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Additional Soil Assessment Work Plan

Former Chamberlain Manufacturing Corporation Site
Waterloo, Iowa

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1 Introduction

The former Chamberlain Manufacturing property (the "Subject Site") is located at 550 Esther Street in the City of Waterloo, Black Hawk County, Iowa (Figure 1-1). The Subject Site is an irregularly shaped parcel containing approximately 22.8 acres. The layout of the Subject Site and the surrounding area is shown on Figure 1-2.

The Subject Site manufactured metal washer wringers and projectile metal parts from approximately 1919 until 1996 when it was sold to Atlas Warehouse L.C. for use as a storage facility. The Subject Site was subsequently abandoned and is currently vacant. The City of Waterloo acquired the Subject Site from Atlas Warehouse L.C. in 2005 in an effort to facilitate redevelopment and has demolished the remaining structures of the Subject Site.

The Subject Site is zoned Heavy Industrial (M-2) by the City. The Subject Site is adjoined by park land to the north and south, single family residential housing to the west, and Virden Creek followed by a gold course to the east. Virden Creek is within approximately 100 feet of the Subject Site at its closest point. Gates Park adjoins the Subject Site to the north across Louise Street, to the east across Virden Creek, and to the south across the railroad tracks. Single family residences are located across East 4th Street to the west of the Subject Site. Single family residences are also located along the east side of East 4th between Anita and Louise Streets

The redevelopment plan and future use of the Subject Site have not yet been determined, so residential, commercial/industrial, and recreational use will be considered as potential future property uses for the Subject Site.

1.1 Purpose

This Additional Soil Assessment Work Plan (ASAWP) has been developed by ENVIRON International Corporation (ENVIRON) on behalf of Chamberlain Manufacturing Corporation (Chamberlain) to describe additional surficial soil investigations that will be performed at the Subject Site. These additional surficial soil investigations are pursuant to a USEPA letter dated October 17, 2013. The October 2013 USEPA letter indicated that recent soil sampling conducted during the removal of remnant concrete floor slabs and foundation footings has confirmed the presence of contaminants that may pose a threat to human health and the environment. The October 2013 USEPA letter also indicated that the potential for future residential land use of the property by the City of Waterloo warrants a more thorough assessment of soil quality.

Based on the foregoing, the USEPA requires that this ASAWP describe the procedures for sampling of the upper 2 feet of surface soil and include laboratory analysis for volatile organic compounds (VOCs), semi-VOCs (SVOCs), and metals. The USEPA further requires that specific areas of the Subject Site where oily soils are observed and/or transformers and capacitors were known to be stationed will include additional laboratory analysis for total petroleum hydrocarbons and/or polychlorinated biphenyls (PCBs). The USEPA also requires assessment of areas proximate to the geophysical anomalies documented in the 2005 Phase II

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Environmental Assessment Report prepared by HR Green, either as part of this ASAWP or in a subsequent work plan for soil remediation.

USEPA's Soil Screening Guidance is used as a general framework to guide in the sampling design for this ASAWP, as it is valid guidance for sites which may be redeveloped for residential purposes. The soil screening process includes developing a conceptual site model (CSM), comparing the CSM to the Soil Screening Level (SSL) scenario (in this case, the state-specific Iowa Statewide Standards), defining data collection needs, and sampling and analyzing soils at site. A first step in developing a CSM is to collect existing site data. This data is organized and analyzed to identify sources of contamination, potentially affected media, and potential migration routes, exposure pathways, and receptors. Our purpose in this ASAWP is to evaluate shallow soil for direct contact residential exposure scenarios. Once existing data are assembled, they are compared to screening levels, and the site can be stratified into zones of likelihood of contamination, and remaining data gaps can be identified.[1]

At this point in the soil screening process, existing data can be used to stratify the site into three types of areas requiring different levels of investigation:

- Areas unlikely to be contaminated
- Areas known to be highly contaminated
- Areas that may be contaminated and cannot be ruled out by screening[2]

Areas that are not likely to be contaminated generally will not require further investigation if this assumption is based on historical site information or other site data that are reasonably complete and accurate. These may be parts of the site that are within the legal boundaries of the property but were completely undisturbed by hazardous-waste-generating activities. All other areas warrant investigation.[3]

Areas that are known to be highly contaminated (i.e., sources) are targeted for subsurface sampling. Areas that are suspected to be contaminated (and cannot be ruled out by screening) are the primary subjects of the surface soil investigation.[4] These areas are subdivided into Exposure Areas, which are 0.5 acres in size which EPA assumed based on a typical suburban residential lot size. The number of samples required per EA depends on the variability in the data and the difference between the contaminant concentration and the screening level. The sample number in EPA's example varies between 4 and 9[5], so this range of sample density per half acre represents a reasonable range for an area that is suspected of being contaminated because it cannot be ruled out by comparison to a screening level.

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[1] USEPA, Soil Screening Guidance: User's Guide, July 1996, p. 6
[2] USEPA, Soil Screening Guidance: User's Guide, July 1996, p. 9.
[3] USEPA, Soil Screening Guidance: Technical Background Document, July 1996, p. 84.
[4] *Ibid.*
[5] USEPA, Soil Screening Guidance: Technical Background Document, July 1996, p. 95.

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1.2 Site Geology and Hydrogeology

The Subject Site land surface is generally flat, sloping downwards from the northeast to the southwest. It is located in the dissected till plains of the central lowlands province. The soils in the region have been classified by the US Soil Conservation Service as the Sparta loamy fine sand series, which consists of nearly level to moderately steep, excessively drained soils on alluvial terrace and uplands. The Sparta soils formed in sand deposited mainly by wind, and have relatively high permeabilities. Approximately 60 to 100 feet of sand and gravel deposits lie between the Sparta soils and underlying Silurian and Devonian-age limestone bedrock.

The description of the near-surface geology and hydrogeology can be further refined by observations made during the investigations performed to date at the Subject Site. Based on the soil borings performed at the Subject Site during the Phase II Environmental Site Assessment in August and September 2004, the surface soils are generally fill materials or topsoil. The fill/topsoil is generally 2 to 4 feet thick and is underlain by a sand or silty-sand layer. In most locations, a relatively low permeability lens is present within the sand layer, which is composed of sandy clay, clayey silt, or silty clay. This lower permeability lens, where present, ranges from 2 to 6 feet in thickness and is encountered between 8 and 14 feet below ground surface (bgs). In two locations, this lower permeability layer appears to be more extensive as it extends to the termination depths of the borings at 30 feet bgs.

Groundwater is found in unconsolidated and consolidated aquifers in the area. The depth to the potentiometric surface in monitoring wells installed at the Subject Site generally range from 8 to 24 feet bgs. The groundwater flow direction is generally to the south and southwest. Groundwater in both the unconsolidated deposits and the Silurian and Devonian-age bedrock units is likely to flow to the southwest, toward the Cedar River.

1.3 Risk Assessment Summary

The April 2010 Risk Assessment performed by Tetra Tech on behalf of the Environmental Protection Agency (EPA) identified unacceptable risks at the Subject Site.[6] The risk assessment evaluated chemicals of potential concern (COPCs) based on previous soil, groundwater, and indoor air screening. The COPCs identified and evaluated in the risk assessment were:

- Soil – trichloroethene (TCE), arsenic, barium, cadmium, mercury, and selenium.
- Groundwater – 1,1,1-trichloroethane (TCA), 1,1,2-TCA, 1,2-dichloropropane, cis-1,2-dichloroethene (cDCE), trans-1,2-dichloroethene, benzene, chloroform, ethylbenzene, tetrachloroethene (PCE), TCE, vinyl chloride, total xylenes, arsenic, cadmium, chromium, and mercury.
- Indoor air and soil gas – chloroform, PCE, and TCE.

[6] The Health Consultation of the Former Chamberlain Manufacturing Site prepared by the Iowa Department of Public Health dated April 27, 2012 and Comments on the Tetra Tech Risk Assessment Report prepared by ENVIRON dated September 7, 2012 did not identify any risks at the Subject Site other than the vapor intrusion risk that is being addressed as an interim measure.

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Tetra Tech calculated cumulative risks from exposure to soil and groundwater to various receptors including current and future residents (both on- and off-site), commercial/industrial workers, construction workers, recreational users, and trespassers. Tetra Tech calculated unacceptable risks (lifetime excess cancer risks greater than EPA's risk range of 10^{-6} to 10^{-4} or a hazard index greater than one) for future industrial/commercial workers, future construction workers, and future adult child and residents. Most of the calculated risk is due to ingestion and direct contact exposure with groundwater. This risk, however, is largely theoretical as the City of Waterloo provides drinking water to residents and the use of groundwater from private wells is currently prohibited. Tetra Tech calculated acceptable cumulative risk levels for trespassers, and adult and child recreational visitors for all pathways. Inspection of the risk assessment calculations presented in Appendix D of the Risk Assessment Report indicates that TCE in groundwater, mercury in perched groundwater, and arsenic, cadmium, and mercury in soil are the principal risk drivers at the Subject Site as they represent the majority of the risk and hazard quotients calculated.

The 2010 Risk Assessment Report found that the calculated risks to future adult residents from surface soil are within acceptable ranges. The excess lifetime cancer risks for the child resident from exposure to soil is also within the acceptable range, but the hazard index exceeds one (1.6), due to the presence of cadmium in soil (individual hazard quotient was equal to 0.96). No individual hazard quotient exceeded one, but the summed hazard index was greater than one. The exposure point concentrations calculated by Tetra Tech represented the 95% upper confidence limit of the mean for soil on the entire Subject Site. This confidence limit may need to be reviewed if specific plans for residential and recreational uses are implemented by the City and reflect smaller exposure areas, representing individual residential yards. This may require the corrective measure of isolated hot spot soil investigation and removal, or placement of engineered barriers consistent with a future development plan.

The Risk Assessment Report demonstrated that calculated risks to commercial/industrial workers from on-site soils were within acceptable risk ranges. On-site soils did additionally contain TCE, barium, mercury, and selenium. These constituents were found at levels exceeding medium-level screening values for residential land use at some locations, but were not specifically identified as unacceptable human health risks.

The major portion of the excess cancer risk due to exposures to soils estimated by Tetra Tech was associated with the presence of naturally occurring arsenic. The 95% upper confidence limit of the mean concentrations for both surface soils and subsurface soils were 6.5 milligrams per kilogram (mg/kg) and 5.6 mg/kg, respectively, which are lower than the 7.14 mg/kg identified as a background value for Blackhawk County, Iowa,[7] indicating that the risks associated with arsenic in the soils are not related to the historic industrial use/operations at the Subject Site. Furthermore, the Subject Site soil data for arsenic do not exceed the Iowa generic statewide soil standard.[8] As noted in the Scope of Work of the Unilateral Administrative Order for the Subject Site, the media cleanup standards may take into account naturally occurring background

[7] United States Geological Survey, National Geochemical Survey Database, http://mrdata.usgs.gov/geochem/select.php

[8] https://programs.iowadnr.gov/riskcalc/pages/standards.aspx

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concentrations for metals. Notwithstanding the above, corrective measures such as isolated hot spot soil investigation and removal, or placement of engineered barriers consistent with a future development plan may be implemented in response to EPA's indicated preference for some hot spot removal. The results of the Additional Soil Assessment proposed herein will aid in the design of potential corrective measures.

Recent demolition activities on the Subject Site have uncovered soils containing objectionable odors. Air and soil sampling were conducted on February 8, 2013. Soil samples were analyzed for total extractable hydrocarbons, VOCs, and metals. Air samples were analyzed for VOCs. The observed concentrations of constituents in soil were below applicable statewide standards, and observed chemical concentrations in air were below exposure limits. Additional corrective measures, therefore, will be considered in order to address the objectionable odors during site remediation or development activities.

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2 Recommended Scope of Additional Soil Assessment

A total of 181 soil samples obtained from the Subject Site in 1997, 2004 and 2006 were submitted for laboratory analysis of a subset of the following parameters: VOCs, SVOCs, PCBs, RCRA 8 metals and cyanide (95 samples were analyzed for VOCs with an additional 33 samples analyzed for benzene, toluene, ethylbenzene, and xylenes, 90 for SVOCs, 23 for PCBs, 88 for metals, and 32 for cyanide). These soil samples were the product of a targeted investigation where potential sources (often, a solid waste management unit, or SWMU) of contamination were identified based on the Phase I Site Assessment, sampled, and analyzed for specific constituents relevant to the potential source. Hence, they are biased samples, and more likely to reveal contamination compared to samples collected randomly across the Site. The laboratory results associated with this substantial soil quality database were evaluated against Iowa Statewide Standards for Soil (as shown in Tables 2-1 and 2-2) to identify appropriate locations for additional soil sampling and laboratory analyses. The October 2013 USEPA letter requires that this ASAWP describe the procedures for sampling of the upper 2 feet of surface soil and include laboratory analysis for VOCs, SVOCs, PCBs, and metals. To meet the USEPA objective of completing a comprehensive assessment of soil quality, the evaluation of existing soil quality data was not limited with respect to sample depth (i.e., laboratory results of previous soil samples obtained from depths greater than 2 feet bgs were included as part of the evaluation).

The April 2010 Risk Assessment included an evaluation of previously-obtained soil quality data and concluded that chemicals of potential concern (COPCs) in soil at the Subject Site were limited to TCE, arsenic, barium, cadmium, mercury, and selenium. Therefore, only these six constituents were carried through the risk assessment. To meet the requirements of the October 2013 USEPA letter, however, the evaluation of existing soil quality data was not limited to the COPCs identified in the risk assessment and included the full suite of the identified parameters of interest (VOCs, SVOCs, PCBs, and metals).

An evaluation of the existing soil quality data followed by recommendations concerning additional soil assessment is provided as follows. In general, historical soil samples which exceed the Iowa Statewide Standards are slated for further assessment with a sample density of 5 samples per half acre (in addition to previous historical samples). It should be noted that very few exceedances of the Iowa Statewide Standards for soil are noted in the sampling set, and no sample result exceeds its standard so significantly that is could be considered "highly contaminated", and require further subsurface soil sampling. Recommendations regarding confirmation of the source(s) of geophysical anomalies documented in the 2005 Phase II Environmental Assessment Report prepared by HR Green are also provided. Finally, recommendations to sample areas not believed to be contaminated based on historical information, such as under parking lots and buildings where SWMUs did not exist, and not sampled previously are slated for additional sampling, but at a lower sample density.

2.1 Parameter Specific Evaluations

2.1.1 Volatile Organic Compounds

The locations of previous soil samples that were submitted for laboratory analysis of VOCs are shown on Figure 2-1. As shown in Tables 2-1 and 2-2, none of the soil samples obtained from

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the Subject Site in 1997, 2004 and 2006 contained VOC concentrations above Iowa Statewide Standards for Soil.

2.1.2 Semi-Volatile Organic Compounds

The locations of previous soil samples that were submitted for laboratory analysis of SVOCs are shown on Figure 2-2. As shown in Table 2-1, none of the soil samples obtained in 1997 contained concentrations of any SVOCs that exceeded Iowa Statewide Standards for Soil. With regard to the soil samples obtained in 2004 and 2006, the soil sample obtained from a depth of 2 feet bgs from soil boring SB-7 (Figure 2-2) within the northeastern portion of the Subject Site contained 4.8 mg/kg of benzo(a)pyrene, 5.24 mg/kg of benzo(a)anthracene, and 3.93 mg/kg of benzo(b)fluoranthene (Table 2-2). These detected SVOC concentrations exceeded their respective Iowa Statewide Soil Standards (0.31 mg/kg for benzo(a)pyrene, and 3.1 mg/kg for benzo(a)anthracene and benzo(b)fluoranthene). To further characterize soil quality near previous soil boring SB-7, soil borings SB-117 through SB-121 will be installed at the locations shown on Figure 2-5. One soil sample will obtained at a depth of 0 to 2 feet bgs from each of these soil borings, and submitted for laboratory analysis of SVOCs.

2.1.3 Polychlorinated Biphenyls

The locations of previous soil samples that were submitted for laboratory analysis of PCBs are shown on Figure 2-3. As shown in Tables 2-1 and 2-2, none of the soil samples obtained from the Subject Site in 1997, 2004 and 2006 contained concentrations of PCBs above Iowa Statewide Standards for Soil.

2.1.4 Metals

The locations of previous soil samples that were submitted for laboratory analysis of metals are shown on Figure 2-4. With respect to the soil samples obtained in 1997, the soil sample obtained from a depth of 0 to 4.5 feet bgs from soil boring SWMU 1-C (Figure 2-4) within the eastern portion of the Subject Site contained 2.11 mg/kg of thallium, which exceeds the Iowa Statewide Soil Standard for thallium. To further characterize soil quality near previous soil boring SWMU 1-C, soil borings SB-122 through SB-126 will be installed at the locations shown on Figure 2-5. One soil sample will obtained at a depth of 0 to 2 feet bgs from each of these soil borings, and submitted for laboratory analysis of RCRA metals plus thallium.

For the soil samples obtained in 2004 and 2006, the soil sample obtained from a depth of 4 feet bgs from soil boring SB-6 (Figure 2-4) within the northeastern portion of the Subject Site contained 19.3 mg/kg of arsenic. This concentration was above the Iowa Statewide Soil Standard of 17 mg/kg for arsenic. To further characterize soil quality near previous soil boring SB-6, soil borings SB-127 through SB-131 will be installed at the locations shown on Figure 2-5. One soil sample will obtained at a depth of 0 to 2 feet bgs from each of these soil borings, and submitted for laboratory analysis of RCRA metals.

