	1.5				
N6E08-08	N6E08	6_NE	1500	2	N_N	N_N	6.4	4	46.154	4	6.4				
S2W11-07	S2W11	2_W	1250	2	N_N	N_N	8	5	46.154	5	8				
S5W01-14	S5W01	4_S	1000	2	N_N	N_N	5.6	3.5	46.154	5.6	3.5				
N3W06-23	N3W06	1_NW	1000	2	N_N	N_N	9.75	6.1	46.057	6.1					9.75
N6E08-17	N6E08	6_NE	1500	2	Y_Y	N_N	18.7	11.7	46.053	18.7	11.7				
S6W04-13	S6W04	4_S	1250	2	N_N	N_N	9.9	6.2	45.963	9.9	6.2				
N5E04-25	N5E04	6_NE	1000	2	N_N	N_N	6.7	4.2	45.872	6.7	4.2				
S2W08-06	S2W08	2_W	1000	2	Y_Y	N_N	19.3	12.1	45.86	19.3	12.1				
N1W05-16	N1W05	2_W	500	2	N_Y	N_N	11	6.9	45.81	6.9	11				
N6E02-25	N6E02	5_N	1250	2	N_N	N_N	5.1	3.2	45.783	5.1	3.2				
S5E02-19	S5E02	4_S	1000	2	N_N	N_N	8.6	5.4	45.714	8.6	5.4				
S2W08-04	S2W08	2_W	1000	2	N_N	N_N	3.5	2.2	45.614	3.5	2.2				
S1W06-03	S1W06	2_W	750	2	N_Y	N_N	14	8.81	45.506	14	8.81				
N1E09-07	N1E09	7_E	1250	2	N_N	N_N	5.4	3.4	45.455	5.4	3.4				
N1W09-15	N1W09	2_W	1000	2	N_N	N_N	2.7	1.7	45.455	2.7	1.7				
S5E01-01	S5E01	4_S	1000	2	N_N	N_N	2.7	1.7	45.455	2.7	1.7				
S7E01-08	S7E01	4_S	1250	2	N_N	N_N	8.1	5.1	45.455	8.1	5.1				
S1W07-03	S1W07	2_W	750	2	N_N	N_N	7.3	4.6	45.378	4.6	7.3				
S1W12-01	S1W12	2_W	1250	2	N_N	N_N	6.5	4.1	45.283	6.5	4.1				
N1W07-06	N1W07	2_W	750	2	N_N	N_N	9.82	6.2	45.194	6.2	9.82				
N6E03-06	N6E03	5_N	1250	2	N_N	N_N	3.8	2.4	45.161	3.8	2.4				
N6E08-14	N6E08	6_NE	1500	2	N_N	N_N	7.6	4.8	45.161	7.6	4.8				
S5E08-26	S5E08	8_SE	1250	2	N_N	N_N	7.6	4.8	45.161	4.8	7.6				
N5E07-19	N5E07	6_NE	1250	2	N_N	N_N	5.7	3.6	45.161	3.6	5.7				
S7W01-24	S7W01	4_S	1500	2	Y_Y	N_N	22	13.9	45.125	13.9	22				
N4W13-10	N4W13	1_NW	1500	2	N_N	N_N	4.9	3.1	45	4.9	3.1				
S5W02-20	S5W02	4_S	1000	2	N_N	N_N	6	3.8	44.898	3.8	6				

TABLE 9
Evaluation of Yard Specific Variability
South Minneapolis Soil Arsenic Evaluation

Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
S3E10-07	S3E10	8_SE	1500	2	N_Y	N_N	10.1	6.4	44.848	10.1	6.4				
N3W09-30	N3W09	1_NW	1250	2	N_N	N_N	5.05	3.2	44.848	5.05	3.2				
S7E02-04	S7E02	4_S	1250	3	N_N	N_N	7.1	4.5	44.828	4.5	7.1				6.7
S7E01-23	S7E01	4_S	1500	2	N_N	N_N	7.1	4.5	44.828	7.1	4.5				
S5W03-25	S5W03	4_S	1000	2	Y_Y	N_N	39.6	25.1	44.822	25.1	39.6				
N4W08-20	N4W08	1_NW	1000	2	Y_Y	N_N	38.8	24.6	44.795		24.6				38.8
N3E09-29	N3E09	6_NE	1250	2	N_N	N_N	9.3	5.9	44.737	9.3	5.9				
N6E07-19	N6E07	6_NE	1500	3	N_N	N_N	5.2	3.3	44.706	5.2	3.4				3.3
S4W10-12	S4W10	3_SW	1250	2	Y_Y	N_N	26.3	16.7	44.651	26.3	16.7				
S2W10-10	S2W10	2_W	1000	2	N_N	N_N	7.4	4.7	44.628	4.7	7.4				
S6E01-03	S6E01	4_S	1250	2	N_N	N_N	8.5	5.4	44.604	8.5	5.4				
N5W12-11	N5W12	1_NW	1750	2	N_N	N_N	2.2	1.4	44.444	1.4	2.2				
S3W04-22	S3W04	3_SW	750	2	N_N	N_N	8.8	5.6	44.444	8.8	5.6				
S4W05-04	S4W05	3_SW	1000	2	N_N	N_N	5.5	3.5	44.444	3.5	5.5				
N1W11-02	N1W11	2_W	1250	2	N_N	N_N	3.3	2.1	44.444	2.1	3.3				
N5W13-09	N5W13	1_NW	1750	2	N_N	N_N	3.3	2.1	44.444	2.1	3.3				
S5E03-18	S5E03	4_S	1250	2	N_N	N_N	6.6	4.2	44.444	4.2	6.6				
S5W05-12	S5W05	3_SW	1250	2	N_N	N_N	8	5.1	44.275	5.1	8				
N5E04-16	N5E04	6_NE	1000	3	N_N	N_N	6.9	4.4	44.248	6.9	4.7				4.4
N5E02-16	N5E02	5_N	1000	2	N_N	N_N	5.8	3.7	44.211	5.8	3.7				
S4W08-12	S4W08	3_SW	1250	2	N_N	N_N	8.3	5.3	44.118	8.3	5.3				
N3E08-14	N3E08	6_NE	1250	2	N_N	N_N	3.6	2.3	44.068	3.6	2.3				
N3E07-17	N3E07	6_NE	1000	2	N_N	N_N	6.4	4.1	43.81	6.4	4.1				
N2W10-31	N2W10	2_W	1250	3	N_N	N_N	5.3	3.4	43.678	5.3	3.9				3.4
S6E02-22	S6E02	4_S	1250	2	N_N	N_N	5.3	3.4	43.678	5.3	3.4				
N3W08-06	N3W08	1_NW	1000	3	N_N	N_N	6.5	4.17	43.674	6.5					4.4
S4E02-06	S4E02	4_S	750	2	N_N	N_N	6.7	4.3	43.636	4.3	6.7				
N4W12-05	N4W12	1_NW	1500	2	N_N	N_N	5.6	3.6	43.478	3.6	5.6				
N6E04-25	N6E04	5_N	1250	2	N_N	N_N	2.8	1.8	43.478	2.8	1.8				
S2W05-06	S2W05	3_SW	750	2	N_N	N_N	7.3	4.7	43.333	4.7	7.3				
N5W08-20	N5W08	1_NW	1250	4	N_N	N_N	5.9	3.8	43.299	5.9	5.1				3.8
S1E10-07	S1E10	7_E	1250	2	N_N	N_N	5.9	3.8	43.299	5.9	3.8				
N4W10-07	N4W10	1_NW	1250	2	N_N	N_N	4.5	2.9	43.243	4.5	2.9				
S4W06-10	S4W06	3_SW	1000	2	Y_Y	N_N	54.1	34.9	43.146	54.1	34.9				
N1W08-08	N1W08	2_W	750	4	N_N	N_N	6.1	3.94	43.028	4.8	4.4				6.1
N3E09-06	N3E09	6_NE	1250	2	N_N	N_N	5.1	3.3	42.857	5.1	3.3				
N1W07-28	N1W07	2_W	750	2	N_N	N_N	8.5	5.5	42.857	5.5					8.5
S3W05-18	S3W05	3_SW	1000	2	N_N	N_N	6.8	4.4	42.857	6.8	4.4				
S1W10-25	S1W10	2_W	1000	2	N_N	N_N	8.8	5.7	42.759	8.8	5.7				

TABLE 9
Evaluation of Yard Specific Variability
South Minneapolis Soil Arsenic Evaluation

Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
S1W13-15	S1W13	2_W	1250	2	N_N	N_N	7.1	4.6	42.735	7.1	4.6				
S5E08-25	S5E08	8_SE	1250	2	N_N	N_N	7.1	4.6	42.735	7.1	4.6				
N4W12-11	N4W12	1_NW	1500	2	N_N	N_N	5.4	3.5	42.697	3.5	5.4				
S1E10-11	S1E10	7_E	1250	2	N_N	N_N	5.4	3.5	42.697	5.4	3.5				
S4W04-02	S4W04	3_SW	750	2	N_N	N_N	5.4	3.5	42.697	3.5	5.4				
N3W10-21	N3W10	1_NW	1250	2	N_N	N_N	7.4	4.8	42.623	7.4					4.8
S2E09-12	S2E09	7_E	1250	2	N_N	N_N	9.7	6.3	42.5	9.7	6.3				
N6E07-18	N6E07	6_NE	1500	2	N_N	N_N	6	3.9	42.424	6	3.9				
N2W09-14	N2W09	2_W	1000	2	N_N	N_N	8.3	5.4	42.336	8.3	5.4				
S7W01-06	S7W01	4_S	1250	2	N_N	N_N	6.3	4.1	42.308	6.3	4.1				
N2W12-05	N2W12	2_W	1250	3	N_N	N_N	4.3	2.8	42.254	3.3	2.8				4.3
S2E08-05	S2E08	7_E	1000	2	N_Y	N_N	12.9	8.4	42.254	8.4	12.9				
S5W02-08	S5W02	4_S	1000	2	N_N	N_N	6.6	4.3	42.202	4.3	6.6				
S5W01-08	S5W01	4_S	1000	2	Y_Y	N_N	20.4	13.3	42.136	13.3	20.4				
N6E03-07	N6E03	5_N	1250	2	N_N	N_N	4.6	3	42.105	4.6	3				
S7E01-03	S7E01	4_S	1250	2	Y_Y	N_N	21.9	14.3	41.989	21.9	14.3				
N5E06-23	N5E06	6_NE	1250	2	N_N	N_N	4.9	3.2	41.975	4.9	3.2				
N3W05-07	N3W05	1_NW	750	2	N_N	N_N	7.5	4.9	41.935	4.9	7.5				
S2W11-17	S2W11	2_W	1250	2	N_N	N_N	5.2	3.4	41.86	5.2	3.4				
S3E02-04	S3E02	4_S	750	2	N_N	N_N	2.6	1.7	41.86	2.6	1.7				
S3W03-07	S3W03	3_SW	750	2	N_Y	N_N	13	8.5	41.86	13	8.5				
N4E09-04	N4E09	6_NE	1500	2	N_N	N_N	5.5	3.6	41.758	5.5	3.6				
S4W09-04	S4W09	3_SW	1250	2	N_N	N_N	5.5	3.6	41.758	5.5	3.6				
S7W03-01	S7W03	4_S	1250	2	N_N	N_N	5.5	3.6	41.758	5.5	3.6				
N3W07-27	N3W07	1_NW	1000	2	N_N	N_N	4.2	2.75	41.727	4.2					2.75
S3W05-27	S3W05	3_SW	750	2	N_N	N_N	8.4	5.5	41.727	5.5	8.4				
S3W04-16	S3W04	3_SW	750	2	N_N	N_N	5.8	3.8	41.667	3.8	5.8				
S5E03-03	S5E03	4_S	1000	2	N_N	N_N	5.8	3.8	41.667	5.8	3.8				
N3W14-01	N3W14	1_NW	1500	2	Y_Y	N_N	59.2	38.8	41.633	59.2	38.8				
N3W05-17	N3W05	1_NW	750	2	N_N	N_N	6.1	4	41.584	6.1	4				
S7E02-28	S7E02	4_S	1500	2	N_N	N_N	9.3	6.1	41.558	6.1	9.3				
N3W05-02	N3W05	1_NW	750	2	N_N	N_N	3.2	2.1	41.509	3.2	2.1				
S7W01-15	S7W01	4_S	1500	2	N_N	N_N	6.4	4.2	41.509	4.2	6.4				
N4W08-27	N4W08	1_NW	1250	2	N_N	N_N	5.5	3.61	41.493	5.5					3.61
N5E02-18	N5E02	5_N	1000	2	N_N	N_N	3.5	2.3	41.379	3.5	2.3				
S1W11-07	S1W11	2_W	1250	2	N_N	N_N	7.3	4.8	41.322	4.8	7.3				
S4W07-13	S4W07	3_SW	1000	2	N_N	N_N	3.8	2.5	41.27	3.8	2.5				
S1E08-17	S1E08	7_E	1000	2	N_Y	N_N	12	7.9	41.206	7.9	12				
N1W12-13	N1W12	2_W	1250	2	N_N	N_N	6	3.95	41.206	6	3.95				

TABLE 9
Evaluation of Yard Specific Variability
South Minneapolis Soil Arsenic Evaluation

Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
S5W02-10	S5W02	4_S	1000	2	Y_Y	N_N	16.4	10.8	41.176	10.8	16.4				
S5E04-03	S5E04	8_SE	1250	2	N_Y	N_N	11	7.25	41.096	11	7.25				
N3W09-27	N3W09	1_NW	1000	2	N_N	N_N	5	3.3	40.964	5					3.3
S6W03-20	S6W03	4_S	1250	2	N_N	N_N	5.6	3.7	40.86	5.6	3.7				
S4W07-16	S4W07	3_SW	1250	2	N_N	N_N	7.7	5.1	40.625	7.7	5.1				
S6E01-16	S6E01	4_S	1250	2	N_N	N_N	7.7	5.1	40.625	7.7	5.1				
S4W06-02	S4W06	3_SW	1000	2	N_N	N_N	8	5.3	40.602	8	5.3				
N1W12-10	N1W12	2_W	1250	2	N_N	N_N	2.7	1.8	40	1.8	2.7				
N2E09-26	N2E09	7_E	1250	2	N_N	N_N	3.9	2.6	40	3.9	2.6				
N2W11-27	N2W11	2_W	1250	2	N_N	N_N	3.9	2.6	40	3.9	2.6				
N3E08-20	N3E08	6_NE	1000	2	N_N	N_N	4.5	3	40	4.5	3				
N3E09-01	N3E09	6_NE	1250	2	N_N	N_N	4.5	3	40	4.5	3				
N3W11-14	N3W11	1_NW	1250	2	N_N	N_N	2.7	1.8	40	1.8	2.7				
N3W13-13	N3W13	2_W	1500	2	N_N	N_N	6	4	40	4	6				
N3W14-07	N3W14	2_W	1500	2	N_N	N_N	6.3	4.2	40	4.2	6.3				
N4W07-18	N4W07	1_NW	1000	2	N_N	N_N	2.4	1.6	40	2.4	1.6				
N5W12-08	N5W12	1_NW	1500	2	N_N	N_N	1.5	1	40	1.5	1				
N5W12-30	N5W12	1_NW	1750	2	N_N	N_N	2.1	1.4	40	2.1	1.4				
N6E06-17	N6E06	6_NE	1250	2	N_N	N_N	4.5	3	40	3	4.5				
S1W10-12	S1W10	2_W	1000	2	N_N	N_N	5.7	3.8	40	3.8	5.7				
S2W06-05	S2W06	3_SW	750	2	N_N	N_N	6.6	4.4	40	4.4	6.6				
S2W07-01	S2W07	2_W	750	2	N_N	N_N	8.7	5.8	40	8.7	5.8				
S5W06-18	S5W06	3_SW	1250	2	N_N	N_N	5.7	3.8	40	3.8	5.7				
S5W06-23	S5W06	3_SW	1250	2	N_N	N_N	6	4	40	6	4				
S6W03-12	S6W03	4_S	1250	2	N_N	N_N	2.4	1.6	40	1.6	2.4				
S4E09-20	S4E09	8_SE	1250	2	Y_Y	N_N	30.2	20.2	39.683	20.2	30.2				
N3W08-02	N3W08	1_NW	1000	2	N_N	N_N	5.225	3.5	39.542	3.5	5.225				
S3W07-22	S3W07	3_SW	1000	2	N_N	N_N	9.7	6.5	39.506	9.7	6.5				
S5W04-12	S5W04	4_S	1250	2	N_N	N_N	7.9	5.3	39.394	5.3	7.9				
S1E06-07	S1E06	7_E	750	2	N_N	N_N	7.6	5.1	39.37	5.1	7.6				
S4W08-18	S4W08	3_SW	1250	2	N_N	N_N	7.6	5.1	39.37	7.6	5.1				
S2W10-11	S2W10	2_W	1000	2	N_N	N_N	7.3	4.9	39.344	4.9	7.3				
S5E04-05	S5E04	8_SE	1250	2	N_N	N_N	7.3	4.9	39.344	7.3	4.9				
S5E02-23	S5E02	4_S	1000	2	N_N	N_N	7	4.7	39.316	7	4.7				
S4E02-18	S4E02	4_S	1000	2	N_N	N_N	6.7	4.5	39.286	6.7	4.5				
N5E03-20	N5E03	5_N	1000	2	N_N	N_N	6.4	4.3	39.252	6.4	4.3				
N5E02-43	N5E02	5_N	1000	2	N_N	N_N	6.1	4.1	39.216	4.1	6.1				
S1E07-08	S1E07	7_E	1000	2	N_N	N_N	5.5	3.7	39.13	3.7	5.5				
N1W11-21	N1W11	2_W	1250	2	N_N	N_N	4.9	3.3	39.024	4.9					3.3

TABLE 9
Evaluation of Yard Specific Variability
South Minneapolis Soil Arsenic Evaluation

Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
S6W05-20	S6W05	3_SW	1250	2	Y_Y	N_N	48.4	32.6	39.012	48.4	32.6				
N6E03-08	N6E03	5_N	1250	2	N_N	N_N	4.6	3.1	38.961	4.6	3.1				
S4W04-09	S4W04	3_SW	1000	2	Y_Y	N_N	58.3	39.3	38.934	39.3	58.3				
S3E08-10	S3E08	8_SE	1250	2	N_Y	N_N	12.9	8.7	38.889	12.9	8.7				
N4W13-04	N4W13	1_NW	1500	2	N_N	N_N	8	5.4	38.806	8	5.4				
S2W09-07	S2W09	2_W	1000	2	N_N	N_N	7.7	5.2	38.76	5.2	7.7				
S7E04-03	S7E04	4_S	1500	2	Y_Y	N_N	60.7	41	38.741	41	60.7				
N2W11-18	N2W11	2_W	1250	2	N_N	N_N	3.7	2.5	38.71	2.5	3.7				
N2W07-17	N2W07	2_W	750	2	Y_Y	N_N	71	48	38.655	48	71				
N2E09-03	N2E09	7_E	1250	2	N_N	N_N	7.1	4.8	38.655	4.8	7.1				
S1W05-09	S1W05	2_W	500	2	N_N	N_N	7.1	4.8	38.655	4.8	7.1				
S4E01-02	S4E01	4_S	750	2	N_N	N_N	6.5	4.4	38.532	4.4					6.5
N5E03-06	N5E03	5_N	1250	2	N_N	N_N	9.3	6.3	38.462	6.3	9.3				
S3W11-09	S3W11	3_SW	1250	2	N_N	N_N	9.3	6.3	38.462	9.3	6.3				
N5E02-08	N5E02	5_N	1000	2	N_N	N_N	3.1	2.1	38.462	3.1					2.1
S1E06-02	S1E06	7_E	750	2	N_N	N_N	9	6.1	38.411	9	6.1				
S3W07-24	S3W07	3_SW	1000	2	Y_Y	N_N	28	19	38.298	28	19				
S6E06-03	S6E06	8_SE	1500	2	N_N	N_N	5.6	3.8	38.298			3.8	5.6		
S1W05-19	S1W05	2_W	500	2	N_N	N_N	7.5	5.1	38.095	5.1	7.5				
S3W07-16	S3W07	3_SW	1000	2	N_N	N_N	5	3.4	38.095	3.4	5				
N2W11-25	N2W11	2_W	1250	2	N_N	N_N	4.7	3.2	37.975	4.7	3.2				
N3W13-25	N3W13	1_NW	1500	2	N_N	N_N	4.7	3.2	37.975	3.2	4.7				
N4E03-02	N4E03	5_N	1000	2	Y_Y	N_N	11.6	7.9	37.949	11.6	7.9				
S7E02-20	S7E02	4_S	1500	2	N_Y	N_N	13.8	9.4	37.931	13.8	9.4				
S4E01-23	S4E01	4_S	750	2	N_N	N_N	6.9	4.7	37.931	4.7	6.9				
S4W04-03	S4W04	3_SW	750	2	N_N	N_N	6.9	4.7	37.931	6.9	4.7				
S4E08-09	S4E08	8_SE	1250	2	Y_Y	N_N	22.6	15.4	37.895	15.4	22.6				
N2W11-07	N2W11	2_W	1250	2	N_N	N_N	4.4	3	37.838	3	4.4				
N3E09-30	N3E09	6_NE	1250	2	N_N	N_N	4.4	3	37.838	4.4					3
S4E06-05	S4E06	8_SE	1000	2	N_Y	N_N	12.9	8.8	37.788	8.8	12.9				
N5E03-10	N5E03	5_N	1000	2	N_N	N_N	6.3	4.3	37.736	6.3	4.3				
N5W13-16	N5W13	1_NW	1750	2	N_N	N_N	4.1	2.8	37.681	4.1	2.8				
N6E02-46	N6E02	5_N	1250	2	N_N	N_N	4.1	2.8	37.681	4.1	2.8				
S4W07-18	S4W07	3_SW	1250	2	N_N	N_N	6	4.1	37.624	6	4.1				
N1W09-13	N1W09	2_W	1000	3	N_N	N_N	3.8	2.6	37.5	2.7	2.6				3.8
N5E02-03	N5E02	5_N	1000	2	N_N	N_N	3.8	2.6	37.5	2.6	3.8				
S4W08-19	S4W08	3_SW	1250	2	N_N	N_N	5.7	3.9	37.5	5.7	3.9				
S5W02-13	S5W02	4_S	1000	3	Y_Y	N_N	33	22.6	37.41	22.6	30.9				33
N6E07-23	N6E07	6_NE	1500	2	N_N	N_N	7.3	5	37.398	7.3	5				

TABLE 9
Evaluation of Yard Specific Variability
South Minneapolis Soil Arsenic Evaluation

Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
S1W05-05	S1W05	2_W	500	2	N_N	N_N	8.9	6.1	37.333	6.1	8.9				
N6E02-26	N6E02	5_N	1250	2	N_N	N_N	3.5	2.4	37.288	3.5	2.4				
S3W10-20	S3W10	3_SW	1250	2	N_N	N_N	8.6	5.9	37.241	8.6	5.9				
S3W10-16	S3W10	3_SW	1250	2	N_N	N_N	5.1	3.5	37.209	5.1	3.5				
N2E09-21	N2E09	7_E	1250	2	N_N	N_N	8	5.5	37.037	8	5.5				
N5E07-26	N5E07	6_NE	1250	2	N_N	N_N	8	5.5	37.037	8	5.5				
S7W01-14	S7W01	4_S	1500	2	N_N	N_N	8	5.5	37.037	5.5	8				
N6W10-14	N6W10	1_NW	1500	2	N_N	N_N	4.5	3.1	36.842	4.5	3.1				
N1W08-12	N1W08	2_W	750	3	N_N	N_N	5.225	3.6	36.827	3.6	5.225				4.3
S3E06-18	S3E06	8_SE	1000	2	N_N	N_N	5.8	4	36.735	5.8	4				
S3W04-13	S3W04	3_SW	750	2	N_N	N_N	8.7	6	36.735	8.7	6				
S7W02-23	S7W02	4_S	1500	2	N_N	N_N	8.7	6	36.735	8.7	6				
N3W11-08	N3W11	1_NW	1250	2	N_N	N_N	4.2	2.9	36.62	2.9	4.2				
S5E04-08	S5E04	8_SE	1250	2	N_N	N_N	8.4	5.8	36.62	5.8	8.4				
S2W05-13	S2W05	3_SW	750	2	N_Y	N_N	11	7.6	36.559	11	7.6				
N3W09-22	N3W09	1_NW	1000	2	N_N	N_N	5.5	3.8	36.559	5.5					3.8
S4W07-04	S4W07	3_SW	1000	2	N_N	N_N	6.8	4.7	36.522	6.8	4.7				
N5E03-22	N5E03	5_N	1000	2	N_N	N_N	8.1	5.6	36.496	8.1	5.6				
S2W07-07	S2W07	3_SW	750	2	N_Y	N_N	12	8.3	36.453	8.3	12				
N1W10-15	N1W10	2_W	1000	3	N_N	N_N	5.2	3.6	36.364	5.2	3.6				3.6
N4E09-20	N4E09	6_NE	1250	2	N_N	N_N	5.2	3.6	36.364	3.6	5.2				
N5E01-04	N5E01	5_N	1000	2	N_N	N_N	9.1	6.3	36.364	9.1	6.3				
N6E06-24	N6E06	6_NE	1500	2	N_N	N_N	5.2	3.6	36.364	3.6	5.2				
N6E07-10	N6E07	6_NE	1500	2	N_N	N_N	9.1	6.3	36.364	9.1	6.3				
S5E04-14	S5E04	8_SE	1000	2	N_N	N_N	5.2	3.6	36.364	5.2	3.6				
N1W12-08	N1W12	2_W	1250	2	N_N	N_N	3.9	2.7	36.364	3.9					2.7
S7W02-17	S7W02	4_S	1500	2	Y_Y	N_N	55.6	38.5	36.344	55.6					38.5
N3W10-09	N3W10	1_NW	1250	2	N_N	N_N	7.5	5.2	36.22	5.2	7.5				
N2W10-28	N2W10	2_W	1250	2	N_N	N_N	6.2	4.3	36.19	6.2	4.3				
N3E08-04	N3E08	6_NE	1250	2	N_N	N_N	6.2	4.3	36.19	6.2	4.3				
N2W11-29	N2W11	2_W	1250	3	N_N	N_N	4.9	3.4	36.145	3.4	4.9				3.6
N8W02-03	N8W02	5_N	1750	2	N_N	N_N	4.9	3.4	36.145	4.9	3.4				
N3W12-01	N3W12	1_NW	1500	2	N_N	N_N	3.6	2.5	36.066	3.6	2.5				
S1E07-07	S1E07	7_E	1000	2	N_N	N_N	7.2	5	36.066	7.2	5				
S4W04-22	S4W04	3_SW	750	2	N_N	N_N	7.2	5	36.066	7.2	5				
S1W13-06	S1W13	2_W	1250	2	N_N	N_N	9.5	6.6	36.025	9.5	6.6				
S2E10-12	S2E10	7_E	1250	2	Y_Y	N_N	52.5	36.5	35.955	36.5	52.5				
N1W04-09	N1W04	2_W	500	2	N_N	N_N	6.7	4.66	35.915	6.7					4.66
N5W09-16	N5W09	1_NW	1250	2	N_N	N_N	6.9	4.8	35.897	6.9	4.8				

TABLE 9
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South Minneapolis Soil Arsenic Evaluation

Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
N2W11-04	N2W11	2_W	1250	2	N_N	N_N	2.3	1.6	35.897	2.3	1.6				
N5E03-11	N5E03	5_N	1000	2	N_N	N_N	4.6	3.2	35.897	4.6	3.2				
N6E02-24	N6E02	5_N	1250	2	N_N	N_N	4.6	3.2	35.897	4.6	3.2				
N6E03-11	N6E03	5_N	1250	2	N_N	N_N	4.6	3.2	35.897	4.6					3.2
S4E02-17	S4E02	4_S	1000	2	N_N	N_N	5.6	3.9	35.789	5.6	3.9				
N3W11-24	N3W11	1_NW	1250	2	N_N	N_N	3.3	2.3	35.714	3.3	2.3				
S3W05-09	S3W05	3_SW	750	2	N_N	N_N	6.6	4.6	35.714	6.6	4.6				
S1E09-09	S1E09	7_E	1250	2	N_Y	N_N	10.9	7.6	35.676	10.9	7.6				
S1W05-20	S1W05	2_W	500	2	N_N	N_N	7.6	5.3	35.659	5.3	7.6				
N5E02-11	N5E02	5_N	1000	2	N_N	N_N	4.3	3	35.616	4.3					3
S2E10-33	S2E10	7_E	1250	2	N_N	N_N	8.6	6	35.616		8.6				6
N4W12-16	N4W12	1_NW	1500	2	N_N	N_N	5.3	3.7	35.556	3.7	5.3				
S4W03-05	S4W03	4_S	750	2	N_N	N_N	5.3	3.7	35.556	3.7	5.3				
S4W05-06	S4W05	3_SW	1000	2	N_N	N_N	5.3	3.7	35.556	3.7	5.3				
N5E04-03	N5E04	6_NE	1250	2	Y_Y	N_N	85.2	59.5	35.522	59.5	85.2				
S1E10-18	S1E10	7_E	1250	2	Y_Y	N_N	15.3	10.7	35.385	10.7	15.3				
N5E07-28	N5E07	6_NE	1250	2	N_N	N_N	4	2.8	35.294	2.8	4				
N5W08-08	N5W08	1_NW	1250	2	N_N	N_N	4	2.8	35.294	2.8	4				
N5W13-07	N5W13	1_NW	1750	2	N_N	N_N	4	2.8	35.294	2.8	4				
N6E02-23	N6E02	5_N	1250	2	N_N	N_N	4	2.8	35.294	4	2.8				
S1W09-07	S1W09	2_W	1000	2	N_N	N_N	8	5.6	35.294	8	5.6				
S5E09-15	S5E09	8_SE	1500	2	N_N	N_N	4	2.8	35.294	2.8	4				
N2W12-15	N2W12	2_W	1250	2	N_N	N_N	5	3.5	35.294	3.5	5				
S4W09-01	S4W09	3_SW	1250	2	N_N	N_N	5	3.5	35.294	5	3.5				
N4W14-20	N4W14	1_NW	1750	3	N_N	N_N	3	2.1	35.294	2.3	3				2.1
S2W09-17	S2W09	2_W	1000	2	N_N	N_N	9.7	6.8	35.152	6.8	9.7				
S7E02-24	S7E02	4_S	1500	2	N_N	N_N	7.7	5.4	35.115	5.4	7.7				
S4E08-12	S4E08	8_SE	1250	2	Y_Y	N_N	52.6	36.9	35.084	52.6	36.9				
S6E03-27	S6E03	4_S	1250	2	N_Y	N_N	11.4	8	35.052	11.4	8				
N5W08-22	N5W08	1_NW	1250	2	N_N	N_N	5.7	4	35.052	5.7	4				
S7E03-11	S7E03	4_S	1500	2	N_N	N_N	5.7	4	35.052	5.7	4				
N4W10-23	N4W10	1_NW	1250	2	N_N	N_N	4.7	3.3	35	3.3	4.7				
N5E05-29	N5E05	6_NE	1250	2	N_N	N_N	4.7	3.3	35	3.3	4.7				
N8W03-13	N8W03	5_N	1750	2	N_N	N_N	8.4	5.9	34.965	8.4	5.9				
N3E08-02	N3E08	6_NE	1250	2	N_N	N_N	6.4	4.5	34.862	6.4	4.5				
N8W02-05	N8W02	5_N	1750	2	N_N	N_N	6.4	4.5	34.862	6.4	4.5				
S5E01-06	S5E01	4_S	1000	2	N_N	N_N	5.4	3.8	34.783	5.4	3.8				
S2E09-25	S2E09	7_E	1250	3	N_N	N_N	8.1	5.7	34.783	5.7	7.9				8.1
S1W09-20	S1W09	2_W	1000	2	N_N	N_N	7.6	5.35	34.749	7.6	5.35				

TABLE 9
Evaluation of Yard Specific Variability
South Minneapolis Soil Arsenic Evaluation

Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
N4W11-09	N4W11	1_NW	1250	2	N_N	N_N	8.8	6.2	34.667	8.8	6.2				
N5W07-18	N5W07	1_NW	1250	2	N_N	N_N	8.8	6.2	34.667	8.8	6.2				
S7E01-29	S7E01	4_S	1500	2	Y_Y	N_N	46.4	32.7	34.64	32.7	46.4				
S5E07-14	S5E07	8_SE	1250	2	N_Y	N_N	12.2	8.6	34.615	8.6	12.2				
N4E09-05	N4E09	6_NE	1500	2	N_N	N_N	6.1	4.3	34.615	6.1	4.3				
N4W06-06	N4W06	1_NW	1000	2	N_N	N_N	7.8	5.5	34.586	7.8	5.5				
N3W14-06	N3W14	2_W	1500	2	N_N	N_N	5.1	3.6	34.483	3.6	5.1				
S3W09-19	S3W09	3_SW	1250	2	N_N	N_N	5.1	3.6	34.483	3.6	5.1				
S3W10-08	S3W10	3_SW	1250	2	Y_Y	N_N	82.5	58.3	34.375	82.5	58.3				
S1W09-05	S1W09	2_W	1000	3	N_N	N_N	5.8	4.1	34.343	5.8	4.1				5.6
N3W07-11	N3W07	1_NW	1000	2	N_N	N_N	5.8	4.1	34.343	4.1	5.8				
N2W06-15	N2W06	2_W	750	2	N_N	N_N	7.2	5.09	34.337	7.2					5.09
N1W08-20	N1W08	2_W	1000	2	N_N	N_N	4.1	2.9	34.286	2.9	4.1				
S2W09-08	S2W09	2_W	1000	2	N_N	N_N	8.2	5.8	34.286	8.2	5.8				
N4W11-24	N4W11	1_NW	1500	3	N_N	N_N	6.5	4.6	34.234	5.4	4.6				6.5
S5E02-18	S5E02	4_S	1000	2	Y_Y	N_N	42.1	29.8	34.214	29.8	42.1				
S3W06-25	S3W06	3_SW	1000	2	N_N	N_N	7.2	5.1	34.146	7.2	5.1				
N1W08-23	N1W08	2_W	1000	3	N_N	N_N	5.5	3.9	34.043	5.5	4.5				3.9
N2W10-13	N2W10	2_W	1000	2	N_N	N_N	5.5	3.9	34.043	5.5	3.9				
S7W01-08	S7W01	4_S	1500	2	N_N	N_N	5.5	3.9	34.043	5.5	3.9				
N1W08-27	N1W08	2_W	1000	3	N_N	N_N	5.78	4.1	34.008	4.1	4.4				5.78
S6W04-01	S6W04	4_S	1250	3	N_N	N_N	3.1	2.2	33.962	2.2	3.1				2.6
N3W06-20	N3W06	1_NW	750	2	N_N	N_N	6.2	4.4	33.962	6.2	4.4				
N2W03-10	N2W03	1_NW	500	2	N_N	N_N	8.2	5.82	33.951	5.82	8.2				
N8W02-01	N8W02	5_N	1750	2	N_N	N_N	6.9	4.9	33.898	6.9	4.9				
N1W10-19	N1W10	2_W	1000	2	Y_Y	N_N	35.4	25.15	33.856	35.4	25.15				
N4W12-10	N4W12	1_NW	1500	2	N_N	N_N	5.7	4.05	33.846	5.7	4.05				
N1W13-08	N1W13	2_W	1500	2	N_N	N_N	3.8	2.7	33.846		3.8				2.7
N5E02-45	N5E02	5_N	1000	2	N_N	N_N	7.6	5.4	33.846		5.4				7.6
N5E05-19	N5E05	6_NE	1000	2	N_N	N_N	3.8	2.7	33.846	3.8	2.7				
N5W07-03	N5W07	1_NW	1250	2	N_N	N_N	3.8	2.7	33.846	3.8	2.7				
N6E02-14	N6E02	5_N	1250	2	N_N	N_N	3.8	2.7	33.846	3.8	2.7				
N5E07-16	N5E07	6_NE	1250	3	N_N	N_N	4.5	3.2	33.766	3.2	4.5				3.6
N5E04-12	N5E04	6_NE	1000	2	N_N	N_N	4.5	3.2	33.766	4.5	3.2				
N5E07-29	N5E07	6_NE	1250	2	N_N	N_N	4.5	3.2	33.766	3.2	4.5				
S2E08-10	S2E08	7_E	1000	2	N_N	N_N	9	6.4	33.766	9	6.4				
S6W05-09	S6W05	4_S	1250	2	N_N	N_N	5.2	3.7	33.708	3.7	5.2				
N3E09-23	N3E09	6_NE	1250	2	N_N	N_N	5.9	4.2	33.663	5.9	4.2				
N3W09-17	N3W09	1_NW	1000	2	N_N	N_N	5.9	4.2	33.663	4.2	5.9				

TABLE 9
Evaluation of Yard Specific Variability
South Minneapolis Soil Arsenic Evaluation

Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
N6W11-06	N6W11	1_NW	1500	2	N_N	N_N	5.9	4.2	33.663	4.2	4.2		5.9		
S3W06-22	S3W06	3_SW	1000	2	N_N	N_N	5.9	4.2	33.663	5.9	4.2				
S2W11-04	S2W11	2_W	1250	2	N_N	N_N	8	5.7	33.577	8	5.7				
S6E01-17	S6E01	4_S	1250	2	Y_Y	N_N	40.7	29	33.572	40.7	29				
N2W11-13	N2W11	2_W	1250	2	N_N	N_N	4.9	3.5	33.333	3.5	4.9				
N2E09-27	N2E09	7_E	1250	2	N_N	N_N	4.2	3	33.333	4.2	3				
N5E01-05	N5E01	5_N	1000	2	N_N	N_N	7.7	5.5	33.333	7.7	5.5				
N5W07-10	N5W07	1_NW	1250	3	N_N	N_N	3.5	2.5	33.333	3.1	2.5		3.5		
N4W07-32	N4W07	1_NW	1000	2	N_N	N_N	2.8	2	33.333	2.8	2				
N5E01-23	N5E01	5_N	1000	2	N_N	N_N	5.6	4	33.333	4	5.6				
N5W08-26	N5W08	1_NW	1250	2	N_N	N_N	3.5	2.5	33.333	3.5	2.5				
S2W07-20	S2W07	2_W	750	2	N_N	N_N	5.6	4	33.333	4	5.6				
S4E07-16	S4E07	8_SE	1250	2	N_N	N_N	5.6	4	33.333	5.6	4				
S5W03-11	S5W03	4_S	1000	2	Y_Y	N_N	46	32.9	33.207	32.9	46				
N4W09-17	N4W09	1_NW	1250	2	Y_Y	N_N	45.3	32.4	33.205	32.4	45.3				
N5E05-26	N5E05	6_NE	1250	2	Y_Y	N_N	52.1	37.3	33.11	37.3	52.1				
N3W07-02	N3W07	1_NW	1000	2	N_N	N_N	3.7	2.65	33.071	3.7			2.65		
S1W05-08	S1W05	2_W	500	2	N_N	N_N	6.7	4.8	33.043	4.8	6.7				
S3W04-21	S3W04	3_SW	750	2	Y_Y	N_N	67	48	33.043	48	67				
N2E09-14	N2E09	7_E	1250	2	N_Y	N_N	12.7	9.1	33.028	9.1	12.7				
N3W03-03	N3W03	1_NW	500	2	N_Y	N_N	12	8.6	33.01	8.6	12				
N5E01-11	N5E01	5_N	1000	2	N_N	N_N	5.3	3.8	32.967	3.8	5.3				
S5W01-11	S5W01	4_S	1000	2	Y_Y	N_N	87.3	62.6	32.955	62.6	87.3				
N4W14-16	N4W14	1_NW	1500	2	N_N	N_N	4.6	3.3	32.911	3.3	4.6				
N4W13-15	N4W13	1_NW	1500	2	N_N	N_N	7.1	5.1	32.787	7.1	5.1				
S6E01-20	S6E01	4_S	1250	2	N_Y	N_N	10.3	7.4	32.768	10.3	7.4				
S6E04-12	S6E04	4_S	1500	2	N_Y	N_N	10.3	7.4	32.768	10.3			7.4		
N4E05-05	N4E05	6_NE	1000	2	N_N	N_N	3.2	2.3	32.727	2.3	3.2				
S1E08-08	S1E08	7_E	1000	2	Y_Y	N_N	36.3	26.1	32.692	26.1	36.3				
N1W05-23	N1W05	2_W	500	2	N_N	N_N	5.7	4.1	32.653	5.7	4.1				
S1W08-16	S1W08	2_W	1000	2	N_N	N_N	5.7	4.1	32.653	5.7	4.1				
S5W02-03	S5W02	4_S	1000	2	N_N	N_N	5.7	4.1	32.653	5.7	4.1				
N2W04-16	N2W04	1_NW	500	2	N_N	N_N	7.2	5.18	32.633	5.18	7.2				
S3W01-07	S3W01	4_S	500	2	N_N	N_N	8.2	5.9	32.624	8.2	5.9				
N1W06-15	N1W06	2_W	750	2	N_N	N_N	7	5.04	32.558	7			5.04		
S4E08-10	S4E08	8_SE	1250	2	Y_Y	N_N	15	10.8	32.558	15	10.8				
N4E09-24	N4E09	6_NE	1250	3	N_N	N_N	5	3.6	32.558	4.2	3.6			5	
N4E04-04	N4E04	6_NE	1000	2	N_N	N_N	2.5	1.8	32.558	2.5	1.8				
N4W11-01	N4W11	1_NW	1500	2	N_N	N_N	2.5	1.8	32.558	1.8	2.5				

TABLE 9
Evaluation of Yard Specific Variability
South Minneapolis Soil Arsenic Evaluation

Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
S1W09-08	S1W09	2_W	1000	2	Y_Y	N_N	32.9	23.7	32.509	32.9	23.7				
N2W07-24	N2W07	1_NW	750	2	N_N	N_N	4.3	3.1	32.432	4.3	3.1				
N3E07-12	N3E07	6_NE	1000	2	N_N	N_N	6.1	4.4	32.381	4.4	6.1				
N3W14-25	N3W14	2_W	1500	2	N_N	N_N	6.1	4.4	32.381	4.4	6.1				
S1W06-11	S1W06	2_W	750	2	N_N	N_N	6.1	4.4	32.381	6.1	4.4				
S7E04-11	S7E04	4_S	1500	2	N_N	N_N	5.4	3.9	32.258	3.9	5.4				
N1E10-09	N1E10	7_E	1250	2	N_N	N_N	3.6	2.6	32.258	3.6	2.6				
N2W10-29	N2W10	2_W	1250	2	N_N	N_N	3.6	2.6	32.258	2.6	3.6				
S1W10-13	S1W10	2_W	1000	2	N_N	N_N	6.5	4.7	32.143	6.5					4.7
S5W06-22	S5W06	3_SW	1250	2	N_N	N_N	6.5	4.7	32.143	6.5	4.7				
S7W03-05	S7W03	4_S	1500	2	N_N	N_N	6.5	4.7	32.143	4.7	6.5				
S2E10-26	S2E10	7_E	1250	2	N_N	N_N	7.6	5.5	32.061	7.6	5.5				
S4W07-11	S4W07	3_SW	1000	2	Y_Y	N_N	93.1	67.4	32.025	67.4	93.1				
N5E04-04	N5E04	6_NE	1250	2	N_N	N_N	5.8	4.2	32	5.8	4.2				
N6E06-09	N6E06	6_NE	1500	2	N_N	N_N	5.8	4.2	32	5.8	4.2				
N6E08-12	N6E08	6_NE	1500	2	N_N	N_N	5.8	4.2	32	5.8	4.2				
N8W03-14	N8W03	5_N	1750	2	N_N	N_N	5.8	4.2	32	5.8	4.2				
S1W05-04	S1W05	2_W	500	2	N_N	N_N	2.9	2.1	32	2.1	2.9				
N4W14-15	N4W14	1_NW	1500	2	N_N	N_N	4	2.9	31.884	2.9	4				
S5E09-18	S5E09	8_SE	1500	2	N_N	N_N	4	2.9	31.884	4	2.9				
N2W08-14	N2W08	2_W	1000	3	N_N	N_N	6.48	4.7	31.843	4.7					4.9
N4W10-12	N4W10	1_NW	1250	2	N_N	N_N	5.1	3.7	31.818	5.1	3.7				6.48
S5E03-23	S5E03	4_S	1250	2	N_N	N_N	5.1	3.7	31.818	3.7	5.1				
S5E08-01	S5E08	8_SE	1250	2	N_N	N_N	9.5	6.9	31.707	9.5					6.9
N1W04-01	N1W04	1_NW	500	2	N_N	N_N	7.98	5.8	31.64	7.98	5.8				
N2W07-03	N2W07	1_NW	750	2	N_N	N_N	4.4	3.2	31.579	3.2	4.4				
S1W06-10	S1W06	2_W	750	2	N_N	N_N	8.8	6.4	31.579	8.8	6.4				
S3W06-16	S3W06	3_SW	1000	2	N_N	N_N	5.5	4	31.579	4	5.5				
S5W01-01	S5W01	4_S	1000	2	N_N	N_N	5.5	4	31.579	4	5.5				
S5W05-11	S5W05	3_SW	1250	2	Y_Y	N_N	34.6	25.2	31.438	34.6	25.2				
N5E01-02	N5E01	5_N	1000	2	N_N	N_N	8.1	5.9	31.429	8.1	5.9				
S1W08-18	S1W08	2_W	1000	2	N_N	N_N	8.1	5.9	31.429	8.1	5.9				
N4E03-08	N4E03	6_NE	1000	2	N_N	N_N	7	5.1	31.405	7	5.1				
S7W01-22	S7W01	4_S	1500	2	N_N	N_N	7	5.1	31.405	5.1	7				
N4W13-29	N4W13	1_NW	1500	2	N_N	N_N	5.9	4.3	31.373	5.9	4.3				
S7W03-18	S7W03	4_S	1500	2	N_Y	N_N	10.7	7.8	31.351	10.7					7.8
N3W10-18	N3W10	1_NW	1250	2	Y_Y	N_N	94.1	68.6	31.346	68.6	94.1				
S4W09-18	S4W09	3_SW	1250	2	N_N	N_N	4.8	3.5	31.325	3.5	4.8				
N3E08-26	N3E08	6_NE	1250	2	N_N	N_N	8.5	6.2	31.293	8.5	6.2				

TABLE 9
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South Minneapolis Soil Arsenic Evaluation

Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
N4W09-04	N4W09	1_NW	1250	2	N_N	N_N	3.7	2.7	31.25	3.7	2.7				3.7
N5E02-19	N5E02	5_N	1000	2	N_N	N_N	3.7	2.7	31.25		2.7				3.7
S5W02-07	S5W02	4_S	1000	2	N_N	N_N	6.3	4.6	31.193	6.3	4.6				
S7E01-10	S7E01	4_S	1500	2	N_N	N_N	6.3	4.6	31.193	6.3	4.6				
N1W10-05	N1W10	2_W	1000	2	N_N	N_N	2.6	1.9	31.111	1.9	2.6				
N4W11-19	N4W11	1_NW	1500	2	N_N	N_N	2.6	1.9	31.111	2.6	1.9				
S5W03-23	S5W03	4_S	1000	2	N_N	N_N	5.2	3.8	31.111	3.8					5.2
S3W07-25	S3W07	3_SW	1000	2	Y_Y	N_N	67	49	31.034	67	49				
S3E09-15	S3E09	8_SE	1250	2	Y_Y	N_N	75.2	55	31.029	75.2	55				
S4W09-14	S4W09	3_SW	1250	2	Y_Y	N_N	49.2	36	30.986	49.2					36
S1E08-03	S1E08	7_E	1000	2	N_N	N_N	5.6	4.1	30.928	5.6					4.1
N3W05-13	N3W05	1_NW	750	2	Y_Y	N_N	71	52	30.894	71	52				
N2E08-07	N2E08	7_E	1250	2	N_N	N_N	4.5	3.3	30.769		3.3				4.5
N3E07-15	N3E07	6_NE	1000	2	N_N	N_N	9	6.6	30.769	6.6	9				
S5W01-15	S5W01	4_S	1000	2	N_N	N_N	3	2.2	30.769	2.2	3				
N2W04-17	N2W04	1_NW	500	2	N_N	N_N	6.68	4.9	30.743	4.9					6.68
N5W08-05	N5W08	1_NW	1250	2	N_N	N_N	5.45	4	30.688	4	5.45				
N5E03-09	N5E03	5_N	1000	2	Y_Y	N_N	31.2	22.9	30.684	22.9	31.2				
N2W09-13	N2W09	2_W	1000	3	N_N	N_N	7.9	5.8	30.657	7.9	5.8				6.3
S1E08-10	S1E08	7_E	1000	2	N_N	N_N	6.4	4.7	30.631	6.4	4.7				
N6E03-13	N6E03	5_N	1250	3	N_N	N_N	4.9	3.6	30.588	3.6	4.4				4.9
S7E03-26	S7E03	4_S	1500	2	N_N	N_N	4.9	3.6	30.588	3.6	4.9				
S4W03-12	S4W03	4_S	1000	2	N_N	N_N	8.3	6.1	30.556	8.3	6.1				
S3E09-20	S3E09	8_SE	1250	2	N_Y	N_N	11.7	8.6	30.542	11.7	8.6				
N2E08-06	N2E08	7_E	1250	2	N_N	N_N	3.4	2.5	30.508		2.5				3.4
N3W06-09	N3W06	1_NW	750	2	N_N	N_N	6.8	5	30.508	5	6.8				
N5W09-04	N5W09	1_NW	1500	2	N_N	N_N	3.4	2.5	30.508		2.5				3.4
N5W13-31	N5W13	1_NW	1750	2	N_N	N_N	3.4	2.5	30.508		3.4				2.5
S7E02-19	S7E02	4_S	1500	2	Y_Y	N_N	49.9	36.7	30.485	36.7	49.9				
S4W08-23	S4W08	3_SW	1250	2	N_N	N_N	7.2	5.3	30.4	7.2	5.3				
N4E09-19	N4E09	6_NE	1250	2	Y_Y	N_N	52.3	38.5	30.396	52.3	38.5				
S5W06-06	S5W06	3_SW	1250	3	N_N	N_N	7.6	5.6	30.303	5.6	7.6				5.6
N1W12-28	N1W12	2_W	1250	2	N_N	N_N	7.6	5.6	30.303	7.6	5.6				
N5W12-17	N5W12	1_NW	1500	2	N_N	N_N	1.9	1.4	30.303	1.9	1.4				
S1W10-11	S1W10	2_W	1000	2	N_N	N_N	5.9	4.35	30.244	5.9	4.35				
S3W05-15	S3W05	3_SW	750	2	N_N	N_N	6.1	4.5	30.189	4.5	6.1				
N5W09-08	N5W09	1_NW	1250	2	N_N	N_N	4.2	3.1	30.137	4.2	3.1				
S5W03-10	S5W03	4_S	1000	2	N_N	N_N	4.2	3.1	30.137	4.2	3.1				
N1W08-07	N1W08	2_W	750	2	N_N	N_N	3.25	2.4	30.088	2.4	3.25				

TABLE 9
Evaluation of Yard Specific Variability
South Minneapolis Soil Arsenic Evaluation

Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
N3W11-21	N3W11	1_NW	1250	2	N_N	N_N	6.5	4.8	30.088	6.5	4.8				
N1W04-15	N1W04	2_W	500	2	N_Y	N_N	10.56	7.8	30.065	7.8					10.56
S1W08-10	S1W08	2_W	750	2	N_N	N_N	9.2	6.8	30	6.8	9.2				
S6E03-12	S6E03	4_S	1250	2	N_N	N_N	9.2	6.8	30	9.2	6.8				
N2W07-02	N2W07	1_NW	750	2	N_N	N_N	2.84	2.1	29.96	2.1					2.84
S4E09-23	S4E09	8_SE	1250	2	N_N	N_N	9.6	7.1	29.94	9.6	7.1				
S4W10-08	S4W10	3_SW	1250	2	N_N	N_N	7.3	5.4	29.921	7.3	5.4				
N4W13-17	N4W13	1_NW	1500	2	N_N	N_N	5	3.7	29.885	5	3.7				
S1E10-12	S1E10	7_E	1250	2	N_N	N_N	5	3.7	29.885	3.7	5				
S6E01-04	S6E01	4_S	1250	2	N_N	N_N	5	3.7	29.885	5	3.7				
N6E08-22	N6E08	6_NE	1500	2	Y_Y	N_N	42.7	31.6	29.879	42.7	31.6				
N3W14-18	N3W14	2_W	1500	2	N_N	N_N	5.4	4	29.787	5.4	4				
N6W02-04	N6W02	5_N	1250	2	N_N	N_N	5.4	4	29.787	5.4	4				
N6E05-24	N6E05	6_NE	1250	2	N_N	N_N	5.8	4.3	29.703	4.3	5.8				
S5E03-31	S5E03	4_S	1000	2	Y_Y	N_N	23.6	17.5	29.684	17.5	23.6				
N3W07-26	N3W07	1_NW	1000	2	N_N	N_N	6.2	4.6	29.63	6.2	4.6				
N4W10-04	N4W10	1_NW	1250	2	N_N	N_N	3.1	2.3	29.63	3.1	2.3				
S5W06-01	S5W06	3_SW	1250	2	N_N	N_N	6.2	4.6	29.63	4.6	6.2				
N3W14-09	N3W14	2_W	1500	2	N_N	N_N	6.6	4.9	29.565	4.9					6.6
N6E07-15	N6E07	6_NE	1500	2	N_N	N_N	6.6	4.9	29.565	6.6	4.9				
S1E07-11	S1E07	7_E	1000	2	N_N	N_N	6.6	4.9	29.565	6.6	4.9				
S2E09-08	S2E09	7_E	1250	2	N_N	N_N	6.6	4.9	29.565	4.9	6.6				
S5W07-19	S5W07	3_SW	1250	2	Y_Y	N_N	29.9	22.2	29.559	22.2	29.9				
N1W05-06	N1W05	2_W	500	2	N_Y	N_N	11	8.17	29.525	11					8.17
N4E02-06	N4E02	5_N	1000	2	N_N	N_N	3.5	2.6	29.508	2.6	3.5				
N4W09-03	N4W09	1_NW	1250	2	N_N	N_N	3.5	2.6	29.508	3.5	2.6				
N5E02-30	N5E02	5_N	1000	2	N_N	N_N	3.5	2.6	29.508	3.5	2.6				
S3E09-19	S3E09	8_SE	1250	2	Y_Y	N_N	30.4	22.6	29.434	22.6	30.4				
N1W10-21	N1W10	2_W	1000	2	N_N	N_N	5.85	4.35	29.412	4.35	5.85				
N4E03-07	N4E03	6_NE	1000	2	N_N	N_N	3.9	2.9	29.412	2.9	3.9				
N6E03-24	N6E03	5_N	1250	2	N_N	N_N	3.9	2.9	29.412	3.9	2.9				
S5E08-10	S5E08	8_SE	1500	2	N_N	N_N	8.2	6.1	29.371	8.2	6.1				
N3W04-10	N3W04	1_NW	750	2	N_N	N_N	4.7	3.5	29.268	4.7	3.5				
N3W05-14	N3W05	1_NW	750	2	N_N	N_N	5.1	3.8	29.213	3.8	5.1				
N6E04-14	N6E04	6_NE	1250	2	N_N	N_N	5.1	3.8	29.213	5.1	3.8				
S1E08-22	S1E08	7_E	1000	2	N_N	N_N	5.1	3.8	29.213	3.8	5.1				
N2W04-18	N2W04	1_NW	500	2	N_N	N_N	9.3	6.93	29.205	6.93	9.3				
S3W04-12	S3W04	3_SW	750	2	N_Y	N_N	11	8.2	29.167	11	8.2				
N6W08-13	N6W08	1_NW	1250	2	N_N	N_N	5.5	4.1	29.167	4.1	5.5				

TABLE 9
Evaluation of Yard Specific Variability
South Minneapolis Soil Arsenic Evaluation

Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
S3W10-23	S3W10	3_SW	1250	2	N_N	N_N	5.5	4.1	29.167	5.5	4.1				6.3
N3W05-04	N3W05	1_NW	750	2	N_N	N_N	6.3	4.7	29.091	4.7					
N3W10-19	N3W10	1_NW	1250	2	N_Y	N_N	13	9.7	29.075	9.7	13				
S6E01-18	S6E01	4_S	1250	2	Y_Y	N_N	39	29.1	29.075	39	29.1				
N2W06-11	N2W06	1_NW	750	2	Y_Y	N_N	60	44.77	29.073	60	44.77				
N1E13-01	N1E13	7_E	1500	2	N_N	N_N	7.5	5.6	29.008	5.6	7.5				
S1W05-07	S1W05	2_W	500	2	N_N	N_N	7.5	5.6	29.008	5.6	7.5				
N5E04-08	N5E04	6_NE	1250	2	N_N	N_N	7.9	5.9	28.986	7.9	5.9				
S2E09-14	S2E09	7_E	1250	2	N_N	N_N	8.3	6.2	28.966	6.2	8.3				
S4W03-19	S4W03	4_S	1000	2	N_N	N_N	4.4	3.3	28.571	4.4	3.3				
N1E10-13	N1E10	7_E	1250	2	N_N	N_N	5.2	3.9	28.571	5.2	3.9				
N3W12-04	N3W12	1_NW	1250	2	N_N	N_N	6.4	4.8	28.571	6.4				4.8	
N4E03-01	N4E03	5_N	1000	2	N_N	N_N	5.2	3.9	28.571	3.9	5.2				
N4W08-33	N4W08	1_NW	1250	2	N_N	N_N	6.4	4.8	28.571	6.4	4.8				
N5W13-27	N5W13	1_NW	1750	2	N_N	N_N	3.2	2.4	28.571	3.2	2.4				
N6E01-05	N6E01	5_N	1250	2	N_N	N_N	5.2	3.9	28.571	5.2	3.9				
S1W10-27	S1W10	2_W	1000	2	N_N	N_N	6.4	4.8	28.571	6.4	4.8				
S2W06-14	S2W06	3_SW	750	2	N_N	N_N	8.4	6.3	28.571	6.3	8.4				
N3E08-03	N3E08	6_NE	1250	2	N_N	N_N	6.8	5.1	28.571	6.8	5.1				
S1E09-15	S1E09	7_E	1250	2	N_N	N_N	6.8	5.1	28.571	6.8	5.1				
N4W12-01	N4W12	1_NW	1500	3	N_N	N_N	4	3	28.571	4	3			3.5	
S4W05-09	S4W05	3_SW	1000	3	N_N	N_N	4	3	28.571	4	3			3.5	
N1W10-14	N1W10	2_W	1000	2	N_N	N_N	4	3	28.571	3	4				
N6W08-19	N6W08	1_NW	1500	2	N_N	N_N	4	3	28.571	3	4				
N1W05-22	N1W05	2_W	500	2	N_N	N_N	7.6	5.7	28.571	7.6	5.7				
N4W11-17	N4W11	1_NW	1500	2	N_N	N_N	4.8	3.6	28.571	4.8	3.6				
S1E08-11	S1E08	7_E	1000	2	N_N	N_N	7.2	5.4	28.571	7.2	5.4				
S1E09-02	S1E09	7_E	1250	2	N_N	N_N	7.6	5.7	28.571	7.6	5.7				
S5E01-12	S5E01	4_S	1000	2	N_N	N_N	4.8	3.6	28.571	3.6	4.8				
N4E01-02	N4E01	5_N	1000	2	N_N	N_N	2.8	2.1	28.571	2.1				2.8	
N5W09-03	N5W09	1_NW	1500	2	N_N	N_N	2.8	2.1	28.571	2.8	2.1				
S1E06-10	S1E06	7_E	750	2	N_N	N_N	5.6	4.2	28.571	4.2	5.6				
S1E09-12	S1E09	7_E	1250	2	N_N	N_N	9.2	6.9	28.571	9.2	6.9				
S4E09-26	S4E09	8_SE	1250	2	Y_Y	N_N	85.3	64.2	28.227	64.2	85.3				
S2E09-11	S2E09	7_E	1250	2	N_N	N_N	9.3	7	28.221	7	9.3				3.915
N1W07-15	N1W07	2_W	750	2	N_N	N_N	5.2	3.915	28.195	5.2					
S1W11-23	S1W11	2_W	1250	2	N_N	N_N	8.5	6.4	28.188	6.4	8.5				
S7E03-07	S7E03	4_S	1500	2	Y_Y	N_N	15	11.3	28.137	15	11.3				
S3W10-07	S3W10	3_SW	1250	2	N_N	N_N	6.9	5.2	28.099	6.9	5.2				

TABLE 9
Evaluation of Yard Specific Variability
South Minneapolis Soil Arsenic Evaluation

Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
S4W10-09	S4W10	3_SW	1250	2	Y_Y	N_N	26	19.6	28.07	26	19.6				
N6E07-22	N6E07	6_NE	1500	2	N_N	N_N	6.5	4.9	28.07	6.5	4.9				
S1W06-21	S1W06	2_W	750	2	N_N	N_N	6.5	4.9	28.07	4.9	6.5				
S1E08-21	S1E08	7_E	1000	2	N_N	N_N	5.3	4	27.957	5.3	4				
S4W04-18	S4W04	3_SW	1000	2	N_N	N_N	5.3	4	27.957	4	5.3				
N2W03-06	N2W03	1_NW	500	3	Y_Y	N_N	49	37	27.907	37	41				49
N1W10-10	N1W10	2_W	1000	2	N_N	N_N	4.9	3.7	27.907	4.9	3.7				
S7W01-10	S7W01	4_S	1500	2	N_N	N_N	4.9	3.7	27.907	4.9	3.7				
S4E09-27	S4E09	8_SE	1250	2	Y_Y	N_N	13.9	10.5	27.869	13.9	10.5				
N4W10-15	N4W10	1_NW	1250	2	N_N	N_N	4.5	3.4	27.848	4.5	3.4				
N4W14-05	N4W14	1_NW	1750	2	N_N	N_N	4.5	3.4	27.848	4.5					3.4
N8W02-04	N8W02	5_N	1750	2	N_N	N_N	4.5	3.4	27.848	4.5	3.4				
N5W08-16	N5W08	1_NW	1250	2	N_N	N_N	4.1	3.1	27.778		4.1				3.1
N6E02-17	N6E02	5_N	1250	2	N_N	N_N	4.1	3.1	27.778	4.1	3.1				
N2W12-23	N2W12	2_W	1250	2	N_N	N_N	3.7	2.8	27.692	2.8	3.7				
S4W05-20	S4W05	3_SW	1000	2	N_N	N_N	3.7	2.8	27.692	2.8	3.7				
N5W12-21	N5W12	1_NW	1500	2	N_N	N_N	3.3	2.5	27.586	2.5	3.3				
N6W10-13	N6W10	1_NW	1500	2	N_N	N_N	3.3	2.5	27.586	2.5	3.3				
S7W02-07	S7W02	4_S	1500	2	N_N	N_N	6.6	5	27.586	5	6.6				
S6E05-01	S6E05	8_SE	1250	2	Y_Y	N_N	29.3	22.2	27.573	22.2	29.3				
S1W11-05	S1W11	2_W	1250	2	N_N	N_N	4.75	3.6	27.545		3.6				4.75
S5E02-01	S5E02	4_S	1000	2	Y_Y	N_N	51.7	39.2	27.503	39.2	51.7				
S1W06-20	S1W06	2_W	750	2	N_N	N_N	9.1	6.9	27.5	9.1	6.9				
S3E09-16	S3E09	8_SE	1250	2	N_N	N_N	9.1	6.9	27.5	6.9	9.1				
N4W09-16	N4W09	1_NW	1250	2	N_N	N_N	8.7	6.6	27.451	6.6	8.7				
N3W12-14	N3W12	2_W	1250	2	N_N	N_N	2.9	2.2	27.451	2.2	2.9				
S6W03-13	S6W03	4_S	1250	2	N_N	N_N	5.8	4.4	27.451	4.4	5.8				
S1W08-26	S1W08	2_W	1000	2	N_N	N_N	5.4	4.1	27.368	4.1	5.4				
S5W03-06	S5W03	4_S	1000	2	N_N	N_N	5.4	4.1	27.368	5.4	4.1				
N1E09-11	N1E09	7_E	1250	2	N_N	N_N	7.9	6	27.338	7.9					6
N2E09-13	N2E09	7_E	1250	2	N_N	N_N	2.5	1.9	27.273	1.9	2.5				
S2E08-02	S2E08	7_E	1000	2	N_N	N_N	5	3.8	27.273	5	3.8				
S4W06-25	S4W06	3_SW	1000	2	N_N	N_N	5	3.8	27.273	5	3.8				
S2W13-21	S2W13	2_W	1500	2	N_N	N_N	7.5	5.7	27.273	7.5	5.7				
S2E09-26	S2E09	7_E	1250	2	N_Y	N_N	12.1	9.2	27.23	12.1	9.2				
S3W04-09	S3W04	3_SW	750	2	N_N	N_N	7.1	5.4	27.2	5.4	7.1				
S5W02-25	S5W02	4_S	1000	3	N_N	N_N	4.6	3.5	27.16	4.6	3.5				3.8
N6E04-15	N6E04	6_NE	1250	2	N_N	N_N	4.6	3.5	27.16	4.6	3.5				
S5E09-01	S5E09	8_SE	1500	2	N_N	N_N	4.6	3.5	27.16	3.5	4.6				

TABLE 9
Evaluation of Yard Specific Variability
South Minneapolis Soil Arsenic Evaluation

Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
S4W08-07	S4W08	3_SW	1250	2	N_N	N_N	6.7	5.1	27.119	5.1	6.7				
N1W08-25	N1W08	2_W	1000	2	N_N	N_N	6.3	4.8	27.027	4.8	6.3				
N3W06-03	N3W06	1_NW	1000	2	N_N	N_N	6.3	4.8	27.027	6.3					4.8
S4E01-29	S4E01	4_S	750	2	N_N	N_N	6.3	4.8	27.027	6.3	4.8				
N5W12-28	N5W12	1_NW	1750	2	N_N	N_N	2.1	1.6	27.027	2.1	1.6				
N1W07-27	N1W07	2_W	750	2	N_N	N_N	5.9	4.5	26.923	5.9					4.5
N2E09-04	N2E09	7_E	1250	2	N_N	N_N	5.9	4.5	26.923	5.9	4.5				
S3W11-05	S3W11	3_SW	1250	2	N_N	N_N	5.9	4.5	26.923	5.9	4.5				
S2W06-13	S2W06	3_SW	750	2	Y_Y	N_N	59	45	26.923	59	45				
N2W11-23	N2W11	2_W	1250	2	N_N	N_N	3.8	2.9	26.866	2.9	3.8				
S1W06-16	S1W06	2_W	750	2	N_N	N_N	7.6	5.8	26.866	5.8	7.6				
S3W02-08	S3W02	4_S	750	2	N_N	N_N	7.6	5.8	26.866	7.6	5.8				
S4E01-14	S4E01	4_S	1000	2	N_N	N_N	7.6	5.8	26.866	5.8	7.6				
S2W06-08	S2W06	3_SW	750	2	N_N	N_N	7.2	5.5	26.772	7.2	5.5				
S5E03-20	S5E03	4_S	1250	2	N_N	N_N	7.2	5.5	26.772	7.2	5.5				
S1W08-03	S1W08	2_W	750	2	Y_Y	N_N	17	13	26.667	13	17				
N3W14-15	N3W14	2_W	1500	2	N_N	N_N	3.4	2.6	26.667	2.6	3.4				
N4W07-30	N4W07	1_NW	1000	2	N_N	N_N	3.4	2.6	26.667	3.4	2.6				
N5W12-04	N5W12	1_NW	1750	2	N_N	N_N	1.7	1.3	26.667	1.7	1.3				
N6E02-22	N6E02	5_N	1250	2	N_N	N_N	3.4	2.6	26.667	3.4	2.6				
N1W05-07	N1W05	2_W	500	2	N_N	N_N	8.1	6.2	26.573	6.2	8.1				
S3W03-20	S3W03	3_SW	750	2	N_N	N_N	8.1	6.2	26.573	6.2	8.1				
S6E02-14	S6E02	4_S	1250	2	Y_Y	N_N	35.4	27.1	26.56	27.1	35.4				
N4E03-12	N4E03	6_NE	1000	2	N_N	N_N	6.4	4.9	26.549	6.4	4.9				
N3W06-06	N3W06	1_NW	750	2	N_N	N_N	6.53	5	26.539	5					6.53
N4W08-17	N4W08	1_NW	1250	2	N_N	N_N	9.4	7.2	26.506	9.4					7.2
S6E02-19	S6E02	4_S	1250	2	N_N	N_N	4.7	3.6	26.506	4.7	3.6				
S3E08-08	S3E08	8_SE	1250	2	Y_Y	N_N	33.8	25.9	26.466	25.9	33.8				
N3W09-23	N3W09	1_NW	1000	2	N_N	N_N	6	4.6	26.415	6	4.6				
N5E04-19	N5E04	6_NE	1000	2	N_N	N_N	3	2.3	26.415	2.3	3				
S6E01-07	S6E01	4_S	1250	2	N_N	N_N	7.3	5.6	26.357	7.3	5.6				
N4E03-10	N4E03	6_NE	1000	2	N_N	N_N	5.6	4.3	26.263	5.6	4.3				
N5W07-01	N5W07	1_NW	1250	2	N_N	N_N	5.6	4.3	26.263	4.3	5.6				
S2W06-02	S2W06	3_SW	750	2	N_N	N_N	6.9	5.3	26.23	5.3	6.9				
N5W08-14	N5W08	1_NW	1250	3	N_N	N_N	4.1	3.15	26.207	3.6	4.1				3.15
N3W06-01	N3W06	1_NW	1000	2	N_N	N_N	5.2	4	26.087	5.2	4				
N3W12-08	N3W12	1_NW	1250	2	N_N	N_N	2.6	2	26.087	2	2.6				
N4W13-13	N4W13	1_NW	1500	2	N_N	N_N	5.2	4	26.087	5.2	4				
N5W12-27	N5W12	1_NW	1750	2	N_N	N_N	2.6	2	26.087	2.6	2				

TABLE 9
Evaluation of Yard Specific Variability
South Minneapolis Soil Arsenic Evaluation

Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
N3W10-04	N3W10	1_NW	1250	2	N_N	N_N	6.5	5	26.087	6.5	5				
S2W07-22	S2W07	2_W	750	2	N_N	N_N	6.5	5	26.087	6.5	5				
S5E02-25	S5E02	4_S	1000	2	N_N	N_N	7.8	6	26.087	6	7.8				
S5W06-19	S5W06	3_SW	1250	2	Y_Y	N_N	39.1	30.1	26.012	30.1	39.1				
N5W12-15	N5W12	1_NW	1500	2	N_N	N_N	7.4	5.7	25.954	7.4	5.7				
S5E09-12	S5E09	8_SE	1500	2	N_N	N_N	7.4	5.7	25.954	7.4	5.7				
N4W10-03	N4W10	1_NW	1250	2	N_N	N_N	2.725	2.1	25.907	2.1	2.725				
N5E07-07	N5E07	6_NE	1500	2	N_N	N_N	4.8	3.7	25.882	4.8	3.7				
N6E08-03	N6E08	6_NE	1500	2	N_N	N_N	4.8	3.7	25.882	4.8	3.7				
S1W08-06	S1W08	2_W	750	2	N_N	N_N	8.3	6.4	25.85	8.3	6.4				
N3E09-18	N3E09	7_E	1250	2	N_N	N_N	3.5	2.7	25.806	2.7					3.5
S6W04-02	S6W04	4_S	1250	2	N_N	N_N	3.5	2.7	25.806	2.7	3.5				
S3W11-08	S3W11	3_SW	1250	2	N_N	N_N	9.2	7.1	25.767	9.2	7.1				
N8W02-11	N8W02	5_N	1750	2	Y_Y	N_N	24.1	18.6	25.761	18.6	24.1				
S5W02-04	S5W02	4_S	1000	2	N_N	N_N	5.7	4.4	25.743	5.7	4.4				
N3W10-11	N3W10	1_NW	1250	2	N_N	N_N	4.4	3.4	25.641	4.4	3.4				
N5E05-20	N5E05	6_NE	1000	2	N_N	N_N	4.4	3.4	25.641	4.4	3.4				
S7E01-12	S7E01	4_S	1500	2	N_N	N_N	4.4	3.4	25.641	4.4	3.4				
N2W07-12	N2W07	1_NW	750	2	N_N	N_N	6.6	5.1	25.641	5.1	6.6				
S1W13-25	S1W13	2_W	1500	2	N_N	N_N	6.6	5.1	25.641	5.1	6.6				
S7E04-23	S7E04	4_S	1500	2	N_N	N_N	9.7	7.5	25.581	9.7	7.5				
N1W05-13	N1W05	2_W	500	2	N_N	N_N	3	2.32	25.564	3					2.32
N6E08-24	N6E08	6_NE	1500	2	N_N	N_N	7.5	5.8	25.564	7.5	5.8				
S2W07-06	S2W07	3_SW	750	2	N_N	N_N	7.5	5.8	25.564	5.8	7.5				
S5E08-18	S5E08	8_SE	1500	2	N_Y	N_N	10.6	8.2	25.532	8.2	10.6				
S4W06-08	S4W06	3_SW	1000	2	N_N	N_N	5.3	4.1	25.532	5.3	4.1				
S7W02-09	S7W02	4_S	1500	2	N_N	N_N	5.3	4.1	25.532	4.1	5.3				
N3W13-22	N3W13	2_W	1500	2	N_N	N_N	8.4	6.5	25.503	8.4	6.5				
N1W04-23	N1W04	1_NW	500	2	N_N	N_N	6.2	4.8	25.455	6.2	4.8				
N2W07-09	N2W07	1_NW	750	2	N_N	N_N	6.2	4.8	25.455	4.8	6.2				
N3E10-21	N3E10	7_E	1250	2	N_N	N_N	6.2	4.8	25.455	6.2	4.8				
N3W08-08	N3W08	1_NW	1000	2	N_N	N_N	3.1	2.4	25.455	3.1	2.4				
S2E09-13	S2E09	7_E	1250	2	N_N	N_N	9.3	7.2	25.455	9.3	7.2				
S2W11-01	S2W11	2_W	1250	2	N_N	N_N	6.2	4.8	25.455	6.2	4.8				
N1W09-16	N1W09	2_W	1000	2	N_N	N_N	4	3.1	25.352	3.1	4				
N2W12-20	N2W12	2_W	1250	2	N_N	N_N	4.9	3.8	25.287	3.8	4.9				
N3W07-30	N3W07	1_NW	1000	2	N_N	N_N	4.9	3.8	25.287	3.8	4.9				
N4W13-21	N4W13	1_NW	1500	2	N_N	N_N	5.8	4.5	25.243	5.8	4.5				
S6E03-23	S6E03	4_S	1250	2	N_N	N_N	5.8	4.5	25.243	5.8	4.5				

TABLE 9
Evaluation of Yard Specific Variability
South Minneapolis Soil Arsenic Evaluation

Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
S2W10-08	S2W10	2_W	1000	2	N_N	N_N	6.7	5.2	25.21	5.2	6.7				
N4W14-30	N4W14	1_NW	1750	2	N_N	N_N	8.5	6.6	25.166		8.5				6.6
S4W04-11	S4W04	3_SW	1000	2	Y_Y	N_N	51	39.6	25.166	39.6	51				
S3E08-07	S3E08	8_SE	1250	2	Y_Y	N_N	13.5	10.5	25	13.5	10.5				
N1E10-10	N1E10	7_E	1250	2	N_N	N_N	3.6	2.8	25	3.6	2.8				
N4E03-09	N4E03	6_NE	1000	2	N_N	N_N	3.6	2.8	25	3.6	2.8				
S2E09-10	S2E09	7_E	1250	2	N_N	N_N	7.2	5.6	25	7.2	5.6				
S3W02-03	S3W02	4_S	500	2	N_N	N_N	6.3	4.9	25	6.3	4.9				
S4W05-11	S4W05	3_SW	1000	2	N_N	N_N	6.3	4.9	25	4.9	6.3				
N2W06-22	N2W06	1_NW	750	2	N_N	N_N	4.6	3.58	24.939	4.6					3.58
S2W08-05	S2W08	2_W	1000	2	N_N	N_N	6.1	4.75	24.885	6.1	4.75				
S5W01-24	S5W01	4_S	1000	2	N_N	N_N	8.6	6.7	24.837	8.6	6.7				
S3W07-19	S3W07	3_SW	1000	3	Y_Y	N_N	77	60	24.818	60	73				77
N3W05-10	N3W05	1_NW	750	2	N_N	N_N	6.8	5.3	24.793	5.3	6.8				
N3W07-14	N3W07	1_NW	1000	2	N_N	N_N	5.9	4.6	24.762	4.6	5.9				
N7W09-10	N7W09	1_NW	1750	2	N_N	N_N	5	3.9	24.719	5	3.9				
N3E08-23	N3E08	6_NE	1250	2	Y_Y	N_N	23.2	18.1	24.697	23.2	18.1				
S1E07-18	S1E07	7_E	1000	2	N_N	N_N	9.1	7.1	24.691	7.1	9.1				
N6W08-09	N6W08	1_NW	1500	2	Y_Y	N_N	20.5	16	24.658	16	20.5				
N1W09-08	N1W09	2_W	1000	2	N_N	N_N	4.1	3.2	24.658	3.2	4.1				
N2W07-22	N2W07	2_W	750	2	N_N	N_N	4.1	3.2	24.658	4.1	3.2				
N5E06-08	N5E06	6_NE	1250	2	N_N	N_N	4.1	3.2	24.658	3.2	4.1				
N6W11-05	N6W11	1_NW	1500	2	N_N	N_N	4.1	3.2	24.658	4.1					3.2
S7W01-11	S7W01	4_S	1500	2	N_N	N_N	4.1	3.2	24.658	4.1	3.2				
S2W12-14	S2W12	2_W	1250	2	N_N	N_N	7.3	5.7	24.615	7.3	5.7				
N4W13-01	N4W13	1_NW	1500	3	N_N	N_N	3.2	2.5	24.561	2.9	3.2				2.5
N2W10-02	N2W10	2_W	1250	2	N_N	N_N	3.2	2.5	24.561	3.2	2.5				
N3W09-29	N3W09	1_NW	1250	2	N_N	N_N	5.5	4.3	24.49	4.3	5.5				
S5E08-20	S5E08	8_SE	1500	2	N_N	N_N	7.8	6.1	24.46	6.1	7.8				
S1E09-04	S1E09	7_E	1250	2	N_N	N_N	6.9	5.4	24.39	5.4	6.9				
S4E02-02	S4E02	4_S	750	2	N_N	N_N	6.9	5.4	24.39	6.9	5.4				
N5W12-29	N5W12	1_NW	1750	2	N_N	N_N	2.3	1.8	24.39	2.3	1.8				
S5W04-22	S5W04	3_SW	1000	2	N_N	N_N	4.6	3.6	24.39	4.6	3.6				
S3E08-04	S3E08	8_SE	1250	2	N_N	N_N	8.3	6.5	24.324	6.5	8.3				
S3E10-06	S3E10	8_SE	1500	2	N_N	N_N	8.3	6.5	24.324	6.5	8.3				
S4E07-18	S4E07	8_SE	1250	2	N_N	N_N	8.3	6.5	24.324	6.5	8.3				
S3W03-22	S3W03	3_SW	750	2	N_N	N_N	6	4.7	24.299	6	4.7				
S3W08-15	S3W08	3_SW	1000	2	N_N	N_N	6	4.7	24.299	6	4.7				
N2W12-07	N2W12	2_W	1250	2	N_N	N_N	4.85	3.8	24.277	3.8	4.85				

TABLE 9
Evaluation of Yard Specific Variability
South Minneapolis Soil Arsenic Evaluation

Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
N4E05-01	N4E05	6_NE	1000	3	N_N	N_N	3.7	2.9	24.242	3.7	3.5				2.9
S6E05-07	S6E05	8_SE	1250	2	N_Y	N_N	11.1	8.7	24.242	11.1	8.7				
N6W11-03	N6W11	1_NW	1500	2	N_N	N_N	5.1	4	24.176	5.1	4				
S5W07-07	S5W07	3_SW	1250	2	N_N	N_N	5.1	4	24.176	5.1	4				
N2W06-09	N2W06	1_NW	750	2	N_N	N_N	5.6	4.4	24	4.4	5.6				
N5E02-15	N5E02	5_N	1000	2	N_N	N_N	4.2	3.3	24	4.2	3.3				
N5W13-30	N5W13	1_NW	1750	2	N_N	N_N	2.8	2.2	24	2.2	2.8				
S1W06-07	S1W06	2_W	750	2	N_N	N_N	9.8	7.7	24	9.8	7.7				
S1W10-06	S1W10	2_W	1000	2	N_N	N_N	4.2	3.3	24	3.3	4.2				
N2W04-22	N2W04	1_NW	500	2	N_N	N_N	8.5	6.68	23.979	6.68	8.5				
N1W05-15	N1W05	2_W	500	2	N_N	N_N	8.1	6.37	23.912	8.1					6.37
S4E01-11	S4E01	4_S	750	2	Y_Y	N_N	31.9	25.1	23.86	31.9	25.1				
N4W12-04	N4W12	1_NW	1500	3	N_N	N_N	6.1	4.8	23.853	4.8	6.1				5.7
S4W04-01	S4W04	3_SW	750	3	N_N	N_N	5.4	4.25	23.834	5.3	5.4				4.25
N1W07-12	N1W07	2_W	750	2	N_N	N_N	4.7	3.7	23.81	4.7	3.7				
N6E04-23	N6E04	5_N	1250	2	N_N	N_N	4.7	3.7	23.81	4.7					3.7
S4E02-25	S4E02	4_S	750	2	N_N	N_N	4.7	3.7	23.81	4.7	3.7				
S5W05-01	S5W05	3_SW	1000	2	N_N	N_N	4.7	3.7	23.81	4.7					3.7
N1W11-05	N1W11	2_W	1250	2	N_N	N_N	3.3	2.6	23.729	2.6	3.3				
N3W10-15	N3W10	1_NW	1250	2	N_N	N_N	3.3	2.6	23.729	3.3	2.6				
S4W09-08	S4W09	3_SW	1250	2	N_N	N_N	8.5	6.7	23.684	6.7	8.5				
S5W07-06	S5W07	3_SW	1250	2	N_N	N_N	5.2	4.1	23.656	4.1	5.2				
S7E01-19	S7E01	4_S	1500	2	N_N	N_N	5.2	4.1	23.656	5.2	4.1				
S1W10-05	S1W10	2_W	1000	2	N_N	N_N	6.4	5.05	23.581	6.4					5.05
N5E06-24	N5E06	6_NE	1250	2	N_N	N_N	5.7	4.5	23.529	5.7	4.5				
N3W08-07	N3W08	1_NW	1000	3	N_N	N_N	5.32	4.2	23.529	4.4	4.2				5.32
N3W11-16	N3W11	2_W	1250	3	N_N	N_N	3.8	3	23.529	3	3.8				3.2
N5E02-23	N5E02	5_N	1000	2	N_N	N_N	1.9	1.5	23.529	1.9					1.5
S3W03-18	S3W03	3_SW	750	2	N_N	N_N	7.6	6	23.529	6	7.6				
S5W02-23	S5W02	4_S	1000	2	N_N	N_N	6.2	4.9	23.423	6.2	4.9				
S5W04-18	S5W04	4_S	1250	3	N_N	N_N	4.3	3.4	23.377	4	3.4				4.3
S4E09-11	S4E09	8_SE	1500	2	N_N	N_N	8.6	6.8	23.377	6.8	8.6				
S5W07-27	S5W07	3_SW	1250	2	N_N	N_N	6.7	5.3	23.333	6.7	5.3				
N3E08-18	N3E08	6_NE	1000	2	N_N	N_N	4.8	3.8	23.256	3.8	4.8				
N6E08-11	N6E08	6_NE	1500	2	N_N	N_N	4.8	3.8	23.256	4.8	3.8				
S4E08-02	S4E08	8_SE	1250	2	N_N	N_N	7.2	5.7	23.256	5.7	7.2				
S5E09-19	S5E09	8_SE	1500	2	N_N	N_N	4.8	3.8	23.256	4.8	3.8				
N2W03-12	N2W03	1_NW	500	2	N_N	N_N	9.97	7.9	23.167	7.9	9.97				
N1W10-23	N1W10	2_W	1000	2	N_N	N_N	5.3	4.2	23.158	4.2	5.3				

TABLE 9
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South Minneapolis Soil Arsenic Evaluation

Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
N4E09-03	N4E09	6_NE	1500	2	N_N	N_N	5.3	4.2	23.158	5.3	4.2				
N1W05-18	N1W05	2_W	500	2	N_N	N_N	8.2	6.5	23.129	8.2	6.5				
N5W11-01	N5W11	1_NW	1500	2	N_N	N_N	2.3333	1.85	23.108	1.85	2.3333				
S7E04-02	S7E04	4_S	1500	2	N_Y	N_N	11.6	9.2	23.077	11.6	9.2				
N4E09-06	N4E09	6_NE	1500	2	N_N	N_N	5.8	4.6	23.077	5.8	4.6				
S1W09-01	S1W09	2_W	1000	2	N_N	N_N	5.8	4.6	23.077	4.6	5.8				
S1W07-05	S1W07	2_W	750	2	N_N	N_N	9.2	7.3	23.03	7.3	9.2				
N6E02-20	N6E02	5_N	1250	2	N_N	N_N	3.4	2.7	22.951	3.4	2.7				
S2W13-20	S2W13	2_W	1500	2	N_N	N_N	6.8	5.4	22.951	5.4	6.8				
S5E09-02	S5E09	8_SE	1500	2	N_N	N_N	3.4	2.7	22.951	2.7	3.4				
S1W08-24	S1W08	2_W	1000	2	N_Y	N_N	10.7	8.5	22.917	10.7	8.5				
S4W10-22	S4W10	3_SW	1250	2	N_N	N_N	7.3	5.8	22.901	5.8	7.3				
N4W14-02	N4W14	1_NW	1750	3	N_N	N_N	3.9	3.1	22.857	3.9	3.2				3.1
N6E02-19	N6E02	5_N	1250	2	N_N	N_N	3.9	3.1	22.857	3.9	3.1				
S4E02-14	S4E02	4_S	1000	2	N_N	N_N	3.9	3.1	22.857	3.1	3.9				
S4W07-25	S4W07	3_SW	1000	2	N_N	N_N	3.9	3.1	22.857	3.1	3.9				
N3E08-08	N3E08	6_NE	1250	2	Y_Y	N_N	47.9	38.1	22.791	47.9	38.1				
N1W09-11	N1W09	2_W	1000	3	N_N	N_N	4.4	3.5	22.785	3.5	4.3				4.4
S7W01-04	S7W01	4_S	1250	2	N_N	N_N	4.4	3.5	22.785	4.4	3.5				
N4W14-11	N4W14	1_NW	1500	2	N_N	N_N	4.9	3.9	22.727	4.9	3.9				
N6E02-07	N6E02	5_N	1250	2	N_N	N_N	4.9	3.9	22.727		3.9				4.9
S1W08-01	S1W08	2_W	1000	3	N_N	N_N	5.15	4.1	22.703	4.1	5.15				5.1
N6E02-29	N6E02	5_N	1250	2	N_N	N_N	5.4	4.3	22.68	5.4					4.3
N3W07-29	N3W07	1_NW	1000	2	Y_Y	N_N	59	47	22.642	47	59				
N5E07-15	N5E07	6_NE	1250	2	N_N	N_N	5.9	4.7	22.642	5.9	4.7				
N1W08-14	N1W08	2_W	750	4	N_N	N_N	4.77	3.8	22.637	3.8	4.3				3.8
N3E08-12	N3E08	6_NE	1250	2	N_N	N_N	6.4	5.1	22.609	6.4	5.1				
S7E04-15	S7E04	4_S	1500	2	N_N	N_N	6.4	5.1	22.609	6.4	5.1				
N4W07-26	N4W07	1_NW	1000	2	N_N	N_N	6.9	5.5	22.581	6.9	5.5				
S2W10-03	S2W10	2_W	1000	2	N_N	N_N	6.9	5.5	22.581	5.5	6.9				
S2E08-08	S2E08	7_E	1000	2	N_N	N_N	7.4	5.9	22.556	5.9	7.4				
S4W10-11	S4W10	3_SW	1250	2	N_N	N_N	8.9	7.1	22.5	8.9	7.1				
S6E03-08	S6E03	4_S	1250	2	N_N	N_N	9.9	7.9	22.472	9.9	7.9				
N3W07-10	N3W07	1_NW	1000	2	N_N	N_N	5	3.99	22.469	5					3.99
N1W07-02	N1W07	2_W	750	2	N_N	N_N	6.89	5.5	22.437	5.5	6.89				
S4W09-24	S4W09	3_SW	1250	2	N_N	N_N	7	5.6	22.222	5.6	7				
N5W09-11	N5W09	1_NW	1250	2	N_N	N_N	3	2.4	22.222	3	2.4				
N6E02-48	N6E02	5_N	1250	2	N_N	N_N	6	4.8	22.222		6				4.8
S3W06-29	S3W06	3_SW	1000	2	N_N	N_N	6	4.8	22.222	6	4.8				

TABLE 9
Evaluation of Yard Specific Variability
South Minneapolis Soil Arsenic Evaluation

Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
N5W07-02	N5W07	1_NW	1250	3	N_N	N_N	4.5	3.6	22.222	4.5	3.7				3.6
N4W10-20	N4W10	1_NW	1250	2	N_N	N_N	2.5	2	22.222	2.5	2				
S1W08-17	S1W08	2_W	1000	2	N_N	N_N	6.5	5.2	22.222	6.5	5.2				
S4E02-03	S4E02	4_S	750	2	N_N	N_N	5	4	22.222	5	4				
S5W05-07	S5W05	3_SW	1000	2	N_N	N_N	5	4	22.222	4	5				
N5E02-14	N5E02	5_N	1000	2	N_N	N_N	4	3.2	22.222		3.2				4
N6W11-02	N6W11	1_NW	1500	2	N_N	N_N	4	3.2	22.222	4	3.2				
S2W08-09	S2W08	3_SW	1000	2	N_N	N_N	4	3.2	22.222	3.2	4				
N1W07-08	N1W07	2_W	750	2	N_N	N_N	5.87	4.7	22.138	4.7	5.87				
N1W07-05	N1W07	2_W	750	2	N_N	N_N	7.11	5.7	22.014	5.7	7.11				
N3W07-16	N3W07	1_NW	1000	2	N_N	N_N	5.7	4.57	22.006	5.7	4.57				
S5W03-15	S5W03	4_S	1250	2	Y_Y	N_N	25.3	20.3	21.93	20.3	25.3				
N6E07-11	N6E07	6_NE	1500	2	N_N	N_N	8.1	6.5	21.918	8.1	6.5				
S3W05-28	S3W05	3_SW	750	2	N_N	N_N	7.1	5.7	21.875	5.7	7.1				
S7E04-06	S7E04	4_S	1500	2	N_N	N_N	6.6	5.3	21.849	5.3	6.6				
N1W11-11	N1W11	2_W	1250	2	N_N	N_N	6.1	4.9	21.818	4.9	6.1				
N3W06-13	N3W06	1_NW	750	2	N_N	N_N	6.1	4.9	21.818	4.9					6.1
N3W09-19	N3W09	1_NW	1000	2	N_N	N_N	6.1	4.9	21.818	6.1					4.9
S3W05-24	S3W05	3_SW	750	2	N_N	N_N	6.1	4.9	21.818	6.1	4.9				
S5W06-03	S5W06	3_SW	1000	2	N_N	N_N	6.1	4.9	21.818	4.9	6.1				
N3W12-26	N3W12	1_NW	1500	2	N_N	N_N	5.6	4.5	21.782	5.6	4.5				
N4W13-22	N4W13	1_NW	1500	2	N_N	N_N	5.6	4.5	21.782	5.6	4.5				
N5E04-07	N5E04	6_NE	1250	2	N_N	N_N	5.6	4.5	21.782	5.6	4.5				
N3E09-25	N3E09	6_NE	1250	2	Y_Y	N_N	20.9	16.8	21.751	16.8	20.9				
N3W14-08	N3W14	2_W	1500	2	N_N	N_N	5.1	4.1	21.739	5.1	4.1				
S6W05-18	S6W05	3_SW	1250	2	N_N	N_N	5.1	4.1	21.739	4.1	5.1				
N1W04-06	N1W04	2_W	500	2	N_N	N_N	4.6	3.7	21.687	3.7	4.6				
N2E09-20	N2E09	7_E	1250	2	N_N	N_N	4.6	3.7	21.687		3.7				4.6
N5W13-29	N5W13	1_NW	1750	2	N_N	N_N	4.6	3.7	21.687	3.7	4.6				
S5E09-16	S5E09	8_SE	1500	2	N_N	N_N	4.6	3.7	21.687	4.6	3.7				
N5E01-17	N5E01	5_N	1000	2	N_N	N_N	8.2	6.6	21.622	6.6	8.2				
S5W04-23	S5W04	3_SW	1000	2	N_N	N_N	4.1	3.3	21.622	3.3	4.1				
S7E03-20	S7E03	4_S	1500	2	N_N	N_N	4.1	3.3	21.622	4.1	3.3				
S1W07-13	S1W07	2_W	750	2	N_N	N_N	7.7	6.2	21.583	7.7	6.2				
N2W10-03	N2W10	2_W	1250	2	N_N	N_N	3.6	2.9	21.538	2.9	3.6				
N4W11-10	N4W11	1_NW	1250	2	N_N	N_N	3.6	2.9	21.538	2.9	3.6				
N2W06-02	N2W06	1_NW	750	2	N_N	N_N	5.2	4.19	21.512	5.2					4.19
S2E09-05	S2E09	7_E	1250	2	N_N	N_N	6.7	5.4	21.488	5.4	6.7				
S5E09-07	S5E09	8_SE	1500	2	Y_Y	N_N	26.3	21.2	21.474	26.3	21.2				

TABLE 9
Evaluation of Yard Specific Variability
South Minneapolis Soil Arsenic Evaluation

Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
N1W06-01	N1W06	2_W	750	2	N_N	N_N	6.2	5	21.429	6.2	5				
N2W11-22	N2W11	2_W	1250	2	N_N	N_N	6.2	5	21.429	6.2	5				
N6E05-08	N6E05	6_NE	1250	2	N_N	N_N	3.1	2.5	21.429	3.1	2.5				
S1E09-13	S1E09	7_E	1250	2	N_N	N_N	9.3	7.5	21.429	9.3	7.5				
N1W05-12	N1W05	2_W	500	2	N_N	N_N	8.8	7.1	21.384	7.1	8.8				
S7W02-04	S7W02	4_S	1250	2	N_N	N_N	5.7	4.6	21.359	5.7	4.6				
N1W05-19	N1W05	2_W	500	2	N_N	N_N	7.9	6.38	21.289	7.9					6.38
N5E01-20	N5E01	5_N	1000	3	N_N	N_N	5.2	4.2	21.277	4.2	5.2				4.5
N1W11-08	N1W11	2_W	1250	2	N_N	N_N	5.2	4.2	21.277	4.2	5.2				
N5E05-30	N5E05	6_NE	1250	2	N_N	N_N	5.2	4.2	21.277	5.2	4.2				
N2W06-08	N2W06	1_NW	750	2	N_N	N_N	5.69	4.6	21.186	5.69	4.6				
N6E06-06	N6E06	6_NE	1500	2	N_N	N_N	4.7	3.8	21.176	4.7	3.8				
S4E01-21	S4E01	4_S	1000	2	N_N	N_N	6.8	5.5	21.138	5.5	6.8				
S6W05-17	S6W05	3_SW	1250	2	Y_Y	N_N	34.6	28	21.086	28	34.6				
N2W04-13	N2W04	1_NW	500	2	N_N	N_N	8.6	6.96	21.08	8.6	6.96				
N2W10-32	N2W10	2_W	1250	2	N_N	N_N	2.1	1.7	21.053	2.1	1.7				
N6E01-07	N6E01	5_N	1250	2	N_N	N_N	4.2	3.4	21.053	4.2	3.4				
S6E05-09	S6E05	8_SE	1250	2	N_N	N_N	8.4	6.8	21.053	8.4	6.8				
N3W13-04	N3W13	1_NW	1500	2	N_N	N_N	6.3	5.1	21.053	6.3	5.1				
S1W13-08	S1W13	2_W	1250	2	N_N	N_N	6.3	5.1	21.053	6.3					5.1
N1W07-18	N1W07	2_W	750	2	N_N	N_N	5.68	4.6	21.012	5.68	4.6				
S2W12-13	S2W12	2_W	1250	2	Y_Y	N_N	14.2	11.5	21.012	14.2	11.5				
N5E05-25	N5E05	6_NE	1250	2	N_N	N_N	10	8.1	20.994	10	8.1				
S7E04-12	S7E04	4_S	1500	2	N_N	N_N	7.9	6.4	20.979	7.9	6.4				
S7W02-13	S7W02	4_S	1500	2	N_N	N_N	5.8	4.7	20.952	4.7					5.8
N4W11-23	N4W11	1_NW	1500	2	N_N	N_N	3.7	3	20.896	3.7	3				
N6E04-20	N6E04	5_N	1250	2	N_N	N_N	3.7	3	20.896	3	3.7				
S2E09-03	S2E09	7_E	1250	2	N_N	N_N	7.4	6	20.896	7.4	6				
S3W11-04	S3W11	3_SW	1250	2	N_N	N_N	7.4	6	20.896	7.4	6				
S1W07-20	S1W07	2_W	750	2	N_N	N_N	9	7.3	20.859	9	7.3				
S1E06-11	S1E06	7_E	750	2	N_Y	N_N	10.6	8.6	20.833	8.6	10.6				
N3W07-15	N3W07	1_NW	1000	2	N_N	N_N	5.3	4.3	20.833	5.3	4.3				
S4W05-27	S4W05	3_SW	1000	2	N_N	N_N	5.3	4.3	20.833	4.3	5.3				
S3W06-20	S3W06	3_SW	1000	2	Y_Y	N_N	43.5	35.3	20.812	43.5	35.3				
S1E08-27	S1E08	7_E	1000	2	N_N	N_N	6.9	5.6	20.8	6.9	5.6				
N2W11-20	N2W11	2_W	1250	3	N_N	N_N	8	6.5	20.69	8	7.2				6.5
N4E06-11	N4E06	6_NE	1000	2	N_N	N_N	3.2	2.6	20.69	3.2	2.6				
N5E01-09	N5E01	5_N	1000	2	N_N	N_N	3.2	2.6	20.69	2.6	3.2				
N5W08-24	N5W08	1_NW	1250	2	N_N	N_N	6.4	5.2	20.69	5.2	6.4				

TABLE 9
Evaluation of Yard Specific Variability
South Minneapolis Soil Arsenic Evaluation

Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
S2W05-08	S2W05	3_SW	750	2	N_N	N_N	4.8	3.9	20.69	4.8	3.9				
S5E03-08	S5E03	8_SE	1000	2	N_N	N_N	4.8	3.9	20.69	4.8	3.9				
S5W01-25	S5W01	4_S	1000	2	Y_Y	N_N	43.8	35.6	20.655	35.6	43.8				
S4W03-11	S4W03	4_S	1000	2	N_N	N_N	9.1	7.4	20.606	9.1	7.4				
N4W09-26	N4W09	1_NW	1250	2	N_N	N_N	7.5	6.1	20.588	7.5	6.1				
S6E05-13	S6E05	8_SE	1250	2	N_Y	N_N	11.8	9.6	20.561	9.6	11.8				
N1W07-01	N1W07	2_W	750	2	N_N	N_N	5.16	4.2	20.513	4.2	5.16				
N1W07-21	N1W07	2_W	750	2	N_N	N_N	4.3	3.5	20.513	4.3	3.5				
S4E03-04	S4E03	4_S	1000	2	N_N	N_N	4.3	3.5	20.513	4.3	3.5				
N5E07-11	N5E07	6_NE	1250	2	N_N	N_N	8.1	6.6	20.408	8.1	6.6				
N2W11-15	N2W11	2_W	1250	2	N_N	N_N	2.7	2.2	20.408	2.2	2.7				
S3W11-10	S3W11	3_SW	1250	2	N_N	N_N	9.2	7.5	20.359	9.2	7.5				
N3W13-14	N3W13	2_W	1500	3	N_N	N_N	7.6	6.2	20.29	7.6	7				6.2
S3W11-11	S3W11	3_SW	1250	2	N_N	N_N	7.6	6.2	20.29	7.6	6.2				
S1E07-19	S1E07	7_E	1000	2	N_N	N_N	8.7	7.1	20.253	8.7	7.1				
S5E09-22	S5E09	8_SE	1500	2	N_N	N_N	8.7	7.1	20.253	7.1	8.7				
N4W07-34	N4W07	1_NW	1000	2	N_N	N_N	7.1	5.8	20.155	7.1	5.8				
S6E03-11	S6E03	4_S	1250	2	N_N	N_N	7.1	5.8	20.155	5.8	7.1				
N4W12-19	N4W12	1_NW	1500	2	N_N	N_N	4.65	3.8	20.118	3.8					4.65
N3W05-08	N3W05	1_NW	750	2	N_N	N_N	4.4	3.6	20	4.4	3.6				
S3W04-17	S3W04	3_SW	750	2	N_N	N_N	3.3	2.7	20	2.7	3.3				
S3W07-26	S3W07	3_SW	1000	2	N_N	N_N	5.5	4.5	20	4.5	5.5				
S4E08-22	S4E08	8_SE	1250	2	N_N	N_N	8.8	7.2	20	7.2	8.8				
S5E03-06	S5E03	8_SE	1000	2	N_N	N_N	4.4	3.6	20	3.6	4.4				
S5W04-09	S5W04	4_S	1000	2	N_N	N_N	5.5	4.5	20	5.5	4.5				
S7W03-22	S7W03	4_S	1500	2	Y_Y	N_N	63.3	51.8	19.983	51.8	63.3				
N2E08-11	N2E08	7_E	1000	3	N_N	N_N	7.2	5.9	19.847	7.2	6.5				5.9
N2W08-15	N2W08	2_W	1000	3	N_N	N_N	5.6	4.59	19.823	5	5.6				4.59
S6E03-22	S6E03	4_S	1250	2	N_N	N_N	6.1	5	19.82	5	6.1				
N3W12-12	N3W12	2_W	1250	2	N_N	N_N	3.9	3.2	19.718	3.9	3.2				
S4E02-07	S4E02	4_S	750	2	N_N	N_N	3.9	3.2	19.718	3.2					3.9
S6W04-14	S6W04	4_S	1250	2	N_N	N_N	6.7	5.5	19.672	5.5	6.7				
N4W06-12	N4W06	1_NW	1000	3	N_N	N_N	2.8	2.3	19.608	2.8	2.3				2.4
N4W10-16	N4W10	1_NW	1250	2	N_N	N_N	2.8	2.3	19.608	2.3	2.8				
S4E01-05	S4E01	4_S	750	2	N_N	N_N	5.6	4.6	19.608	5.6					4.6
N3W06-16	N3W06	1_NW	750	2	N_N	N_N	4.6	3.78	19.57	4.6					3.78
N3W13-21	N3W13	2_W	1500	2	N_N	N_N	7.3	6	19.549	6	7.3				
S5E02-02	S5E02	4_S	1000	2	N_N	N_N	7.3	6	19.549	7.3	6				
S5E08-05	S5E08	8_SE	1500	2	N_N	N_N	7.3	6	19.549	6					7.3

TABLE 9
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Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
S4E09-13	S4E09	8_SE	1500	2	N_N	N_N	9	7.4	19.512	7.4	9				
N5W11-07	N5W11	1_NW	1500	2	N_N	N_N	2.675	2.2	19.487	2.2	2.675				
N1W06-28	N1W06	2_W	750	2	N_N	N_N	6.2	5.1	19.469	6.2	5.1				
N3W13-11	N3W13	2_W	1500	2	N_N	N_N	6.2	5.1	19.469	6.2	5.1				
S5E02-05	S5E02	4_S	1000	2	N_N	N_N	6.2	5.1	19.469	6.2	5.1				
N3E07-11	N3E07	6_NE	1000	2	N_N	N_N	7.9	6.5	19.444	6.5	7.9				
S4W10-03	S4W10	3_SW	1250	2	Y_Y	N_N	41.3	34	19.389	34					41.3
N4W07-27	N4W07	1_NW	1000	2	N_N	N_N	3.4	2.8	19.355	3.4	2.8				
N5W12-05	N5W12	1_NW	1500	2	N_N	N_N	1.7	1.4	19.355	1.7	1.4				
N6W01-02	N6W01	5_N	1250	2	N_N	N_N	6.8	5.6	19.355	5.6	6.8				
N4W07-25	N4W07	1_NW	1000	2	N_N	N_N	5.1	4.2	19.355	5.1					4.2
N5E01-26	N5E01	5_N	1000	2	N_N	N_N	5.1	4.2	19.355	4.2	5.1				
N5E02-32	N5E02	5_N	1000	2	N_N	N_N	5.1	4.2	19.355	4.2	5.1				
S1E10-09	S1E10	7_E	1250	2	N_N	N_N	5.1	4.2	19.355	5.1	4.2				
S4E02-12	S4E02	4_S	1000	2	N_N	N_N	5.1	4.2	19.355	5.1	4.2				
S5W03-08	S5W03	4_S	1000	2	N_N	N_N	5.1	4.2	19.355	5.1	4.2				
N3W05-11	N3W05	1_NW	750	2	N_N	N_N	4.6	3.79	19.309	4.6					3.79
S4W06-09	S4W06	3_SW	1000	2	N_N	N_N	9.1	7.5	19.277	7.5	9.1				
S2W09-16	S2W09	2_W	1000	2	N_N	N_N	7.4	6.1	19.259	7.4	6.1				
S4W06-20	S4W06	3_SW	1000	2	Y_Y	N_N	13.1	10.8	19.247	13.1	10.8				
S2E09-06	S2E09	7_E	1250	2	N_N	N_N	5.7	4.7	19.231	4.7	5.7				
S7W02-10	S7W02	4_S	1500	2	N_N	N_N	5.7	4.7	19.231	5.7	4.7				
S5E09-26	S5E09	8_SE	1500	2	Y_Y	N_N	73.6	60.7	19.211	60.7	73.6				
N3W14-24	N3W14	2_W	1500	2	N_N	N_N	4	3.3	19.178	4	3.3				
S5E01-09	S5E01	4_S	1000	2	N_N	N_N	4	3.3	19.178	4	3.3				
S4E08-08	S4E08	8_SE	1250	2	N_N	N_N	8.6	7.1	19.108	7.1	8.6				
N3E09-13	N3E09	6_NE	1250	2	N_N	N_N	6.9	5.7	19.048	6.9	5.7				
S3W03-15	S3W03	3_SW	750	2	N_N	N_N	6.9	5.7	19.048	5.7	6.9				
N2W11-32	N2W11	2_W	1250	2	N_N	N_N	4.6	3.8	19.048	3.8	4.6				
N4W09-11	N4W09	1_NW	1250	2	N_N	N_N	4.6	3.8	19.048	3.8	4.6				
S4E03-02	S4E03	8_SE	1000	2	N_N	N_N	4.6	3.8	19.048	3.8					4.6
S4W09-15	S4W09	3_SW	1250	2	N_N	N_N	4.6	3.8	19.048	4.6					3.8
S6E02-23	S6E02	4_S	1250	2	N_N	N_N	4.6	3.8	19.048	4.6	3.8				
S4E01-19	S4E01	4_S	1000	2	N_N	N_N	7.5	6.2	18.978	7.5	6.2				
S6E04-02	S6E04	8_SE	1250	2	N_N	N_N	7.5	6.2	18.978	6.2	7.5				
N3E08-13	N3E08	6_NE	1250	2	N_N	N_N	5.2	4.3	18.947	4.3	5.2				
N3W10-10	N3W10	1_NW	1250	2	N_N	N_N	5.2	4.3	18.947	4.3	5.2				
N5E02-44	N5E02	5_N	1000	2	N_N	N_N	5.2	4.3	18.947	5.2	4.3				
N6W11-11	N6W11	1_NW	1500	2	N_N	N_N	5.2	4.3	18.947	5.2	4.3				

TABLE 9
Evaluation of Yard Specific Variability
South Minneapolis Soil Arsenic Evaluation

Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
S4E03-05	S4E03	4_S	1000	2	N_N	N_N	5.2	4.3	18.947	4.3	5.2				
S7E02-21	S7E02	4_S	1500	2	N_N	N_N	5.2	4.3	18.947	4.3	5.2				
N4W07-16	N4W07	1_NW	1000	3	N_N	N_N	5.1	4.22	18.884	5.1	4.4				4.22
S2E09-01	S2E09	7_E	1250	2	N_N	N_N	9.3	7.7	18.824	7.7	9.3				
N5E03-23	N5E03	5_N	1000	3	N_N	N_N	6.4	5.3	18.803	6.4	5.3				5.8
N3W07-05	N3W07	1_NW	1000	2	N_N	N_N	6.4	5.3	18.803	6.4	5.3				
S3E10-10	S3E10	8_SE	1500	2	N_N	N_N	6.4	5.3	18.803	5.3	6.4				
N1W09-17	N1W09	2_W	1000	2	N_N	N_N	3.5	2.9	18.75	2.9	3.5				
N4W13-24	N4W13	1_NW	1500	2	N_N	N_N	7	5.8	18.75	7	5.8				
N5W13-10	N5W13	1_NW	1750	2	N_N	N_N	3.5	2.9	18.75	3.5	2.9				
N8W03-03	N8W03	5_N	1750	2	N_N	N_N	7	5.8	18.75	7	5.8				
S5W05-20	S5W05	3_SW	1250	2	N_N	N_N	7	5.8	18.75	7	5.8				
N4W10-11	N4W10	1_NW	1250	2	N_N	N_N	4.1	3.4	18.667	4.1	3.4				
N5E07-21	N5E07	6_NE	1250	2	N_N	N_N	4.1	3.4	18.667	3.4	4.1				
N5W08-23	N5W08	1_NW	1250	2	N_N	N_N	4.1	3.4	18.667	3.4	4.1				
N4W14-12	N4W14	1_NW	1500	2	N_N	N_N	4.7	3.9	18.605	3.9	4.7				
N6E03-16	N6E03	5_N	1250	2	N_N	N_N	4.7	3.9	18.605	4.7	3.9				
S7W02-14	S7W02	4_S	1500	3	N_N	N_N	5.3	4.4	18.557	4.4	5.3				4.9
N3E09-26	N3E09	6_NE	1250	2	N_N	N_N	5.3	4.4	18.557	5.3	4.4				
S7W02-16	S7W02	4_S	1500	2	N_N	N_N	5.3	4.4	18.557	4.4	5.3				
N4W13-11	N4W13	1_NW	1500	2	N_N	N_N	5.9	4.9	18.519	4.9	5.9				
N3W07-20	N3W07	1_NW	1000	2	N_N	N_N	3.6	2.99	18.513	3.6					2.99
S1E08-06	S1E08	7_E	1000	2	N_N	N_N	6.5	5.4	18.487	6.5	5.4				
S5W07-02	S5W07	3_SW	1250	2	N_N	N_N	7.1	5.9	18.462	7.1	5.9				
S4E09-09	S4E09	8_SE	1500	2	N_N	N_N	7.7	6.4	18.44	7.7	6.4				
S7E02-27	S7E02	4_S	1500	2	Y_Y	N_N	24.3	20.2	18.427	20.2	24.3				
N2W06-07	N2W06	1_NW	750	2	N_N	N_N	8.9	7.4	18.405	8.9	7.4				
S7W02-06	S7W02	4_S	1500	2	Y_Y	N_N	59.9	49.9	18.215	59.9	49.9				
N1W05-24	N1W05	2_W	500	2	N_N	N_N	5.4	4.5	18.182	5.4	4.5				
N5W11-02	N5W11	1_NW	1500	3	N_N	N_N	1.8	1.5	18.182	1.5	1.8				1.8
N2E09-25	N2E09	7_E	1250	2	N_N	N_N	4.2	3.5	18.182	4.2	3.5				
N2W10-20	N2W10	2_W	1000	2	N_N	N_N	4.2	3.5	18.182	4.2	3.5				
N4E02-07	N4E02	5_N	1000	2	N_N	N_N	3	2.5	18.182	2.5	3				
N5E02-38	N5E02	5_N	1000	2	N_N	N_N	3	2.5	18.182	3	2.5				
N6W10-07	N6W10	1_NW	1500	2	N_N	N_N	3.6	3	18.182	3.6	3				
S2E10-30	S2E10	7_E	1250	2	N_N	N_N	7.2	6	18.182	6	7.2				
S3W08-09	S3W08	3_SW	1000	2	N_N	N_N	6	5	18.182	6	5				
S4W03-06	S4W03	4_S	750	2	N_N	N_N	3.6	3	18.182	3	3.6				
S4W05-25	S4W05	3_SW	1000	2	N_N	N_N	3.6	3	18.182	3.6	3				

TABLE 9
Evaluation of Yard Specific Variability
South Minneapolis Soil Arsenic Evaluation

Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
S1E10-01	S1E10	7_E	1250	2	N_N	N_N	7.8	6.5	18.182	6.5	7.8				
S4E01-16	S4E01	4_S	1000	3	N_N	N_N	4.8	4	18.182	4.8	4				4.3
N2W11-24	N2W11	2_W	1250	2	N_N	N_N	4.8	4	18.182	4.8	4				
N5E04-06	N5E04	6_NE	1250	2	N_N	N_N	4.8	4	18.182	4	4.8				
N5E05-27	N5E05	6_NE	1250	2	N_N	N_N	4.8	4	18.182	4	4.8				
S7E03-09	S7E03	4_S	1500	2	N_N	N_N	6.6	5.5	18.182	5.5	6.6				
S4W07-28	S4W07	3_SW	1000	2	Y_Y	N_N	20.4	17	18.182	20.4	17				
N4E03-18	N4E03	5_N	1000	2	Y_Y	N_N	12.1	10.1	18.018	10.1	12.1				
S3E09-08	S3E09	8_SE	1250	2	N_Y	N_N	10.3	8.6	17.989	10.3	8.6				
S6E04-05	S6E04	8_SE	1250	2	N_Y	N_N	10.3	8.6	17.989	8.6	10.3				
S1W06-19	S1W06	2_W	750	2	N_N	N_N	7.9	6.6	17.931	7.9	6.6				
S3W06-07	S3W06	3_SW	750	2	N_N	N_N	7.3	6.1	17.91	7.3	6.1				
N2E08-05	N2E08	7_E	1250	2	N_N	N_N	6.7	5.6	17.886	6.7	5.6				
S3W11-12	S3W11	3_SW	1250	2	N_N	N_N	6.7	5.6	17.886	6.7	5.6				
S7W03-25	S7W03	4_S	1500	2	N_N	N_N	6.7	5.6	17.886	6.7	5.6				
S3W04-15	S3W04	3_SW	750	2	N_N	N_N	6.1	5.1	17.857	5.1	6.1				
S5E03-02	S5E03	4_S	1000	2	N_N	N_N	5.5	4.6	17.822	5.5	4.6				
N5E05-14	N5E05	6_NE	1250	2	Y_Y	N_N	38.5	32.2	17.822	32.2	38.5				
N4W08-28	N4W08	1_NW	1250	2	Y_Y	N_N	58.7	49.1	17.811	49.1	58.7				
N5E01-15	N5E01	5_N	1000	2	N_N	N_N	4.9	4.1	17.778	4.1					4.9
N6E04-11	N6E04	6_NE	1250	2	N_N	N_N	4.9	4.1	17.778	4.9	4.1				
S3W12-13	S3W12	3_SW	1500	2	N_N	N_N	4.9	4.1	17.778	4.9	4.1				
S4W10-02	S4W10	3_SW	1250	2	N_N	N_N	4.9	4.1	17.778	4.1	4.9				
N1W06-22	N1W06	2_W	750	2	N_N	N_N	6.93	5.8	17.753	5.8					6.93
S1W07-12	S1W07	2_W	750	2	N_N	N_N	9.2	7.7	17.751	7.7	9.2				
N2W06-05	N2W06	1_NW	750	2	N_N	N_N	5.4	4.52	17.742	5.4					4.52
N3W11-05	N3W11	1_NW	1250	2	N_N	N_N	4.3	3.6	17.722	4.3	3.6				
S3W09-17	S3W09	3_SW	1250	2	N_N	N_N	4.3	3.6	17.722	4.3	3.6				
S4W09-21	S4W09	3_SW	1250	2	N_N	N_N	4.3	3.6	17.722	3.6	4.3				
S1W07-11	S1W07	2_W	750	2	N_N	N_N	8	6.7	17.687	8	6.7				
S7E02-25	S7E02	4_S	1500	2	N_N	N_N	8	6.7	17.687	6.7	8				
N4E05-14	N4E05	6_NE	1000	2	N_N	N_N	3.7	3.1	17.647	3.7	3.1				
N5E01-18	N5E01	5_N	1000	2	N_N	N_N	3.7	3.1	17.647	3.7	3.1				
N3E09-16	N3E09	7_E	1250	2	N_N	N_N	6.8	5.7	17.6	5.7	6.8				
S4E08-07	S4E08	8_SE	1250	2	N_N	N_N	6.8	5.7	17.6	6.8	5.7				
S5W02-02	S5W02	4_S	1000	2	N_N	N_N	9.9	8.3	17.582	8.3	9.9				
N4E09-26	N4E09	6_NE	1250	2	N_N	N_N	3.1	2.6	17.544	2.6	3.1				
N4W10-10	N4W10	1_NW	1250	2	N_N	N_N	3.1	2.6	17.544	3.1	2.6				
S3W03-14	S3W03	3_SW	750	2	N_N	N_N	6.2	5.2	17.544	6.2	5.2				

TABLE 9
Evaluation of Yard Specific Variability
South Minneapolis Soil Arsenic Evaluation

Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
S4W07-19	S4W07	3_SW	1250	2	N_N	N_N	3.1	2.6	17.544	2.6	3.1				
N2W07-05	N2W07	1_NW	750	2	N_N	N_N	4.9	4.11	17.536		4.9				4.11
N1W07-24	N1W07	2_W	750	2	N_N	N_N	5.6	4.7	17.476	5.6	4.7				
N6E04-19	N6E04	5_N	1250	2	N_N	N_N	5.6	4.7	17.476	5.6	4.7				
S2W08-07	S2W08	2_W	1000	2	N_N	N_N	5.6	4.7	17.476	5.6	4.7				
N6W12-11	N6W12	1_NW	1750	2	N_N	N_N	4.05	3.4	17.45	3.4	4.05				
S1W06-04	S1W06	2_W	750	2	N_N	N_N	8.1	6.8	17.45	8.1	6.8				
N2W06-13	N2W06	1_NW	750	2	N_N	N_N	7.3	6.13	17.424	7.3					6.13
S1W06-23	S1W06	2_W	750	2	N_N	N_N	7.5	6.3	17.391	7.5	6.3				
S1W07-18	S1W07	2_W	750	2	N_N	N_N	7.5	6.3	17.391	6.3	7.5				
S1E06-20	S1E06	7_E	750	2	N_N	N_N	10	8.4	17.391	10	8.4				
S1W07-08	S1W07	2_W	750	2	N_N	N_N	5	4.2	17.391	4.2	5				
S5W07-23	S5W07	3_SW	1250	2	N_N	N_N	5	4.2	17.391	4.2	5				
N2W07-23	N2W07	1_NW	750	2	N_N	N_N	5.95	5	17.352	5.95	5				
S1E09-14	S1E09	7_E	1250	2	N_N	N_N	6.9	5.8	17.323	6.9	5.8				
N4W08-22	N4W08	1_NW	1000	3	N_N	N_N	6.78	5.7	17.308	5.7	6.7				6.78
N4W13-07	N4W13	1_NW	1500	2	N_N	N_N	4.4	3.7	17.284	3.7	4.4				
N5E05-03	N5E05	6_NE	1250	2	N_N	N_N	4.4	3.7	17.284	4.4	3.7				
N6E03-10	N6E03	5_N	1250	2	N_N	N_N	4.4	3.7	17.284	4.4	3.7				
S2W13-23	S2W13	2_W	1500	2	N_N	N_N	8.8	7.4	17.284	8.8					7.4
S7E01-11	S7E01	4_S	1500	2	N_N	N_N	4.4	3.7	17.284	4.4	3.7				
N6E05-18	N6E05	6_NE	1250	2	N_N	N_N	6.3	5.3	17.241	6.3	5.3				
S1W06-12	S1W06	2_W	750	2	N_N	N_N	8.2	6.9	17.219	8.2	6.9				
N3W09-02	N3W09	1_NW	1250	2	Y_Y	N_N	34.8	29.3	17.161	34.8	29.3				
N3W11-06	N3W11	1_NW	1250	2	N_N	N_N	5.7	4.8	17.143	4.8	5.7				
N1W06-11	N1W06	2_W	750	2	N_N	N_N	9.5	8	17.143	8	9.5				
N5E03-12	N5E03	5_N	1000	2	N_N	N_N	3.8	3.2	17.143	3.2	3.8				
S1W12-03	S1W12	2_W	1250	2	N_N	N_N	3.8	3.2	17.143	3.8	3.2				
S4E08-06	S4E08	8_SE	1250	2	N_N	N_N	7.6	6.4	17.143	7.6	6.4				
S7W01-01	S7W01	4_S	1250	2	N_N	N_N	3.8	3.2	17.143	3.8	3.2				
N2W06-28	N2W06	1_NW	750	2	N_N	N_N	3.3	2.78	17.105	3.3					2.78
S5E01-22	S5E01	4_S	1000	2	N_N	N_N	7	5.9	17.054	5.9	7				
S1W12-04	S1W12	2_W	1250	2	N_N	N_N	5.1	4.3	17.021	5.1	4.3				
S2W10-23	S2W10	2_W	1250	2	N_N	N_N	5.1	4.3	17.021	5.1	4.3				
S5E01-21	S5E01	4_S	1000	2	N_N	N_N	5.1	4.3	17.021	5.1	4.3				
S2W12-17	S2W12	2_W	1250	2	Y_Y	N_N	28.1	23.7	16.988	28.1					23.7
N1W06-19	N1W06	2_W	750	2	N_N	N_N	7.8	6.58	16.968	7.8					6.58
N5E07-01	N5E07	6_NE	1250	3	N_N	N_N	3.2	2.7	16.949	3.2	2.8				2.7
N5E02-27	N5E02	5_N	1000	2	N_N	N_N	3.2	2.7	16.949	2.7	3.2				

TABLE 9
Evaluation of Yard Specific Variability
South Minneapolis Soil Arsenic Evaluation

Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
N5E06-19	N5E06	6_NE	1250	2	N_N	N_N	3.2	2.7	16.949	2.7	3.2				
N5W13-11	N5W13	1_NW	1750	2	N_N	N_N	3.2	2.7	16.949	2.7	3.2				
S6W04-04	S6W04	4_S	1250	2	N_N	N_N	6.4	5.4	16.949	6.4	5.4				
N3W14-20	N3W14	2_W	1500	2	N_N	N_N	4.5	3.8	16.867	3.8	4.5				
S6W04-06	S6W04	4_S	1250	2	N_N	N_N	9	7.6	16.867	9	7.6				
N1W10-22	N1W10	2_W	1000	2	N_N	N_N	5.8	4.9	16.822	4.9	5.8				
N3W07-12	N3W07	1_NW	1000	2	N_N	N_N	5.8	4.9	16.822	4.9	5.8				
N3W13-08	N3W13	2_W	1500	2	N_N	N_N	5.8	4.9	16.822	5.8					4.9
N6E06-19	N6E06	6_NE	1250	2	Y_Y	N_N	34.9	29.5	16.77	34.9	29.5				
S5E09-05	S5E09	8_SE	1500	2	Y_Y	N_N	20.1	17	16.712	17	20.1				
N1W06-02	N1W06	2_W	750	2	N_N	N_N	7.8	6.6	16.667	6.6	7.8				
N5E01-10	N5E01	5_N	1000	2	N_N	N_N	3.9	3.3	16.667	3.3					3.9
N6E02-16	N6E02	5_N	1250	2	N_N	N_N	3.9	3.3	16.667	3.9					3.3
S5E03-27	S5E03	4_S	1000	2	N_N	N_N	3.9	3.3	16.667	3.3	3.9				
N1W06-17	N1W06	2_W	750	2	Y_Y	N_N	65	55	16.667	55	65				
N1W06-05	N1W06	2_W	750	2	N_N	N_N	5.2	4.4	16.667	5.2	4.4				
S2E10-25	S2E10	7_E	1250	2	N_N	N_N	5.2	4.4	16.667	5.2	4.4				
S5W02-12	S5W02	4_S	1000	2	N_N	N_N	2.6	2.2	16.667	2.6	2.2				
S5W02-22	S5W02	4_S	1000	2	N_N	N_N	5.2	4.4	16.667	5.2	4.4				
S7E02-10	S7E02	4_S	1500	2	N_N	N_N	5.2	4.4	16.667	5.2	4.4				
N3W09-14	N3W09	1_NW	1000	2	N_N	N_N	7.2	6.1	16.541	7.2	6.1				
S5W03-02	S5W03	4_S	1000	2	N_N	N_N	7.2	6.1	16.541	7.2	6.1				
N5W08-28	N5W08	1_NW	1250	2	N_N	N_N	5.9	5	16.514	5.9	5				
S4W03-09	S4W03	4_S	750	2	N_N	N_N	5.9	5	16.514	5.9	5				
S4W05-18	S4W05	3_SW	1000	2	N_N	N_N	5.9	5	16.514	5.9	5				
S5E02-15	S5E02	4_S	1250	3	Y_Y	N_N	70.2	59.5	16.5	59.5	61.8				70.2
N2W09-07	N2W09	2_W	1000	2	N_N	N_N	4.6	3.9	16.471		3.9				4.6
N6W12-05	N6W12	1_NW	1750	2	N_N	N_N	4.6	3.9	16.471	3.9	4.6				
S5E08-22	S5E08	8_SE	1250	2	N_N	N_N	9.2	7.8	16.471	7.8	9.2				
S5E09-20	S5E09	8_SE	1500	2	N_N	N_N	4.6	3.9	16.471	4.6	3.9				
S5W02-24	S5W02	4_S	1000	2	N_N	N_N	4.6	3.9	16.471	3.9	4.6				
S1W08-05	S1W08	2_W	750	2	N_N	N_N	7.9	6.7	16.438	6.7	7.9				
S7W03-15	S7W03	4_S	1500	2	Y_Y	N_N	35.6	30.2	16.413	35.6	30.2				
N2W06-16	N2W06	2_W	750	2	N_N	N_N	3.1	2.63	16.405	3.1					2.63
N2W09-18	N2W09	2_W	1000	2	N_N	N_N	6.6	5.6	16.393	5.6	6.6				
N5E03-16	N5E03	6_NE	1000	2	N_N	N_N	3.3	2.8	16.393	2.8					3.3
N3W04-07	N3W04	1_NW	750	2	N_N	N_N	7.6	6.45	16.37	7.6					6.45
N3W04-08	N3W04	1_NW	750	2	N_N	N_N	6.48	5.5	16.361	5.5					6.48
N6E04-13	N6E04	6_NE	1250	2	N_N	N_N	5.3	4.5	16.327	4.5	5.3				

TABLE 9
Evaluation of Yard Specific Variability
South Minneapolis Soil Arsenic Evaluation

Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
S6W03-02	S6W03	4_S	1250	2	N_N	N_N	6	5.1	16.216	6	5.1				
N4W07-19	N4W07	1_NW	1000	2	N_N	N_N	1	0.85	16.216	1	0.85				
N3W10-03	N3W10	1_NW	1250	2	N_N	N_N	3.9	3.315	16.216		3.9		3.315		
N1W09-05	N1W09	2_W	1000	3	N_N	N_N	5.41	4.6	16.184	5.3	5.41		4.6		
N2W04-01	N2W04	1_NW	500	2	Y_Y	N_N	76.44	65	16.176	65					76.44
S1E08-16	S1E08	7_E	1000	2	N_Y	N_N	10.7	9.1	16.162	10.7	9.1				
N3W03-09	N3W03	1_NW	750	2	N_N	N_N	8.7	7.4	16.149	8.7	7.4				
S3W05-21	S3W05	3_SW	750	2	N_N	N_N	6.7	5.7	16.129	5.7	6.7				
S6W04-10	S6W04	4_S	1250	2	N_N	N_N	6.7	5.7	16.129		5.7				6.7
N6E03-02	N6E03	5_N	1250	2	Y_Y	N_N	31.5	26.8	16.123	31.5	26.8				
N4E02-04	N4E02	5_N	1000	2	N_N	N_N	4.7	4	16.092	4.7	4				
S4E08-14	S4E08	8_SE	1250	2	N_N	N_N	9.4	8	16.092	9.4	8				
S4W09-11	S4W09	3_SW	1250	2	N_N	N_N	4.7	4	16.092	4	4.7				
S3W04-24	S3W04	3_SW	750	2	N_N	N_N	7.4	6.3	16.058	6.3	7.4				
N3W08-12	N3W08	1_NW	1000	3	N_N	N_N	5.4	4.6	16	4.6	5.4				4.67
N4E09-12	N4E09	6_NE	1500	2	N_N	N_N	5.4	4.6	16	5.4	4.6				
S5W06-07	S5W06	3_SW	1250	2	N_N	N_N	5.4	4.6	16	4.6	5.4				
S1W09-04	S1W09	2_W	1000	2	N_N	N_N	5.3	4.515	15.996	5.3	4.515				
N6E07-07	N6E07	6_NE	1500	2	N_N	N_N	6.1	5.2	15.929	6.1	5.2				
N6E08-19	N6E08	6_NE	1500	2	N_N	N_N	6.1	5.2	15.929	6.1	5.2				
S4E01-24	S4E01	4_S	750	2	N_N	N_N	6.1	5.2	15.929	5.2	6.1				
S5E01-20	S5E01	4_S	1000	2	N_N	N_N	6.1	5.2	15.929	5.2	6.1				
S5E04-07	S5E04	8_SE	1250	2	N_N	N_N	6.1	5.2	15.929	5.2	6.1				
N3W06-17	N3W06	1_NW	750	2	N_N	N_N	4.34	3.7	15.92	4.34	3.7				
N2W07-26	N2W07	1_NW	1000	2	Y_Y	N_N	12.9	11	15.9	12.9	11				
N2E09-08	N2E09	7_E	1250	2	Y_Y	N_N	46.2	39.4	15.888	39.4					46.2
N4E04-01	N4E04	6_NE	1000	3	N_N	N_N	3.4	2.9	15.873	3.4	3.1				2.9
N1W09-03	N1W09	2_W	1000	2	N_N	N_N	3.4	2.9	15.873	2.9	3.4				
N4W11-20	N4W11	1_NW	1500	2	N_N	N_N	3.4	2.9	15.873	2.9	3.4				
S4W05-01	S4W05	3_SW	1000	2	N_N	N_N	3.4	2.9	15.873	2.9	3.4				
S5E07-03	S5E07	8_SE	1250	2	N_N	N_N	6.8	5.8	15.873	6.8					5.8
N2W04-14	N2W04	1_NW	500	2	N_N	N_N	8.67	7.4	15.806	7.4					8.67
N5E04-02	N5E04	6_NE	1250	2	Y_Y	N_N	28	23.9	15.8	28	23.9				
N1W07-22	N1W07	2_W	750	2	N_N	N_N	4.1	3.5	15.789	4.1	3.5				
N3E09-27	N3E09	6_NE	1250	2	N_N	N_N	4.1	3.5	15.789	4.1	3.5				
S7E03-22	S7E03	4_S	1500	2	N_N	N_N	4.1	3.5	15.789	3.5	4.1				
S5W07-25	S5W07	3_SW	1250	2	Y_Y	N_N	31.5	26.9	15.753	31.5	26.9				
N3W05-16	N3W05	1_NW	750	2	N_N	N_N	4.8	4.1	15.73	4.1	4.8				
S1W10-20	S1W10	2_W	1000	2	N_N	N_N	4.8	4.1	15.73	4.1					4.8

TABLE 9
Evaluation of Yard Specific Variability
South Minneapolis Soil Arsenic Evaluation

Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
S6W03-21	S6W03	4_S	1250	2	N_N	N_N	4.8	4.1	15.73	4.1					4.8
S7W01-21	S7W01	4_S	1500	2	N_N	N_N	4.8	4.1	15.73	4.8	4.1				
N3W11-13	N3W11	1_NW	1250	2	N_N	N_N	4.5	3.85	15.569	4.5	3.85				
S4E09-25	S4E09	8_SE	1250	2	N_Y	N_N	10.4	8.9	15.544	10.4	8.9				
N5E02-01	N5E02	5_N	1000	2	Y_Y	N_N	11.8	10.1	15.525		10.1				11.8
S4W06-17	S4W06	3_SW	1000	2	N_N	N_N	7.7	6.6	15.385	6.6	7.7				
N3W09-16	N3W09	1_NW	1000	3	N_N	N_N	4.9	4.2	15.385	4.4	4.9				4.2
N1W07-09	N1W07	2_W	750	2	N_N	N_N	4.2	3.6	15.385	4.2	3.6				
N3W10-22	N3W10	1_NW	1250	2	N_N	N_N	4.2	3.6	15.385	4.2	3.6				
N4E05-07	N4E05	6_NE	1000	2	N_N	N_N	4.9	4.2	15.385	4.9	4.2				
N4W14-19	N4W14	1_NW	1500	2	N_N	N_N	4.2	3.6	15.385	3.6	4.2				
N5W12-03	N5W12	1_NW	1750	2	N_N	N_N	2.1	1.8	15.385	1.8	2.1				
S4W03-04	S4W03	4_S	750	2	N_N	N_N	4.2	3.6	15.385	3.6	4.2				
S4W06-27	S4W06	3_SW	1000	2	N_N	N_N	4.9	4.2	15.385	4.9	4.2				
S7E03-19	S7E03	4_S	1500	2	N_N	N_N	3.5	3	15.385	3	3.5				
S4E08-26	S4E08	8_SE	1250	2	N_Y	N_N	11.2	9.6	15.385	9.6	11.2				
N2E08-14	N2E08	7_E	1000	3	N_N	N_N	9.1	7.8	15.385	9.1	7.9				7.8
N3W10-23	N3W10	1_NW	1250	2	N_N	N_N	2.8	2.4	15.385	2.8	2.4				
N6W08-16	N6W08	1_NW	1500	2	N_N	N_N	5.6	4.8	15.385	5.6	4.8				
S2W13-11	S2W13	2_W	1500	2	N_N	N_N	5.6	4.8	15.385	4.8	5.6				
S5W03-09	S5W03	4_S	1000	2	N_N	N_N	5.6	4.8	15.385	5.6	4.8				
S6E01-08	S6E01	4_S	1250	2	N_N	N_N	5.6	4.8	15.385	5.6	4.8				
S6W03-07	S6W03	4_S	1250	2	N_N	N_N	1.4	1.2	15.385	1.4	1.2				
N6E07-06	N6E07	6_NE	1500	2	N_N	N_N	6.3	5.4	15.385	5.4	6.3				
N2W09-16	N2W09	2_W	1000	2	Y_Y	N_N	41.4	35.5	15.345	41.4	35.5				
S4E02-23	S4E02	4_S	750	2	Y_Y	N_N	31.9	27.4	15.177	27.4	31.9				
N4W06-09	N4W06	1_NW	1000	2	N_N	N_N	7.1	6.1	15.152	7.1	6.1				
S6E01-05	S6E01	4_S	1250	2	N_N	N_N	7.1	6.1	15.152	6.1	7.1				
S6E04-03	S6E04	8_SE	1250	2	N_N	N_N	7.1	6.1	15.152	6.1	7.1				
S1W11-13	S1W11	2_W	1250	2	N_N	N_N	6.4	5.5	15.126	6.4	5.5				
S2E09-09	S2E09	7_E	1250	2	N_N	N_N	5.7	4.9	15.094	4.9	5.7				
S3W09-07	S3W09	3_SW	1000	2	N_N	N_N	5.7	4.9	15.094	5.7	4.9				
S5W02-16	S5W02	4_S	1000	2	N_N	N_N	5.7	4.9	15.094	5.7	4.9				
S2W05-18	S2W05	3_SW	750	2	N_N	N_N	5	4.3	15.054	4.3	5				
S3W10-13	S3W10	3_SW	1250	2	N_N	N_N	5	4.3	15.054	4.3	5				
S7E02-11	S7E02	4_S	1500	2	N_N	N_N	5	4.3	15.054	5	4.3				
S7E02-03	S7E02	4_S	1250	2	Y_Y	N_N	55.9	48.1	15	48.1	55.9				
N5E03-21	N5E03	5_N	1000	2	N_N	N_N	4.3	3.7	15	4.3	3.7				
N6E03-15	N6E03	5_N	1250	2	N_N	N_N	4.3	3.7	15	4.3					3.7

TABLE 9
Evaluation of Yard Specific Variability
South Minneapolis Soil Arsenic Evaluation

Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
N6E04-24	N6E04	5_N	1250	2	N_N	N_N	4.3	3.7	15	4.3	3.7				
S4W05-24	S4W05	3_SW	1000	2	N_N	N_N	4.3	3.7	15	3.7	4.3				
N4W13-27	N4W13	1_NW	1500	2	N_N	N_N	3.6	3.1	14.925	3.6	3.1				
S2W07-03	S2W07	2_W	750	2	N_N	N_N	7.2	6.2	14.925	6.2	7.2				
S4W03-07	S4W03	4_S	750	2	N_N	N_N	7.2	6.2	14.925	6.2	7.2				
S5E03-34	S5E03	4_S	1000	2	N_N	N_N	6.5	5.6	14.876	5.6	6.5				
S5W05-18	S5W05	3_SW	1250	2	N_N	N_N	6.5	5.6	14.876	5.6	6.5				
S7W02-08	S7W02	4_S	1500	2	N_N	N_N	6.5	5.6	14.876	5.6	6.5				
N3W05-09	N3W05	1_NW	750	2	N_N	N_N	5.8	5	14.815	5	5.8				
N3W11-15	N3W11	1_NW	1250	2	N_N	N_N	2.9	2.5	14.815	2.9	2.5				
N4W09-27	N4W09	1_NW	1250	2	N_N	N_N	2.9	2.5	14.815	2.5	2.9				
N5E02-39	N5E02	5_N	1000	2	N_N	N_N	2.9	2.5	14.815	2.5					2.9
N5W13-26	N5W13	1_NW	1750	2	N_N	N_N	2.9	2.5	14.815	2.9	2.5				
S4W03-08	S4W03	4_S	750	2	N_N	N_N	5.8	5	14.815	5.8	5				
S5W07-12	S5W07	3_SW	1250	2	N_N	N_N	5.8	5	14.815	5	5.8				
S7W01-19	S7W01	4_S	1500	2	N_N	N_N	5.8	5	14.815	5	5.8				
S4W09-12	S4W09	3_SW	1250	2	N_N	N_N	5.1	4.4	14.737	4.4	5.1				
N5W13-03	N5W13	1_NW	1750	2	N_N	N_N	2.2	1.9	14.634	1.9	2.2				
N4W13-09	N4W13	1_NW	1500	2	N_N	N_N	6.6	5.7	14.634	5.7	6.6				
S4W08-11	S4W08	3_SW	1250	2	N_N	N_N	6.6	5.7	14.634	5.7	6.6				
S5E02-10	S5E02	4_S	1000	2	N_N	N_N	6.6	5.7	14.634	6.6	5.7				
S7E04-16	S7E04	4_S	1500	2	N_N	N_N	6.6	5.7	14.634	5.7					6.6
N3W12-18	N3W12	2_W	1250	2	Y_Y	N_N	11.8	10.2	14.545		11.8				10.2
S2E08-09	S2E08	7_E	1000	2	N_N	N_N	5.9	5.1	14.545	5.1	5.9				
S3W08-08	S3W08	3_SW	1000	2	N_N	N_N	5.9	5.1	14.545	5.1	5.9				
N3W13-15	N3W13	2_W	1500	2	N_N	N_N	7.4	6.4	14.493	7.4					6.4
S2E09-04	S2E09	7_E	1250	2	N_N	N_N	7.4	6.4	14.493	6.4	7.4				
S5W04-19	S5W04	4_S	1250	3	N_N	N_N	5.2	4.5	14.433	4.5	5.2				5.2
N6E02-13	N6E02	5_N	1250	2	N_N	N_N	5.2	4.5	14.433	5.2	4.5				
S3W10-04	S3W10	3_SW	1250	2	N_N	N_N	5.2	4.5	14.433	5.2					4.5
N8W03-01	N8W03	5_N	1750	2	N_N	N_N	6.7	5.8	14.4	6.7	5.8				
S2W10-04	S2W10	2_W	1000	2	N_N	N_N	6.7	5.8	14.4	5.8	6.7				
N3W10-27	N3W10	1_NW	1250	2	N_N	N_N	4.5	3.9	14.286	3.9	4.5				
N4W12-03	N4W12	1_NW	1500	2	N_N	N_N	4.5	3.9	14.286	4.5	3.9				
N4W13-14	N4W13	1_NW	1500	2	N_N	N_N	4.5	3.9	14.286	4.5	3.9				
N5E02-02	N5E02	5_N	1000	2	N_N	N_N	4.5	3.9	14.286	4.5					3.9
N4W10-02	N4W10	1_NW	1250	2	N_N	N_N	1.5	1.3	14.286	1.5	1.3				
N4W12-21	N4W12	1_NW	1500	2	N_N	N_N	3	2.6	14.286	3	2.6				
N5E06-20	N5E06	6_NE	1250	2	N_N	N_N	3	2.6	14.286	3	2.6				

TABLE 9
Evaluation of Yard Specific Variability
South Minneapolis Soil Arsenic Evaluation

Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
N6E02-45	N6E02	5_N	1250	2	N_N	N_N	3	2.6	14.286	2.6	3				
N2W04-27	N2W04	1_NW	750	2	N_N	N_N	7.15	6.2	14.232	6.2	7.15				
S2W11-12	S2W11	2_W	1250	2	Y_Y	N_N	45.2	39.2	14.218	39.2	45.2				
N4W07-31	N4W07	1_NW	1000	3	N_N	N_N	4.6	3.99	14.203	4.6	4				3.99
S1W05-06	S1W05	2_W	500	2	N_N	N_N	8.3	7.2	14.194	8.3	7.2				
S3W05-12	S3W05	3_SW	750	2	N_N	N_N	8.3	7.2	14.194	7.2	8.3				
N4W06-10	N4W06	1_NW	1000	3	N_N	N_N	4.38	3.8	14.181	3.9	3.8				4.38
S1E08-23	S1E08	7_E	1000	2	N_N	N_N	6.8	5.9	14.173	6.8	5.9				
N6E03-14	N6E03	5_N	1250	2	N_N	N_N	3.8	3.3	14.085	3.3	3.8				
S3W10-05	S3W10	3_SW	1250	2	N_N	N_N	4.95	4.3	14.054	4.3	4.95				
N2W05-01	N2W05	1_NW	750	2	N_N	N_N	5.64	4.9	14.042	4.9					5.64
N2W10-10	N2W10	2_W	1000	2	N_N	N_N	6.1	5.3	14.035	6.1	5.3				
N3W09-12	N3W09	1_NW	1000	2	N_N	N_N	6.1	5.3	14.035	5.3	6.1				
N4W09-15	N4W09	1_NW	1250	2	N_N	N_N	6.1	5.3	14.035	6.1	5.3				
S3E09-09	S3E09	8_SE	1250	2	N_N	N_N	6.9	6	13.953	6	6.9				
N3W12-09	N3W12	1_NW	1250	2	N_N	N_N	2.3	2	13.953	2	2.3				
S4W05-02	S4W05	3_SW	1000	2	N_N	N_N	4.6	4	13.953	4	4.6				
S6E02-10	S6E02	4_S	1250	2	N_N	N_N	4.6	4	13.953	4.6	4				
S7E02-23	S7E02	4_S	1500	2	N_N	N_N	9.2	8	13.953	8	9.2				
S4E08-04	S4E08	8_SE	1250	2	N_N	N_N	7.7	6.7	13.889	7.7	6.7				
N2W05-12	N2W05	1_NW	750	2	Y_Y	N_N	13.79	12	13.881	12					13.79
S4E02-26	S4E02	4_S	750	2	N_N	N_N	5.4	4.7	13.861	4.7	5.4				
S7W01-12	S7W01	4_S	1500	2	N_N	N_N	5.4	4.7	13.861	5.4	4.7				
N4W06-11	N4W06	1_NW	1000	3	N_N	N_N	4.8	4.18	13.808	4.2	4.8				4.18
N2W04-28	N2W04	1_NW	750	2	N_N	N_N	6.2	5.4	13.793	5.4					6.2
N2W10-05	N2W10	2_W	1250	2	N_N	N_N	3.1	2.7	13.793	3.1	2.7				
N4E09-18	N4E09	6_NE	1250	2	N_N	N_N	6.2	5.4	13.793	5.4	6.2				
N4W10-08	N4W10	1_NW	1250	2	N_N	N_N	3.1	2.7	13.793	3.1	2.7				
N1W04-08	N1W04	2_W	500	2	N_N	N_N	7.8	6.8	13.699	6.8	7.8				
N3E09-19	N3E09	7_E	1250	2	N_N	N_N	3.9	3.4	13.699	3.4					3.9
N3W08-11	N3W08	1_NW	1000	2	N_N	N_N	3.9	3.4	13.699	3.4	3.9				
N4E03-11	N4E03	6_NE	1000	2	N_N	N_N	3.9	3.4	13.699	3.4	3.9				
S2E10-31	S2E10	7_E	1250	2	N_N	N_N	3.9	3.4	13.699	3.9	3.4				
S2W09-02	S2W09	2_W	1000	2	N_N	N_N	3.9	3.4	13.699	3.4	3.9				
S7W01-09	S7W01	4_S	1500	2	N_N	N_N	3.9	3.4	13.699	3.9	3.4				
S5W02-11	S5W02	4_S	1000	2	Y_Y	N_N	48.7	42.5	13.596	42.5	48.7				
S2E10-10	S2E10	7_E	1250	2	N_N	N_N	5.5	4.8	13.592	4.8	5.5				
S4W06-19	S4W06	3_SW	1000	2	N_N	N_N	6.3	5.5	13.559	5.5					6.3
S1W12-05	S1W12	2_W	1250	2	N_N	N_N	7.1	6.2	13.534	6.2	7.1				

TABLE 9
Evaluation of Yard Specific Variability
South Minneapolis Soil Arsenic Evaluation

Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
S4E06-04	S4E06	8_SE	1000	2	Y_Y	N_N	26.2	22.9	13.442	26.2	22.9				
N3W09-04	N3W09	1_NW	1250	2	N_N	N_N	6.4	5.6	13.333	5.6	6.4				
N3W14-23	N3W14	2_W	1500	2	N_N	N_N	3.2	2.8	13.333	2.8	3.2				
N6E03-17	N6E03	5_N	1250	2	N_N	N_N	6.4	5.6	13.333	5.6	6.4				
S3W12-09	S3W12	3_SW	1500	2	N_N	N_N	3.2	2.8	13.333	2.8	3.2				3.2
S4W09-25	S4W09	3_SW	1250	2	N_N	N_N	3.2	2.8	13.333	2.8	3.2				
S5W03-27	S5W03	4_S	1000	2	N_N	N_N	6.4	5.6	13.333	6.4	5.6				
S7E01-24	S7E01	4_S	1500	2	N_N	N_N	8.8	7.7	13.333	7.7	8.8				
N2W11-08	N2W11	2_W	1250	2	N_N	N_N	4	3.5	13.333	3.5	4				
N4W12-14	N4W12	1_NW	1500	2	N_N	N_N	8	7	13.333	8	7				
N5W10-05	N5W10	1_NW	1250	2	N_N	N_N	4	3.5	13.333	3.5	4				
N2W11-05	N2W11	2_W	1250	2	N_N	N_N	4.8	4.2	13.333	4.2	4.8				
N3W07-03	N3W07	1_NW	1000	2	N_N	N_N	4.8	4.2	13.333	4.2	4.8				
N4E09-22	N4E09	6_NE	1250	2	N_N	N_N	4.8	4.2	13.333	4.8	4.2				4.2
N5E03-01	N5E03	5_N	1250	2	N_N	N_N	4.8	4.2	13.333	4.8	4.2				
N4E05-02	N4E05	6_NE	1000	2	N_N	N_N	5.6	4.9	13.333	5.6	4.9				
N1W06-25	N1W06	2_W	750	2	N_N	N_N	7.77	6.8	13.315	6.8	7.77				
N1W05-10	N1W05	2_W	500	2	N_N	N_N	7.5	6.57	13.22	7.5	6.57				
N4E06-04	N4E06	6_NE	1250	2	N_N	N_N	8.9	7.8	13.174	8.9	7.8				
S4E06-02	S4E06	8_SE	1000	2	N_N	N_N	8.1	7.1	13.158	8.1	7.1				
N8W02-12	N8W02	5_N	1750	2	N_N	N_N	6.5	5.7	13.115	6.5	5.7				
S1W09-21	S1W09	2_W	1000	2	N_N	N_N	6.5	5.7	13.115	5.7	6.5				
S2W11-16	S2W11	2_W	1250	2	N_N	N_N	6.5	5.7	13.115	6.5	5.7				
N5E02-41	N5E02	5_N	1000	2	N_N	N_N	5.7	5	13.084	5.7	5				5
S2W10-19	S2W10	2_W	1250	2	N_N	N_N	5.7	5	13.084	5.7	5				
N4E06-01	N4E06	6_NE	1250	2	N_N	N_N	4.9	4.3	13.043	4.9	4.3				4.3
S3W09-20	S3W09	3_SW	1250	2	N_N	N_N	4.9	4.3	13.043	4.9	4.3				
S1W07-02	S1W07	2_W	750	2	N_N	N_N	3.76	3.3	13.031	3.3	3.76				
N3W11-19	N3W11	1_NW	1250	2	N_N	N_N	4.1	3.6	12.987	3.6	4.1				
N4E09-13	N4E09	6_NE	1500	2	N_N	N_N	4.1	3.6	12.987	4.1	3.6				
S4W06-28	S4W06	3_SW	1000	2	N_N	N_N	4.1	3.6	12.987	4.1	3.6				
N4W07-28	N4W07	1_NW	1000	2	N_N	N_N	3.3	2.9	12.903	3.3	2.9				
S4W06-05	S4W06	3_SW	1000	2	N_N	N_N	6.6	5.8	12.903	6.6	5.8				
S7W03-07	S7W03	4_S	1500	2	N_N	N_N	6.6	5.8	12.903	6.6	5.8				
N1W04-18	N1W04	2_W	500	2	N_N	N_N	5.8	5.1	12.844	5.8	5.1				
S7E04-13	S7E04	4_S	1500	2	Y_Y	N_N	17.4	15.3	12.844	15.3	17.4				
N7W02-01	N7W02	5_N	1500	3	N_N	N_N	2.5	2.2	12.766	2.4	2.2				2.5
N3E09-05	N3E09	6_NE	1250	2	N_N	N_N	5	4.4	12.766	4.4	5				
S5W06-02	S5W06	3_SW	1000	2	N_N	N_N	5	4.4	12.766	5	4.4				

TABLE 9
Evaluation of Yard Specific Variability
South Minneapolis Soil Arsenic Evaluation

Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
N3W11-20	N3W11	1_NW	1250	2	N_N	N_N	4.2	3.7	12.658	4.2	3.7				
S4W05-28	S4W05	3_SW	1000	2	N_N	N_N	4.2	3.7	12.658	4.2	3.7				
S7W02-18	S7W02	4_S	1500	2	N_N	N_N	4.2	3.7	12.658	4.2	3.7				
S1W08-23	S1W08	2_W	1000	2	N_N	N_N	5.9	5.2	12.613	5.2	5.9				
S3W09-05	S3W09	3_SW	1000	2	N_N	N_N	5.9	5.2	12.613	5.2	5.9				
S4E03-06	S4E03	4_S	1000	2	N_N	N_N	5.9	5.2	12.613	5.9	5.2				
S4W06-16	S4W06	3_SW	1000	2	N_N	N_N	5.9	5.2	12.613	5.9	5.2				
N1W07-30	N1W07	2_W	750	2	N_N	N_N	7.6	6.7	12.587	7.6	6.7				
N5W07-16	N5W07	1_NW	1250	2	N_N	N_N	3.8	3.35	12.587	3.8	3.35				
N4E03-15	N4E03	5_N	1000	2	Y_Y	N_N	20.3	17.9	12.565	20.3	17.9				
S1E09-17	S1E09	7_E	1250	2	Y_Y	N_N	37.4	33	12.5	33	37.4				
N1W10-01	N1W10	2_W	1000	2	N_N	N_N	5.1	4.5	12.5	4.5					5.1
N5E02-24	N5E02	5_N	1000	2	N_N	N_N	1.7	1.5	12.5	1.7	1.5				
N6E05-17	N6E05	6_NE	1250	2	N_N	N_N	3.4	3	12.5	3.4	3				
S5W02-17	S5W02	4_S	1000	2	Y_Y	N_N	28.2	24.9	12.429	28.2	24.9				
N4W06-08	N4W06	1_NW	1000	2	N_N	N_N	6	5.3	12.389	6	5.3				
S3W03-17	S3W03	3_SW	750	2	N_N	N_N	6	5.3	12.389	6	5.3				
N1W06-06	N1W06	2_W	750	2	N_N	N_N	4.3	3.8	12.346	3.8	4.3				
N3W14-12	N3W14	2_W	1500	2	N_N	N_N	4.3	3.8	12.346	3.8	4.3				
S3W04-10	S3W04	3_SW	750	2	N_N	N_N	8.6	7.6	12.346	7.6	8.6				
N2W09-11	N2W09	2_W	1000	2	N_N	N_N	6.9	6.1	12.308	6.1	6.9				
N5E02-35	N5E02	5_N	1000	2	N_N	N_N	2.6	2.3	12.245	2.6	2.3				
N3W04-09	N3W04	1_NW	750	2	N_N	N_N	5.9	5.22	12.23	5.9					5.22
N3W02-01	N3W02	5_N	500	2	N_Y	N_N	10.17	9	12.207	9	10.17				
N4W12-17	N4W12	1_NW	1500	2	N_N	N_N	6.1	5.4	12.174	6.1	5.4				
N2W12-09	N2W12	2_W	1250	2	N_N	N_N	7	6.2	12.121	6.2	7				
N4W12-29	N4W12	1_NW	1500	2	N_N	N_N	3.5	3.1	12.121	3.5	3.1				
N2W06-17	N2W06	2_W	750	2	N_N	N_N	4.4	3.9	12.048	4.4	3.9				
N4W13-20	N4W13	1_NW	1500	2	N_N	N_N	4.4	3.9	12.048	4.4	3.9				
S3W06-12	S3W06	3_SW	750	2	N_N	N_N	9.7	8.6	12.022	8.6	9.7				
N5W11-06	N5W11	1_NW	1500	2	Y_Y	N_N	54.7	48.5	12.016	54.7	48.5				
S5E03-25	S5E03	4_S	1250	2	N_N	N_N	5.3	4.7	12	4.7	5.3				
S1W10-09	S1W10	2_W	1000	2	N_Y	N_N	11.05	9.8	11.99	9.8	11.05				
S7E03-12	S7E03	4_S	1500	2	N_N	N_N	6.2	5.5	11.966	6.2	5.5				
N3W13-01	N3W13	1_NW	1500	2	N_N	N_N	7.1	6.3	11.94	7.1	6.3				
S1W13-07	S1W13	2_W	1250	2	N_N	N_N	7.1	6.3	11.94	6.3	7.1				
N2W04-05	N2W04	1_NW	500	2	Y_Y	N_N	12	10.65	11.921	12	10.65				
N6E02-10	N6E02	5_N	1250	2	N_N	N_N	5.4	4.8	11.765	5.4	4.8				
S1W10-23	S1W10	2_W	1000	2	N_N	N_N	2.7	2.4	11.765	2.7	2.4				

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Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
S4W10-19	S4W10	3_SW	1250	2	N_N	N_N	6.3	5.6	11.765	6.3	5.6				
N4E06-05	N4E06	6_NE	1250	2	N_N	N_N	4.5	4	11.765	4	4.5				
N4W10-13	N4W10	1_NW	1250	2	N_N	N_N	4.5	4	11.765	4	4.5				
N5E04-18	N5E04	6_NE	1000	2	N_N	N_N	4.5	4	11.765	4.5	4				
N6E04-17	N6E04	5_N	1250	2	N_N	N_N	4.5	4	11.765	4	4.5				
S3W12-12	S3W12	3_SW	1500	2	N_N	N_N	4.5	4	11.765	4.5	4				
S4E02-08	S4E02	4_S	750	2	N_N	N_N	4.5	4	11.765	4	4.5				
S5E03-01	S5E03	4_S	1000	2	N_N	N_N	4.5	4	11.765	4	4.5				
N3W10-01	N3W10	1_NW	1250	2	N_N	N_N	3.6	3.2	11.765		3.2				3.6
N4E09-07	N4E09	6_NE	1500	2	N_N	N_N	3.6	3.2	11.765	3.6	3.2				
N4W11-22	N4W11	1_NW	1500	2	N_N	N_N	3.6	3.2	11.765	3.6	3.2				
S2W06-04	S2W06	3_SW	750	2	N_N	N_N	9.9	8.8	11.765	9.9	8.8				
S5W01-19	S5W01	4_S	1000	2	N_N	N_N	9.9	8.8	11.765	9.9	8.8				
S5W06-21	S5W06	3_SW	1250	2	Y_Y	N_N	20.9	18.6	11.646	18.6	20.9				
N1W05-17	N1W05	2_W	500	2	N_N	N_N	10	8.9	11.64	8.9	10				
N2W11-26	N2W11	2_W	1250	2	N_N	N_N	8.2	7.3	11.613	8.2	7.3				
N5E01-13	N5E01	5_N	1000	2	N_N	N_N	6.4	5.7	11.57	5.7					6.4
S1E10-14	S1E10	7_E	1250	2	N_N	N_N	6.4	5.7	11.57	5.7	6.4				
S1W10-15	S1W10	2_W	1000	2	N_N	N_N	5.5	4.9	11.538	5.5	4.9				
S1W10-24	S1W10	2_W	1000	2	N_N	N_N	5.5	4.9	11.538	5.5	4.9				
S4W10-27	S4W10	3_SW	1250	2	N_N	N_N	5.5	4.9	11.538	5.5	4.9				
N2W12-17	N2W12	2_W	1250	2	N_N	N_N	4.6	4.1	11.494	4.1	4.6				
S2E10-04	S2E10	7_E	1250	2	N_N	N_N	9.2	8.2	11.494	9.2	8.2				
N2W11-16	N2W11	2_W	1250	2	N_N	N_N	3.7	3.3	11.429	3.7	3.3				
N4E03-06	N4E03	6_NE	1000	2	N_N	N_N	3.7	3.3	11.429	3.3	3.7				
S4E09-10	S4E09	8_SE	1500	2	N_N	N_N	7.4	6.6	11.429	7.4	6.6				
N2W09-19	N2W09	2_W	1000	2	N_N	N_N	6.5	5.8	11.382	6.5	5.8				
S1W12-06	S1W12	2_W	1250	2	N_N	N_N	6.5	5.8	11.382	5.8	6.5				
S4W04-16	S4W04	3_SW	1000	2	N_N	N_N	6.5	5.8	11.382	6.5	5.8				
S4W04-17	S4W04	3_SW	1000	2	N_N	N_N	6.5	5.8	11.382	5.8	6.5				
S3E10-15	S3E10	8_SE	1250	3	N_N	N_N	5.6	5	11.321	5	5.6				5.1
N1W06-14	N1W06	2_W	750	2	N_N	N_N	7.39	6.6	11.294	6.6					7.39
N1W13-02	N1W13	2_W	1250	2	N_N	N_N	4.7	4.2	11.236	4.7	4.2				
N3W06-05	N3W06	1_NW	750	2	N_N	N_N	4.7	4.2	11.236	4.2	4.7				
N4E05-13	N4E05	6_NE	1000	2	N_N	N_N	4.7	4.2	11.236	4.7	4.2				
N5E03-24	N5E03	5_N	1000	2	N_N	N_N	4.7	4.2	11.236	4.7					4.2
S1E07-06	S1E07	7_E	1000	2	N_N	N_N	4.7	4.2	11.236	4.7	4.2				
S4E01-10	S4E01	4_S	750	2	N_N	N_N	4.7	4.2	11.236	4.2	4.7				
S7E04-09	S7E04	4_S	1500	2	N_N	N_N	6.6	5.9	11.2	6.6	5.9				

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Evaluation of Yard Specific Variability
South Minneapolis Soil Arsenic Evaluation

Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
S1W05-03	S1W05	2_W	500	2	N_N	N_N	6.82	6.1	11.146	6.1	6.82				
N2W04-09	N2W04	1_NW	500	2	N_N	N_N	5.7	5.1	11.111	5.7	5.1				
N2W12-08	N2W12	2_W	1250	2	N_N	N_N	5.7	5.1	11.111	5.1	5.7				
N4W10-06	N4W10	1_NW	1250	2	N_N	N_N	5.7	5.1	11.111	5.1	5.7				
S2W07-23	S2W07	2_W	750	2	N_N	N_N	5.7	5.1	11.111	5.1	5.7				
S3W08-12	S3W08	3_SW	1000	2	N_N	N_N	5.7	5.1	11.111	5.7	5.1				
N2W03-09	N2W03	1_NW	500	2	N_N	N_N	9.5	8.5	11.111	9.5	8.5				
N1W11-04	N1W11	2_W	1250	2	N_N	N_N	1.9	1.7	11.111	1.9	1.7				
N4E05-08	N4E05	6_NE	1000	2	N_N	N_N	3.8	3.4	11.111	3.8	3.4				
N5W11-03	N5W11	1_NW	1500	2	N_N	N_N	1.9	1.7	11.111	1.7					1.9
N5W12-22	N5W12	1_NW	1500	2	N_N	N_N	1.9	1.7	11.111	1.7	1.9				
S4W03-01	S4W03	3_SW	750	2	N_N	N_N	4.8	4.3	10.989	4.3	4.8				
S4W05-16	S4W05	3_SW	1000	2	N_N	N_N	4.8	4.3	10.989	4.3	4.8				
N4W07-29	N4W07	1_NW	1000	3	N_N	N_N	3.46	3.1	10.976	3.2	3.1				3.46
S2W12-18	S2W12	2_W	1250	2	Y_Y	N_N	11.6	10.4	10.909	10.4	11.6				
N3W06-11	N3W06	1_NW	750	2	N_N	N_N	5.8	5.2	10.909	5.2	5.8				
N4W12-20	N4W12	1_NW	1500	2	N_N	N_N	2.9	2.6	10.909	2.9	2.6				
N6E02-34	N6E02	5_N	1250	2	N_N	N_N	2.9	2.6	10.909	2.9	2.6				
N1W08-24	N1W08	2_W	1000	2	N_N	N_N	6.8	6.1	10.853	6.1	6.8				
S3E09-18	S3E09	8_SE	1250	2	N_Y	N_N	10.7	9.6	10.837	10.7	9.6				
N3W13-03	N3W13	1_NW	1500	2	N_N	N_N	3.9	3.5	10.811	3.9	3.5				
S4W05-07	S4W05	3_SW	1000	2	N_N	N_N	3.9	3.5	10.811	3.5	3.9				
S7W01-29	S7W01	4_S	1250	2	N_N	N_N	3.9	3.5	10.811	3.9	3.5				
N3W11-07	N3W11	1_NW	1250	2	N_N	N_N	4.9	4.4	10.753	4.4	4.9				
S4W06-12	S4W06	3_SW	1000	2	N_N	N_N	5.9	5.3	10.714	5.3	5.9				
S5W04-05	S5W04	4_S	1000	2	Y_Y	N_N	26.6	23.9	10.693	23.9	26.6				
S7E04-14	S7E04	4_S	1500	2	N_N	N_N	6.9	6.2	10.687	6.2	6.9				
S2W05-16	S2W05	3_SW	750	2	N_N	N_N	7.9	7.1	10.667	7.1	7.9				3.33
N2W07-16	N2W07	2_W	750	2	N_N	N_N	3.7	3.33	10.526	3.7					
N3W12-31	N3W12	1_NW	1500	2	N_N	N_N	5	4.5	10.526	5	4.5				
N3W14-19	N3W14	2_W	1500	2	N_N	N_N	5	4.5	10.526	5	4.5				
S1W06-22	S1W06	2_W	750	2	N_N	N_N	10	9	10.526	10	9				
S4W05-08	S4W05	3_SW	1000	2	N_N	N_N	5	4.5	10.526	4.5	5				
S7W01-13	S7W01	4_S	1500	2	N_N	N_N	5	4.5	10.526	5	4.5				4.5
S7W03-26	S7W03	4_S	1500	2	N_N	N_N	5	4.5	10.526	5					
N3W10-24	N3W10	1_NW	1250	2	N_N	N_N	2	1.8	10.526	1.8	2				
N5W12-10	N5W12	1_NW	1500	2	N_N	N_N	2	1.8	10.526	2	1.8				
N6E02-37	N6E02	5_N	1250	2	N_N	N_N	4	3.6	10.526	3.6	4				
S3W10-15	S3W10	3_SW	1250	2	N_N	N_N	4	3.6	10.526	4	3.6				

TABLE 9
Evaluation of Yard Specific Variability
South Minneapolis Soil Arsenic Evaluation

Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
S5W07-11	S5W07	3_SW	1250	2	N_N	N_N	4	3.6	10.526	3.6	4				
N1W12-17	N1W12	2_W	1250	2	N_N	N_N	6	5.4	10.526	6	5.4				
S3E06-19	S3E06	8_SE	1000	2	N_N	N_N	6	5.4	10.526	6	5.4				
S3W07-09	S3W07	3_SW	1000	2	N_N	N_N	6	5.4	10.526	5.4	6				
S1W09-17	S1W09	2_W	1000	2	N_N	N_N	8.1	7.3	10.39	7.3	8.1				
S1E10-26	S1E10	7_E	1250	2	N_N	N_N	7.1	6.4	10.37	6.4	7.1				
S4E07-15	S4E07	8_SE	1250	2	N_N	N_N	7.1	6.4	10.37	6.4	7.1				
S6W04-05	S6W04	4_S	1250	2	N_N	N_N	6.1	5.5	10.345	5.5	6.1				
N4W09-19	N4W09	1_NW	1250	3	N_N	N_N	5.1	4.6	10.309	5.1	4.8				4.6
N6E05-22	N6E05	6_NE	1250	2	N_N	N_N	5.1	4.6	10.309	5.1	4.6				
S4W03-21	S4W03	4_S	1000	2	N_N	N_N	5.1	4.6	10.309	4.6	5.1				
S5W07-13	S5W07	3_SW	1250	2	N_N	N_N	5.1	4.6	10.309	4.6	5.1				
S7E03-15	S7E03	4_S	1500	2	N_N	N_N	5.1	4.6	10.309	4.6					5.1
S2E08-04	S2E08	7_E	1000	3	Y_Y	N_N	31.7	28.6	10.282	28.6	29.9				31.7
S5W06-05	S5W06	3_SW	1250	2	N_N	N_N	8.2	7.4	10.256	8.2	7.4				
S7E03-21	S7E03	4_S	1500	2	N_N	N_N	4.1	3.7	10.256	3.7					4.1
N3W13-09	N3W13	2_W	1500	2	N_N	N_N	6.2	5.6	10.169	5.6	6.2				
N5W12-01	N5W12	1_NW	1750	2	N_N	N_N	3.1	2.8	10.169	2.8	3.1				
N3W04-01	N3W04	1_NW	750	2	Y_Y	N_N	93	84	10.169	93	84				
S4W05-15	S4W05	3_SW	1000	2	Y_Y	N_N	47.7	43.1	10.132	47.7					43.1
S3W08-11	S3W08	3_SW	1000	2	N_N	N_N	8.3	7.5	10.127	8.3	7.5				
N2W06-01	N2W06	1_NW	750	2	N_N	N_N	5.2	4.7	10.101	5.2	4.7				
N2W06-21	N2W06	1_NW	750	2	N_N	N_N	5.2	4.7	10.101	5.2	4.7				
N2W09-09	N2W09	2_W	1000	2	N_N	N_N	5.2	4.7	10.101	4.7	5.2				
N3W07-22	N3W07	1_NW	1000	2	N_N	N_N	5.2	4.7	10.101	5.2	4.7				
S5W07-04	S5W07	3_SW	1250	2	N_N	N_N	5.2	4.7	10.101	4.7	5.2				
S7W03-20	S7W03	4_S	1500	2	N_N	N_N	5.2	4.7	10.101	5.2	4.7				
N4W09-23	N4W09	1_NW	1250	2	N_N	N_N	4.2	3.8	10	3.8	4.2				
S3E02-01	S3E02	4_S	500	2	N_N	N_N	2.1	1.9	10	2.1	1.9				
S4W07-14	S4W07	3_SW	1000	2	N_N	N_N	4.2	3.8	10	3.8	4.2				
S5W06-08	S5W06	3_SW	1250	2	Y_Y	N_N	46.4	42	9.9548	46.4	42				
N3W06-12	N3W06	1_NW	750	2	N_N	N_N	5.3	4.8	9.901	5.3	4.8				
N6E06-23	N6E06	6_NE	1500	2	Y_Y	N_N	48.9	44.3	9.8712	44.3	48.9				
N4W12-08	N4W12	1_NW	1500	2	N_N	N_N	6.4	5.8	9.8361	5.8	6.4				
N4W12-09	N4W12	1_NW	1500	2	N_N	N_N	6.4	5.8	9.8361	5.8	6.4				
S6E03-07	S6E03	4_S	1250	2	N_N	N_N	6.4	5.8	9.8361	5.8	6.4				
S3W06-10	S3W06	3_SW	750	2	N_N	N_N	7.5	6.8	9.7902	6.8	7.5				
N1W09-14	N1W09	2_W	1000	2	N_N	N_N	5.9	5.35	9.7778	5.35					5.9
N1W07-13	N1W07	2_W	750	2	N_N	N_N	4.3	3.9	9.7561	4.3	3.9				

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					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
N4E06-07	N4E06	6_NE	1250	2	N_N	N_N	4.3	3.9	9.7561	4.3	4.3				3.9
N5E05-10	N5E05	6_NE	1250	2	N_N	N_N	4.3	3.9	9.7561	4.3	3.9				
S2W11-14	S2W11	2_W	1250	2	N_N	N_N	4.3	3.9	9.7561	3.9	4.3				
S7E02-26	S7E02	4_S	1500	3	N_N	N_N	5.4	4.9	9.7087	5.1	4.9				5.4
S6W05-19	S6W05	3_SW	1250	2	N_N	N_N	5.4	4.9	9.7087	4.9	5.4				
S7W03-17	S7W03	4_S	1500	2	Y_Y	N_N	62.7	56.9	9.699	62.7	56.9				
N2W10-19	N2W10	2_W	1000	2	N_N	N_N	6.5	5.9	9.6774	5.9	6.5				
S1W06-18	S1W06	2_W	750	2	N_N	N_N	6.5	5.9	9.6774	5.9	6.5				
S4E09-15	S4E09	8_SE	1500	3	N_N	N_N	7.6	6.9	9.6552	7.6	7.2				6.9
S4E01-27	S4E01	4_S	750	2	N_N	N_N	9.8	8.9	9.6257	8.9	9.8				
N2W11-06	N2W11	2_W	1250	2	N_N	N_N	4.4	4	9.5238	4.4	4				
N5E07-09	N5E07	6_NE	1250	2	N_N	N_N	4.4	4	9.5238	4.4	4				
N5W13-04	N5W13	1_NW	1750	2	N_N	N_N	2.2	2	9.5238	2	2.2				
S4E01-04	S4E01	4_S	750	2	N_N	N_N	2.2	2	9.5238	2.2	2				
S5W07-22	S5W07	3_SW	1250	2	N_N	N_N	4.4	4	9.5238	4.4	4				
S1E10-25	S1E10	7_E	1250	2	N_N	N_N	7.7	7	9.5238	7	7.7				
S2E09-19	S2E09	7_E	1250	2	N_N	N_N	7.7	7	9.5238	7	7.7				
S4E01-22	S4E01	4_S	750	2	N_N	N_N	7.7	7	9.5238	7	7.7				
S4E07-14	S4E07	8_SE	1250	2	N_N	N_N	7.7	7	9.5238	7.7	7				
S2W09-01	S2W09	2_W	1000	2	N_N	N_N	5.5	5	9.5238	5.5	5				
N5W09-02	N5W09	1_NW	1500	2	N_N	N_N	3.3	3	9.5238	3	3.3				
S4E09-22	S4E09	8_SE	1250	2	N_N	N_N	7.8	7.1	9.396	7.1	7.8				
N6E03-22	N6E03	5_N	1250	2	N_N	N_N	6.7	6.1	9.375	6.7	6.1				
S2W07-05	S2W07	3_SW	750	2	N_N	N_N	6.7	6.1	9.375	6.1	6.7				
S1W10-29	S1W10	2_W	1000	2	N_N	N_N	5.6	5.1	9.3458	5.6	5.1				
N3E09-09	N3E09	6_NE	1250	2	N_N	N_N	4.5	4.1	9.3023	4.1					4.5
N5E08-02	N5E08	6_NE	1500	2	N_N	N_N	4.5	4.1	9.3023	4.5	4.1				
S3W10-06	S3W10	3_SW	1250	2	N_N	N_N	4.5	4.1	9.3023	4.1	4.5				
S6W03-03	S6W03	4_S	1250	2	N_N	N_N	4.5	4.1	9.3023	4.5	4.1				
S4E09-18	S4E09	8_SE	1250	2	N_N	N_N	7.9	7.2	9.2715	7.2	7.9				
N2W05-20	N2W05	1_NW	750	2	N_N	N_N	5.6	5.105	9.248	5.6					5.105
N1W06-13	N1W06	2_W	750	2	N_N	N_N	6.8	6.2	9.2308	6.2	6.8				
N1W13-04	N1W13	2_W	1250	2	N_N	N_N	6.8	6.2	9.2308	6.2	6.8				
N6W12-07	N6W12	1_NW	1750	2	N_N	N_N	3.4	3.1	9.2308						3.1
N8W03-15	N8W03	5_N	1750	2	N_N	N_N	3.4	3.1	9.2308	3.4	3.1				
S2W12-15	S2W12	2_W	1250	2	N_N	N_N	6.8	6.2	9.2308	6.8	6.2				
S3W04-23	S3W04	3_SW	750	2	N_N	N_N	6.8	6.2	9.2308	6.8	6.2				
S3W10-21	S3W10	3_SW	1250	2	N_N	N_N	9.1	8.3	9.1954	8.3	9.1				
N2W14-01	N2W14	2_W	1500	2	N_N	N_N	2.96	2.7	9.1873						2.96
															2.7

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					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
S1W13-12	S1W13	2_W	1250	2	N_N	N_N	5.7	5.2	9.1743	5.2	5.7				5.75
N1W04-02	N1W04	1_NW	500	2	N_N	N_N	6.3	5.75	9.1286	6.3					
N3W13-16	N3W13	2_W	1500	2	N_N	N_N	6.9	6.3	9.0909	6.9	6.3				
S4E08-17	S4E08	8_SE	1250	2	N_N	N_N	6.9	6.3	9.0909	6.9	6.3				
N1E10-11	N1E10	7_E	1250	2	N_N	N_N	4.6	4.2	9.0909	4.6	4.2				
N4W11-14	N4W11	1_NW	1250	2	N_N	N_N	2.3	2.1	9.0909	2.1	2.3				
S4E01-01	S4E01	4_S	750	2	N_N	N_N	2.3	2.1	9.0909	2.3					2.1
S5W04-04	S5W04	4_S	1000	2	N_N	N_N	4.6	4.2	9.0909	4.2	4.6				
N5E07-10	N5E07	6_NE	1250	2	N_N	N_N	5.8	5.3	9.009	5.3	5.8				
S3W07-08	S3W07	3_SW	1000	2	N_N	N_N	5.8	5.3	9.009	5.8	5.3				
N2W05-06	N2W05	1_NW	750	2	N_N	N_N	3.5	3.2	8.9552	3.5	3.2				
N3E08-09	N3E08	6_NE	1250	2	N_N	N_N	7	6.4	8.9552	6.4	7				
N3W09-25	N3W09	1_NW	1000	2	N_N	N_N	3.5	3.2	8.9552	3.5	3.2				
N4W08-34	N4W08	1_NW	1250	2	N_N	N_N	3.5	3.2	8.9552	3.2	3.5				
S4E01-26	S4E01	4_S	750	2	N_N	N_N	7	6.4	8.9552	6.4	7				
S5E08-06	S5E08	8_SE	1500	2	N_N	N_N	8.2	7.5	8.9172	8.2	7.5				
S2W07-21	S2W07	2_W	750	2	N_N	N_N	5.9	5.4	8.8496	5.9	5.4				
S3W06-11	S3W06	3_SW	750	2	N_N	N_N	5.9	5.4	8.8496	5.9	5.4				
S1E07-16	S1E07	7_E	1000	2	N_N	N_N	9.5	8.7	8.7912	9.5	8.7				
N3E09-15	N3E09	6_NE	1250	2	Y_Y	N_N	14.3	13.1	8.7591	13.1	14.3				
S4W07-26	S4W07	3_SW	1000	2	N_N	N_N	3.6	3.3	8.6957	3.3	3.6				
S5E09-08	S5E09	8_SE	1500	2	N_N	N_N	3.6	3.3	8.6957	3.3	3.6				
S3W01-06	S3W01	4_S	500	2	Y_Y	N_N	12	11	8.6957	11	12				
N6E07-08	N6E07	6_NE	1500	2	N_N	N_N	6	5.5	8.6957	5.5	6				
S7W02-20	S7W02	4_S	1500	2	N_N	N_N	6	5.5	8.6957	5.5	6				
S4W07-07	S4W07	3_SW	1000	2	N_N	N_N	2.4	2.2	8.6957	2.4	2.2				
N2W10-16	N2W10	2_W	1000	2	N_N	N_N	6.1	5.6	8.547	6.1	5.6				
S2W06-12	S2W06	3_SW	750	2	N_N	N_N	6.1	5.6	8.547	6.1	5.6				
S5E09-21	S5E09	8_SE	1500	2	Y_Y	N_N	11	10.1	8.5308	11	10.1				
S7W02-12	S7W02	4_S	1500	3	N_N	N_N	4.9	4.5	8.5106	4.5	4.9				4.9
N6E05-25	N6E05	6_NE	1250	2	N_N	N_N	4.9	4.5	8.5106	4.9	4.5				
S7E01-13	S7E01	4_S	1500	2	N_N	N_N	4.9	4.5	8.5106	4.9	4.5				
N1W06-24	N1W06	2_W	750	2	N_N	N_N	5.9	5.42	8.4806	5.42	5.9				
S3E10-16	S3E10	8_SE	1250	2	Y_Y	N_N	61.6	56.6	8.4602	56.6	61.6				
S3W06-28	S3W06	3_SW	1000	2	N_N	N_N	7.4	6.8	8.4507	7.4	6.8				
N2W05-19	N2W05	1_NW	750	2	N_N	N_N	6.2	5.7	8.4034	6.2	5.7				
S4E07-07	S4E07	8_SE	1250	2	N_N	N_N	6.2	5.7	8.4034	6.2	5.7				
S1E10-20	S1E10	7_E	1250	2	N_N	N_N	8.7	8	8.3832	8.7	8				
S4E08-27	S4E08	8_SE	1250	2	N_N	N_N	8.7	8	8.3832	8	8.7				

TABLE 9
Evaluation of Yard Specific Variability
South Minneapolis Soil Arsenic Evaluation

Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
S1E07-04	S1E07	7_E	1000	3	N_N	N_N	5	4.6	8.3333	4.6	4.8				5
N3W11-02	N3W11	1_NW	1250	2	N_N	N_N	2.5	2.3	8.3333	2.5	2.3				
N3W12-02	N3W12	1_NW	1500	2	N_N	N_N	2.5	2.3	8.3333	2.3	2.5				
N5W13-12	N5W13	1_NW	1750	2	N_N	N_N	2.5	2.3	8.3333	2.3	2.5				
S7E03-14	S7E03	4_S	1500	2	N_N	N_N	5	4.6	8.3333	4.6	5				
S7W03-19	S7W03	4_S	1500	2	N_N	N_N	5	4.6	8.3333	4.6	5				
S1E08-24	S1E08	7_E	1000	2	Y_Y	N_N	11.3	10.4	8.2949	11.3	10.4				
N5E02-33	N5E02	5_N	1000	2	N_N	N_N	8.8	8.1	8.284	8.1	8.8				
N2W06-04	N2W06	1_NW	750	2	N_N	N_N	6.3	5.8	8.2645	5.8	6.3				
N4W12-06	N4W12	1_NW	1500	2	N_N	N_N	6.3	5.8	8.2645	5.8	6.3				
S6E03-04	S6E03	4_S	1250	2	N_N	N_N	6.3	5.8	8.2645	6.3	5.8				
N6E05-06	N6E05	6_NE	1250	2	N_N	N_N	3.8	3.5	8.2192	3.5	3.8				
N4W10-09	N4W10	1_NW	1250	2	N_N	N_N	4	3.685	8.1978	4	3.685				
N3W06-24	N3W06	1_NW	1000	2	Y_Y	N_N	51	47	8.1633	51	47				
N1W08-18	N1W08	2_W	1000	2	N_N	N_N	5.1	4.7	8.1633	5.1	4.7				
N6E04-18	N6E04	5_N	1250	2	N_N	N_N	5.1	4.7	8.1633	4.7	5.1				
S3W05-20	S3W05	3_SW	750	2	N_N	N_N	7.7	7.1	8.1081	7.7	7.1				
N3E08-10	N3E08	6_NE	1250	2	N_N	N_N	5.2	4.8	8	5.2	4.8				
N5W10-07	N5W10	1_NW	1500	2	N_N	N_N	2.6	2.4	8	2.6	2.4				
S3W06-24	S3W06	3_SW	1000	2	N_N	N_N	5.2	4.8	8	5.2	4.8				
S5W07-08	S5W07	3_SW	1250	2	N_N	N_N	5.2	4.8	8	4.8	5.2				
S2E08-11	S2E08	7_E	1000	2	N_N	N_N	6.5	6	8	6.5	6				
S3W06-32	S3W06	3_SW	750	2	N_N	N_N	6.5	6	8	6.5	6				
S5W05-19	S5W05	3_SW	1250	2	N_N	N_N	6.5	6	8	6	6.5				
N4W10-21	N4W10	1_NW	1250	3	N_N	N_N	3.9	3.6	8	3.6	3.9				3.8
N2W06-23	N2W06	1_NW	750	2	N_N	N_N	3.9	3.6	8	3.9	3.6				
N3W10-07	N3W10	1_NW	1250	2	N_N	N_N	3.9	3.6	8	3.6	3.9				
N4E03-17	N4E03	5_N	1000	2	N_N	N_N	3.9	3.6	8	3.6	3.9				
N4E09-27	N4E09	6_NE	1250	2	N_N	N_N	3.9	3.6	8	3.9	3.6				
S4W05-10	S4W05	3_SW	1000	2	N_N	N_N	3.9	3.6	8	3.9	3.6				
S3W02-04	S3W02	4_S	500	2	N_N	N_N	9.1	8.4	8	8.4	9.1				
N2W05-18	N2W05	1_NW	750	2	N_N	N_N	8.1	7.48	7.9589	8.1	7.48				
N2W06-20	N2W06	1_NW	750	2	N_N	N_N	7.9	7.3	7.8947	7.9	7.3				
N3W05-06	N3W05	1_NW	750	2	N_N	N_N	6.6	6.1	7.874	6.1	6.6				
S5E02-12	S5E02	4_S	1000	2	N_N	N_N	6.6	6.1	7.874	6.6	6.1				
S3W07-20	S3W07	3_SW	1000	2	N_N	N_N	5.3	4.9	7.8431	4.9	5.3				
S4W04-19	S4W04	3_SW	1000	2	N_N	N_N	5.3	4.9	7.8431	4.9	5.3				5.3
N3W08-09	N3W08	1_NW	1000	3	N_N	N_N	4	3.7	7.7922	3.7	4				3.77
N3W04-06	N3W04	1_NW	750	2	N_N	N_N	8	7.4	7.7922	8	7.4				

TABLE 9
Evaluation of Yard Specific Variability
South Minneapolis Soil Arsenic Evaluation

Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
N3W11-09	N3W11	1_NW	1250	2	N_N	N_N	4	3.7	7.7922	3.7	4				
N5E06-17	N5E06	6_NE	1250	2	N_N	N_N	4	3.7	7.7922	4	3.7				
N6E05-09	N6E05	6_NE	1250	2	N_N	N_N	4	3.7	7.7922	4	3.7				
N6W11-04	N6W11	1_NW	1500	2	N_N	N_N	4	3.7	7.7922		4			3.7	
N7W08-01	N7W08	1_NW	1500	2	N_N	N_N	4	3.7	7.7922			4		3.7	
N4W08-19	N4W08	1_NW	1000	2	N_N	N_N	2.81	2.6	7.7634		2.6				2.81
S2E09-07	S2E09	7_E	1250	3	N_N	N_N	6.7	6.2	7.7519	6.2	6.6			6.7	
N1E10-14	N1E10	7_E	1250	2	N_N	N_N	6.7	6.2	7.7519	6.2	6.7				
N1W11-06	N1W11	2_W	1250	2	N_N	N_N	6.7	6.2	7.7519	6.7	6.2				
S4W10-18	S4W10	3_SW	1250	2	N_N	N_N	6.7	6.2	7.7519	6.2	6.7				
S4W09-16	S4W09	3_SW	1250	2	Y_Y	N_N	33.6	31.1	7.728	33.6	31.1				
N6E02-44	N6E02	5_N	1250	2	N_N	N_N	5.4	5	7.6923	5.4	5				
S4W04-15	S4W04	3_SW	1000	2	N_N	N_N	6.8	6.3	7.6336	6.3	6.8				
S6W04-15	S6W04	4_S	1250	2	N_N	N_N	6.8	6.3	7.6336	6.8	6.3				
S1E10-05	S1E10	7_E	1250	2	Y_Y	N_N	24.5	22.7	7.6271	22.7	24.5				
N1W11-26	N1W11	2_W	1250	2	N_N	N_N	4.1	3.8	7.5949	4.1	3.8				
N3W03-11	N3W03	1_NW	750	2	N_N	N_N	4.1	3.8	7.5949	4.1	3.8				
S3W09-18	S3W09	3_SW	1250	2	N_N	N_N	4.1	3.8	7.5949	4.1	3.8				
S7E02-31	S7E02	4_S	1500	2	N_N	N_N	4.1	3.8	7.5949	4.1	3.8				
S7W01-05	S7W01	4_S	1250	2	N_N	N_N	4.1	3.8	7.5949	4.1	3.8				
N2W07-11	N2W07	1_NW	750	2	N_N	N_N	5.2	4.82	7.5848	5.2	4.82				
S3W06-08	S3W06	3_SW	750	2	N_N	N_N	6.9	6.4	7.5188	6.9	6.4				
S5W07-24	S5W07	3_SW	1250	2	N_N	N_N	6.9	6.4	7.5188	6.4	6.9				
N5E05-05	N5E05	6_NE	1250	2	Y_Y	N_N	16.6	15.4	7.5	16.6	15.4				
S6E04-04	S6E04	8_SE	1250	2	N_N	N_N	8.3	7.7	7.5	7.7	8.3				
S6E02-06	S6E02	4_S	1250	2	Y_Y	N_N	54.5	50.6	7.4215	54.5	50.6				
N2W07-14	N2W07	2_W	750	2	N_N	N_N	6.57	6.1	7.4191	6.1					6.57
N4W12-12	N4W12	1_NW	1500	2	N_N	N_N	4.2	3.9	7.4074	3.9	4.2				
N7E04-20	N7E04	5_N	1500	2	N_N	N_N	4.2	3.9	7.4074	4.2	3.9				
S5E09-14	S5E09	8_SE	1500	2	Y_Y	N_N	18.2	16.9	7.4074	16.9	18.2				
S7W01-25	S7W01	4_S	1500	2	N_N	N_N	7	6.5	7.4074	6.5	7				
N2W11-28	N2W11	2_W	1250	2	N_N	N_N	2.8	2.6	7.4074	2.8	2.6				
N4W12-23	N4W12	1_NW	1500	2	N_N	N_N	2.8	2.6	7.4074	2.8	2.6				
S1E08-20	S1E08	7_E	1000	2	N_N	N_N	2.8	2.6	7.4074	2.6	2.8				
S3W07-17	S3W07	3_SW	1000	2	N_N	N_N	5.6	5.2	7.4074	5.6	5.2				
S5W06-13	S5W06	3_SW	1250	2	N_N	N_N	5.6	5.2	7.4074	5.2	5.6				
N2W04-08	N2W04	1_NW	500	2	N_N	N_N	6.35	5.9	7.3469	5.9					6.35
S4E08-13	S4E08	8_SE	1250	2	N_N	N_N	9.9	9.2	7.3298	9.2	9.9				
S4W08-09	S4W08	3_SW	1250	2	N_N	N_N	7.1	6.6	7.2993	7.1	6.6				

TABLE 9
Evaluation of Yard Specific Variability
South Minneapolis Soil Arsenic Evaluation

Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
N1W07-31	N1W07	2_W	750	2	N_N	N_N	5.7	5.3	7.2727	5.3	5.7				
N3W13-18	N3W13	2_W	1500	2	N_N	N_N	5.7	5.3	7.2727	5.3	5.7				
N5E01-14	N5E01	5_N	1000	2	N_N	N_N	5.7	5.3	7.2727	5.3	5.7				
S3W05-26	S3W05	3_SW	750	2	N_N	N_N	5.7	5.3	7.2727	5.7	5.3				
N3W06-19	N3W06	1_NW	750	2	Y_Y	N_N	59	54.86	7.2721	59					54.86
N5E06-22	N5E06	6_NE	1250	3	N_N	N_N	4.3	4	7.2289	4.2	4.3				4
S4W04-05	S4W04	3_SW	750	2	N_N	N_N	4.3	4	7.2289	4.3	4				
S5W04-14	S5W04	4_S	1250	2	N_N	N_N	4.3	4	7.2289	4	4.3				
S7W02-15	S7W02	4_S	1500	2	N_N	N_N	4.3	4	7.2289		4.3				4
S1W08-02	S1W08	2_W	750	2	N_N	N_N	5.1	4.745	7.2118	5.1	4.745				
S1W04-05	S1W04	2_W	500	2	N_N	N_N	7.2	6.7	7.1942	6.7	7.2				
S3W03-23	S3W03	3_SW	750	2	N_N	N_N	7.2	6.7	7.1942	6.7	7.2				
N4W09-13	N4W09	1_NW	1250	2	N_N	N_N	5.8	5.4	7.1429	5.4	5.8				
N5E07-04	N5E07	6_NE	1500	2	N_N	N_N	2.9	2.7	7.1429	2.7	2.9				
S4W08-25	S4W08	3_SW	1250	2	N_N	N_N	5.8	5.4	7.1429	5.4	5.8				
S5W06-15	S5W06	3_SW	1250	2	N_N	N_N	5.8	5.4	7.1429	5.8	5.4				
N2W10-15	N2W10	2_W	1000	2	N_N	N_N	5.6	5.215	7.1197		5.215				5.6
S1W06-06	S1W06	2_W	750	2	N_N	N_N	7.3	6.8	7.0922	6.8	7.3				
N4E03-05	N4E03	5_N	1000	2	N_N	N_N	4.4	4.1	7.0588		4.1				4.4
N6E02-21	N6E02	5_N	1250	2	N_N	N_N	4.4	4.1	7.0588	4.4	4.1				
S5W04-03	S5W04	4_S	1000	2	N_N	N_N	4.4	4.1	7.0588		4.4				4.1
S1W11-09	S1W11	2_W	1250	2	Y_Y	N_N	32.4	30.2	7.0288	30.2	32.4				
N4W09-18	N4W09	1_NW	1250	2	N_N	N_N	5.9	5.5	7.0175	5.5	5.9				
S5W03-22	S5W03	4_S	1000	2	N_N	N_N	5.9	5.5	7.0175	5.9	5.5				
S1E08-13	S1E08	7_E	1000	2	N_N	N_N	7.4	6.9	6.993	7.4	6.9				
N6E08-07	N6E08	6_NE	1500	2	Y_Y	N_N	19.3	18	6.9705	18	19.3				
S2W13-10	S2W13	2_W	1500	2	Y_Y	N_N	35.7	33.3	6.9565	33.3	35.7				
N1W07-17	N1W07	2_W	750	2	N_N	N_N	3	2.8	6.8966	3	2.8				
N1W09-06	N1W09	2_W	1000	2	N_N	N_N	3	2.8	6.8966	3	2.8				
N3W10-06	N3W10	1_NW	1250	2	N_N	N_N	3	2.8	6.8966	3	2.8				
N4E05-06	N4E05	6_NE	1000	2	N_N	N_N	3	2.8	6.8966	2.8	3				
S2W11-11	S2W11	2_W	1250	2	N_N	N_N	6	5.6	6.8966	5.6	6				
N2W05-13	N2W05	1_NW	750	2	N_N	N_N	7.5	7	6.8966	7	7.5				
N3W13-24	N3W13	1_NW	1500	2	N_N	N_N	4.5	4.2	6.8966	4.5	4.2				
S5W06-20	S5W06	3_SW	1250	2	N_N	N_N	7.6	7.1	6.8027	7.6	7.1				
N2W12-18	N2W12	2_W	1250	2	N_N	N_N	6.1	5.7	6.7797	6.1	5.7				
N6E02-00	N6E02	5_N	1250	2	N_N	N_N	3.05	2.85	6.7797		2.85	3.05			
S5W03-21	S5W03	4_S	1000	2	N_N	N_N	6.1	5.7	6.7797	5.7	6.1				
N5E04-17	N5E04	6_NE	1000	2	N_N	N_N	4.6	4.3	6.7416	4.6	4.3				

TABLE 9
Evaluation of Yard Specific Variability
South Minneapolis Soil Arsenic Evaluation

Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
S2W06-01	S2W06	2_W	750	2	N_N	N_N	4.6	4.3	6.7416	4.3	4.6				
S4E02-13	S4E02	4_S	1000	2	N_N	N_N	4.6	4.3	6.7416	4.6	4.3				
S5W07-10	S5W07	3_SW	1250	2	N_N	N_N	4.6	4.3	6.7416	4.6	4.3				
S1E07-17	S1E07	7_E	1000	2	N_N	N_N	9.3	8.7	6.6667	9.3					8.7
S1W07-14	S1W07	2_W	750	2	N_N	N_N	6.2	5.8	6.6667	6.2	5.8				
S1W10-21	S1W10	2_W	1000	2	N_N	N_N	3.1	2.9	6.6667	3.1	2.9				
S1E10-22	S1E10	7_E	1250	2	N_N	N_N	7.8	7.3	6.6225	7.8	7.3				
S4E01-25	S4E01	4_S	750	2	N_N	N_N	7.8	7.3	6.6225	7.3	7.8				
N3W12-32	N3W12	1_NW	1500	2	N_N	N_N	4.7	4.4	6.5934	4.4	4.7				
S3W03-21	S3W03	3_SW	750	2	N_N	N_N	4.7	4.4	6.5934	4.7	4.4				
S4W06-15	S4W06	3_SW	1000	2	N_N	N_N	6.3	5.9	6.5574	5.9	6.3				
S1E09-16	S1E09	7_E	1250	2	N_N	N_N	9.5	8.9	6.5217	9.5	8.9				
S7E04-25	S7E04	4_S	1500	2	Y_Y	N_N	88.8	83.2	6.5116	88.8	83.2				
N1W12-18	N1W12	2_W	1250	2	N_N	N_N	3.2	3	6.4516	3.2	3				
N5E03-19	N5E03	5_N	1000	2	N_N	N_N	3.2	3	6.4516	3	3.2				
N5W10-06	N5W10	1_NW	1500	2	N_N	N_N	3.2	3	6.4516	3	3.2				
N6E04-27	N6E04	5_N	1250	2	N_N	N_N	3.2	3	6.4516	3.2	3				
S1W07-10	S1W07	2_W	750	2	N_N	N_N	6.4	6	6.4516	6	6.4				
S2W12-05	S2W12	2_W	1250	2	N_N	N_N	6.4	6	6.4516	6	6.4				
S5E01-03	S5E01	4_S	1000	2	N_N	N_N	3.2	3	6.4516	3					3.2
S1W06-08	S1W06	2_W	750	2	N_N	N_N	8	7.5	6.4516	7.5	8				
N3W03-06	N3W03	1_NW	750	2	N_N	N_N	9.6	9	6.4516	9.6					9
S5W05-05	S5W05	3_SW	1000	2	N_N	N_N	4.8	4.5	6.4516	4.5	4.8				
S7E02-07	S7E02	4_S	1250	2	N_N	N_N	4.8	4.5	6.4516	4.8	4.5				
N1W12-14	N1W12	2_W	1250	2	N_N	N_N	6.5	6.1	6.3492	6.1					6.5
N3W07-07	N3W07	1_NW	1000	2	N_N	N_N	4.9	4.6	6.3158	4.9	4.6				
N3W13-26	N3W13	1_NW	1500	2	N_N	N_N	4.9	4.6	6.3158	4.6	4.9				
N4E05-03	N4E05	6_NE	1000	2	N_N	N_N	4.9	4.6	6.3158	4.6	4.9				
S2W12-04	S2W12	2_W	1250	2	N_N	N_N	4.9	4.6	6.3158	4.9	4.6				
S4W09-19	S4W09	3_SW	1250	2	N_N	N_N	4.9	4.6	6.3158	4.9	4.6				
S4E08-15	S4E08	8_SE	1250	2	N_N	N_N	8.2	7.7	6.2893	8.2	7.7				
N5E02-22	N5E02	5_N	1000	2	N_N	N_N	3.3	3.1	6.25	3.1	3.3				
N5W13-17	N5W13	1_NW	1750	2	N_N	N_N	3.3	3.1	6.25	3.3	3.1				
N8W03-02	N8W03	5_N	1750	2	N_N	N_N	6.6	6.2	6.25	6.2	6.6				
S1E10-21	S1E10	7_E	1250	2	N_N	N_N	8.3	7.8	6.2112	7.8	8.3				
N4W09-21	N4W09	1_NW	1250	2	N_N	N_N	5	4.7	6.1856	4.7	5				
N3W06-07	N3W06	1_NW	750	2	N_N	N_N	4.68	4.4	6.1674	4.4	4.68				
S4W06-23	S4W06	3_SW	1000	2	N_N	N_N	6.7	6.3	6.1538	6.7	6.3				
S7W02-02	S7W02	4_S	1250	2	N_N	N_N	6.7	6.3	6.1538	6.3					6.7