The soil sample obtained from a depth of 0.5 to 2.5 feet bgs from soil boring SB-107 within the east-central portion of the Subject Site contained 26.4 mg/kg of arsenic. To further characterize soil quality near previous soil boring SB-107, soil borings SB-132 through SB-136 will be installed at the locations shown on Figure 2-5. One soil sample will obtained at a depth of 0 to

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2 feet bgs from each of these soil borings, and submitted for laboratory analysis of RCRA metals.

The soil sample obtained from soil boring SB-51 (2 feet bgs) in the western portion of the Subject Site (Figure 2-4) contained a cadmium concentration (132 mg/kg) that was above the Iowa Statewide Soil Standard (70 mg/kg). To further characterize soil quality near previous soil boring SB-51, soil borings SB-137 through SB-141 will be installed at the locations shown on Figure 2-5. One soil sample will obtained at a depth of 0 to 2 feet bgs from each of these soil borings, and submitted for laboratory analysis of RCRA metals.

The soil samples obtained from soil boring SB-61 (2 feet bgs) and SB-112 (2 to 4 feet bgs) in the southern portion of the Subject Site (Figure 2-4) contained cadmium concentrations (176 and 111 mg/kg, respectively) that were above the Iowa Statewide Soil Standard (70 mg/kg). To further characterize soil quality near previous soil borings SB-61 and SB-112, soil borings SB-142 through SB-146 will be installed at the locations shown on Figure 2-5. One soil sample will obtained at a depth of 0 to 2 feet bgs from each of these soil borings, and submitted for laboratory analysis of RCRA metals.

2.2 Location Specific Evaluations

2.2.1 Identified Geophysical Anomalies

A two-phased geophysical survey was completed within the northeastern portion of the Subject Site in 2004. The objective of the geophysical survey was to locate possible buried drums of cyanide-containing waste materials within an area with approximate dimensions of 300 feet by 150 feet. The initial phase of the geophysical survey consisted of an electromagnetic (EM) survey that was performed along traverses spaced 5 feet apart and oriented approximately east to west. The second phase of the geophysical survey consisted of a ground-penetrating radar (GPR) survey over areas that revealed anomalies based on the results of the EM survey. The results of the EM and GPR surveys revealed the presence of apparent singular anomalies at locations identified as anomalies 1 through 12 (see Figures 2-5 and 2-6).

To evaluate the possible presence of impacted soil in the immediate vicinities of the identified anomalies, hydraulic probe soil borings SB-147 and SB-148 (Figure 2-5) will be installed approximately midway between anomalies 8 and 9, and 9 and 10. In addition, soil borings SB-204 through SB-209 will address the remaining anomalies 1 through 7, 11 and 12. If drums containing chemical waste were buried on-site historically, it is unlikely that they are still intact, as the typical drum lifetime due to corrosion is less than 20 years. Therefore the presence and potential impact of drums could be identified using soil borings rather than test pits. The results of the GPR survey indicated that the top surfaces of the anomalies are located within the upper 3 feet of the ground surface. Hydraulic probe soil borings SB-147, SB-148, and SB-204 through SB-209 will be advanced to depths of 10 feet bgs, and one soil sample will retained for laboratory analysis from each of the soil probes from depths that are based on the results of in-field photoionization detector (PID) readings. These eight soil samples will be submitted for laboratory analysis of VOCs and cyanide.

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2.2.2 Remaining Spatial Data Gaps

A May 2004 Phase I Environmental Assessment Report for the Subject Site indicated the historical presence of electrical transformers within the southwestern portion of the Subject Site. To further evaluate soil quality within this portion of the Site, soil borings SB-149 and SB-150 will be installed at the locations shown on Figure 2-5. One soil sample will obtained at a depth of 0 to 2 feet bgs from each of these soil borings, and submitted for laboratory analysis of PCBs. Moreover, if oily soils are observed during advancement of any of the other soil borings installed as part of this additional soil assessment, soil samples retained for laboratory analysis from those soil borings will also be submitted for analysis of PCBs and total extractable hydrocarbons (TEH).

Related to the removal of remnant concrete floor slabs and foundation footings, odiferous soils were detected within three isolated areas within the central and southern portions of the subject site (see Figure 2-5). To delineate the extent of these areas and to evaluate possible landfill disposal alternatives for these soils, additional soil borings will be installed at each of the odiferous soil locations shown on Figure 2-5. The approximate horizontal and vertical extent of these areas will be determined with placement of soil borings based on field evaluation of visual, olfactory, and PID readings, and one soil sample will obtained at a depth of 0 to 2 feet bgs, or from the depth interval with the highest PID reading, from each of the three odiferous soil locations, and submitted for laboratory analysis of flash point, paint filter and toxicity characteristic leaching procedure (TCLP) VOCs, SVOCs, metals, and other analyses as required by candidate waste disposal facilities to determine if these soils, if excavated, would represent hazardous waste as defined under RCRA.

A number of underground storage tanks were recently removed from the Site by the City of Waterloo. Additional borings will be advanced at the location of each tank (assuming these areas can be located), to depths below the tank invert and analyzed for hydrocarbon constituents.

Based on evaluation of the areal distribution of the locations of soil samples obtained to date from the Subject Site, ENVIRON recommends installation and sampling of additional hydraulic probe soil borings to cover the areas not believed to be contaminated based on historical information. As shown on Figure 2-5, soil borings SB-153 through SB-203 and SB-210 through SB-214 are recommended to be installed at the Subject Site. The absence of laboratory analyses of previous soil samples for metals is typically the limiting factor, which necessitates the recommended installation of the additional soil borings. One soil sample will obtained at a depth of 0 to 2 feet bgs from each of these soil borings, and submitted for laboratory analysis of VOCs, SVOCs and RCRA metals. As indicated above, if oily soils are observed during advancement of any of these (or any other) soil borings installed as part of this additional soil assessment, soil samples retained for laboratory analysis from those soil borings will also be submitted for analysis of PCBs and TEH.

These additional samples represent an addition of 64 analyses for VOCs, 61 analyses for SVOCs, and 81 analyses for metals, bringing the total numbers of observations for these analytes to approximately 4 samples per half acre, with the density larger (at least 6 per half acre) in areas of suspected contamination. Based on the low number of observations of

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contaminant concentrations exceeding the Iowa Statewide Standards in the targeted, historical data set, and EPA SSL guidance for determining sampling strategies for future residential sites, the proposed sampling is more than sufficient to characterize the shallow soil for potential residential exposure.

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3 Methods and Procedures

The methods and procedures for obtaining soil samples are described in the project Quality Assurance Project Plan Revision 1 (QAPP) dated August 18, 2006. Surface soil samples will include the interval from the ground surface to 2 feet bgs. Subsurface soil samples will include any samples collected from 2 feet or greater in depth bgs.

3.1 Soil Sample Locations

The recommended additional soil sample locations discussed in Section 2.0 are also depicted on Figure 2-5.

3.2 Soil Sampling Procedures

Soil samples will be collected in general conformance with the field procedures described in the QAPP. Surface soil samples will be collected using a hand auger, trowel or shovel, or conventional boring equipment (hollow-stem augers and split-spoon samplers or hydraulic probe rigs) as appropriate for the surface materials being sampled. Subsurface samples will be collected using conventional boring equipment.

Surface and subsurface samples will be field-screened using a photoionization detector (PID). Field measured parameters will include PID readings. A flame ionization detector (FID) may be used as a substitute for the PID.

Sampling equipment will be decontaminated in accordance with procedures specified in Section 3.5. Wastes generated during sampling, including decontamination liquids and other debris, will be handling in accordance with the procedures specified in the QAPP.

3.3 Soil Sample Location Surveying

Prior to installing the soil borings, ENVIRON will notify Iowa One Call to identify the location of all public subsurface utilities. ENVIRON will also subcontract a private utility locator to locate and mark the traceable and identifiable private subsurface utilities in the work area. After the surface and subsurface soil sample locations have been sampled, the location will be marked clearly with a painted stake or other identifier. Handheld GPS units may be used to obtain an approximate coordinate for the sample location. Final sample locations will be verified using standard surveying techniques in general conformance with the QAPP.

3.4 Quality Control Procedures

Quality Control (QC) for field instrument measurements are duplicative or replicate measurements taken at the time of measurement. The field logbook or data recording sheet will serve as the quality assurance record for field instrument measurements. QC samples will include field blanks (when non-disposable equipment is used), trip blanks, and matrix spike/matrix spike duplicates (MS/MSD) samples. These samples will be collected as described below:

Field blanks - Field rinsate blanks will be collected at a frequency of one field blank for every ten or less aqueous samples of each matrix. For field blanks, de-ionized water will be poured into

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or rinsed through freshly decontaminated reusable equipment and then poured directly into clean, laboratory-supplied containers and analyzed for the same parameters as the associated soil samples.

Trip blanks - Trip blanks (methanol blank) will be included in each shipment of VOC samples if methanol is used as a preservative for the soil sample. Trip blanks will originate in the laboratory and be prepared by adding 25 ml of methanol into a two-ounce wide-mouth jar with septum and sealing the vials. Trip blanks will accompany the sample bottles to the laboratory.

Method Blanks - Method blanks are generated within the laboratory and used to assess contamination resulting from laboratory procedures. A method blank will be run each day, or at frequencies specified by the laboratory.

Matrix Spikes/Matrix Spike Duplicates - MS/MSD provide information about the effect of the sample matrix on the digestion and measurement methodology. Matrix spikes are performed in duplicate and are hereinafter referred to as MS/MSD samples. MS/MSD analysis will be conducted at a rate of 1 MS/MSD per 20 analytical samples in the laboratory batch. Sufficient volume for analysis of MS/MSD samples will be collected and provided to the laboratory at a rate of 1 per 20 samples. MS/MSD analysis requires triple the volume for VOCs and double the volume for extractable organics.

3.5 Decontamination Procedures

Field analytical equipment which may come in direct contact with the sample or sample media, including, but not limited to spoons, trowels, stainless steel bowls, etc., which will be decontaminated before and after use, according to the procedures outlined below, unless manufacturers' instructions indicate otherwise.

1. Cleaned with tap water and laboratory detergent using a brush, if necessary, to remove particular matter and surface films.
2. Rinsed thoroughly with tap water.
3. Rinsed thoroughly with distilled de-ionized water and allowed to air dry.

3.6 Calibration and Maintenance Procedures

PID meters will be calibrated and maintained in general conformance with the manufacturer's recommendations before use each day.

3.7 Data Validation

The purpose of the validation is to evaluate the analytical data in terms of certain prescribed criteria in order to assess the quality and usability of the data. During the validation process, each analytical result is flagged by a letter qualifier or combination of qualifiers that will indicate the usability of the result. For example, a "J" qualifier indicates that a result is usable, but represents an estimated value for the reason(s) given in the validation narrative. An "R" qualifier indicates that the result is rejected for the reason(s) stated in the narrative, and is therefore not a usable data point for the purposes of site characterization or a risk assessment. The following are typical data qualifiers used during data validation and the corresponding definitions:

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U Not detected

J Estimated value

UJ Reported quantitation limit is qualified as estimated

R Result is rejected and unusable

In addition to determining data quality and usability, the information derived from the data validation process will also aid in assessing the percent completeness of the data set.

The validation of analytical data will be performed by ENVIRON. Validation will consist of an evaluation of the following criteria:

- Sample/extract holding times
- Initial and continuing calibrations
- Blanks
- Surrogate spike recoveries
- MS/MSDs recoveries and %RPDs (for the MSDs)
- MS recoveries and duplicate %RPDs for inorganics
- LCS recoveries and %RPDs
- %RPDs for field duplicates
- Internal standards performance
- Organic compound identification and quantitation
- Reported detection limits
- System performance

The validation discussion in reports presenting the data will include of the following:

- Summary of samples and fractions reviewed
- Data assessment and narrative
- Data summary tables showing validation-qualified data
- Glossary of data qualifiers

All laboratory analytical data (100%) will be validated from the initial rounds of analyses at each Group. If the initial rounds of data validation demonstrate that the laboratory reliably produces data of high quality and usability such that completeness objectives are met or exceeded, then the level of effort for the data validation can be reduced.

3.8 Internal Quality Control Checks, Audits and QC Corrective Measures

Internal quality control checks, audits and QC corrective measures will be conducted as described in Section 3 of the QAPP.

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3.9 Calculation of Data Statistics

Once the laboratory analytical data have been validated, the data will be compiled and tabulated for statistical analysis. Summary statistics will be presented for each of the datasets. These summary tables will include for each analyte:

a. the frequency of detection

b. the range of detected concentrations

c. the range of reported detection limits

d. the mean concentration (arithmetic or geometric)

e. the standard deviation (arithmetic or geometric)

f. data distribution

The most common method for using data for chemicals detected at least once but not in all samples in a specific dataset is to assign a value of one-half the sample quantitation limit in calculating summary statistics (USEPA, 1989). This procedure will be followed for as part of data evaluation.

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4 Report of Additional Soil Assessment Results

The results of the tests and investigations described herein will be reported in an Additional Soil Assessment Report. This report will include a summary of the field conditions, a description and evaluation of any deviations from the work plan, a summary of the results, and an evaluation of how the results will affect the selection and design of any corrective measures. The field investigation will be conducted after completion of site demolition activities. The field investigation is therefore anticipated to be conducted during the second or third quarter 2014, followed by submittal of the Additional Soil Assessment Report to the USEPA during the fourth quarter 2014.

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5 References

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Tables

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Table 2.1: Soil Analytical Resukts (1997)
Former Chamberlain Property - Waterloo, Iowa

CAS No	Parameter	Iowa Statewide Soil Standard Value	Iowa Statewide Soil Standard Unit	Location ID: Units	AOC 5 0 - 4	AOC 5 4 - 7	AOC 4 10 - 4	AOC 4 19 - 11	AOC 4 119 - 21	AOC 5 0 - 4	AOC 5 4 - 8	AOC 5 0 - 4	AOC 5 0 - 4	AOC 5 4 - 9	AOC 5 0 - 4	AOC 5 4 - 9	AOC 5 0 - 4	AOC 5 5 - 9	AOC 5 0 - 4.5	AOC 5 4.5 - 9	AOC 5 0 - 4.5	AOC 5 5 - 9	AOC 5 5 - 9	AOC 4.6 0 - 5.5	AOC 4.6 8.5 - 10	AOC 4.6 10 - 15.5	AOC 4.6 19 - 21	AOC 4.6 26.5 - 29.5
INORGANIC PARAMETERS																												
57-12-5	Cyanide	46	mg/kg	mg/kg	0.494	0.702				6.32	0.716	0.677	1.25	0.238	0.514	0.331	0.465	0.22	0.37	0.915	4.73	0.776	0.774					
7440-22-4	Silver	370	mg/kg	mg/kg	<0.512	<0.512				3.73	<0.512	<0.512	<0.512	<0.512	<0.512	<0.512	<0.512	1860	<0.512	<0.512	<0.512	<0.512	<0.512					
7429-90-5	Aluminum	#N/A	mg/kg	mg/kg	2060	2150				5960	2710	2170	1830	1550	1970	1920	1970	<0.792	3230	1740	2080	2730	3120					
7440-38-2	Arsenic	17	mg/kg	mg/kg	1.52	<0.792				3.95	1.47	<0.792	<0.792	<0.792	<0.792	<0.792	<0.792	24.2	<0.792	<0.792	1.09	<0.792	<0.792					
7440-39-3	Barium	15000	mg/kg	mg/kg	22.7	29.4				616	25.3	26.2	23.1	26.7	23.6	22.5	25.2	0.125	28.7	23.3	82.5	21.2	28.5					
7440-41-7	Beryllium	110	mg/kg	mg/kg	0.133	0.124				0.23	0.142	0.136	0.129	0.108	0.122	0.114	0.117	0.727	0.174	<0.101	0.207	0.11	0.115					
7440-43-9	Cadmium	70	mg/kg	mg/kg	0.566	0.552				15.3	0.606	1.56	1.11	0.507	0.604	0.51	0.697	2.47	0.832	0.473	31.6	0.601	0.606					
7440-48-4	Cobalt	31	mg/kg	mg/kg	2.34	2.48				6.25	2.2	2.7	2.19	2.16	2.06	2.32	2.28	4.14	2.67	2.49	2.4	2.77	2.4					
7440-47-3	Chromium	190	mg/kg	mg/kg	3.13	3.22				52.4	4.12	8.4	4.2	3.02	3.33	3.7	6.65	1.45	4.32	3.85	4.76	4.29	4.33					
7440-50-8	Copper	15000	mg/kg	mg/kg	1.28	0.951				1090	1.54	30.6	27.7	1.47	1.21	0.678	2.36	4520	0.784	0.975	18.3	1.69	1.75					
7439-89-6	Iron	#N/A	mg/kg	mg/kg	3190	3170				54900	3490	6620	4550	2850	3250	3100	3750	218	3990	2750	5620	3390	3430					
7439-96-5	Manganese	10000	mg/kg	mg/kg	207	237				384	196	231	201	212	203	198	215	0.233	241	233	231	132	115					
7439-98-7	Molybdenum	390	mg/kg	mg/kg	<0.211	<0.211				11.8	<0.211	4.07	0.76	<0.211	<0.211	<0.211	1.03	4.55	<0.211	0.359	<0.211	<0.211	<0.211					
7440-02-0	Nickel	1500	mg/kg	mg/kg	4.09	4.76				37.6	4.92	11.8	5.14	3.23	3.61	4.16	5.23	1.68	4.9	4.23	5.79	4.34	<4.15					
7439-92-1	Lead	400	mg/kg	mg/kg	3.56	4.49				176	3.96	6.18	4.01	1.4	2.34	1.74	4.71	<0.345	2.75	1.62	25.3	1.93	<2.42					
7440-36-0	Antimony	31	mg/kg	mg/kg	<0.345	<0.345				21.6	1	0.585	<0.345	<0.345	<0.345	<0.345	<0.345	<2.01	<0.345	<0.345	<0.345	1.31	<0.646					
7782-49-2	Selenium	390	mg/kg	mg/kg	<2.01	<2.01				<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.11	<2.01	<2.01	<2.01	<2.01	<2.01					
7440-28-0	Thallium	0.78	mg/kg	mg/kg	<2.11	<2.11				<2.11	<2.11	<2.11	<2.11	<2.11	<2.11	<2.11	<2.11	7.63	<2.11	<2.11	<2.11	<2.11	<2.11					
7440-62-2	Vanadium	350	mg/kg	mg/kg	6.36	7.02				22.2	7.92	7.78	6.7	5.5	6	6.57	6.32	8.96	8.7	5.73	8.33	6.86	7.36					
7440-66-6	Zinc	23000	mg/kg	mg/kg	11.1	8.11				2260	11.3	34.9	49.4	8.13	10.3	7.81	14.3	1310	14.3	6.42	181	8.15	8.77					
7440-70-2	Calcium	#N/A	mg/kg	mg/kg	1360	1340				43300	974	22400	30600	658	761	788	3320	663	873	513	4900	865	1220					
7439-95-4	Magnesium	#N/A	mg/kg	mg/kg	619	697				8860	542	6720	2270	455	529	519	1540	65	621	506	1640	528	531					
7440-23-5	Sodium	#N/A	mg/kg	mg/kg	67.7	64.3				177	77.8	84.1	70.2	64.8	62.4	65.3	71	176	65.2	59.6	74.7	61.7	73.7					
7440-09-7	Potassium	#N/A	mg/kg	mg/kg	184	190				472	219	257	177	162	167	172	181	<370	255	150	200	175	194					
VOLATILE ORGANIC COMPOUNDS																												
541-73-1	Dichlorobenzene,1,3-	6800000	µg/kg	µg/kg	<690	<3400	<71	<79	<69	<15000	<71	<700	<710	<73	<70	<68	<70	<70	<71	<69	<14000	<70	<72	<69	<78	<73	<76	<78
106-46-7	Dichlorobenzene,1,4-	760000	µg/kg	µg/kg	<860	<4300	<88	<99	<87	<18000	<88	<880	<890	<91	<87	<85	<88	<88	<89	<86	<18000	<88	<89	<87	<98	<92	<95	<97
95-50-1	Dichlorobenzene,1,2-	5500000	µg/kg	µg/kg	<1000	<5100	<110	<120	<100	<22000	<110	<1100	<1100	<110	<100	<100	<100	<110	<110	<100	<22000	<100	<110	<100	<120	<110	<110	<120
87-61-6	Trichlorobenzene,1,2,3	#N/A	µg/kg	µg/kg	<520	<2600	<53	<60	<52	<11000	<53	<530	<530	<55	<52	<51	<53	<53	<53	<52	<11000	<53	<54	<52	<59	<55	<57	<58
87-68-3	Hexachlorobutadiene	40000	µg/kg	µg/kg	<520	<2600	<53	<60	<52	<11000	<53	<530	<530	<55	<52	<51	<53	<53	<53	<52	<11000	<53	<54	<52	<59	<55	<57	<58
74-87-3	Chloromethane	No Standard	µg/kg	µg/kg	<14	<18	<16	<17	<16	<18	<15	<14	<18	<19	<17	<16	<17	<19	<15	<17	<22	<15	<14	<16	<18	<15	<28	<21
74-83-9	Bromomethane	110000	µg/kg	µg/kg	<28	<36	<31	<35	<33	<37	<30	<28	<35	<37	<35	<33	<34	<38	<30	<34	<45	<30	<28	<32	<37	<30	<55	<42
75-01-4	Vinyl chloride	2100	µg/kg	µg/kg	<21	<27	<23	<26	<25	<27	<22	<21	<26	<28	<26	<24	<26	<28	<22	<26	<34	<23	<21	<24	<28	<22	<42	<32
75-00-3	Chloroethane	30000000	µg/kg	µg/kg	<21	<27	<23	<26	<25	<27	<22	<21	<26	<28	<26	<24	<26	<28	<22	<26	<34	<23	<21	<24	<28	<22	<42	<32
75-09-2	Methylene chloride (dichloromethane)	1500000	µg/kg	µg/kg	<14	<18	<16	<17	<16	<18	<15	<14	<18	<19	<17	<16	<17	<50	<15	<17	<22	<15	<14	<16	<18	<15	<74	<34
75-35-4	Dichloroethylene,1,1	380000	µg/kg	µg/kg	<7	<9	<8	<9	<8	<9	<8	<7	<9	<9	<9	<8	<9	<10	<7	<9	<11	<8	<7	<5	<9	<7	<14	<10
75-34-3	Dichloroethane,1,1	1500000	µg/kg	µg/kg	<7	<9	<8	<9	<8	<9	<8	<7	<9	<9	<9	<8	<9	<10	<7	<9	<11	<8	<7	<5	<9	<7	<14	<10
67-66-3	Chloroform	No Standard	µg/kg	µg/kg	<7	<9	<8	<9	<8	<9	<8	<7	<9	<9	<9	<8	<9	<10	<7	<9	<11	<8	<7	<5	<9	<7	<14	<10
107-06-2	Dichloroethane,1,2	34000	µg/kg	µg/kg	<7	<9	<8	<9	<8	<9	<8	<7	<9	<9	<9	<8	<9	<10	<7	<9	<11	<8	<7	<5	<9	<7	<14	<10
56-23-5	Carbon tetrachloride	44000	µg/kg	µg/kg	<7	<9	<8	<9	<8	<9	<8	<7	<9	<9	<9	<8	<9	<10	<7	<9	<11	<8	<7	<5	<9	<7	<14	<10
75-27-4	Bromodichlomethane	50000	µg/kg	µg/kg	<7	<9	<8	<9	<8	<9	<8	<7	<9	<9	<9	<8	<9	<10	<7	<9	<11	<8	<7	<5	<9	<7	<14	<10
78-87-5	Dichloropropane,1,2,	53000	µg/kg	µg/kg	<7	<9	<8	<9	<8	<9	<8	<7	<9	<9	<9	<8	<9	<10	<7	<9	<11	<8	<7	<8	<9	<7	<14	<10
71-43-2	Benzene	56000	µg/kg	µg/kg	<7	<9	<8	<9	<8	<9	<8	<7	<9	<9	<9	<8	<9	<10	<7	<9	<11	<8	<7	<8	<9	<7	<14	<10
79-01-6	Trichloroethylene	67000	µg/kg	µg/kg	<7	<9	<8	<9	<8	<10	<8	<7	<9	<9	<9	<8	<9	<10	<7	<9	58	<8	<7	<8	<9	<7	<14	<10
124-48-1	Dibromochloromethane	150000	µg/kg	µg/kg	<7	<9	<8	<9	<8	<9	<8	<7	<9	<9	<9	<8	<9	<10	<7	<9	<11	<8	<7	<8	<9	<7	<14	<10
79-00-5	Trichloroethane,1,1,2-	54000	µg/kg	µg/kg	<7	<9	<8	<9	<8	<9	<8	<7	<9	<9	<9	<8	<9	<10	<7	<9	<11	<8	<7	<8	<9	<7	<14	<10
75-25-2	Bromoform	390000	µg/kg	µg/kg	<7	<9	<8	<9	<8	<9	<8	<7	<9	<9	<9	<8	<9	<10	<7	<9	<11	<8	<7	<8	<9	<7	<14	<10
127-18-4	Tetrachloroethylene	1500000	µg/kg	µg/kg	<7	<9	<8	<9	<8	<9	<8	<7	<9	<9	<9	<8	<9	<10	<7	<9	<11	<8	<7	<8	<9	<7	<14	<10
108-88-3	Toluene	6100000	µg/kg	µg/kg	<7	<9	<8	<9	<8	<9	<8	<7	<9	<9	<9	<8	<9	<10	<7	<9	<11	<8	<7	<8	<9	<7	<14	<10
79-34-5	Tetrachloroethane,1,1,2,2	15000	µg/kg	µg/kg	<7	<9	<8	<9	<8	<9	<8	<7	<9	<9	<9	<8	<9	<10	<7	<9	<11	<8	<7	<8	<9	<7	<14	<10
108-90-7	Chlorobenzene	1500000	µg/kg	µg/kg	<7	<9	<8	<9	<8	<9	<8	<7	<9	<9	<9	<8	<9	<10	<7	<9	<11	<8	<7	<8	<9	<7	<14	<10
100-41-4	Ethyl benzene	7600000	µg/kg	µg/kg	<7	<9	<8	<9	<8	<9	<8	<7	<9	<9	<9	<8	<9	<10	<7	<9	<11	<8	<7	<8	<9	<7	<14	<10
67-64-1	Acetone	68000000	µg/kg	µg/kg	<14	<18	<16	<17	<16	<18	<15	<14	<23	<42	<66	<28	<25	<20	<20	<20	<47	<15	<14	<16	<18	<18	<28	<21
75-15-0	Carbon disulfide	7600000	µg/kg	µg/kg	<7	<9	<8	<9	<8	<9	<8	<7	<9	<9	<9	<8	<9	<10	<7	<9	<11	<8	<7	<8	<9	<7	<14	<10
78-93-3	Methyl ethyl ketone	46000000	µg/kg	µg/kg	<14	<18	<16	<17	<16	<18	<15	<14	<18	<19	<17	<16	<17	<19	<15	<17	<54	<15	<14	<16	<18	<15	<28	<21
591-78-6	Hexanone, 2-	#N/A	µg/kg	µg/kg	<14	<18	<16	<17	<16	<18	<15	<14	<18	<19	<17	<16	<17	<19	<15	<17	<22	<15	<14	<16	<18	<15	<28	<21
100-42-5	Styrene	15000000	µg/kg	µg/kg	<7	<9	<8	<9	<8	<9	<8	<7	<9	<9	<9	<8	<9	<10	<7	<9	<11	<8	<7	<8	<9	<7	<14	<10
106-46-7	Dichlorobenzene,1,4-	760000	µg/kg	µg/kg	<7	<9	<8	<9	<8	<9	<8	<7	<9	<9	<9	<8	<9	<10	<7	<9	<11	<8	<7	<8	<9	<7	<14	<10
541-73-1	Dichlorobenzene, 1,3-	6800000	µg/kg	µg/kg	<7	<9	<8	<9	<8	<9	<8	<7	<9	<9	<9	<8	<9	<10	<7	<9	<11	<8	<7	<8	<9	<7	<14	<10
95-50-1	Dichlorobenzene, 1,2-	5500000	µg/kg	µg/kg	<7	<9	<8	<9	<8	<9	<8	<7	<9	<9	<9	<8	<9	<10	<7	<9	<11	<8	<7	<8	<9	<7	<14	<10
156-59-2	Dichloroethylene, cis-1,2	150000	µg/kg	µg/kg	<7	<9	<8	<9	<8	38	<8	<7	<9	<9	<9	<8	<9	<10	<7	<9	<11	<8	<7	<8	<9	<7	<14	<10
156-60-5	Dichloroethylene,trans-1,2	1500000	µg/kg	µg/kg	<7	<9	<8	<9	<8	<9	<8	<7	<9	<9	<9	<8	<9	<10	<7	<9	<11	<8	<7	<5	<9	<7	<14	<10
71-55-6	Trichloroethane	150000000	µg/kg	µg/kg	<7	<9	<8	<9	<8	<9	<8	<7	<9	<9	<9	<8	<9	<10	<7	<9	<11	<8	<7	<5	<9	<7	<14	<10
542-75-6	Dichloropropylene,trans-1,3	31000	µg/kg	µg/kg	<7	<9	<8	<9	<8	<9	<8	<7	<9	<9	<9	<8	<9	<10	<7	<9	<11	<8	<7	<8	<9	<7	<14	<10
542-75-6	Dichloropropylene,cis-1,3	31000	µg/kg	µg/kg	<7	<9	<8	<9	<8	<9	<8	<7	<9	<9	<9	<8	<9	<10	<7	<9	<11	<8	<7	<8	<9	<7	<14	<10
108-10-1	4-methyl-2-pentanone(mibk)	6100000	µg/kg	µg/kg	<14	<18	<16	<17	<16	<18	<15	<14	<18	<19	<17	<16	<17	<19	<15	<17	<22	<15	<14	<16	<18	<15	<28	<21
1330-20-7	Xylene, ortho	15000000	µg/kg	µg/kg	<7	<9	<8	<9	<8	<9	<8	<7	<9	<9	<9	<8	<9	<10	<7	<9	<11	<8	<7	<8	<9	<7	<14	<10
1330-20-7	Xylene, m and/or p	15000000	µg/kg	µg/kg	<7	<9	<8	<9	<8	<9	<8	<7	<9	<9	<9	<8	<9	<10	<7	<9	<11	<8	<7	<8	<9	<7	<14	<10

US EPA ARCHIVE DOCUMENT

Table 2.1: Soil Analytical Resukts (1997)
Former Chamberlain Property - Waterloo, Iowa