TABLE 9
Evaluation of Yard Specific Variability
South Minneapolis Soil Arsenic Evaluation

Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
N2W09-04	N2W09	2_W	1000	3	N_N	N_N	5.1	4.8	6.0606	4.9	4.8				5.1
S5W03-24	S5W03	4_S	1000	2	N_N	N_N	5.1	4.8	6.0606	4.8	5.1				
N3W09-26	N3W09	1_NW	1000	2	N_N	N_N	3.4	3.2	6.0606	3.4	3.2				
N4W10-14	N4W10	1_NW	1250	2	N_N	N_N	3.4	3.2	6.0606	3.4	3.2				
N6E07-13	N6E07	6_NE	1500	2	N_N	N_N	6.8	6.4	6.0606	6.8	6.4				
S3W10-14	S3W10	3_SW	1250	2	N_N	N_N	3.4	3.2	6.0606	3.4	3.2				
N3W08-05	N3W08	1_NW	1000	2	N_N	N_N	4.9	4.615	5.9905	4.9	4.615				
S3W06-17	S3W06	3_SW	1000	2	N_N	N_N	8.6	8.1	5.988	8.6	8.1				
N3W13-10	N3W13	2_W	1500	2	N_N	N_N	6.9	6.5	5.9701	6.9	6.5				
N4E06-15	N4E06	6_NE	1000	2	N_N	N_N	2.0167	1.9	5.9574	1.9	2.0167				
N2E09-02	N2E09	7_E	1250	2	N_N	N_N	5.2	4.9	5.9406	5.2	4.9				
S3W05-23	S3W05	3_SW	750	2	N_N	N_N	5.2	4.9	5.9406	5.2	4.9				
S6E02-20	S6E02	4_S	1250	2	N_N	N_N	5.2	4.9	5.9406	5.2	4.9				
S7E04-10	S7E04	4_S	1500	2	N_N	N_N	5.2	4.9	5.9406	5.2	4.9				
N2W12-24	N2W12	2_W	1250	2	N_N	N_N	3.5	3.3	5.8824	3.3	3.5				
N3W14-13	N3W14	2_W	1500	2	N_N	N_N	3.5	3.3	5.8824		3.3				3.5
N4E06-06	N4E06	6_NE	1250	2	N_N	N_N	3.5	3.3	5.8824	3.5	3.3				
S1W10-03	S1W10	2_W	1000	2	N_N	N_N	7	6.6	5.8824	6.6	7				
S3W05-22	S3W05	3_SW	750	2	N_N	N_N	7	6.6	5.8824	7	6.6				
S4W09-10	S4W09	3_SW	1250	2	N_N	N_N	3.5	3.3	5.8824	3.3	3.5				
S2E09-02	S2E09	7_E	1250	2	N_N	N_N	8.8	8.3	5.848	8.3	8.8				
S5E01-05	S5E01	4_S	1000	2	N_N	N_N	5.3	5	5.8252	5.3	5				
N6E07-09	N6E07	6_NE	1500	2	N_N	N_N	7.1	6.7	5.7971	7.1	6.7				
S3W03-06	S3W03	3_SW	750	2	N_N	N_N	7.1	6.7	5.7971	7.1	6.7				
S4W06-22	S4W06	3_SW	1000	2	N_N	N_N	7.1	6.7	5.7971	6.7	7.1				
S4W09-06	S4W09	3_SW	1250	2	N_N	N_N	5.4	5.1	5.7143	5.4	5.1				
N3W09-31	N3W09	1_NW	1250	2	N_N	N_N	3.6	3.4	5.7143	3.6					3.4
N3W11-04	N3W11	1_NW	1250	2	N_N	N_N	3.6	3.4	5.7143	3.4	3.6				
N5E01-24	N5E01	5_N	1000	2	N_N	N_N	3.6	3.4	5.7143	3.6	3.4				
N5E05-09	N5E05	6_NE	1250	2	N_N	N_N	3.6	3.4	5.7143	3.4	3.6				
S1E10-23	S1E10	7_E	1250	2	N_N	N_N	7.3	6.9	5.6338	6.9	7.3				
S4E09-17	S4E09	8_SE	1250	2	N_N	N_N	5.5	5.2	5.6075	5.2	5.5				
S5W05-25	S5W05	3_SW	1000	2	N_N	N_N	5.5	5.2	5.6075	5.5	5.2				
S6W04-09	S6W04	4_S	1250	2	N_N	N_N	5.5	5.2	5.6075		5.5				5.2
N5E05-04	N5E05	6_NE	1250	2	N_N	N_N	3.7	3.5	5.5556	3.7	3.5				
S7W03-02	S7W03	4_S	1250	2	N_N	N_N	3.7	3.5	5.5556	3.7	3.5				
S4W05-17	S4W05	3_SW	1000	2	N_N	N_N	5.6	5.3	5.5046	5.3	5.6				
N3W03-15	N3W03	1_NW	750	2	N_N	N_N	9.5	9	5.4054	9	9.5				
S4W03-14	S4W03	4_S	1000	2	N_N	N_N	5.7	5.4	5.4054	5.7	5.4				

TABLE 9
Evaluation of Yard Specific Variability
South Minneapolis Soil Arsenic Evaluation

Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
S7W02-05	S7W02	4_S	1250	2	N_N	N_N	5.7	5.4	5.4054	5.7	5.4				
S1W07-04	S1W07	2_W	750	2	N_N	N_N	7.6	7.2	5.4054	7.2	7.6				
N3W03-08	N3W03	1_NW	750	2	N_N	N_N	5.91	5.6	5.3866	5.6					5.91
S4E08-16	S4E08	8_SE	1250	2	N_N	N_N	7.7	7.3	5.3333	7.3	7.7				
S5E03-10	S5E03	8_SE	1000	2	Y_Y	N_N	46.4	44	5.3097	44	46.4				
S5E04-01	S5E04	8_SE	1000	2	N_N	N_N	5.8	5.5	5.3097	5.5	5.8				
N5E07-05	N5E07	6_NE	1500	2	Y_Y	N_N	71.7	68	5.2971	68	71.7				
N2W04-06	N2W04	1_NW	500	2	Y_Y	N_N	40	37.94	5.2861	40	37.94				
S4W10-24	S4W10	3_SW	1250	2	Y_Y	N_N	13.6	12.9	5.283	13.6	12.9				
N4W14-25	N4W14	1_NW	1750	2	N_N	N_N	3.9	3.7	5.2632	3.7	3.9				
N8W03-04	N8W03	5_N	1750	2	N_N	N_N	5.9	5.6	5.2174	5.9	5.6				
S4W06-14	S4W06	3_SW	1000	2	N_N	N_N	7.9	7.5	5.1948	7.5	7.9				
N6E05-11	N6E05	6_NE	1250	2	N_N	N_N	4	3.8	5.1282		4				3.8
S5W03-17	S5W03	4_S	1250	2	N_N	N_N	8	7.6	5.1282	7.6	8				
N8W03-05	N8W03	5_N	1750	3	N_N	N_N	6	5.7	5.1282	6	5.7				5.8
N1W10-24	N1W10	2_W	1000	2	N_N	N_N	6	5.7	5.1282	6	5.7				
N5E01-07	N5E01	5_N	1000	2	N_N	N_N	6	5.7	5.1282		5.7				6
N6W08-11	N6W08	1_NW	1500	2	N_N	N_N	6	5.7	5.1282	6	5.7				
S1W04-06	S1W04	2_W	500	2	N_N	N_N	6	5.7	5.1282	6	5.7				
S1W10-08	S1W10	2_W	1000	2	N_N	N_N	6	5.7	5.1282	6	5.7				
S5E02-04	S5E02	4_S	1000	2	N_N	N_N	6	5.7	5.1282	5.7	6				
S6W05-21	S6W05	3_SW	1250	2	N_N	N_N	6	5.7	5.1282	6	5.7				
S7E03-13	S7E03	4_S	1500	2	N_N	N_N	6	5.7	5.1282	5.7	6				
N3W14-05	N3W14	2_W	1500	2	N_N	N_N	6.1	5.8	5.042	6.1	5.8				
S5E03-33	S5E03	4_S	1000	2	N_N	N_N	6.1	5.8	5.042	6.1	5.8				
S7W03-06	S7W03	4_S	1500	2	N_N	N_N	6.1	5.8	5.042	5.8	6.1				
S1W13-22	S1W13	2_W	1500	2	Y_Y	N_N	81.8	77.8	5.0125	81.8	77.8				
N6E02-43	N6E02	5_N	1250	2	N_N	N_N	4.1	3.9	5	3.9	4.1				
S5E04-04	S5E04	8_SE	1250	2	N_N	N_N	4.1	3.9	5	4.1	3.9				
S1W06-17	S1W06	2_W	750	2	N_N	N_N	6.2	5.9	4.9587	5.9	6.2				
S5W04-16	S5W04	4_S	1250	2	N_N	N_N	6.2	5.9	4.9587		6.2				5.9
S7E04-29	S7E04	4_S	1500	2	N_N	N_N	6.2	5.9	4.9587	5.9	6.2				
S5W03-20	S5W03	4_S	1000	2	N_Y	N_N	10.4	9.9	4.9261	10.4	9.9				
S1W11-11	S1W11	2_W	1250	2	Y_Y	N_N	12.5	11.9	4.918		12.5				11.9
N5W08-13	N5W08	1_NW	1250	2	N_N	N_N	4.2	4	4.878	4.2	4				
S3W02-10	S3W02	4_S	500	2	N_N	N_N	4.2	4	4.878	4.2	4				
N1W11-01	N1W11	2_W	1250	2	N_N	N_N	6.3	6	4.878	6.3	6				
N2E08-09	N2E08	7_E	1000	2	N_N	N_N	6.3	6	4.878	6					6.3
S5W05-24	S5W05	3_SW	1000	2	N_N	N_N	6.3	6	4.878	6	6.3				

TABLE 9
Evaluation of Yard Specific Variability
South Minneapolis Soil Arsenic Evaluation

Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
N1W05-14	N1W05	2_W	500	2	N_N	N_N	6.4	6.1	4.8	6.4	6.1				
S1W06-01	S1W06	2_W	750	2	N_N	N_N	6.4	6.1	4.8	6.1	6.4				
S1W08-22	S1W08	2_W	1000	2	N_N	N_N	6.4	6.1	4.8	6.1	6.4				
S3W06-18	S3W06	3_SW	1000	2	N_N	N_N	6.4	6.1	4.8	6.1	6.4				
S5E01-23	S5E01	4_S	1000	2	N_N	N_N	6.4	6.1	4.8	6.1	6.4				
N3W06-10	N3W06	1_NW	750	2	N_N	N_N	4.3	4.1	4.7619	4.3	4.1				
N6E08-06	N6E08	6_NE	1500	2	N_N	N_N	4.3	4.1	4.7619	4.1	4.3				
S1E07-21	S1E07	7_E	1000	2	N_N	N_N	8.6	8.2	4.7619	8.2	8.6				
N3W08-04	N3W08	1_NW	1000	2	N_N	N_N	5.4	5.15	4.7393	5.4	5.15				
S6E04-10	S6E04	4_S	1250	2	N_N	N_N	6.5	6.2	4.7244	6.2	6.5				
N6E08-05	N6E08	6_NE	1500	2	N_N	N_N	4.4	4.2	4.6512	4.2	4.4				
S4W09-17	S4W09	3_SW	1250	2	N_N	N_N	4.4	4.2	4.6512	4.4	4.2				
S5E02-26	S5E02	4_S	1000	2	N_N	N_N	4.4	4.2	4.6512	4.4	4.2				
S5E03-21	S5E03	4_S	1250	2	N_N	N_N	4.4	4.2	4.6512	4.2	4.4				
S7E01-20	S7E01	4_S	1500	2	N_N	N_N	6.6	6.3	4.6512	6.6	6.3				
N1W04-19	N1W04	2_W	500	2	N_N	N_N	4.2	4.01	4.6285	4.2					4.01
N1W05-05	N1W05	2_W	500	2	N_N	N_N	6.5	6.21	4.5633	6.5					6.21
N3W07-19	N3W07	1_NW	1000	2	N_N	N_N	4.5	4.3	4.5455	4.5	4.3				
N6E03-09	N6E03	5_N	1250	2	N_N	N_N	4.5	4.3	4.5455	4.3	4.5				
S5E05-01	S5E05	8_SE	1250	2	N_N	N_N	4.5	4.3	4.5455	4.5	4.3				
S3W10-24	S3W10	3_SW	1250	2	Y_Y	N_N	42.9	41	4.5292	42.9	41				
S4E01-28	S4E01	4_S	750	2	N_N	N_N	6.8	6.5	4.5113	6.8	6.5				
S5W05-21	S5W05	3_SW	1250	2	N_N	N_N	6.8	6.5	4.5113	6.8	6.5				
N1W04-17	N1W04	2_W	500	2	N_N	N_N	6.9	6.6	4.4444	6.6	6.9				
S4E07-09	S4E07	8_SE	1250	2	N_N	N_N	6.9	6.6	4.4444	6.6	6.9				
N3W09-32	N3W09	1_NW	1250	2	N_N	N_N	4.6	4.4	4.4444	4.6	4.4				
N4W12-28	N4W12	1_NW	1500	2	N_N	N_N	4.6	4.4	4.4444	4.4	4.6				
S5W05-09	S5W05	3_SW	1250	2	N_N	N_N	4.6	4.4	4.4444	4.4	4.6				
S7W03-03	S7W03	4_S	1250	2	N_N	N_N	4.7	4.5	4.3478	4.7	4.5				
N2W11-31	N2W11	2_W	1250	2	N_N	N_N	4.8	4.6	4.2553	4.8	4.6				
N3E07-07	N3E07	6_NE	1000	2	N_N	N_N	4.8	4.6	4.2553	4.8	4.6				
N4W07-23	N4W07	1_NW	1000	2	N_N	N_N	2.4	2.3	4.2553	2.3	2.4				
S2E10-09	S2E10	7_E	1250	2	N_N	N_N	4.8	4.6	4.2553	4.6	4.8				
S4W05-05	S4W05	3_SW	1000	2	N_N	N_N	4.8	4.6	4.2553	4.6	4.8				
S4W05-22	S4W05	3_SW	1000	2	N_N	N_N	4.8	4.6	4.2553	4.8	4.6				
S6W03-22	S6W03	4_S	1250	2	N_N	N_N	4.8	4.6	4.2553	4.6	4.8				
S7W02-01	S7W02	4_S	1250	2	N_N	N_N	4.8	4.6	4.2553	4.6					4.8
N2W09-17	N2W09	2_W	1000	2	Y_Y	N_N	24	23	4.2553	23	24				
N1W04-03	N1W04	1_NW	500	2	N_N	N_N	6.78	6.5	4.2169	6.5					6.78

TABLE 9
Evaluation of Yard Specific Variability
South Minneapolis Soil Arsenic Evaluation

Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
N1W10-03	N1W10	2_W	1000	2	N_N	N_N	4.9	4.7	4.1667	4.7	4.9				
S4E07-12	S4E07	8_SE	1250	2	N_N	N_N	4.9	4.7	4.1667	4.9	4.7				
S5E08-04	S5E08	8_SE	1500	2	N_N	N_N	4.9	4.7	4.1667	4.9	4.9			4.7	
S6W05-08	S6W05	4_S	1250	2	N_N	N_N	4.9	4.7	4.1667	4.9	4.7				
N5E05-06	N5E05	6_NE	1250	2	N_N	N_N	2.5	2.4	4.0816	2.4	2.5				
N5W13-24	N5W13	1_NW	1750	2	N_N	N_N	2.5	2.4	4.0816	2.4	2.5				
N6E02-09	N6E02	5_N	1250	2	N_N	N_N	5	4.8	4.0816	4.8				5	
S4W06-18	S4W06	3_SW	1000	2	N_N	N_N	5	4.8	4.0816	5	4.8				
S5E07-07	S5E07	8_SE	1250	2	N_Y	N_N	10.1	9.7	4.0404	10.1	9.7				
N1W07-23	N1W07	2_W	750	2	N_N	N_N	3.8	3.65	4.0268	3.8				3.65	
N4E05-12	N4E05	6_NE	1000	2	N_N	N_N	5.1	4.9	4	5.1	4.9				
N5E03-18	N5E03	5_N	1000	2	N_N	N_N	5.1	4.9	4	4.9				5.1	
S5E09-17	S5E09	8_SE	1500	2	N_N	N_N	5.1	4.9	4	4.9	5.1				
N4E06-08	N4E06	6_NE	1250	2	N_N	N_N	2.6	2.5	3.9216	2.5	2.6				
S5E08-08	S5E08	8_SE	1500	2	N_N	N_N	5.2	5	3.9216	5.2	5				
S7E04-05	S7E04	4_S	1500	2	N_N	N_N	5.2	5	3.9216	5.2	5				
N1W07-10	N1W07	2_W	750	2	N_N	N_N	4.68	4.5	3.9216	4.5	4.68				
S5E07-05	S5E07	8_SE	1250	2	Y_Y	N_N	15.8	15.2	3.871	15.2	15.8				
N3E07-05	N3E07	6_NE	1250	2	N_N	N_N	5.3	5.1	3.8462	5.3	5.1				
N6E08-15	N6E08	6_NE	1500	2	N_N	N_N	5.3	5.1	3.8462	5.3	5.1				
S1E10-13	S1E10	7_E	1250	2	N_N	N_N	5.3	5.1	3.8462	5.1	5.3				
S4W06-04	S4W06	3_SW	1000	2	N_N	N_N	5.3	5.1	3.8462	5.1				5.3	
S5E02-07	S5E02	4_S	1000	2	N_N	N_N	5.3	5.1	3.8462	5.1	5.3				
S5E02-09	S5E02	4_S	1000	2	N_N	N_N	5.3	5.1	3.8462	5.3	5.1				
S6E01-01	S6E01	4_S	1250	2	N_N	N_N	5.3	5.1	3.8462	5.3	5.1				
S6E02-11	S6E02	4_S	1250	2	N_N	N_N	5.3	5.1	3.8462	5.3	5.1				
S5E08-15	S5E08	8_SE	1500	2	N_N	N_N	8	7.7	3.8217	7.7				8	
N2W06-03	N2W06	1_NW	750	2	N_N	N_N	5.4	5.2	3.7736	5.2	5.4				
S5E02-03	S5E02	4_S	1000	2	N_N	N_N	5.4	5.2	3.7736	5.2	5.4				
S5W06-11	S5W06	3_SW	1250	2	N_N	N_N	5.4	5.2	3.7736	5.2	5.4				
S4E08-20	S4E08	8_SE	1250	2	N_N	N_N	8.1	7.8	3.7736	7.8	8.1				
S4W07-27	S4W07	3_SW	1000	2	N_N	N_N	8.1	7.8	3.7736	7.8	8.1				
S1E07-12	S1E07	7_E	1000	2	N_N	N_N	5.5	5.3	3.7037	5.3	5.5				
S2W10-06	S2W10	2_W	1000	2	N_N	N_N	5.5	5.3	3.7037	5.5	5.3				
S5E04-06	S5E04	8_SE	1250	2	N_N	N_N	5.5	5.3	3.7037	5.3	5.5				
S5E08-02	S5E08	8_SE	1250	2	N_N	N_N	8.4	8.1	3.6364	8.1	8.4				
N3E09-08	N3E09	6_NE	1250	2	N_N	N_N	5.6	5.4	3.6364	5.6	5.4				
N6E02-42	N6E02	5_N	1250	2	N_N	N_N	2.8	2.7	3.6364	2.7	2.8				
N6E06-05	N6E06	6_NE	1500	2	N_N	N_N	2.8	2.7	3.6364	2.8	2.7				

TABLE 9
Evaluation of Yard Specific Variability
South Minneapolis Soil Arsenic Evaluation

Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
S1W11-02	S1W11	2_W	1250	2	N_N	N_N	5.6	5.4	3.6364	5.6	5.4				
S4W10-25	S4W10	3_SW	1250	2	N_N	N_N	5.6	5.4	3.6364	5.4	5.6				
S5E02-06	S5E02	4_S	1000	2	N_N	N_N	5.6	5.4	3.6364	5.4	5.6				
S3W07-18	S3W07	3_SW	1000	2	N_N	N_N	8.5	8.2	3.5928	8.2	8.5				
S1W11-04	S1W11	2_W	1250	2	N_N	N_N	5.7	5.5	3.5714		5.7				5.5
S4W06-26	S4W06	3_SW	1000	2	N_N	N_N	5.7	5.5	3.5714	5.7	5.5				
S5E01-07	S5E01	4_S	1000	2	N_N	N_N	5.7	5.5	3.5714	5.5	5.7				
S7E01-32	S7E01	4_S	1500	2	Y_Y	N_N	28.9	27.9	3.5211	27.9	28.9				
N4W08-23	N4W08	1_NW	1000	2	N_N	N_N	5.8	5.6	3.5088	5.8	5.6				
S2W06-07	S2W06	3_SW	750	2	N_N	N_N	5.8	5.6	3.5088	5.6	5.8				
S5E01-17	S5E01	4_S	1000	2	N_N	N_N	8.7	8.4	3.5088	8.4	8.7				
S1E10-17	S1E10	7_E	1250	2	N_N	N_N	8.8	8.5	3.4682	8.8	8.5				
S4E01-18	S4E01	4_S	1000	2	N_N	N_N	5.9	5.7	3.4483	5.7	5.9				
N5W13-33	N5W13	1_NW	1750	2	N_N	N_N	3	2.9	3.3898	3	2.9				
N6E02-15	N6E02	5_N	1250	2	N_N	N_N	3	2.9	3.3898	3	2.9				
N6E02-33	N6E02	5_N	1250	2	N_N	N_N	3	2.9	3.3898	3	2.9				
S3W04-08	S3W04	3_SW	750	2	N_N	N_N	6	5.8	3.3898	5.8	6				
S7W01-28	S7W01	4_S	1250	2	N_N	N_N	3	2.9	3.3898	3	2.9				
S7W02-25	S7W02	4_S	1250	2	N_N	N_N	6	5.8	3.3898	5.8	6				
S4E09-24	S4E09	8_SE	1250	2	N_N	N_N	9.1	8.8	3.352	9.1	8.8				
N5E01-19	N5E01	5_N	1000	2	N_N	N_N	6.1	5.9	3.3333	6.1	5.9				
N6E08-04	N6E08	6_NE	1500	2	N_N	N_N	6.1	5.9	3.3333	5.9	6.1				
S7W02-11	S7W02	4_S	1500	2	N_N	N_N	6.1	5.9	3.3333	5.9	6.1				
N1W12-03	N1W12	2_W	1250	2	N_N	N_N	6.2	6	3.2787	6.2	6				
S5E01-10	S5E01	4_S	1000	2	N_N	N_N	6.2	6	3.2787	6.2	6				
S5E08-07	S5E08	8_SE	1500	2	N_N	N_N	6.2	6	3.2787	6	6.2				
N1W05-09	N1W05	2_W	500	2	N_N	N_N	6.3	6.1	3.2258	6.1	6.3				
S1W13-24	S1W13	2_W	1500	2	N_N	N_N	6.3	6.1	3.2258	6.3	6.1				
N2W12-16	N2W12	2_W	1250	2	N_N	N_N	3.2	3.1	3.1746	3.2	3.1				
N3W13-17	N3W13	2_W	1500	2	N_N	N_N	6.4	6.2	3.1746	6.2				6.4	
N4W14-17	N4W14	1_NW	1500	2	N_N	N_N	3.2	3.1	3.1746	3.1	3.2				
N5E05-12	N5E05	6_NE	1250	2	N_N	N_N	3.2	3.1	3.1746	3.2	3.1				
S4E03-07	S4E03	4_S	1000	2	N_N	N_N	6.4	6.2	3.1746	6.4	6.2				
S7W01-07	S7W01	4_S	1500	2	N_N	N_N	3.2	3.1	3.1746	3.2	3.1				
N1W07-26	N1W07	2_W	750	2	N_N	N_N	6.5	6.3	3.125	6.5	6.3				
N5E04-05	N5E04	6_NE	1250	2	N_N	N_N	6.5	6.3	3.125	6.3	6.5				
N3W07-09	N3W07	1_NW	1000	2	Y_Y	N_N	33	32	3.0769	33	32				
N2W10-11	N2W10	2_W	1000	2	N_N	N_N	6.6	6.4	3.0769	6.4	6.6				
N4E02-05	N4E02	5_N	1000	2	N_N	N_N	3.3	3.2	3.0769	3.3				3.2	

TABLE 9
Evaluation of Yard Specific Variability
South Minneapolis Soil Arsenic Evaluation

Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
N5W13-13	N5W13	1_NW	1750	2	N_N	N_N	3.3	3.2	3.0769	3.3	3.2				
S1W07-21	S1W07	2_W	750	2	N_N	N_N	6.6	6.4	3.0769	6.4	6.6				
S4E02-10	S4E02	4_S	1000	2	N_N	N_N	3.3	3.2	3.0769	3.2	3.3				
S4E09-12	S4E09	8_SE	1500	2	N_N	N_N	6.6	6.4	3.0769	6.4	6.6				
N1E10-07	N1E10	7_E	1250	2	N_N	N_N	6.8	6.6	2.9851	6.8	6.6				
N1W09-18	N1W09	2_W	1000	2	N_N	N_N	6.8	6.6	2.9851	6.8	6.6				
N2W11-12	N2W11	2_W	1250	2	N_N	N_N	3.4	3.3	2.9851	3.4	3.3				
S2W05-11	S2W05	3_SW	750	2	N_N	N_N	6.8	6.6	2.9851	6.8	6.6				
S2W10-25	S2W10	2_W	1250	2	N_N	N_N	6.8	6.6	2.9851	6.8	6.6				
S3E09-13	S3E09	8_SE	1250	2	N_Y	N_N	10.2	9.9	2.9851	10.2	9.9				
N5W10-03	N5W10	1_NW	1250	2	N_N	N_N	3.965	3.85	2.9431	3.965					3.85
N3W10-16	N3W10	1_NW	1250	2	N_N	N_N	3.5	3.4	2.8986	3.5	3.4				
N6W11-10	N6W11	1_NW	1500	2	N_N	N_N	3.5	3.4	2.8986	3.4	3.5				
S1E09-08	S1E09	7_E	1250	2	N_N	N_N	7	6.8	2.8986	6.8	7				
S1W07-07	S1W07	2_W	750	2	N_N	N_N	7	6.8	2.8986	7	6.8				
S5W05-04	S5W05	3_SW	1000	2	N_N	N_N	3.5	3.4	2.8986	3.5	3.4				
S5W05-08	S5W05	3_SW	1250	2	N_N	N_N	3.5	3.4	2.8986	3.4	3.5				
S5W05-17	S5W05	3_SW	1250	2	N_N	N_N	7	6.8	2.8986	6.8	7				
N1E09-05	N1E09	7_E	1250	2	N_N	N_N	3.6	3.5	2.8169	3.5	3.6				
N3E08-05	N3E08	6_NE	1250	2	N_N	N_N	3.6	3.5	2.8169	3.6	3.5				
N3W11-17	N3W11	2_W	1250	2	N_N	N_N	3.6	3.5	2.8169	3.5	3.6				
S4E03-01	S4E03	8_SE	1000	2	N_N	N_N	3.6	3.5	2.8169	3.5	3.6				
S1W11-12	S1W11	2_W	1250	2	N_N	N_N	5.45	5.3	2.7907	5.45	5.3				
S5E08-11	S5E08	8_SE	1500	2	N_N	N_N	7.3	7.1	2.7778	7.3					7.1
S5E02-08	S5E02	4_S	1000	2	Y_Y	N_N	25.7	25	2.7613	25	25.7				
S3W05-25	S3W05	3_SW	750	2	N_N	N_N	3.7	3.6	2.7397	3.6	3.7				
S3W12-08	S3W12	3_SW	1500	2	Y_Y	N_N	33.3	32.4	2.7397	33.3	32.4				
N5E07-18	N5E07	6_NE	1250	2	Y_Y	N_N	11.3	11	2.6906	11.3	11				
N5W10-04	N5W10	1_NW	1250	2	N_N	N_N	3.8	3.7	2.6667	3.7	3.8				
S7E02-29	S7E02	4_S	1500	2	Y_Y	N_N	26.7	26	2.6565	26.7	26				
N2W06-18	N2W06	1_NW	750	2	N_N	N_N	5	4.87	2.6342	5					4.87
N1W11-25	N1W11	2_W	1250	2	N_N	N_N	3.9	3.8	2.5974	3.9					3.8
N2W11-01	N2W11	2_W	1250	2	N_N	N_N	3.9	3.8	2.5974	3.8	3.9				
N3E09-17	N3E09	7_E	1250	2	N_N	N_N	3.9	3.8	2.5974	3.9	3.8				
S5W01-23	S5W01	4_S	1000	2	N_N	N_N	3.9	3.8	2.5974	3.9	3.8				
S6E01-02	S6E01	4_S	1250	2	N_N	N_N	3.9	3.8	2.5974	3.9	3.8				
S6E01-13	S6E01	4_S	1250	2	N_N	N_N	7.8	7.6	2.5974	7.8	7.6				
S1W07-06	S1W07	2_W	750	2	N_N	N_N	7.9	7.7	2.5641	7.9	7.7				
S2W10-24	S2W10	2_W	1250	2	Y_Y	N_N	11.9	11.6	2.5532	11.6	11.9				

TABLE 9

Evaluation of Yard Specific Variability

South Minneapolis Soil Arsenic Evaluation

Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
N6E06-10	N6E06	6_NE	1500	2	N_N	N_N	4	3.9	2.5316	4	3.9				
S1E09-05	S1E09	7_E	1250	2	N_N	N_N	8	7.8	2.5316	8	7.8				
S4E01-03	S4E01	4_S	750	2	N_N	N_N	4	3.9	2.5316		3.9				4
S5E09-10	S5E09	8_SE	1500	2	N_N	N_N	4	3.9	2.5316	4	3.9				
S4E09-19	S4E09	8_SE	1250	2	N_N	N_N	8.1	7.9	2.5	8.1	7.9				
N3W11-12	N3W11	1_NW	1250	2	N_N	N_N	4.1	4	2.4691	4	4.1				
N4W13-26	N4W13	1_NW	1500	2	N_N	N_N	4.1	4	2.4691	4.1	4				
S1W11-01	S1W11	2_W	1250	2	N_N	N_N	4.1	4	2.4691		4.1				4
S6W05-11	S6W05	4_S	1250	2	N_N	N_N	4.1	4	2.4691		4				4.1
N2W06-24	N2W06	1_NW	750	2	N_N	N_N	4.2	4.1	2.4096	4.2	4.1				
N5E02-04	N5E02	5_N	1000	2	N_N	N_N	4.2	4.1	2.4096	4.2	4.1				
N6E03-20	N6E03	5_N	1250	2	N_N	N_N	4.2	4.1	2.4096	4.2	4.1				
S2W13-19	S2W13	2_W	1500	2	N_N	N_N	4.2	4.1	2.4096	4.1	4.2				
N4W12-27	N4W12	1_NW	1500	2	N_N	N_N	4.3	4.2	2.3529	4.2	4.3				
N5E03-17	N5E03	5_N	1000	2	N_N	N_N	4.3	4.2	2.3529	4.2	4.3				
S5E09-09	S5E09	8_SE	1500	2	N_N	N_N	4.3	4.2	2.3529	4.2	4.3				
S5W01-17	S5W01	4_S	1000	2	Y_Y	N_N	47.3	46.2	2.3529	47.3	46.2				
S5E07-06	S5E07	8_SE	1250	2	N_N	N_N	8.7	8.5	2.3256	8.7	8.5				
N6E06-22	N6E06	6_NE	1500	2	N_N	N_N	4.4	4.3	2.2989	4.3	4.4				
S3E02-03	S3E02	4_S	750	2	N_N	N_N	4.4	4.3	2.2989	4.4	4.3				
S5W07-21	S5W07	3_SW	1250	2	N_N	N_N	4.4	4.3	2.2989	4.4	4.3				
S6W03-01	S6W03	4_S	1250	2	N_N	N_N	4.4	4.3	2.2989	4.4	4.3				
N3W08-13	N3W08	1_NW	1000	2	N_N	N_N	4.5	4.4	2.2472	4.5	4.4				
N4E02-02	N4E02	5_N	1000	2	N_N	N_N	4.5	4.4	2.2472	4.5	4.4				
S2E08-06	S2E08	7_E	1000	2	N_N	N_N	9.1	8.9	2.2222	9.1	8.9				
N3E09-04	N3E09	6_NE	1250	2	N_N	N_N	4.6	4.5	2.1978	4.6	4.5				
N3W08-10	N3W08	1_NW	1000	2	N_N	N_N	4.6	4.5	2.1978	4.6	4.5				
N3W13-05	N3W13	1_NW	1500	2	N_N	N_N	4.6	4.5	2.1978	4.6	4.5				
S4W07-23	S4W07	3_SW	1000	2	N_N	N_N	4.6	4.5	2.1978	4.6	4.5				
S6W05-06	S6W05	4_S	1250	2	N_N	N_N	4.7	4.6	2.1505	4.7	4.6				
S1W12-07	S1W12	2_W	1250	2	N_N	N_N	7.05	6.9	2.1505	6.9	7.05				
N1W06-21	N1W06	2_W	750	2	N_N	N_N	6.6	6.46	2.144	6.46	6.6				
S3E08-06	S3E08	8_SE	1250	2	N_N	N_N	9.5	9.3	2.1277	9.5	9.3				
N4W13-18	N4W13	1_NW	1500	2	N_N	N_N	4.8	4.7	2.1053	4.7	4.8				
N5E03-14	N5E03	5_N	1000	2	N_N	N_N	4.8	4.7	2.1053	4.7	4.8				
N6W02-05	N6W02	5_N	1250	2	N_N	N_N	4.8	4.7	2.1053	4.7	4.8				
S7W01-17	S7W01	4_S	1500	2	N_N	N_N	4.8	4.7	2.1053	4.7	4.8				
S6E01-19	S6E01	4_S	1250	2	N_N	N_N	9.8	9.6	2.0619	9.6	9.8				
S7E02-22	S7E02	4_S	1500	2	N_N	N_N	4.9	4.8	2.0619	4.8	4.9				