CAS No	Parameter	Iowa Statewide Soil Standard Value	Unit	Location ID: Units	AOC 5 0 - 4	AOC 5 4 - 7	AOC 4 10 - 4	AOC 4 19 - 11	AOC 4 119 - 21	AOC 5 0 - 4	AOC 5 4 - 8	AOC 5 0 - 4	AOC 5 0 - 4	AOC 5 4 - 9	AOC 5 0 - 4	AOC 5 4 - 9	AOC 5 0 - 4	AOC 5 5 - 9	AOC 5 0 - 4.5	AOC 5 4.5 - 9	AOC 5 0 - 4.5	AOC 5 5 - 9	AOC 5 5 - 9	AOC 4.6 0 - 5.5	AOC 4.6 8.5 - 10	AOC 4.6 10 - 15.5	AOC 4.6 19 - 21	AOC 4.6 26.5 - 29.5
SEMI-VOLATILE ORGANIC COMPOUNDS																												
111-44-4	Ether,bis(2-chloroethyl)	2800	µg/kg	µg/kg	<1000	<5100	<110	<120	<100	<22000	<110	<1100	<1100	<110	<100	<100	<100	<110	<110	<100	<22000	<100	<110	<100	<120	<110	<110	<120
95-57-8	Chlorophenol, 2-	310000	µg/kg	µg/kg	<2800	<14000	<280	<320	<280	<59000	<280	<2800	<2800	<290	<280	<270	<280	<280	<280	<280	<58000	<280	<290	<280	<310	<290	<300	<310
100-51-6	Benzyl alcohol	6100000	µg/kg	µg/kg	<1700	<8600	<180	<200	<170	<37000	<180	<1800	<1800	<180	<180	<170	<180	<180	<180	<170	<36000	<180	<180	<170	<200	<180	<190	<190
95-48-7	Cresol, ortho(2-methylphenol)	3100000	µg/kg	µg/kg	<4700	<23000	<480	<540	<470	<99000	<480	<4800	<4800	<490	<470	<460	<470	<470	<480	<460	<97000	<470	<480	<470	<530	<500	<510	<520
108-60-1	Ether,bis(2-chloroisopropyl)	3000000	µg/kg	µg/kg	<860	<4300	<88	<99	<87	<18000	<88	<880	<890	<91	<87	<85	<88	<88	<89	<86	<18000	<88	<89	<87	<98	<92	<95	<97
106-44-5	Cresol, para-(4-methylphenol)	6100000	µg/kg	µg/kg	<4700	<23000	<480	<540	<470	<99000	<480	<4800	<4800	<490	<470	<460	<470	<470	<480	<460	<97000	<470	<480	<470	<530	<500	<510	<520
621-64-7	N-nitrosodipropylamine	#N/A	µg/kg	µg/kg	<2100	<10000	<210	<240	<210	<44000	<210	<2100	<2100	<220	<210	<200	<210	<210	<210	<210	<43000	<210	<220	<210	<240	<220	<230	<230
67-72-1	Hexachloroethane	77000	µg/kg	µg/kg	<690	<3400	<71	<79	<69	<15000	<71	<700	<710	<73	<70	<68	<70	<70	<71	<69	<14000	<70	<72	<69	<78	<73	<76	<78
98-95-3	Nitrobenzene	No Standard	µg/kg	µg/kg	<860	<4300	<88	<99	<87	<18000	<88	<880	<890	<91	<87	<85	<88	<88	<89	<86	<18000	<88	<89	<87	<98	<92	<95	<97
78-59-1	Isophorone	2600000	µg/kg	µg/kg	<1600	<7700	<160	<180	<160	<33000	<160	<1600	<1600	<160	<160	<150	<160	<160	<160	<160	<32000	<160	<160	<160	<180	<160	<170	<170
88-75-5	Nitrophenol,2-	#N/A	µg/kg	µg/kg	<2400	<12000	<250	<280	<240	<52000	<250	<2500	<2500	<260	<240	<240	<250	<250	<250	<240	<50000	<240	<250	<240	<280	<260	<270	<270
105-67-9	Dimethylphenol,2,4	1200000	µg/kg	µg/kg	<2200	<11000	<230	<260	<230	<48000	<230	<2300	<2300	<240	<230	<220	<230	<230	<230	<220	<47000	<230	<230	<230	<260	<240	<250	<250
65-85-0	Benzoic acid	#N/A	µg/kg	µg/kg	<7400	<37000	<760	<850	<750	<160000	<760	<7600	<7600	<780	<750	<730	<760	<750	<760	<740	<150000	<750	<770	<750	<840	<790	<810	<830
111-91-1	Methane, bis(2-chloroethoxy)	#N/A	µg/kg	µg/kg	<1700	<8600	<180	<200	<170	<37000	<180	<1800	<1800	<180	<180	<170	<180	<180	<180	<170	<36000	<180	<180	<170	<200	<180	<190	<190
120-83-2	Dichlorophenol, 2,4-	180000	µg/kg	µg/kg	<3300	<16000	<340	<380	<330	<70000	<340	<3300	<3400	<350	<330	<320	<330	<330	<340	<330	<68000	<330	<340	<330	<370	<350	<360	<370
91-20-3	Naphthalene	1100000	µg/kg	µg/kg	<860	<4300	<88	<99	<87	<18000	<88	<880	<890	<91	<87	<85	<88	<88	<89	<86	<18000	<88	<89	<87	<98	<92	<95	<97
106-47-8	Chloroaniline,4-	240000	µg/kg	µg/kg	<6900	<34000	<710	<790	<690	<150000	<710	<7000	<7100	<730	<700	<680	<700	<700	<710	<690	<140000	<700	<720	<690	<780	<730	<760	<780
59-50-7	Phenol,4-chloro-3-methyl	6100000	µg/kg	µg/kg	<3300	<16000	<340	<380	<330	<70000	<340	<3300	<3400	<350	<330	<320	<330	<330	<340	<330	<68000	<330	<340	<330	<370	<350	<360	<370
91-57-6	Methylnaphthalene, 2-	230000	µg/kg	µg/kg	<1000	<5100	<110	<120	<100	<22000	<110	<1100	<1100	<110	<100	<100	<100	<110	<110	<100	<22000	<100	<110	<100	<120	<110	<110	<120
77-47-4	Hexachlorocyclopentadiene	460000	µg/kg	µg/kg	<520	<2600	<53	<60	<52	<11000	<53	<530	<530	<55	<52	<51	<53	<53	<53	<52	<11000	<53	<54	<52	<59	<55	<57	<58
88-06-2	Trichlorophenol,2,4,6	220000	µg/kg	µg/kg	<2900	<15000	<300	<340	<300	<63000	<300	<3000	<3000	<310	<300	<290	<300	<300	<300	<290	<61000	<300	<300	<300	<330	<310	<320	<330
95-95-4	Trichlorophenol 2-4-5	6100000	µg/kg	µg/kg	<3600	<18000	<370	<420	<360	<77000	<370	<3700	<3700	<380	<370	<360	<370	<370	<370	<360	<76000	<370	<380	<360	<410	<380	<400	<410
91-58-7	Chloronaphthalene 2-	6100000	µg/kg	µg/kg	<1200	<6000	<120	<140	<120	<26000	<120	<1200	<1200	<130	<120	<120	<120	<120	<120	<120	<25000	<120	<120	<120	<140	<130	<130	<140
88-74-4	Nitroaniline 2-	#N/A	µg/kg	µg/kg	<1600	<7700	<160	<180	<160	<33000	<160	<1600	<1600	<160	<160	<150	<160	<160	<160	<160	<32000	<160	<160	<160	<180	<160	<170	<170
131-11-3	Phthalate, dimethyl	#N/A	µg/kg	µg/kg	<1400	<6900	<140	<160	<140	<29000	<140	<1400	<1400	<150	<140	<140	<140	<140	<140	<140	<29000	<140	<140	<140	<160	<150	<150	<160
208-96-8	Acenaphthylene	1700000	µg/kg	µg/kg	<1200	<6000	<120	<140	<120	<26000	<120	<1200	<1200	<130	<120	<120	<120	<120	<120	<120	<25000	<120	<120	<120	<140	<130	<130	<140
99-09-2	Nitroaniline,3-	#N/A	µg/kg	µg/kg	<4700	<23000	<480	<540	<470	<99000	<480	<4800	<4800	<490	<470	<460	<470	<470	<480	<460	<97000	<470	<480	<470	<530	<500	<510	<520
83-32-9	Acenaphthene	3400000	µg/kg	µg/kg	<1200	<6000	<120	<140	<120	<26000	<120	<1200	<1200	<130	<120	<120	<120	<120	<120	<120	<25000	<120	<120	<120	<140	<130	<130	<140
51-28-5	Dinitrophenol,2,4	120000	µg/kg	µg/kg	<10000	<51000	<1100	<1200	<1000	<220000	<1100	<11000	<11000	<1100	<1000	<1000	<1100	<1100	<1100	<1000	<220000	<1000	<1100	<1000	<1200	<1100	<1100	<1200
100-02-7	Nitrophenol,4-	490000	µg/kg	µg/kg	<520	<2600	<53	<60	<52	<11000	<53	<530	<530	<55	<52	<51	<53	<53	<53	<52	<11000	<53	<54	<52	<59	<55	<57	<58
132-64-9	Dibenzofuran	76000	µg/kg	µg/kg	<1600	<7700	<160	<180	<160	<33000	<160	<1600	<1600	<160	<160	<150	<160	<160	<160	<160	<32000	<160	<160	<160	<180	<160	<170	<170
121-14-2	Dinitrotoluene,2,4	3500	µg/kg	µg/kg	<4000	<20000	<410	<460	<400	<85000	<410	<4000	<4100	<420	<400	<390	<400	<400	<410	<400	<83000	<400	<410	<400	<450	<420	<440	<450
606-20-2	Dinitrotoluene,2,6-	3600	µg/kg	µg/kg	<1700	<8600	<180	<200	<170	<37000	<180	<1800	<1800	<180	<180	<170	<180	<180	<180	<170	<36000	<180	<180	<170	<200	<180	<190	<190
84-66-2	Phthalate, diethyl	49000000	µg/kg	µg/kg	<2900	<15000	<300	<340	<300	<63000	<300	<3000	<3000	<310	<300	<290	<300	<300	<300	<290	<61000	<300	<300	<300	<330	<310	<320	<330
7005-72-3	Ether, 4-chlorophenyl phenyl	#N/A	µg/kg	µg/kg	<1600	<7700	<160	<180	<160	<33000	<160	<1600	<1600	<160	<160	<150	<160	<160	<160	<160	<32000	<160	<160	<160	<180	<160	<170	<170
86-73-7	Fluorene	2300000	µg/kg	µg/kg	<1400	<6900	<140	<160	<140	<29000	<140	<1400	<1400	<150	<140	<140	<140	<140	<140	<140	<29000	<140	<140	<140	<160	<150	<150	<160
100-01-6	Nitroaniline,4-	#N/A	µg/kg	µg/kg	<11000	<56000	<1100	<1300	<1100	<240000	<1100	<11000	<12000	<1200	<1100	<1100	<1100	<1100	<1200	<1100	<230000	<1100	<1200	<1100	<1300	<1200	<1200	<1300
534-52-1	Phenol,4,6-dinitro-2-methyl	#N/A	µg/kg	µg/kg	<4200	<21000	<420	<480	<420	<88000	<420	<4200	<4300	<440	<420	<410	<420	<420	<430	<410	<86000	<420	<430	<420	<470	<440	<460	<470
86-30-6	N-nitrosodiphenylamine	500000	µg/kg	µg/kg	<350	<1700	<35	<40	<35	<7400	<35	<350	<360	<36	<35	<34	<35	<35	<36	<34	<7200	<35	<36	<35	<39	<37	<38	<39
101-55-3	Ether, 4-bromophenyl phenyl	#N/A	µg/kg	µg/kg	<1600	<7700	<160	<180	<160	<33000	<160	<1600	<1600	<160	<160	<150	<160	<160	<160	<160	<32000	<160	<160	<160	<180	<160	<170	<170
118-74-1	Hexachlorobenzene	1500	µg/kg	µg/kg	<1400	<6900	<140	<160	<140	<29000	<140	<1400	<1400	<150	<140	<140	<140	<140	<140	<140	<29000	<140	<140	<140	<160	<150	<150	<160
87-86-5	Pentachlorophenol	4500	µg/kg	µg/kg	<3600	<18000	<370	<420	<360	<77000	<370	<3700	<3700	<380	<370	<360	<370	<370	<370	<360	<76000	<370	<380	<360	<410	<380	<400	<410
85-01-8	Phenanthrene	1700000	µg/kg	µg/kg	<1400	<6900	<140	<160	<140	<29000	<140	<1400	<1400	<150	<140	<140	<140	<140	<140	<140	56000	<140	<140	<140	<160	<150	<150	<160
120-12-7	Anthracene	17000000	µg/kg	µg/kg	<1900	<9400	<190	<220	<190	<40000	<190	<1900	<2000	<200	<190	<190	<190	<190	<200	<190	<40000	<190	<200	<190	<220	<200	<210	<210
84-74-2	Phthalate, di-n-butyl-	6100000	µg/kg	µg/kg	<2200	<11000	<230	<260	<230	<48000	<230	<2300	<2300	<240	<230	<220	<230	<230	<230	<220	<47000	<20	<230	<230	<260	<240	<250	<250
206-44-0	Fluoranthene	2300000	µg/kg	µg/kg	<690	<3400	<71	<79	<69	<15000	<71	<700	<710	<73	<70	<68	<70	<70	<71	<69	57000	<70	<72	<69	<78	<73	<76	<78
129-00-0	Pyrene	1700000	µg/kg	µg/kg	<2100	<10000	<210	<240	<210	<44000	<210	<2100	<2100	<220	<210	<200	<210	<210	<210	<210	<13000	<210	<220	<210	<240	<220	<230	<230
85-68-7	Phthalate, butyl benzyl	1300000	µg/kg	µg/kg	<1900	<9400	<190	<220	<190	<40000	<190	<1900	<2000	<200	<190	<190	<190	<190	<200	<190	<40000	<190	<200	<190	<220	<200	<210	<210
91-94-1	Dichlorobenzidine, 3,3'	5400	µg/kg	µg/kg	<35000	<170000	<3500	<4000	<3500	<740000	<3500	<35000	<35000	<3600	<3500	<3400	<3500	<3500	<3600	<3400	<720000	<3500	<3600	<3500	<3900	<3700	<3800	<3900
56-55-3	Anthracene, benzo(a)	3100	µg/kg	µg/kg	<2600	<13000	<260	<300	<260	<55000	<260	<2600	<2700	<270	<260	<260	<260	<260	<270	<260	<54000	<260	<270	<260	<290	<280	<280	<290
117-81-7	Phthalate, bis(2-ethylhexyl)	170000	µg/kg	µg/kg	<3100	<15000	<320	<360	<310	<66000	<320	<3200	<3200	<330	<320	<310	<320	<320	<320	<310	<65000	<320	<320	<310	<350	<330	<340	<350
218-01-9	Chrysene	310000	µg/kg	µg/kg	<2100	<10000	<210	<240	<210	<44000	<210	<2100	<2100	<220	<210	<200	<210	<210	<210	<210	<43000	<210	<220	<210	<240	<220	<230	<230
117-84-0	Phthalate, di-n-octyl-	1200000	µg/kg	µg/kg	<1200	<6000	<120	<140	<120	<26000	<120	<1200	<1200	<130	<120	<120	<120	<120	<120	<120	<25000	<120	<120	<120	<140	<130	<130	<140
205-99-2	Fluoranthene, benzo(b)	3100	µg/kg	µg/kg	<1200	<6000	<120	<140	<120	<26000	<120	<1200	<1200	<130	<120	<120	<120	<120	<120	<120	<25000	<120	<120	<120	<140	<130	<130	<140
207-08-9	Fluoranthene, benzo(k)	31000	µg/kg	µg/kg	<2200	<11000	<230	<260	<230	<48000	<230	<2300	<2300	<240	<230	<220	<230	<230	<230	<220	<47000	<230	<230	<230	<260	<240	<250	<250
50-32-8	Pyrene, benzo(a)	310	µg/kg	µg/kg	<2600	<13000	<260	<300	<260	<55000	<260	<2600	<2700	<270	<260	<260	<260	<260	<270	<260	<54000	<260	<270	<260	<290	<280	<280	<290
193-39-5	Pyrene, indeno(1,2,3-cd)	3100	µg/kg	µg/kg	<3600	<18000	<370	<420	<360	<77000	<370	<3700	<3700	<380	<370	<360	<370	<370	<370	<360	<76000	<370	<380	<360	<410	<380	<400	<410
53-70-3	Anthracene, dibenzo(a,h)	310	µg/kg	µg/kg	<3600	<18000	<370	<420	<360	<77000	<370	<3700	<3700	<380	<370	<360	<370	<370	<370	<360	<76000	<370	<380	<360	<410	<380	<400	<410
191-24-2	Perylene,benzo(g,h,i)	170000	µg/kg	µg/kg	<2400	<12000	<250	<280	<240	<52000	<250	<2500	<2500	<260	<240	<240	<250	<250	<250	<240	<50000	<240	<250	<240	<280	<260	<270	<270
108-95-2	Phenol	18000000	µg/kg	µg/kg	<3600	<18000	<370	<420	<360	<77000	<370	<3700	<3700	<380	<370	<360	<370	<230	370	360	<76000	<370	<380	<360	<410	<380	<400	<410
86-74-8	Carbazole	120000	µg/kg	µg/kg	<2200	<11000	<230	<260	<230	<48000	<230	<2300	<2300	<240	<230	<220	<230		230	220	<47000	<230	<230	<230	<260	<240	<250	<250
# of SCOIs Exceeding Criteria					0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0

Notes:

Shaded values indicate concentrations above Iowa Statewide Soil Standard.

Table 2.1: Soil Analytical Resukts (1997)
Former Chamberlain Property - Waterloo, Iowa

CAS No	Parameter	Iowa Statewide Soil Standard Value	Iowa Statewide Soil Standard Unit	Location ID: / Units	AOC 4.6 0 - 4.5	AOC 4.6 4.5 - 9	AOC 5 0 - 4	AOC 5 4.5 - 9.5	AOC 5 15 - 19	AOC 5 0 - 5	AOC 5 5 - 9.5	AOC 5 0 - 5	AOC 5 5 - 10	AOC 5 0 - 4.5	AOC 5 0 - 4.5	AOC 5 4.5 - 9.5	AOC 5 0 - 4.5	AOC 5 5 - 9.5	SWMU 1 0 - 4.5	SWMU 1 8 - 9.5	SWMU 1 0 - 4.5	SWMU 1 0 - 4.5	SWMU 1 0 - 4.5	Frequency of Detection	Frequency of [soil] > criteria
INORGANIC PARAMETERS																									
57-12-5	Cyanide	46	mg/kg	mg/kg			0.156	0.267	0.463	0.57	2.64	1.3	0.78	4.35	1.52	0.911	2.61	1.11	0.8	0.171	0.962	0.809	3.2	33 / 33 100%	0 / 33 0%
7440-22-4	Silver	370	mg/kg	mg/kg			<0.512	<0.512	<0.512	<0.512	<0.512	<0.512	<0.512	<0.512	<0.512	<0.512	<0.512	<0.512	<0.512	<0.512	<0.512	<0.512	<0.512	2 / 33 6%	1 / 33 3%
7429-90-5	Aluminum	#N/A	mg/kg	mg/kg			2020	1640	6440	2570	2720	3740	2730	2730	4250	1680	2570	2130	2290	1530	2070	1900	2010	32 / 33 97%	NA / NA NA
7440-38-2	Arsenic	17	mg/kg	mg/kg			<0.792	<0.792	<0.792	<0.792	<0.792	1.26	3.55	0.957	0.937	<0.792	<0.792	<0.792	3.16	<0.792	<0.792	<0.792	<0.792	10 / 33 30%	1 / 33 3%
7440-39-3	Barium	15000	mg/kg	mg/kg			24.4	27.8	73.5	27.9	18.5	85.4	108	34.4	33	29.2	26.8	36.9	26.1	21.6	25.1	25.3	27.8	33 / 33 100%	0 / 33 0%
7440-41-7	Beryllium	110	mg/kg	mg/kg			<0.101	<0.101	0.308	<0.101	<0.101	0.121	<0.101	<0.101	<0.101	<0.101	<0.101	<0.101	<0.101	<0.101	<0.101	<0.101	<0.101	17 / 33 52%	0 / 33 0%
7440-43-9	Cadmium	70	mg/kg	mg/kg			0.636	0.524	1.19	1.54	0.572	4.19	9.13	5.97	4.47	0.765	0.736	1.36	0.797	0.543	1.14	1.45	0.757	33 / 33 100%	0 / 33 0%
7440-48-4	Cobalt	31	mg/kg	mg/kg			2.66	2.53	4.63	3.04	2.14	3.65	3.62	3.49	3.74	2.33	3.12	3.75	2.75	2.74	2.57	2.42	2.7	33 / 33 100%	0 / 33 0%
7440-47-3	Chromium	190	mg/kg	mg/kg			3.6	3.34	10.6	4.9	4.48	23.6	48.2	9.92	15.3	3.32	3.85	4.1	4.09	3.29	3.47	3.24	3.75	33 / 33 100%	0 / 33 0%
7440-50-8	Copper	15000	mg/kg	mg/kg			1.02	0.907	4.98	3.99	0.931	26.5	25	25.7	74.2	2.31	1.25	2.06	3.13	1	2.35	1.66	1.69	33 / 33 100%	0 / 33 0%
7439-89-6	Iron	#N/A	mg/kg	mg/kg			3140	2860	6840	7460	3280	10400	29500	6270	8940	2860	3310	3330	3920	2920	3330	3090	3510	33 / 33 100%	NA / NA NA
7439-96-5	Manganese	10000	mg/kg	mg/kg			220	217	143	229	91.2	201	279	336	259	203	248	320	222	214	211	198	220	33 / 33 100%	0 / 33 0%
7439-98-7	Molybdenum	390	mg/kg	mg/kg			<0.211	<0.211	<0.211	<0.211	<0.211	9.76	13.7	2.39	5.49	0.778	<0.211	0.972	<0.211	0.301	<0.211	<0.211	<0.211	13 / 33 39%	0 / 33 0%
7440-02-0	Nickel	1500	mg/kg	mg/kg			4.37	4.09	7.69	5.61	4.11	17	24.8	16.4	15.3	3.49	4.71	5.96	4.65	3.67	4.01	3.79	4.18	32 / 33 97%	0 / 33 0%
7439-92-1	Lead	400	mg/kg	mg/kg			1.88	1.61	3.93	4.1	1.87	32.7	58.2	17.6	18.9	2.32	2	1.86	4.22	1.21	2.48	3.07	1.86	31 / 33 94%	0 / 33 0%
7440-36-0	Antimony	31	mg/kg	mg/kg			1.11	0.728	1.57	1.54	1.02	2.57	3.22	1.46	2.97	1.14	1.2	0.69	<0.345	0.639	0.61	<0.345	0.452	19 / 33 58%	0 / 33 0%
7782-49-2	Selenium	390	mg/kg	mg/kg			<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	0 / 33 0%	0 / 33 0%
7440-28-0	Thallium	0.78	mg/kg	mg/kg			<2.11	<2.11	<2.11	<2.11	<2.11	<2.11	<2.11	<2.11	<2.11	<2.11	<2.11	<2.11	<2.11	<2.11	<2.11	<2.11	2.11	2 / 33 6%	2 / 33 6%
7440-62-2	Vanadium	350	mg/kg	mg/kg			6.31	5.73	19.5	8	7.43	10.4	10.8	8.46	8.92	4.97	6.42	6.14	7.14	5.99	6.67	6.02	7.43	33 / 33 100%	0 / 33 0%
7440-66-6	Zinc	23000	mg/kg	mg/kg			8.53	9.16	24.9	57.2	8.05	201	2530	64.5	187	15.5	9.24	14.2	20.3	7.71	19.2	17.5	14.6	33 / 33 100%	0 / 33 0%
7440-70-2	Calcium	#N/A	mg/kg	mg/kg			654	616	1510	942	687	19600	26900	5350	2390	1020	1070	650	813	517	635	600	641	33 / 33 100%	NA / NA NA
7439-95-4	Magnesium	#N/A	mg/kg	mg/kg			520	462	1110	603	577	7590	11300	2690	1290	507	583	577	545	421	449	424	488	33 / 33 100%	NA / NA NA
7440-23-5	Sodium	#N/A	mg/kg	mg/kg			58.3	62.2	85	67.4	79.6	93.7	121	86.5	81.2	61.7	65.2	57.5	55.2	57.7	54.5	55.3	56.7	33 / 33 100%	NA / NA NA
7440-09-7	Potassium	#N/A	mg/kg	mg/kg			189	185	450	284	272	492	640	304	231	216	261	219	214	154	179	171	173	32 / 33 97%	NA / NA NA
VOLATILE ORGANIC COMPOUNDS																									
541-73-1	Dichlorobenzene,1,3-	6800000	µg/kg	µg/kg	<71	<75	<79	<69	<81	<69	<74	<3700	<1900	<72	<1800	<66	<74	<69	<76	<70	<70	<69	<69	0 / 43 0%	0 / 43 0%
106-46-7	Dichlorobenzene,1,4-	760000	µg/kg	µg/kg	<89	<94	<98	<86	<100	<86	<93	<4600	<2300	<91	<2200	<83	<93	<86	<95	<88	<87	<87	<86	0 / 43 0%	0 / 43 0%
95-50-1	Dichlorobenzene,1,2-	5500000	µg/kg	µg/kg	<110	<110	<120	<100	<120	<100	<110	<5500	<2800	<110	<2700	<99	<110	<100	<110	<110	<110	<100	<100	0 / 43 0%	0 / 43 0%
87-61-6	Trichlorobenzene,1,2,3	#N/A	µg/kg	µg/kg	<53	<56	<59	<52	<61	<52	<56	<2700	<1400	<54	<1300	<50	<56	<52	<57	<53	<52	<52	<52	0 / 43 0%	NA / NA NA
87-68-3	Hexachlorobutadiene	40000	µg/kg	µg/kg	<53	<56	<59	<52	<61	<52	<56	<2700	<1400	<54	<1300	<50	<56	<52	<57	<53	<52	<52	<52	0 / 43 0%	0 / 43 0%
74-87-3	Chloromethane	No Standard	µg/kg	µg/kg	<20	<22	<22	<20	<33	<21	<22	<16	<19	<22	<19	<20	<17	<16	<26	<16	<21	<16	<15	0 / 43 0%	No Standard
74-83-9	Bromomethane	110000	µg/kg	µg/kg	<41	<44	<44	<41	<66	<43	<43	<32	<38	<45	<38	<40	<34	<33	<51	<33	<41	<33	<30	0 / 43 0%	0 / 43 0%
75-01-4	Vinyl chloride	2100	µg/kg	µg/kg	<30	<33	<33	<30	<50	<32	<32	<24	<28	<34	<28	<30	<26	<25	<38	<24	<31	<25	<23	0 / 43 0%	0 / 43 0%
75-00-3	Chloroethane	30000000	µg/kg	µg/kg	<30	<33	<33	<30	<50	<32	<32	<24	<28	<34	<28	<30	<26	<25	<38	<24	<31	<25	<23	0 / 43 0%	0 / 43 0%
75-09-2	Methylene chloride (dichloromethane)	1500000	µg/kg	µg/kg	<30	<22	<30	<20	<42	<26	<26	<20	<22	<26	<19	<20	<17	<17	<26	<16	<21	<17	<15	0 / 43 0%	0 / 43 0%
75-35-4	Dichloroethylene,1,1	380000	µg/kg	µg/kg	<10	<11	<11	<10	<17	<11	<11	<8	<9	<11	<10	<10	<9	<8	<13	<8	<10	<8	<8	0 / 43 0%	0 / 43 0%
75-34-3	Dichloroethane,1,1	1500000	µg/kg	µg/kg	<10	<11	<11	<10	62	<11	<11	<8	<9	<11	<10	<10	<9	<8	<13	<8	<10	<8	<8	1 / 43 2%	0 / 43 0%
67-66-3	Chloroform	No Standard	µg/kg	µg/kg	<10	<11	<11	<10	<17	<11	<11	<8	<9	<11	<10	<10	<9	<8	<13	<8	<10	<8	<8	0 / 43 0%	No Standard
107-06-2	Dichloroethane,1,2	34000	µg/kg	µg/kg	<10	<11	<11	<10	<17	<11	<11	<8	<9	<11	<10	<10	<9	<8	<13	<8	<10	<8	<8	0 / 43 0%	0 / 43 0%
56-23-5	Carbon tetrachloride	44000	µg/kg	µg/kg	<10	<11	<11	<10	<17	<11	<11	<8	<9	<11	<10	<10	<9	<8	<13	<8	<10	<8	<8	0 / 43 0%	0 / 43 0%
75-27-4	Bromodichlomethane	50000	µg/kg	µg/kg	<10	<11	<11	<10	<17	<11	<11	<8	<9	<11	<10	<10	<9	<8	<13	<8	<10	<8	<8	0 / 43 0%	0 / 43 0%
78-87-5	Dichloropropane,1,2,	53000	µg/kg	µg/kg	<10	<11	<11	<10	<17	<11	<11	<8	<9	<11	<10	<10	<9	<8	<13	<8	<10	<8	<8	0 / 43 0%	0 / 43 0%
71-43-2	Benzene	56000	µg/kg	µg/kg	<10	<11	<11	<10	<17	<11	<11	<8	<9	<11	<10	<10	<9	<8	<13	<8	<10	<8	<8	0 / 43 0%	0 / 43 0%
79-01-6	Trichloroethylene	67000	µg/kg	µg/kg	<10	<11	<11	<10	44	<11	<11	<8	<9	93	21	<10	<9	<8	<13	<8	<10	<8	<8	4 / 43 9%	0 / 43 0%
124-48-1	Dibromochloromethane	150000	µg/kg	µg/kg	<10	<11	<11	<10	<17	<11	<11	<8	<9	<11	<10	<10	<9	<8	<13	<8	<10	<8	<8	0 / 43 0%	0 / 43 0%
79-00-5	Trichloroethane,1,1,2-	54000	µg/kg	µg/kg	<10	<11	<11	<10	<17	<11	<11	<8	<9	<11	<10	<10	<9	<8	<13	<8	<10	<8	<8	0 / 43 0%	0 / 43 0%
75-25-2	Bromoform	390000	µg/kg	µg/kg	<10	<11	<11	<10	<17	<11	<11	<8	<9	<11	<10	<10	<9	<8	<13	<8	<10	<8	<8	0 / 43 0%	0 / 43 0%
127-18-4	Tetrachloroethylene	1500000	µg/kg	µg/kg	<10	<11	<11	<10	260	<11	<11	<8	<9	<11	<10	<10	<9	<8	<13	<8	<10	<8	<8	1 / 43 2%	0 / 43 0%
108-88-3	Toluene	6100000	µg/kg	µg/kg	<10	<11	<11	<10	6800	<11	<11	<8	<9	<11	<10	<10	<9	<8	<13	<8	<10	<8	<8	1 / 43 2%	0 / 43 0%
79-34-5	Tetrachloroethane,1,1,2,2	15000	µg/kg	µg/kg	<10	<11	<11	<10	<17	<11	<11	<8	<9	<11	<10	<10	<9	<8	<13	<8	<10	<8	<8	0 / 43 0%	0 / 43 0%
108-90-7	Chlorobenzene	1500000	µg/kg	µg/kg	<10	<11	<11	<10	<17	<11	<11	<8	<9	<11	<10	<10	<9	<8	<13	<8	<10	<8	<8	0 / 43 0%	0 / 43 0%
100-41-4	Ethyl benzene	7600000	µg/kg	µg/kg	<10	<11	<11	<10	66	<11	<11	<8	<9	<11	<10	<10	<9	<8	<13	<8	<10	<8	<8	1 / 43 2%	0 / 43 0%
67-64-1	Acetone	68000000	µg/kg	µg/kg	<20	<42	<22	<40	<33	<21	<22	<16	<19	<23	<19	<41	<19	<17	<26	<16	<21	<16	<15	0 / 43 0%	0 / 43 0%
75-15-0	Carbon disulfide	7600000	µg/kg	µg/kg	<10	<11	<11	<10	<17	<11	<11	<8	<9	<11	<10	<10	<9	<8	<13	<8	<10	<8	<8	0 / 43 0%	0 / 43 0%
78-93-3	Methyl ethyl ketone	46000000	µg/kg	µg/kg	<20	<47	<22	<47	<33	<21	<22	<16	<19	<22	<20	<47	<25	<23	<26	<16	<21	<17	<15	0 / 43 0%	0 / 43 0%
591-78-6	Hexanone, 2-	#N/A	µg/kg	µg/kg	<20	<22	<22	<20	<33	<21	<22	<16	<19	<22	<19	<20	<17	<16	<26	<16	<21	<16	<15	0 / 43 0%	NA / NA NA
100-42-5	Styrene	15000000	µg/kg	µg/kg	<10	<11	<11	<10	<17	<11	<11	<8	<9	<11	<10	<10	<9	<8	<13	<8	<10	<8	<8	0 / 43 0%	0 / 43 0%
106-46-7	Dichlorobenzene,1,4-	760000	µg/kg	µg/kg	<10	<11	<11	<10	<17	<11	<11	<8	<9	<11	<10	<10	<9	<8	<13	<8	<10	<8	<8	0 / 43 0%	0 / 43 0%
541-73-1	Dichlorobenzene, 1,3-	6800000	µg/kg	µg/kg	<10	<11	<11	<10	<17	<11	<11	<8	<9	<11	<10	<10	<9	<8	<13	<8	<10	<8	<8	0 / 43 0%	0 / 43 0%
95-50-1	Dichlorobenzene, 1,2-	5500000	µg/kg	µg/kg	<10	<11	<11	<10	<17	<11	<11	<8	<9	<11	<10	<10	<9	<8	<13	<8	<10	<8	<8	0 / 43 0%	0 / 43 0%
156-59-2	Dichloroethylene, cis-1,2	150000	µg/kg	µg/kg	<10	<11	<11	<10	2000	<11	<11	<8	<9	<11	<10	<10	<9	<8	<13	<8	<10	<8	<8	2 / 43 5%	0 / 43 0%
156-60-5	Dichloroethylene,trans-1,2	1500000	µg/kg	µg/kg	<10	<11	<11	<10	<17	<11	<11	<8	<9	<11	<10	<10	<9	<8	<13	<8	<10	<8	<8	0 / 43 0%	0 / 43 0%
71-55-6	Trichloroethane	150000000	µg/kg	µg/kg	<10	<11	<11	<10	<17	<11	<11	<8	<9	<11	<10	<10	<9	<8	<13	<8	<10	<8	<8	0 / 43 0%	0 / 43 0%
542-75-6	Dichloropropylene,trans-1,3	31000	µg/kg	µg/kg	<10	<11	<11	<10	<17	<11	<11	<8	<9	<11	<10	<10	<9	<8	<13	<8	<10	<8	<8	0 / 43 0%	0 / 43 0%
542-75-6	Dichloropropylene,cis-1,3	31000	µg/kg	µg/kg	<10	<11	<11	<10	<17	<11	<11	<8	<9	<11	<10	<10	<9	<8	<13	<8	<10	<8	<8	0 / 43 0%	0 / 43 0%
108-10-1	4-methyl-2-pentanone(mibk)	6100000	µg/kg	µg/kg	<20	<22	<22	<20	2600	<21	<22	<16	<19	<22	<19	<20	<17	<16	<26	<16	<21	<16	<15	1 / 43 2%	0 / 43 0%
1330-20-7	Xylene, ortho	15000000	µg/kg	µg/kg	<10	<11	<11	<10	330	<11	<11	<8	<9	<11	<10	<10	<9	<8	<13	<8	<10	<8	<8	1 / 43 2%	0 / 43 0%
1330-20-7	Xylene, m and/or p	15000000	µg/kg	µg/kg	<10	<11	<11	<10	600	<11	<11	<8	<9	<11	<10	<10	<9	<8	<13	<8	<10	<8	<8	1 / 43 2%	0 / 43 0%

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Table 2.1: Soil Analytical Resukts (1997)
Former Chamberlain Property - Waterloo, Iowa