TABLE 9
Evaluation of Yard Specific Variability
South Minneapolis Soil Arsenic Evaluation

Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
S5E09-28	S5E09	8_SE	1500	2	N_N	N_N	9.9	9.7	2.0408	9.9	9.7				
S1W06-05	S1W06	2_W	750	2	N_N	N_N	10	9.8	2.0202	9.8	10				
S3W03-12	S3W03	4_S	750	2	N_N	N_N	10	9.8	2.0202	9.8	10				
S3W07-21	S3W07	3_SW	1000	2	N_N	N_N	5	4.9	2.0202	5	4.9				
S6E03-05	S6E03	4_S	1250	2	N_N	N_N	5.1	5	1.9802	5	5.1				
S2E09-20	S2E09	7_E	1250	2	Y_Y	N_N	10.3	10.1	1.9608	10.1	10.3				
S4W10-23	S4W10	3_SW	1250	2	N_N	N_N	5.2	5.1	1.9417	5.1	5.2				
N2W06-06	N2W06	1_NW	750	2	N_N	N_N	4.69	4.6	1.9376	4.6					4.69
N3W06-15	N3W06	1_NW	750	2	N_N	N_N	5.3	5.2	1.9048	5.2	5.3				
S1W13-10	S1W13	2_W	1250	2	N_N	N_N	5.3	5.2	1.9048	5.3	5.2				
S2W05-07	S2W05	3_SW	750	2	N_N	N_N	5.3	5.2	1.9048	5.2	5.3				
S4W06-07	S4W06	3_SW	1000	2	N_N	N_N	5.4	5.3	1.8692	5.4	5.3				
S4W08-22	S4W08	3_SW	1250	2	N_N	N_N	5.4	5.3	1.8692	5.4	5.3				
S4W09-02	S4W09	3_SW	1250	2	N_N	N_N	5.4	5.3	1.8692	5.3					5.4
S6W03-18	S6W03	4_S	1250	2	N_N	N_N	5.4	5.3	1.8692	5.4	5.3				
N1E10-12	N1E10	7_E	1250	2	N_N	N_N	5.5	5.4	1.8349	5.5	5.4				
S6W01-10	S6W01	4_S	1250	2	N_N	N_N	5.5	5.4	1.8349	5.4	5.5				
N2W04-11	N2W04	1_NW	500	2	Y_Y	N_N	73.32	72	1.8167	72					73.32
S1W11-06	S1W11	2_W	1250	2	N_N	N_N	5.6	5.5	1.8018	5.5	5.6				
S1W12-08	S1W12	2_W	1250	2	N_N	N_N	5.6	5.5	1.8018	5.5	5.6				
N1W05-02	N1W05	2_W	500	2	N_N	N_N	5.7	5.6	1.7699	5.6	5.7				
N1W08-17	N1W08	2_W	1000	2	N_N	N_N	5.7	5.6	1.7699	5.7	5.6				
N2E09-12	N2E09	7_E	1250	2	N_N	N_N	5.7	5.6	1.7699	5.7	5.6				
S7E02-06	S7E02	4_S	1250	2	N_N	N_N	5.7	5.6	1.7699	5.6	5.7				
N1W07-20	N1W07	2_W	750	2	N_N	N_N	4	3.93	1.7654	4					3.93
N1W04-21	N1W04	2_W	500	2	N_N	N_N	5.8	5.7	1.7391	5.8	5.7				
N5E01-01	N5E01	5_N	1000	2	N_N	N_N	5.8	5.7	1.7391	5.7	5.8				
S1E08-19	S1E08	7_E	1000	2	N_N	N_N	5.8	5.7	1.7391	5.7	5.8				
S6E01-06	S6E01	4_S	1250	2	N_N	N_N	5.8	5.7	1.7391	5.7	5.8				
S6E03-10	S6E03	4_S	1250	2	N_N	N_N	5.8	5.7	1.7391	5.8	5.7				
S6E05-10	S6E05	8_SE	1250	2	N_N	N_N	5.8	5.7	1.7391	5.7	5.8				
N1W06-04	N1W06	2_W	750	2	N_N	N_N	7.63	7.5	1.7184	7.5					7.63
N2W08-07	N2W08	2_W	1000	2	N_N	N_N	5.9	5.8	1.7094	5.9	5.8				
S5E03-30	S5E03	4_S	1000	2	N_N	N_N	5.9	5.8	1.7094	5.9	5.8				
S3W03-19	S3W03	3_SW	750	2	N_N	N_N	6	5.9	1.6807	6	5.9				
S7E03-29	S7E03	4_S	1500	2	N_N	N_N	6	5.9	1.6807	6	5.9				
S1W10-14	S1W10	2_W	1000	2	N_N	N_N	6.1	6	1.6529	6	6.1				
S4W04-04	S4W04	3_SW	750	2	N_N	N_N	6.2	6.1	1.626	6.2	6.1				
N2W08-04	N2W08	1_NW	1000	2	N_N	N_N	6.3	6.2	1.6	6.2	6.3				

TABLE 9
Evaluation of Yard Specific Variability
South Minneapolis Soil Arsenic Evaluation

Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
N3W05-05	N3W05	1_NW	750	2	N_N	N_N	6.3	6.2	1.6	6.3	6.2				
S4W08-08	S4W08	3_SW	1250	2	N_N	N_N	6.4	6.3	1.5748	6.3	6.4				
N3W03-14	N3W03	1_NW	750	2	N_N	N_N	6.5	6.4	1.5504	6.4					6.5
S2W10-02	S2W10	2_W	1000	2	N_N	N_N	6.5	6.4	1.5504	6.5	6.4				
S3W03-04	S3W03	3_SW	750	2	N_N	N_N	6.5	6.4	1.5504	6.4	6.5				
S5E08-21	S5E08	8_SE	1500	2	N_N	N_N	6.5	6.4	1.5504	6.4	6.5				
S3W01-05	S3W01	4_S	500	2	N_N	N_N	6.6	6.5	1.5267	6.6	6.5				
N1W07-11	N1W07	2_W	750	2	N_N	N_N	4	3.94	1.5113	4					3.94
S1E06-19	S1E06	7_E	750	2	N_N	N_N	6.7	6.6	1.5038	6.7	6.6				
S5E08-17	S5E08	8_SE	1500	2	N_N	N_N	6.7	6.6	1.5038	6.7	6.6				
S7W02-21	S7W02	4_S	1500	2	N_N	N_N	6.7	6.6	1.5038	6.7	6.6				
S2W10-22	S2W10	2_W	1250	2	N_N	N_N	6.8	6.7	1.4815	6.8	6.7				
S1E07-15	S1E07	7_E	1000	2	N_N	N_N	6.9	6.8	1.4599	6.9					6.8
S2W10-26	S2W10	2_W	1250	2	N_N	N_N	6.9	6.8	1.4599	6.9	6.8				
S3W06-15	S3W06	3_SW	1000	2	N_N	N_N	6.9	6.8	1.4599	6.8	6.9				
N6W12-10	N6W12	1_NW	1750	2	N_N	N_N	3.5	3.45	1.4388	3.45	3.5				
S1E09-06	S1E09	7_E	1250	2	N_N	N_N	7	6.9	1.4388	6.9	7				
S6E02-07	S6E02	4_S	1250	2	N_N	N_N	7	6.9	1.4388	7	6.9				
N3W07-25	N3W07	1_NW	1000	2	N_N	N_N	7.1	7	1.4184	7.1	7				
N5W08-03	N5W08	1_NW	1250	2	N_N	N_N	7.1	7	1.4184	7	7.1				
S4E07-17	S4E07	8_SE	1250	2	N_N	N_N	7.1	7	1.4184	7.1	7				
S1W05-01	S1W05	2_W	500	2	N_N	N_N	7.3	7.2	1.3793	7.2	7.3				
S3E09-12	S3E09	8_SE	1250	2	N_N	N_N	7.6	7.5	1.3245	7.6	7.5				
S4E08-21	S4E08	8_SE	1250	2	N_N	N_N	7.7	7.6	1.3072	7.6	7.7				
S6E02-21	S6E02	4_S	1250	2	N_N	N_N	8.2	8.1	1.227	8.2	8.1				
N4W11-07	N4W11	1_NW	1250	2	N_N	N_N	4.2	4.15	1.1976	4.2	4.15				
S6E04-07	S6E04	8_SE	1250	2	N_N	N_N	9.2	9.1	1.0929	9.2	9.1				
S5W07-03	S5W07	3_SW	1250	2	N_N	N_N	4.7	4.65	1.0695	4.7					4.65
S4E08-19	S4E08	8_SE	1250	2	N_N	N_N	9.9	9.8	1.0152	9.9	9.8				
N1W06-20	N1W06	2_W	750	2	N_N	N_N	7.3	7.23	0.9635	7.23	7.3				
S4W06-11	S4W06	3_SW	1000	2	Y_Y	N_N	10.9	10.8	0.9217	10.8	10.9				
S7W03-24	S7W03	4_S	1500	2	Y_Y	N_N	11.9	11.8	0.8439	11.9	11.8				
N1W06-10	N1W06	2_W	750	2	N_N	N_N	6.2	6.16	0.6472	6.2					6.16
S5W06-16	S5W06	3_SW	1250	2	Y_Y	N_N	59.1	58.8	0.5089	59.1					58.8
N1W04-07	N1W04	2_W	500	2	N_N	N_N	8.1	8.0667	0.4124	8.1					8.0667
S6W01-07	S6W01	4_S	1250	2	Y_Y	N_N	44	43.9	0.2275	44	43.9				
N2W05-14	N2W05	1_NW	750	2	Y_Y	N_N	74.01	74	0.0135	74					74.01
N3W07-08	N3W07	1_NW	1000	2	Y_Y	N_N	11	11	0	11	11				
S2W05-12	S2W05	3_SW	750	2	Y_Y	N_N	13	13	0	13	13				

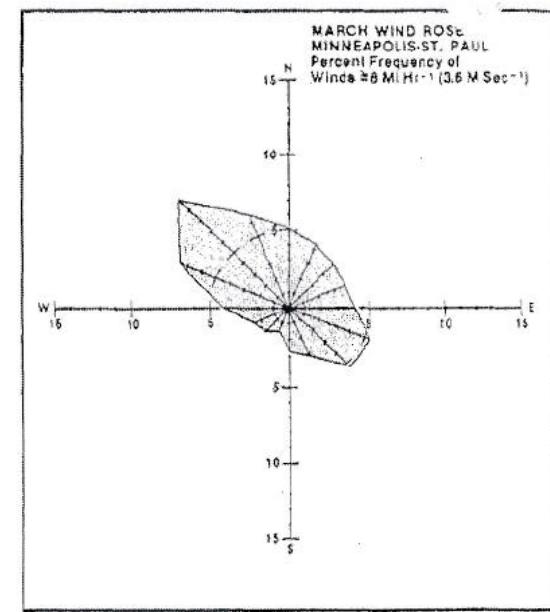
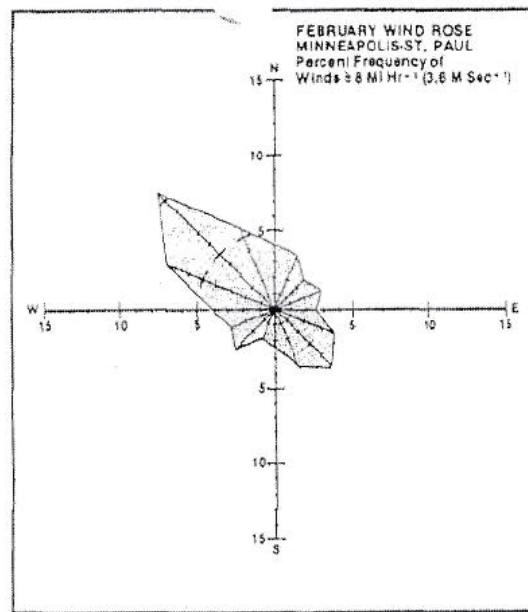
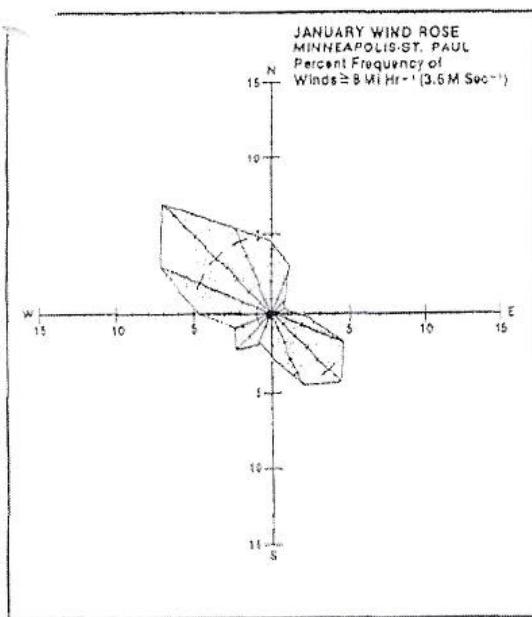
TABLE 9
Evaluation of Yard Specific Variability
South Minneapolis Soil Arsenic Evaluation

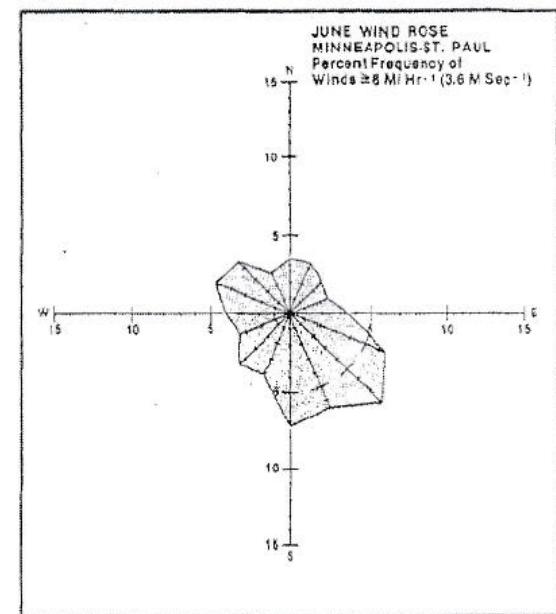
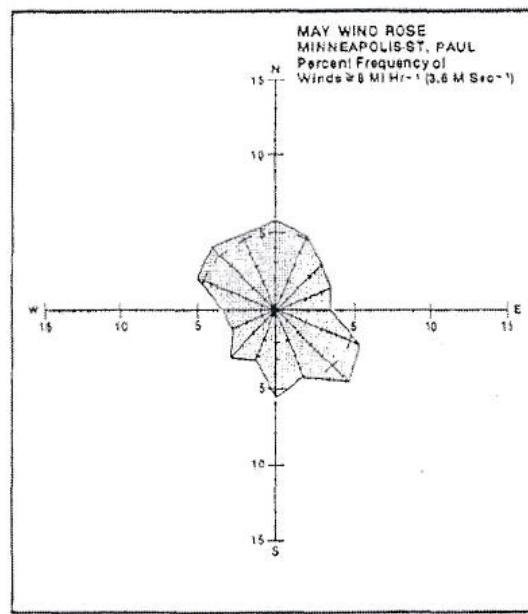
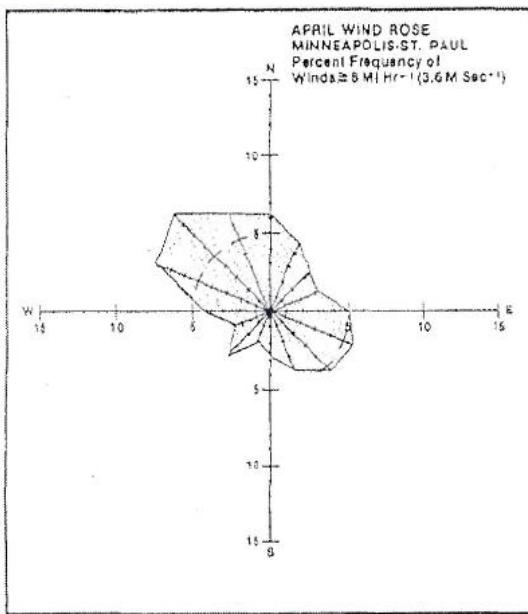
Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
S6W04-12	S6W04	4_S	1250	2	Y_Y	N_N	37	37	0	37	37				
N7E04-15	N7E04	5_N	1500	3	N_N	N_N	2.3	2.3	0	2.3	2.3				2.3
N1W05-04	N1W05	2_W	500	2	N_N	N_N	6.6	6.6	0	6.6	6.6				
N1W05-08	N1W05	2_W	500	2	N_N	N_N	4.3	4.3	0	4.3	4.3				
N1W06-08	N1W06	2_W	750	2	N_N	N_N	7.2	7.2	0	7.2	7.2				
N1W07-14	N1W07	2_W	750	2	N_N	N_N	3.5	3.5	0	3.5	3.5				
N1W08-06	N1W08	2_W	750	2	N_N	N_N	4.7	4.7	0	4.7	4.7				
N1W09-07	N1W09	2_W	1000	2	N_N	N_N	3.3	3.3	0	3.3	3.3				
N1W11-20	N1W11	2_W	1250	2	N_N	N_N	2.9	2.9	0	2.9	2.9				
N1W12-01	N1W12	2_W	1250	2	N_N	N_N	2	2	0		2				2
N1W12-04	N1W12	2_W	1250	2	N_N	N_N	2.9	2.9	0	2.9	2.9				
N1W13-06	N1W13	2_W	1250	2	N_N	N_N	3.5	3.5	0	3.5	3.5				
N2W10-12	N2W10	2_W	1000	2	N_N	N_N	5.3	5.3	0	5.3	5.3				
N2W12-03	N2W12	2_W	1250	2	N_N	N_N	2.8	2.8	0	2.8	2.8				
N2W12-21	N2W12	2_W	1250	2	N_N	N_N	4.3	4.3	0	4.3	4.3				
N3W07-21	N3W07	1_NW	1000	2	N_N	N_N	3.7	3.7	0	3.7	3.7				
N3W10-13	N3W10	1_NW	1250	2	N_N	N_N	3.6	3.6	0	3.6	3.6				
N4W06-03	N4W06	1_NW	1000	2	N_N	N_N	3.3	3.3	0	3.3	3.3				
N4W08-30	N4W08	1_NW	1250	2	N_N	N_N	3.5	3.5	0	3.5	3.5				
N4W09-01	N4W09	1_NW	1250	2	N_N	N_N	2.9	2.9	0	2.9	2.9				
N4W10-17	N4W10	1_NW	1250	2	N_N	N_N	3.2	3.2	0	3.2	3.2				
N4W13-19	N4W13	1_NW	1500	2	N_N	N_N	6.6	6.6	0	6.6	6.6				
N4W13-28	N4W13	1_NW	1500	2	N_N	N_N	4	4	0	4	4				
N5E02-21	N5E02	5_N	1000	2	N_N	N_N	3.9	3.9	0	3.9	3.9				
N5E03-05	N5E03	5_N	1250	2	N_N	N_N	4.1	4.1	0	4.1	4.1				
N5E05-15	N5E05	6_NE	1250	2	N_N	N_N	3.8	3.8	0	3.8	3.8				
N5E06-07	N5E06	6_NE	1250	2	N_N	N_N	3.5	3.5	0		3.5				3.5
N5E06-18	N5E06	6_NE	1250	2	N_N	N_N	2.6	2.6	0	2.6	2.6				
N5E06-21	N5E06	6_NE	1250	2	N_N	N_N	4.7	4.7	0	4.7	4.7				
N5W09-12	N5W09	1_NW	1250	2	N_N	N_N	2.3	2.3	0	2.3	2.3				
N5W12-07	N5W12	1_NW	1500	2	N_N	N_N	1.9	1.9	0	1.9	1.9				
N5W12-14	N5W12	1_NW	1500	2	N_N	N_N	1.9	1.9	0	1.9	1.9				
N6E01-09	N6E01	5_N	1250	2	N_N	N_N	4.4	4.4	0		4.4				4.4
N6E02-11	N6E02	5_N	1250	2	N_N	N_N	4.3	4.3	0	4.3	4.3				
N6E05-07	N6E05	6_NE	1250	2	N_N	N_N	3.9	3.9	0	3.9	3.9				
N6E05-20	N6E05	6_NE	1250	2	N_N	N_N	5	5	0	5	5				
N6E08-16	N6E08	6_NE	1500	2	N_N	N_N	3.5	3.5	0	3.5	3.5				
N6W08-17	N6W08	1_NW	1500	2	N_N	N_N	2.2	2.2	0	2.2	2.2				
N6W12-01	N6W12	1_NW	1750	2	N_N	N_N	3.5	3.5	0	3.5	3.5				

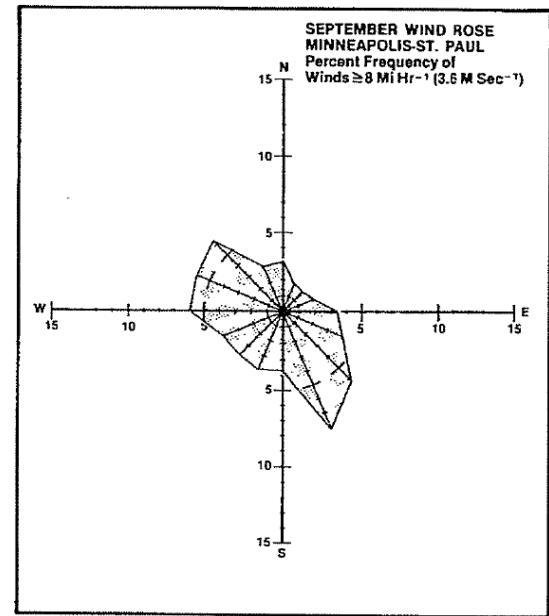
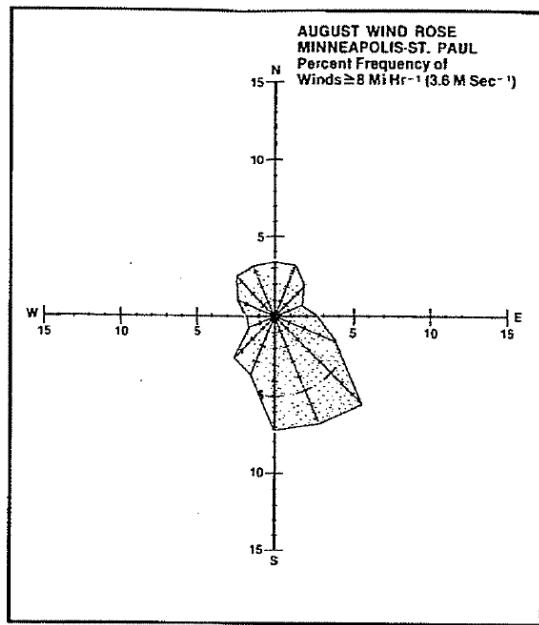
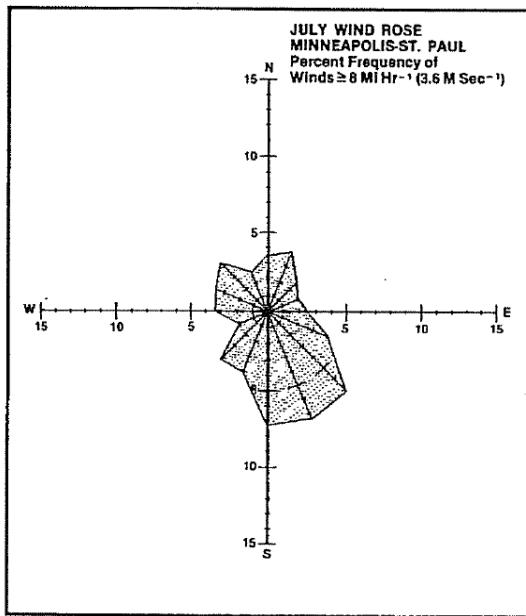
TABLE 9
Evaluation of Yard Specific Variability
South Minneapolis Soil Arsenic Evaluation

Parcel ID	Block ID	OCTNT	Distance Class	No. of Samples per Parcel	Exceeds		Arsenic Concentration			Sample Concentration within the Property					
					10 mg/kg Background	95 mg/kg Removal	MAX	MIN	RPD	Back	Front	Garden	Other	Side	Unknown
N7W01-02	N7W01	5_N	1250	2	N_N	N_N	3.2	3.2	0	3.2	3.2				
N7W09-01	N7W09	1_NW	1750	2	N_N	N_N	7.6	7.6	0		7.6				7.6
N8W02-07	N8W02	5_N	1750	2	N_N	N_N	4.7	4.7	0	4.7	4.7				
N8W03-12	N8W03	5_N	1750	2	N_N	N_N	5.4	5.4	0	5.4	5.4				
S1E07-05	S1E07	7_E	1000	2	N_N	N_N	5.3	5.3	0	5.3	5.3				
S1E08-02	S1E08	7_E	1000	2	N_N	N_N	4	4	0		4				4
S1E08-12	S1E08	7_E	1000	2	N_N	N_N	5.5	5.5	0	5.5	5.5				
S1W07-09	S1W07	2_W	750	2	N_N	N_N	7.8	7.8	0	7.8	7.8				
S1W13-03	S1W13	2_W	1500	2	N_N	N_N	4.5	4.5	0	4.5	4.5				
S2E07-02	S2E07	7_E	1000	2	N_N	N_N	7.4	7.4	0	7.4					7.4
S2E10-14	S2E10	7_E	1250	2	N_N	N_N	3.9	3.9	0	3.9	3.9				
S2W06-03	S2W06	3_SW	750	2	N_N	N_N	6.5	6.5	0	6.5	6.5				
S2W06-19	S2W06	3_SW	750	2	N_N	N_N	5.1	5.1	0	5.1	5.1				
S3E10-08	S3E10	8_SE	1500	2	N_N	N_N	8.4	8.4	0	8.4	8.4				
S3W03-16	S3W03	3_SW	750	2	N_N	N_N	6.7	6.7	0	6.7	6.7				
S3W12-11	S3W12	3_SW	1500	2	N_N	N_N	5.1	5.1	0	5.1	5.1				
S4E08-24	S4E08	8_SE	1250	2	N_N	N_N	9.4	9.4	0	9.4	9.4				
S4E09-21	S4E09	8_SE	1250	2	N_N	N_N	7.5	7.5	0	7.5	7.5				
S4W03-13	S4W03	4_S	1000	2	N_N	N_N	6.4	6.4	0	6.4	6.4				
S4W06-29	S4W06	3_SW	1000	2	N_N	N_N	5.5	5.5	0	5.5	5.5				
S4W08-21	S4W08	3_SW	1250	2	N_N	N_N	5.3	5.3	0	5.3	5.3				
S4W09-03	S4W09	3_SW	1250	2	N_N	N_N	5.3	5.3	0	5.3	5.3				
S4W09-22	S4W09	3_SW	1250	2	N_N	N_N	5	5	0	5	5				
S5E02-20	S5E02	4_S	1000	2	N_N	N_N	6.7	6.7	0	6.7	6.7				
S5E08-12	S5E08	8_SE	1500	2	N_N	N_N	5.3	5.3	0	5.3	5.3				
S5E09-04	S5E09	8_SE	1500	2	N_N	N_N	4.4	4.4	0	4.4	4.4				
S5W03-05	S5W03	4_S	1000	2	N_N	N_N	4.1	4.1	0	4.1	4.1				
S5W03-26	S5W03	4_S	1000	2	N_N	N_N	5.8	5.8	0	5.8	5.8				
S5W07-09	S5W07	3_SW	1250	2	N_N	N_N	5.6	5.6	0	5.6	5.6				
S6E03-06	S6E03	4_S	1250	2	N_N	N_N	5	5	0	5	5				
S7E01-22	S7E01	4_S	1500	2	N_N	N_N	6.6	6.6	0	6.6	6.6				
S7E01-25	S7E01	4_S	1500	2	N_N	N_N	9.4	9.4	0	9.4	9.4				
S7E03-17	S7E03	4_S	1500	2	N_N	N_N	4.5	4.5	0	4.5	4.5				

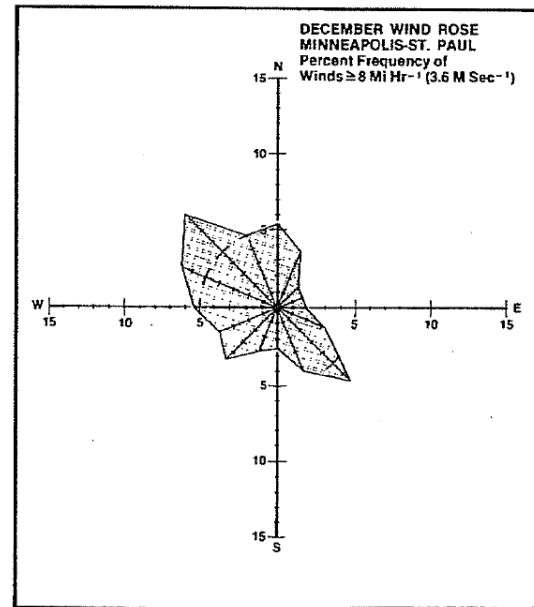
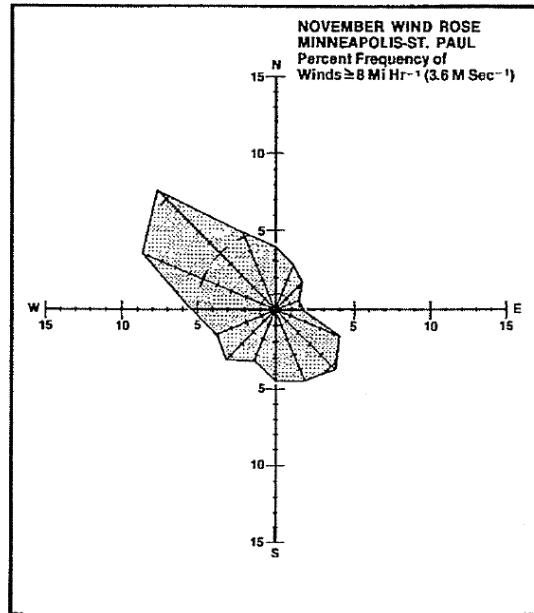
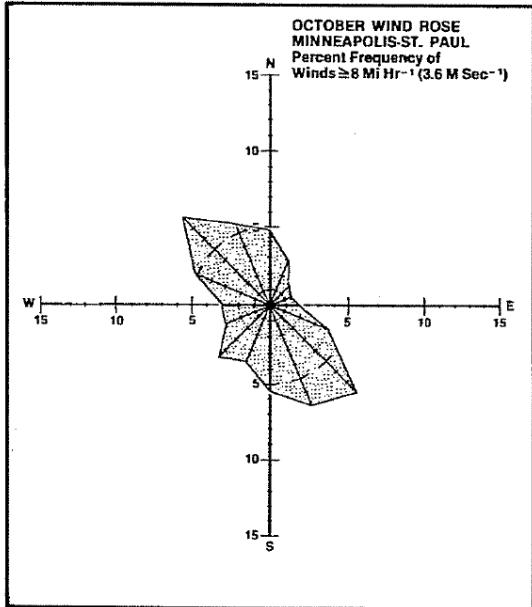
Attachment 1
Wind Rose Diagrams



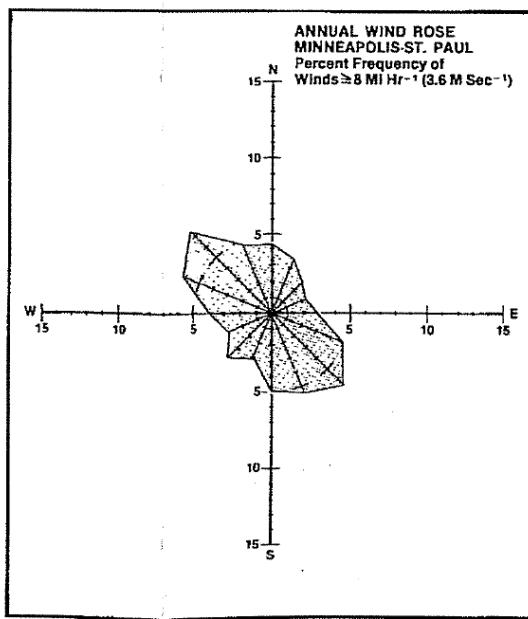




Wind rose diagrams from "Climate Of Minnesota, Part XIV-Wind Climatology And Wind Power", AD-TB1955 Technical Bulletin, University Of Minnesota, 1983



Wind rose diagrams from "Climate Of Minnesota, Part XIV-Wind Climatology And Wind Power", AD-TB1955 Technical Bulletin, University Of Minnesota, 1983



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