CAS No	Parameter	Iowa Statewide Soil Standard Value	Iowa Statewide Soil Standard Unit	Location ID: Units	AOC 4.6 0 - 4.5	AOC 4.6 4.5 - 9	AOC 5 0 - 4	AOC 5 4.5 - 9.5	AOC 5 15 - 19	AOC 5 0 - 5	AOC 5 5 - 9.5	AOC 5 0 - 5	AOC 5 5 - 10	AOC 5 0 - 4.5	AOC 5 0 - 4.5	AOC 5 4.5 - 9.5	AOC 5 0 - 4.5	AOC 5 5 - 9.5	SWMU 1 0 - 4.5	SWMU 1 8 - 9.5	SWMU 1 0 - 4.5	SWMU 1 0 - 4.5	SWMU 1 0 - 4.5	Frequency of Detection	Frequency of [soil] > criteria
SEMI-VOLATILE ORGANIC COMPOUNDS																									
111-44-4	Ether,bis(2-chloroethyl)	2800	µg/kg	µg/kg	<110	<110	<120	<100	<120	<100	<110	<5500	<2800	<110	<2700	<99	<110	<100	<110	<110	<110	<100	<100	0 / 43 0%	0 / 43 0%
95-57-8	Chlorophenol, 2-	310000	µg/kg	µg/kg	<280	<300	<310	<280	<330	<280	<300	<150000	<7400	<290	<7200	<270	<300	<280	<300	<280	<280	<280	<280	0 / 43 0%	0 / 43 0%
100-51-6	Benzyl alcohol	6100000	µg/kg	µg/kg	<180	<190	<200	<170	<200	<170	<190	<9100	<4600	<180	<4500	<170	<190	<170	<190	<180	<170	<170	<170	0 / 43 0%	0 / 43 0%
95-48-7	Cresol, ortho(2-methylphenol)	3100000	µg/kg	µg/kg	<480	<510	<530	<470	<550	<460	<500	<25000	<13000	<490	<12000	<450	<500	<470	<510	<470	<470	<470	<470	0 / 43 0%	0 / 43 0%
108-60-1	Ether,bis(2-chloroisopropyl)	3000000	µg/kg	µg/kg	<89	<94	<98	<86	<100	<86	<93	<4600	<2300	<91	<2200	<83	<93	<86	<95	<88	<87	<87	<86	0 / 43 0%	0 / 43 0%
106-44-5	Cresol, para-(4-methylphenol)	6100000	µg/kg	µg/kg	<480	<510	<530	<470	<550	<460	<500	<25000	<13000	<490	<12000	<450	<500	<470	<510	<470	<470	<470	<470	0 / 43 0%	0 / 43 0%
621-64-7	N-nitrosodipropylamine	#N/A	µg/kg	µg/kg	<210	<230	<240	<210	<240	<210	<220	<11000	<5600	<220	<5400	<200	<220	<210	<230	<210	<210	<210	<210	0 / 43 0%	NA / NA NA
67-72-1	Hexachloroethane	77000	µg/kg	µg/kg	<71	<75	<79	<69	<81	<69	<74	<3700	<1900	<72	<1800	<66	<74	<69	<76	<70	<70	<69	<69	0 / 43 0%	0 / 43 0%
98-95-3	Nitrobenzene	No Standard	µg/kg	µg/kg	<89	<94	<98	<86	<100	<86	<93	<4600	<2300	<91	<2200	<83	<93	<86	<95	<88	<87	<87	<86	0 / 43 0%	No Standard
78-59-1	Isophorone	2600000	µg/kg	µg/kg	<160	<170	<180	<160	<180	<160	<170	<8200	<4200	<160	<4000	<150	<170	<160	<170	<160	<160	<160	<160	0 / 43 0%	0 / 43 0%
88-75-5	Nitrophenol,2-	#N/A	µg/kg	µg/kg	<250	<260	<280	<240	<280	<240	<260	<13000	<6500	<250	<6300	<230	<260	<240	<270	<250	<240	<240	<240	0 / 43 0%	NA / NA NA
105-67-9	Dimethylphenol,2,4	1200000	µg/kg	µg/kg	<230	<240	<260	<230	<260	<220	<240	<12000	<6000	<240	<5800	<220	<240	<220	<250	<230	<230	<230	<230	0 / 43 0%	0 / 43 0%
65-85-0	Benzoic acid	#N/A	µg/kg	µg/kg	<760	<810	<850	<740	<880	<740	<800	<39000	<20000	<780	<19000	<710	<800	<740	<820	<760	<750	<750	<740	0 / 43 0%	NA / NA NA
111-91-1	Methane, bis(2-chloroethoxy)	#N/A	µg/kg	µg/kg	<180	<190	<200	<170	<200	<170	<190	<9100	<4600	<180	<4500	<170	<190	<170	<190	<180	<170	<170	<170	0 / 43 0%	NA / NA NA
120-83-2	Dichlorophenol, 2,4-	180000	µg/kg	µg/kg	<340	<360	<370	<330	<390	<330	<350	<17000	<8800	<340	<8500	<320	<350	<330	<360	<330	<330	<330	<330	0 / 43 0%	0 / 43 0%
91-20-3	Naphthalene	1100000	µg/kg	µg/kg	<89	<94	<98	<86	<100	<86	<93	<4600	<2300	<91	<2200	<83	<93	<86	<95	<88	<87	<87	<86	0 / 43 0%	0 / 43 0%
106-47-8	Chloroaniline,4-	240000	µg/kg	µg/kg	<710	<750	<790	<690	<810	<690	<740	<37000	<19000	<720	<18000	<660	<750	<690	<760	<700	<700	<690	<690	0 / 43 0%	0 / 43 0%
59-50-7	Phenol,4-chloro-3-methyl	6100000	µg/kg	µg/kg	<340	<360	<370	<330	<390	<330	<350	<17000	<8800	<340	<8500	<320	<350	<330	<360	<330	<330	<330	<330	0 / 43 0%	0 / 43 0%
91-57-6	Methylnaphthalene, 2-	230000	µg/kg	µg/kg	<110	<110	<120	<100	<120	<100	<110	<5500	<2800	<110	<2700	<99	<110	<100	<110	<110	<110	<100	<100	0 / 43 0%	0 / 43 0%
77-47-4	Hexachlorocyclopentadiene	460000	µg/kg	µg/kg	<53	<56	<59	<52	<61	<52	<56	<2700	<1400	<54	<1300	<50	<56	<52	<57	<53	<52	<52	<52	0 / 43 0%	0 / 43 0%
88-06-2	Trichlorophenol,2,4,6	220000	µg/kg	µg/kg	<300	<320	<330	<290	<350	<290	<320	<16000	<7900	<310	<7600	<280	<320	<290	<320	<300	<300	<300	<290	0 / 43 0%	0 / 43 0%
95-95-4	Trichlorophenol 2-4-5	6100000	µg/kg	µg/kg	<370	<390	<410	<360	<430	<360	<390	<19000	<9800	<380	<9400	<350	<390	<360	<400	<370	<370	<360	<360	0 / 43 0%	0 / 43 0%
91-58-7	Chloronaphthalene 2-	6100000	µg/kg	µg/kg	<120	<130	<140	<120	<140	<120	<130	<6400	<3300	<130	<3100	<120	<130	<120	<130	<120	<120	<120	<120	0 / 43 0%	0 / 43 0%
88-74-4	Nitroaniline 2-	#N/A	µg/kg	µg/kg	<160	<170	<180	<160	<180	<160	<170	<8200	<4200	<160	<4000	<150	<170	<160	<170	<160	<160	<160	<160	0 / 43 0%	NA / NA NA
131-11-3	Phthalate, dimethyl	#N/A	µg/kg	µg/kg	<140	<150	<160	<140	<160	<140	<150	<7300	<3700	<140	<3600	<130	<150	<140	<150	<140	<140	<140	<140	0 / 43 0%	NA / NA NA
208-96-8	Acenaphthylene	1700000	µg/kg	µg/kg	<120	<130	<140	<120	<140	<120	<130	<6400	<3300	<130	<3100	<120	<130	<120	<130	<120	<120	<120	<120	0 / 43 0%	0 / 43 0%
99-09-2	Nitroaniline,3-	#N/A	µg/kg	µg/kg	<480	<510	<530	<470	<550	<460	<500	<2500	<13000	<490	<12000	<450	<500	<470	<510	<470	<470	<470	<470	0 / 43 0%	0 / 43 NA
83-32-9	Acenaphthene	3400000	µg/kg	µg/kg	<120	<130	<140	<120	<140	<120	<130	<6400	<3300	<130	<3100	<120	<130	<120	<130	<120	<120	<120	<120	0 / 43 0%	0 / 43 0%
51-28-5	Dinitrophenol,2,4	120000	µg/kg	µg/kg	<1100	<1100	<1200	<1000	<1200	<1000	<1100	<55000	<28000	<1100	<27000	<990	<1100	<1000	<1100	<1100	<1000	<1000	<1000	0 / 43 0%	0 / 43 0%
100-02-7	Nitrophenol,4-	490000	µg/kg	µg/kg	<53	<56	<59	<52	<61	<52	<56	<2700	<1400	<54	<1300	<50	<56	<52	<57	<53	<52	<52	<52	0 / 43 0%	0 / 43 0%
132-64-9	Dibenzofuran	76000	µg/kg	µg/kg	<160	<170	<180	<160	<180	<160	<170	<8200	<4200	<160	<4000	<150	<170	<160	<170	<160	<160	<160	<160	0 / 43 0%	0 / 43 0%
121-14-2	Dinitrotoluene,2,4	3500	µg/kg	µg/kg	<410	<430	<450	<400	<470	<400	<430	<21000	<11000	<420	<10000	<380	<430	<400	<440	<400	<400	<400	<400	0 / 43 0%	0 / 43 0%
606-20-2	Dinitrotoluene,2,6-	3600	µg/kg	µg/kg	<180	<190	<200	<170	<200	<170	<190	<9100	<4600	<180	<4500	<170	<190	<170	<190	<180	<170	<170	<170	0 / 43 0%	0 / 43 0%
84-66-2	Phthalate, diethyl	49000000	µg/kg	µg/kg	<300	<320	<330	<290	<350	<290	<320	<16000	<7900	<310	<7600	<280	<320	<290	<320	<300	<300	<300	<290	0 / 43 0%	0 / 43 0%
7005-72-3	Ether, 4-chlorophenyl phenyl	#N/A	µg/kg	µg/kg	<160	<170	<180	<160	<180	<160	<170	<8200	<4200	<160	<4000	<150	<170	<160	<170	<160	<160	<160	<160	0 / 43 0%	NA / NA NA
86-73-7	Fluorene	2300000	µg/kg	µg/kg	<140	<150	<160	<140	<160	<140	<150	<7300	<3700	<140	<3600	<130	<150	<140	<150	<140	<140	<140	<140	0 / 43 0%	0 / 43 0%
100-01-6	Nitroaniline,4-	#N/A	µg/kg	µg/kg	<1200	<1200	<1300	<1100	<1300	<1100	<1200	<59000	<30000	<1200	<29000	<1100	<1200	<1100	<1200	<1100	<1100	<1100	<1100	0 / 43 0%	NA / NA NA
534-52-1	Phenol,4,6-dinitro-2-methyl	#N/A	µg/kg	µg/kg	<430	<450	<470	<420	<490	<410	<440	<22000	<11000	<440	<11000	<400	<450	<410	<460	<420	<420	<420	<420	0 / 43 0%	NA / NA NA
86-30-6	N-nitrosodiphenylamine	500000	µg/kg	µg/kg	<35	<37	<39	<35	<41	<34	<37	<1800	<930	<36	<900	<33	<37	<34	<38	<35	<35	<35	<35	0 / 43 0%	0 / 43 0%
101-55-3	Ether, 4-bromophenyl phenyl	#N/A	µg/kg	µg/kg	<160	<170	<180	<160	<180	<160	<170	<8200	<4200	<160	<4000	<150	<170	<160	<170	<160	<160	<160	<160	0 / 43 0%	NA / NA NA
118-74-1	Hexachlorobenzene	1500	µg/kg	µg/kg	<140	<150	<160	<140	<160	<140	<150	<7300	<3700	<140	<3600	<130	<150	<140	<150	<140	<140	<140	<140	0 / 43 0%	0 / 43 0%
87-86-5	Pentachlorophenol	4500	µg/kg	µg/kg	<370	<390	<410	<360	<430	<360	<390	<19000	<9800	<380	<9400	<350	<390	<360	<400	<370	<370	<360	<360	0 / 43 0%	0 / 43 0%
85-01-8	Phenanthrene	1700000	µg/kg	µg/kg	<140	<150	<160	<140	<160	<140	<150	<7300	<3700	<140	<3600	<130	<150	<140	<150	<140	<140	<140	<140	1 / 43 2%	0 / 43 0%
120-12-7	Anthracene	17000000	µg/kg	µg/kg	<200	<210	<220	<190	<220	<190	<200	<10000	<5100	<200	<4900	<180	<210	<190	<210	<190	<190	<190	<190	0 / 43 0%	0 / 43 0%
84-74-2	Phthalate, di-n-butyl-	6100000	µg/kg	µg/kg	<230	<240	<260	<230	<260	<220	<240	<12000	<6000	<240	<5800	<220	<240	<220	<250	<230	<230	<230	<230	0 / 43 0%	0 / 43 0%
206-44-0	Fluoranthene	2300000	µg/kg	µg/kg	<71	<75	<79	<69	<81	<69	<74	<3700	<1900	<72	<1800	<66	<74	<69	<76	<70	<70	<69	<69	1 / 43 2%	0 / 43 0%
129-00-0	Pyrene	1700000	µg/kg	µg/kg	<210	<230	<240	<210	<240	<210	<220	<11000	<5600	<220	<5400	<200	<220	<210	<230	<210	<210	<210	<210	0 / 43 0%	0 / 43 0%
85-68-7	Phthalate, butyl benzyl	1300000	µg/kg	µg/kg	<200	<210	<220	<190	<220	<190	<200	<10000	<5100	<200	<4900	<180	<210	<190	<210	<190	<190	<190	<190	0 / 43 0%	0 / 43 0%
91-94-1	Dichlorobenzidine, 3,3'	5400	µg/kg	µg/kg	<3500	<3700	<3900	<3500	<7100	<3400	<3700	<180000	<93000	<3600	<90000	<3300	<3700	<3400	<3800	<3500	<3500	<3500	<3500	0 / 43 0%	0 / 43 0%
56-55-3	Anthracene, benzo(a)	3100	µg/kg	µg/kg	<270	<280	<300	<260	<300	<260	<280	<14000	<7000	<270	<6700	<250	<280	<260	<290	<260	<260	<260	<260	0 / 43 0%	0 / 43 0%
117-81-7	Phthalate, bis(2-ethylhexyl)	170000	µg/kg	µg/kg	<320	<340	<350	<310	<370	<310	<330	<16000	<8400	<330	<8100	<300	<340	<310	<340	<320	<310	<310	<310	0 / 43 0%	0 / 43 0%
218-01-9	Chrysene	310000	µg/kg	µg/kg	<210	<230	<240	<210	<240	<210	<220	<11000	<5600	<220	<5400	<200	<220	<210	<230	<210	<210	<210	<210	0 / 43 0%	0 / 43 0%
117-84-0	Phthalate, di-n-octyl-	1200000	µg/kg	µg/kg	<120	<130	<140	<120	<140	<120	<130	<6400	<3300	<130	<3100	<120	<130	<120	<130	<120	<120	<120	<120	0 / 43 0%	0 / 43 0%
205-99-2	Fluoranthene, benzo(b)	3100	µg/kg	µg/kg	<120	<130	<140	<120	<140	<120	<130	<6400	<3300	<130	<3100	<120	<130	<120	<130	<120	<120	<120	<120	0 / 43 0%	0 / 43 0%
207-08-9	Fluoranthene, benzo(k)	31000	µg/kg	µg/kg	<230	<240	<260	<230	<260	<220	<240	<12000	<6000	<240	<5800	<220	<240	<220	<250	<230	<230	<230	<230	0 / 43 0%	0 / 43 0%
50-32-8	Pyrene, benzo(a)	310	µg/kg	µg/kg	<270	<280	<300	<260	<300	<260	<280	<14000	<7000	<270	<6700	<250	<280	<260	<290	<260	<260	<260	<260	0 / 43 0%	0 / 43 0%
193-39-5	Pyrene, indeno(1,2,3-cd)	3100	µg/kg	µg/kg	<370	<390	<410	<360	<430	<360	<390	<19000	<9800	<380	<9400	<350	<390	<360	<400	<370	<370	<360	<360	0 / 43 0%	0 / 43 0%
53-70-3	Anthracene, dibenzo(a,h)	310	µg/kg	µg/kg	<370	<390	<410	<360	<430	<360	<390	<19000	<9800	<380	<9400	<350	<390	<360	<400	<370	<370	<360	<360	0 / 43 0%	0 / 43 0%
191-24-2	Perylene,benzo(g,h,i)	170000	µg/kg	µg/kg	<250	<260	<280	<240	<280	<240	<260	<13000	<6500	<250	<6300	<230	<260	<240	<270	<250	<240	<240	<240	0 / 43 0%	0 / 43 0%
108-95-2	Phenol	18000000	µg/kg	µg/kg	<370	<390	<410	<360	<430	<360	<390	<19000	<9800	<380	<9400	<350	<390	<360	<400	<370	<370	<360	<360	2 / 43 5%	0 / 43 0%
86-74-8	Carbazole	120000	µg/kg	µg/kg	<230	<240	<260	<230	<260	<220	<240	<12000	<6000	<240	<5800	<220	<240	<220	<250	<230	<230	<230	<230	2 / 42 5%	0 / 42 0%
# of SCOIs Exceeding Criteria					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		

Notes:

Shaded values indicate concentrations above Iowa Statewide Soil Standard.

Table 2-2: Soil Analytical Results (2004 and 2006)
Former Chamberlain Property - Waterloo, Iowa

CAS No	Parameter	Iowa Statewide Soil Standard		Sample ID	SB-1 2'	SB-1 6'	SB-2 2'	SB-2 4'	SB-3 2'	SB-3 6'	SB-4 2'	SB-4 10'	SB-5 2'	SB-5 8'	SB-6 2'	SB-6 4'	SB-6 10'	SB-7 2'	SB-7 8'	SB-8 2'	SB-9 2'	SB-10 14'	SB-10 2'	SB-11 2'	SB-12 2'	SB-13 2'
		Value	Unit	Date Sampled	9/9/2004	9/9/2004	9/9/2004	9/9/2004	9/9/2004	9/9/2004	9/8/2004	9/8/2004	9/9/2004	9/9/2004	9/8/2004	9/8/2004	9/8/2004	9/7/2004	9/7/2004	8/30/2004	8/31/2004	9/14/2004	9/14/2004	8/31/2004	8/30/2004	8/31/2004
				Units																						
INORGANIC PARAMETERS																										
7440-38-2	Arsenic	17	mg/kg	mg/kg	0.97	0.72	---	---	---	---	---	---	---	---	1.63	19.30	---	---	---	---	---	---	---	---	1.11	1.73
7440-39-3	Barium	15000	mg/kg	mg/kg	27	22	---	---	---	---	---	---	---	---	46	951	---	---	---	---	---	---	---	---	20	34
7440-43-9	Cadmium	70	mg/kg	mg/kg	<0.24	<0.25	---	---	---	---	---	---	---	---	1.2	32	---	---	---	---	---	---	---	---	<0.25	0.53
7440-47-3	Chromium	190	mg/kg	mg/kg	4.6	3.5	---	---	---	---	---	---	---	---	11	110	---	---	---	---	---	---	---	---	4.8	27
7439-92-1	Lead	400	mg/kg	mg/kg	15	<5.2	---	---	---	---	---	---	---	---	55	219	---	---	---	---	---	---	---	---	<5.2	<5.3
7487-94-7	Mercury[1]	23	mg/kg	mg/kg	0.0113	0.0045	---	---	---	---	---	---	---	---	0.0126	0.0049	---	---	---	---	---	---	---	---	0.00382	0.01332
7782-49-2	Selenium	390	mg/kg	mg/kg	<7.5	<7.8	---	---	---	---	---	---	---	---	<7.7	<49	---	---	---	---	---	---	---	---	<7.8	<7.9
7440-22-4	Silver	370	mg/kg	mg/kg	<0.57	<0.59	---	---	---	---	---	---	---	---	<0.58	5.1	---	---	---	---	---	---	---	---	<0.59	<0.60
57-12-5	Cyanide	46	mg/kg		<0.11	<0.11	0.25	<0.11	3.6	1.3	<0.12	<0.13	<0.11	<0.13	0.58	8.6	---	0.42	<0.11	---	---	---	---	---	---	---
POLYCHLORINATED BIPHENYLS																										
11097-69-1	PCB-1016	#N/A	mg/kg	mg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.26	<0.26	---	<0.26	<0.27	<0.26	<1
11097-69-1	PCB-1221	#N/A	mg/kg	mg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.26	<0.26	---	<0.26	<0.27	<0.26	<1
11097-69-1	PCB-1232	#N/A	mg/kg	mg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.26	<0.26	---	<0.26	<0.27	<0.26	<1
11097-69-1	PCB-1242	#N/A	mg/kg	mg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.26	<0.26	---	<0.26	<0.27	<0.26	<1
11097-69-1	PCB-1248	#N/A	mg/kg	mg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.26	<0.26	---	<0.26	<0.27	<0.26	<1
11097-69-1	PCB-1254[2]	1.1	mg/kg	mg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.26	<0.26	---	<0.26	<0.27	<0.26	1.1
11097-69-1	PCB-1260	#N/A	mg/kg	mg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.26	<0.26	---	<0.26	<0.27	<0.26	<1
11097-69-1	PCB-1268	#N/A	mg/kg	mg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.26	<0.26	---	<0.26	<0.27	<0.26	<1
VOLATILE ORGANIC COMPOUNDS																										
630-20-6	1,1,1,2-Tetrachloroethane	2.3E+05	µg/kg	µg/kg	<1.85	<1.86	<1.94	<1.88	<1.96	<1.89	---	---	<1.87	<2.20	---	---	---	<1.89	<1.86	---	<1.88	<2.21	<1.87	<1.96	<1.87	<1.90
71-55-6	1,1,1-Trichloroethane	1.5E+08	µg/kg	µg/kg	<1.08	<1.09	<1.13	<1.09	<1.14	<1.10	---	---	<1.09	<1.28	---	---	---	<1.10	<1.09	---	4.77	<1.29	1.68	1.25	<1.09	10.9
79-34-5	1,1,2,2-Tetrachloroethane	1.5E+04	µg/kg	µg/kg	<1.1	<1.1	<1.2	<1.1	<1.2	<1.2	---	---	<1.1	<1.3	---	---	---	<1.2	<1.1	---	<1.1	<1.4	<1.1	<1.2	<1.1	<1.2
79-00-5	1,1,2-Trichloroethane	5.4E+04	µg/kg	µg/kg	<1.2	<1.2	<1.3	<1.3	<1.3	<1.3	---	---	<1.2	<1.5	---	---	---	<1.3	<1.2	---	<1.3	<1.5	<1.2	<1.3	<1.2	<1.3
75-34-3	1,1-Dichloroethane	1.5E+06	µg/kg	µg/kg	<0.82	<0.83	<0.86	<0.83	<0.87	<0.84	---	---	<0.83	<0.98	---	---	---	<0.84	<0.83	---	<0.83	<0.98	<0.83	<0.87	<0.83	<0.84
75-35-4	1,1-Dichloroethene	3.8E+05	µg/kg	µg/kg	<0.344	<0.347	<0.362	<0.349	<0.365	<0.351	---	---	<0.347	<0.409	---	---	---	<0.351	<0.346	---	<0.350	<0.412	<0.348	<0.366	<0.348	<0.354
563-58-6	1,1-Dichloropropene	#N/A	µg/kg	µg/kg	<0.87	<0.88	<0.92	<0.89	<0.93	<0.89	---	---	<0.88	<1.0	---	---	---	<0.89	<0.88	---	<0.89	<1.0	<0.88	<0.93	<0.88	<0.90
87-61-6	1,2,3-Trichlorobenzene	#N/A	µg/kg	µg/kg	<5.1	<5.2	<5.4	<5.2	<5.4	<5.2	---	---	<5.2	<6.1	---	---	---	<5.2	<5.2	---	<5.2	<6.1	<5.2	<5.5	<5.2	<5.3
96-18-4	1,2,3-Trichloropropane	1.0E+02	µg/kg	µg/kg	<0.92	<0.93	<0.97	<0.94	<0.98	<0.94	---	---	<0.93	<1.1	---	---	---	<0.94	<0.93	---	<0.94	<1.1	<0.93	<0.98	<0.94	<0.95
120-82-1	1,2,4-Trichlorobenzene	7.6E+05	µg/kg	µg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
95-63-6	1,2,4-Trimethylbenzene	3.8E+06	µg/kg	µg/kg	<5.1	<5.2	<5.4	<5.2	8.4	<5.2	---	---	<5.2	298	---	---	---	<5.2	<5.2	---	<5.2	<6.1	<5.2	<5.5	<5.2	<5.3
96-12-8	1,2-Dibromo-3-chloropropane	2.6E+03	µg/kg	µg/kg	<10	<10	<11	<10	<11	<10	---	---	<10	<12	---	---	---	<10	<10	---	<10	<12	<10	<11	<10	<11
106-93-4	1,2-Dibromoethane (EDB)	1.5E+03	µg/kg	µg/kg	<3.03	<3.05	<3.19	<3.07	<3.21	<3.09	---	---	<3.06	<3.60	---	---	---	<3.09	<3.05	---	<3.08	<3.62	<3.06	<3.22	<3.07	<3.11
95-50-1	1,2-Dichlorobenzene	5.5E+06	µg/kg	µg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
107-06-2	1,2-Dichloroethane	3.4E+04	µg/kg	µg/kg	<1.1	<1.1	<1.2	<1.1	<1.2	<1.2	---	---	<1.1	<1.3	---	---	---	<1.2	<1.1	---	<1.1	<1.4	<1.1	<1.2	<1.1	<1.2
78-87-5	1,2-Dichloropropane	5.3E+04	µg/kg	µg/kg	<0.44	<0.45	<0.46	<0.45	<0.47	<0.45	---	---	<0.45	<0.53	---	---	---	<0.45	<0.44	---	<0.45	<0.53	<0.45	<0.47	<0.45	<0.45
108-67-8	1,3,5-Trimethylbenzene	7.6E+05	µg/kg	µg/kg	<5.1	<5.2	<5.4	<5.2	<5.4	<5.2	---	---	<5.2	101	---	---	---	<5.2	<5.2	---	<5.2	<6.1	<5.2	<5.5	<5.2	<5.3
541-73-1	1,3-Dichlorobenzene	6.8E+06	µg/kg	µg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
142-28-9	1,3-Dichloropropane	#N/A	µg/kg	µg/kg	<0.87	<0.88	<0.92	<0.89	<0.93	<0.89	---	---	<0.88	<1.0	---	---	---	<0.89	<0.88	---	<0.89	<1.0	<0.88	<0.93	<0.88	<0.90
106-46-7	1,4-Dichlorobenzene	7.6E+05	µg/kg	µg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
594-20-7	2,2-Dichloropropane	#N/A	µg/kg	µg/kg	<0.37	<0.37	<0.39	<0.38	<0.39	<0.38	---	---	<0.37	<0.44	---	---	---	<0.38	<0.37	---	<0.38	<0.44	<0.37	<0.39	<0.37	<0.38
95-49-8	2-Chlorotoluene	1.5E+06	µg/kg	µg/kg	<0.67	<0.67	<0.70	<0.68	<0.71	<0.68	---	---	<0.67	16.2	---	---	---	<0.68	<0.67	---	<0.68	<0.80	<0.67	<0.71	<0.68	<0.69
591-78-6	2-Hexanone	#N/A	µg/kg	µg/kg	<0.56	<0.57	<0.59	<0.57	<0.60	<0.58	---	---	<0.57	<0.67	---	---	---	<0.58	<0.57	---	<0.57	<0.68	<0.57	<0.60	<0.57	<0.58
106-43-4	4-Chlorotoluene	1.5E+06	µg/kg	µg/kg	<0.56	<0.57	<0.59	<0.57	<0.60	<0.58	---	---	<0.57	166	---	---	---	<0.58	<0.57	---	<0.57	<0.68	<0.57	<0.60	<0.57	<0.58
67-64-1	Acetone	6.8E+07	µg/kg	µg/kg	29.3	17.2	29	29.8	57.7	43.7	---	---	18.7	<9.8	---	---	---	31.9	32.6	---	<8.3	<9.8	26	22.3	20.4	21.7
107-13-1	Acrylonitrile	5.7E+03	µg/kg	µg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
71-43-2	Benzene	5.6E+04	µg/kg	µg/kg	<0.56	<0.57	0.84	<0.57	2.25	1.91	---	---	1.71	<0.67	---	---	---	3.04	0.63	---	1.16	<0.68	1.53	2.03	1.68	1.83
108-86-1	Bromobenzene	#N/A	µg/kg	µg/kg	<0.72	<0.72	<0.76	<0.73	<0.76	<0.73	---	---	<0.73	<0.86	---	---	---	<0.73	<0.72	---	<0.73	<0.86	<0.73	<0.76	<0.73	<0.74
74-97-5	Bromochloromethane	7.6E+05	µg/kg	µg/kg	<0.97	<0.98	<1.0	<0.99	<1.0	<1.0	---	---	<0.98	<1.2	---	---	---	<1.0	<0.98	---	<0.99	<1.2	<0.99	<1.0	<0.99	<1.0
75-27-4	Bromodichloromethane	5.0E+04	µg/kg	µg/kg	<2.31	<2.33	<2.43	<2.34	<2.45	<2.36	---	---	<2.33	<2.75	---	---	---	<2.36	<2.33	---	<2.35	<2.76	<2.34	<2.46	<2.34	<2.38
75-25-2	Bromoform	3.9E+05	µg/kg	µg/kg	<3.44	<3.47	<3.62	<3.49	<3.65	<3.51	---	---	<3.47	<4.09	---	---	---	<3.51	<3.46	---	<3.50	<4.12	<3.48	<3.66	<3.48	<3.54
74-83-9	Bromomethane	1.1E+05	µg/kg	µg/kg	<5.03	<5.07	<5.29	<5.11	<5.33	<5.14	---	---	<5.08	<5.99	---	---	---	<5.14	<5.07	---	<5.11	<6.02	<5.09	<5.35	<5.09	<5.17
75-15-0	Carbon disulfide	7.6E+06	µg/kg	µg/kg	<6.2	<6.2	<6.5	<6.3	<6.5	<6.3	---	---	<6.2	<7.3	---	---	---	<6.3	<6.2	---	<6.3	<7.4	<6.2	<6.5	<6.2	<6.3
56-23-5	Carbon Tetrachloride	4.4E+04	µg/kg	µg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
108-90-7	Chlorobenzene	1.5E+06	µg/kg	µg/kg	<0.436	<0.440	<0.459	<0.443	<0.463	<0.445	---	---	<0.441	<0.519	---	---	---	<0.446	<0.439	---	<0.443	<0.522	<0.441	<0.464	<0.442	<0.449
124-48-1	Chlorodibromomethane	1.5E+05	µg/kg	µg/kg	<1.44	<1.45	<1.51	<1.46	<1.52	<1.47	---	---	<1.45	<1.71	---	---	---	<1.47	<1.45	---	<1.46	<1.72	<1.45	<1.53	<1.45	<1.48
75-00-3	Chloroethane	3.0E+07	µg/kg	µg/kg	<0.72	<0.72	<0.76	<0.73	<0.76	<0.73	---	---	<0.73	<0.86	---	---	---	<0.73	<0.72	---	<0.73	<0.86	<0.73	<0.76	<0.73	<0.74
67-66-3	Chloroform	No std	µg/kg	µg/kg	<0.87	<0.88	<0.92	<0.89	<0.93	<0.89	---	---	<0.88	<1.0	---	---	---	<0.89	<0.88	---	<0.89	<1.0	<0.88	<0.93	<0.88	<0.90
74-87-3	Chloromethane	No std	µg/kg	µg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---	---	<0.5	<0.6	---	---	---	<0.5	<0.5	---	<0.5	<0.6	<0.5	<0.5	<0.5	<0.5
156-59-2	cis-1,2-Dichloroethene	1.5E+05	µg/kg	µg/kg	<0.97	<0.98	7.62	<0.99	6.76	4.75	---	---	<0.98	<1.2	---	---	---	<1.0	<0.98	---	<0.99	13.1	1.58	<1.0	2.6	<1.0
10061-01-5	cis-1,3-Dichloropropene	#N/A	µg/kg	µg/kg	<0.82	<0.83	<0.86	<0.83	<0.87	<0.84	---	---	<0.83	<0.98	---	---	---	<0.84	<0.83	---	<0.83	<0.98	<0.83	<0.87	<0.83	<0.84
74-95-3	Dibromomethane	7.6E+05	µg/kg	µg/kg	<0.77	<0.78	<0.81	<0.78	<0.82	<0.79	---	---	<0.78	<0.92	---	---	---	<0.79	<0.78	---	<0.78	<0.92	<0.78	<0.82	<0.78	<0.79
75-71-8	Dichlorodifluoromethane	1.5E+07	µg/kg	µg/kg	<0.97	<0.98	<1.0	<0.99	<1.0	<1.0	---	---	<0.98	<1.2	---	---	---	<1.0	<0.98	---	<0.99	<1.2	<0.99	<1.0	<0.99	<1.0
100-41-4	Ethylbenzene	7.6E+06	µg/kg	µg/kg	<0.56	<0.57	0.75	<0.57	1.1	<0.58	---	---	0.67	43.6	---	---	---	0.66	0.64	---	0.87	<0.68	1.14	0.8	1.85	1.33
87-68-3	Hexachlorobutadiene	4.0E+04	µg/kg	µg/kg	<2.97	<3.00	<3.13	<3.02	<3.16	<3.04	---	---	<3.01	<3.54	---	---	---	<3.04	<3.00	---	<3.03	<3.56	<3.01	<3.16	<3.01	<3.06
110-54-3	Hexane	4.6E+06	µg/kg	µg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Table 2-2: Soil Analytical Results (2004 and 2006)
Former Chamberlain Property - Waterloo, Iowa

CAS No	Parameter	Iowa Statewide Soil Standard Value	Iowa Statewide Soil Standard Unit	Sample ID / Date Sampled / Units	SB-1 2'	SB-1 6'	SB-2 2'	SB-2 4'	SB-3 2'	SB-3 6'	SB-4 2'	SB-4 10'	SB-5 2'	SB-5 8'	SB-6 2'	SB-6 4'	SB-6 10'	SB-7 2'	SB-7 8'	SB-8 2'	SB-9 2'	SB-10 14'	SB-10 2'	SB-11 2'	SB-12 2'	SB-13 2'
				Date Sampled	9/9/2004	9/9/2004	9/9/2004	9/9/2004	9/9/2004	9/9/2004	9/8/2004	9/8/2004	9/9/2004	9/9/2004	9/8/2004	9/8/2004	9/8/2004	9/7/2004	9/7/2004	8/30/2004	8/31/2004	9/14/2004	9/14/2004	8/31/2004	8/30/2004	8/31/2004
		Value	Unit	Units																						
98-82-8	Isopropylbenzene	7.6E+06	µg/kg	µg/kg	<0.37	<0.37	<0.39	<0.38	<0.39	<0.38	—	—	<0.37	31.8	—	—	—	<0.38	<0.37	—	<0.38	<0.44	<0.37	<0.39	<0.37	<0.38
78-93-3	Methyl ethyl ketone (MEK)	4.6E+07	µg/kg	µg/kg	<0.87	<0.88	<0.92	<0.89	<0.93	<0.89	—	—	<0.88	<1.0	—	—	—	<0.89	<0.88	—	<0.89	<1.0	<0.88	<0.93	<0.88	<0.90
108-10-1	Methyl isobutyl ketone	6.1E+06	µg/kg	µg/kg	<0.72	<0.72	<0.76	<0.73	<0.76	<0.73	—	—	<0.73	<0.86	—	—	—	<0.73	<0.72	—	<0.73	<0.86	<0.73	<0.76	<0.73	<0.74
1634-04-4	Methyl tert-Butyl Ether	2.3E+06	µg/kg	µg/kg	<4.87	<4.92	<5.13	<4.95	<5.17	<4.98	—	—	<4.92	<5.80	—	—	—	<4.98	<4.91	—	<4.96	<5.84	<4.93	<5.18	<4.94	<5.01
75-09-2	Methylene chloride	1.5E+06	µg/kg	µg/kg	<51	<52	<54	<52	<54	<52	—	—	<52	<61	—	—	—	<52	<52	—	<52	<61	<52	<55	<52	<53
104-51-8	n-Butylbenzene	3.8E+06	µg/kg	µg/kg	<5.1	<5.2	<5.4	<5.2	<5.4	<5.2	—	—	<5.2	248	—	—	—	<5.2	<5.2	—	<5.2	<6.1	<5.2	<5.5	<5.2	<5.3
103-65-1	n-Propylbenzene	7.6E+06	µg/kg	µg/kg	<5.1	<5.2	<5.4	<5.2	<5.4	<5.2	—	—	<5.2	128	—	—	—	<5.2	<5.2	—	<5.2	<6.1	<5.2	<5.5	<5.2	<5.3
99-87-6	p-Isopropyltoluene	#N/A	µg/kg	µg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	—	—	<0.5	<0.6	—	—	—	<0.5	<0.5	—	<0.5	<0.6	<0.5	<0.5	<0.5	<0.5
135-9-88	sec-Butylbenzene	#N/A	µg/kg	µg/kg	<5.1	<5.2	<5.4	<5.2	<5.4	<5.2	—	—	<5.2	782	—	—	—	<5.2	<5.2	—	<5.2	<6.1	<5.2	<5.5	<5.2	<5.3
100-42-5	Styrene	1.5E+07	µg/kg	µg/kg	<0.39	<0.39	<0.41	<0.40	<0.41	<0.40	—	—	<0.39	<0.46	—	—	—	<0.40	<0.39	—	<0.40	<0.47	<0.39	<0.41	<0.39	<0.40
98-06-6	tert-Butylbenzene	#N/A	µg/kg	µg/kg	<5.1	<5.2	<5.4	<5.2	<5.4	<5.2	—	—	<5.2	1590	—	—	—	<5.2	<5.2	—	<5.2	<6.1	<5.2	<5.5	<5.2	<5.3
127-18-4	Tetrachloroethene	1.5E+06	µg/kg	µg/kg	<0.67	<0.67	<0.70	<0.68	1.16	1.26	—	—	<0.67	<0.79	—	—	—	<0.68	<0.67	—	<0.68	<0.80	<0.67	<0.71	1.93	0.97
108-88-3	Toluene	6.1E+06	µg/kg	µg/kg	<0.72	<0.72	1.25	<0.73	2.59	1	—	—	1.79	2.09	—	—	—	2.21	1.6	—	1.5	1.67	2.64	1.88	2.71	2.77
156-60-5	trans-1,2-Dichloroethene	1.5E+06	µg/kg	µg/kg	<0.77	<0.78	1.43	<0.78	<0.82	<0.79	—	—	<0.78	<0.92	—	—	—	<0.79	<0.78	—	<0.78	<0.92	<0.78	<0.82	<0.78	<0.79
10061-02-6	trans-1,3-Dichloropropene	#N/A	µg/kg	µg/kg	<0.77	<0.78	<0.81	<0.78	<0.82	<0.79	—	—	<0.78	<0.92	—	—	—	<0.79	<0.78	—	<0.78	<0.92	<0.78	<0.82	<0.78	<0.79
79-01-6	Trichloroethylene	6.7E+04	µg/kg	µg/kg	<0.97	<0.98	8.69	1.14	72.7	78.6	—	—	6.06	<1.2	—	—	—	17.2	7.24	—	41.9	25.7	14.8	4.54	44.7	6.73
75-69-4	Trichlorofluoromethane	2.3E+07	µg/kg	µg/kg	<0.45	<0.46	<0.48	<0.46	<0.48	<0.46	—	—	<0.46	<0.54	—	—	—	<0.46	0.6	—	1.2	<0.54	<0.46	0.48	1	0.76
75-01-4	Vinyl Chloride	2.1E+03	µg/kg	µg/kg	<0.77	<0.78	<0.81	<0.78	<0.82	<0.79	—	—	<0.78	<0.92	—	—	—	<0.79	<0.78	—	<0.78	<0.92	<0.78	<0.82	<0.78	<0.79
1330-20-7	Xylenes, Total	1.5E+07	µg/kg	µg/kg	<5.1	<5.2	<5.4	<5.2	5.6	<5.2	—	—	<5.2	29.3	—	—	—	<5.2	<5.2	—	<5.2	<6.1	<5.2	<5.5	<5.2	<5.3
SEMI-VOLATILE ORGANIC COMPOUNDS																										
120-82-1	1,2,4-Trichlorobenzene	760	mg/kg	mg/kg	<0.073	<0.37	<0.77	<0.076	<1.5	<0.37	—	—	<0.37	<0.088	—	—	<0.087	<0.075	<0.075	<0.077	<5.2	<0.088	<0.075	<5.5	<0.075	<0.38
95-50-1	1,2-Dichlorobenzene	5500	mg/kg	mg/kg	<0.102	<0.533	<1.10	<0.107	<2.21	<0.529	—	—	<0.529	<0.123	—	—	<0.122	<0.107	<0.106	<0.108	<1.1	<0.124	<0.106	<1.2	<0.106	<0.544
541-73-1	1,3-Dichlorobenzene	6800	mg/kg	mg/kg	<0.091	<0.48	<0.98	<0.096	<2.0	<0.47	—	—	<0.48	<0.11	—	—	<0.11	<0.095	<0.095	<0.097	<1.1	<0.11	<0.094	<1.2	<0.095	<0.49
106-46-7	1,4-Dichlorobenzene	760	mg/kg	mg/kg	<0.084	<0.43	<0.90	<0.089	<1.9	<0.43	—	—	<0.44	<0.10	—	—	<0.10	<0.088	<0.088	<0.089	<0.68	<0.10	<0.087	<0.71	<0.087	<0.44
95-95-4	2,4,5-Trichlorophenol	6100	mg/kg	mg/kg	<0.069	<0.35	<0.72	<0.072	<1.4	<0.35	—	—	<0.35	<0.083	—	—	<0.082	<0.071	<0.071	<0.073	—	<0.084	<0.071	—	<0.071	<0.36
88-06-2	2,4,6-Trichlorophenol	220	mg/kg	mg/kg	<0.053	<0.28	<0.57	<0.056	<1.2	<0.27	—	—	<0.28	<0.065	—	—	<0.064	<0.056	<0.056	<0.057	—	<0.065	<0.055	—	<0.055	<0.29
120-83-2	2,4-Dichlorophenol	180	mg/kg	mg/kg	<0.074	<0.38	<0.79	<0.077	<1.6	<0.38	—	—	<0.38	<0.089	—	—	0.38	<0.077	<0.077	<0.078	—	<0.090	<0.076	—	<0.076	<0.39
105-67-9	2,4-Dimethylphenol	1200	mg/kg	mg/kg	<0.063	<0.33	<0.68	<0.066	<1.4	<0.32	—	—	<0.33	<0.076	—	—	<0.075	<0.065	<0.065	<0.066	—	<0.076	<0.064	—	<0.064	<0.34
51-28-5	2,4-Dinitrophenol	120	mg/kg	mg/kg	<0.028	<0.14	<0.30	<0.029	<0.60	<0.15	—	—	<0.15	<0.033	—	—	<0.033	<0.029	<0.029	<0.029	—	<0.033	<0.029	—	<0.029	<0.15
121-14-2	2,4-Dinitrotoluene	3.5	mg/kg	mg/kg	<0.047	<0.25	<0.52	<0.049	<1.0	<0.25	—	—	<0.25	<0.056	—	—	<0.056	<0.049	<0.049	<0.049	—	<0.057	<0.049	—	<0.049	<0.25
606-20-2	2,6-Dinitrotoluene	3.6	mg/kg	mg/kg	<0.066	<0.34	<0.70	<0.069	<1.4	<0.34	—	—	<0.34	<0.079	—	—	<0.078	<0.068	<0.068	<0.069	—	<0.080	<0.067	—	<0.068	<0.35
91-58-7	2-Chloronaphthalene	6100	mg/kg	mg/kg	<0.070	<0.36	<0.75	<0.073	<1.5	<0.36	—	—	<0.36	<0.084	—	—	<0.083	<0.072	<0.072	<0.074	—	<0.085	<0.072	—	<0.072	<0.37
95-57-8	2-chlorophenol	310	mg/kg	mg/kg	<0.085	<0.45	<0.92	<0.090	<1.9	<0.44	—	—	<0.45	<0.10	—	—	<0.10	<0.089	<0.089	<0.090	—	<0.10	<0.088	—	<0.088	<0.45
534-52-1	2-Methyl-4,6-dinitrophenol	#N/A	mg/kg	mg/kg	<0.105	<0.544	<1.12	<0.109	<2.25	<0.539	—	—	<0.539	<0.126	—	—	<0.125	<0.109	<0.109	<0.110	—	<0.127	<0.108	—	<0.108	<0.554
91-57-6	2-Methylnaphthalene	230	mg/kg	mg/kg	<0.064	<0.33	<0.68	<0.067	<1.4	<0.32	—	—	<0.33	<0.077	—	—	1.78	<0.066	<0.066	<0.067	—	<0.077	<0.065	—	<0.065	<0.34
95-48-7	2-Methylphenol	3100	mg/kg	mg/kg	<0.078	<0.40	<0.83	<0.081	<1.6	<0.40	—	—	<0.40	<0.093	—	—	<0.093	<0.081	<0.081	<0.082	—	<0.093	<0.080	—	<0.080	<0.41
88-74-4	2-Nitroaniline	#N/A	mg/kg	mg/kg	<0.070	<0.36	<0.75	<0.073	<1.5	<0.36	—	—	<0.36	<0.084	—	—	<0.083	<0.072	<0.072	<0.074	—	<0.085	<0.072	—	<0.072	<0.37
88-75-5	2-Nitrophenol	#N/A	mg/kg	mg/kg	<0.112	<0.580	<1.20	<0.117	<2.41	<0.575	—	—	<0.574	<0.134	—	—	<0.133	<0.116	<0.116	<0.118	—	<0.135	<0.115	—	<0.115	<0.591
91-94-1	3,3-Dichlorobenzidine	5.4	mg/kg	mg/kg	<0.107	<0.554	<1.14	<0.111	<2.30	<0.549	—	—	<0.549	<0.128	—	—	<0.127	<0.111	<0.111	<0.112	—	<0.129	<0.110	—	<0.110	<0.565
99-09-2	3-Nitroaniline	#N/A	mg/kg	mg/kg	<0.058	<0.31	<0.64	<0.061	<1.3	<0.30	—	—	<0.31	<0.071	—	—	<0.070	<0.061	<0.061	<0.062	—	<0.071	<0.060	—	<0.060	<0.32
101-55-3	4-Bromophenyl phenyl ether	#N/A	mg/kg	mg/kg	<0.048	<0.25	<0.52	<0.050	<1.0	<0.25	—	—	<0.25	<0.057	—	—	<0.057	<0.050	<0.050	<0.050	—	<0.058	<0.050	—	<0.050	<0.25
59-50-7	4-Chloro-3-methylphenol	6100	mg/kg	mg/kg	<0.072	<0.37	<0.77	<0.075	<1.5	<0.37	—	—	<0.37	<0.087	—	—	<0.085	<0.074	<0.074	<0.076	—	<0.087	<0.074	—	<0.074	<0.38
106-47-8	4-Chloroaniline	240	mg/kg	mg/kg	<0.104	<0.538	<1.11	<0.108	<2.23	<0.534	—	—	<0.534	<0.125	—	—	<0.123	<0.108	<0.108	<0.109	—	<0.125	<0.107	—	<0.107	<0.549
7005-72-3	4-Chlorophenylphenyl ether	#N/A	mg/kg	mg/kg	<0.054	<0.29	<0.59	<0.057	<1.2	<0.28	—	—	<0.29	<0.066	—	—	<0.065	<0.057	<0.057	<0.058	—	<0.066	<0.056	—	<0.056	<0.30
106-44-5	4-Methylphenol	6100	mg/kg	mg/kg	<0.080	<0.41	<0.85	<0.083	<1.7	<0.41	—	—	<0.41	<0.095	—	—	<0.095	<0.083	<0.083	<0.084	—	<0.096	<0.082	—	<0.082	<0.42
100-01-6	4-Nitroaniline	#N/A	mg/kg	mg/kg	<0.069	<0.35	<0.72	<0.072	<1.4	<0.35	—	—	<0.35	<0.083	—	—	<0.082	<0.071	<0.071	<0.073	—	<0.084	<0.071	—	<0.071	<0.36
100-02-7	4-Nitrophenol	490	mg/kg	mg/kg	<0.066	<0.34	<0.70	<0.069	<1.4	<0.34	—	—	<0.34	<0.079	—	—	<0.078	<0.068	<0.068	<0.069	—	<0.080	<0.067	—	<0.068	<0.35
83-32-9	Acenaphthene	3400	mg/kg	mg/kg	<0.063	<0.33	<0.68	<0.066	<1.4	<0.32	—	—	<0.33	0.13	—	—	2.72	0.15	<0.065	<0.066	—	<0.076	<0.064	—	<0.064	<0.34
208-96-8	Acenaphthylene	1700	mg/kg	mg/kg	<0.058	<0.31	<0.64	<0.061	<1.3	<0.30	—	—	<0.31	<0.071	—	—	<0.070	1.28	<0.061	<0.062	—	<0.071	<0.060	—	<0.060	<0.32
120-12-7	Anthracene	17000	mg/kg	mg/kg	<0.039	<0.21	<0.43	<0.041	<0.86	<0.21	—	—	<0.21	<0.046	—	—	0.32	1	<0.040	<0.041	—	<0.047	<0.040	—	<0.041	<0.21
92-87-5	Benzidine	0.011	mg/kg	mg/kg	<0.097	<0.51	<1.0	<0.10	<2.1	<0.50	—	—	<0.51	<0.12	—	—	<0.12	<0.10	<0.10	<0.10	—	<0.12	<0.10	—	<0.10	<0.52
56-55-3	Benzo(a)anthracene	3.1	mg/kg	mg/kg	<0.035	<0.19	0.54	<0.036	<0.77	0.52	—	—	<0.19	<0.042	—	—	0.19	5.24	<0.036	<0.037	—	<0.042	<0.036	—	<0.036	<0.19
50-32-8	Benzo(a)pyrene	0.31	mg/kg	mg/kg	<0.049	<0.25	<0.52	<0.051	<1.0	0.4	—	—	<0.25	<0.059	—	—	0.06	4.8	<0.051	<0.051	—	<0.059	<0.051	—	<0.051	<0.25
205-99-2	Benzo(b)fluoranthene	3.1	mg/kg	mg/kg	<0.037	<0.19	0.4	<0.039	<0.77	0.4	—	—	<0.19	<0.044	—	—	0.08	3.93	<0.038	<0.039	—	<0.044	<0.038	—	<0.038	<0.19
191-24-2	Benzo(ghi)perylene	170	mg/kg	mg/kg	<0.039	<0.21	<0.43	<0.041	<0.86	0.4	—	—	<0.21	<0.046	—	—	<0.046	2.56	<0.040	<0.041	—	<0.047	<0.040	—	<0.041	<0.21
207-08-9	Benzo(k)fluoranthene	31	mg/kg	mg/kg	<0.049	<0.25	<0.52	<0.051	<1.0	0.4	—	—	<0.25	<0.059	—	—	0.1	3.72	<0.051	<0.051	—	<0.059	<0.051	—	<0.051	<0.25
65-85-0	Benzoic Acid	#N/A	mg/kg	mg/kg	<0.33	<1.7	<3.5	<0.34	<6.9	<1.7	—	—	<1.7	<0.39	—	—	<0.39	<0.35	<0.34	<0.35	—	<0.39	<0.34	—	<0.34	<1.7
100-51-6	Benzyl alcohol	6100	mg/kg	mg/kg	<0.081	<0.41	<0.85	<0.084	<1.7	<0.41	—	—	<0.41	<0.097	—	—	<0.096	<0.084	<0.084	<0.085	—	<0.097	<0.083	—	<0.083	<0.42
85-68-7	Benzyl butyl phthalate	1300	mg/kg	mg/kg	<0.043	<0.23	<0.48	<0.045	<0.95	<0.23	—	—	<0.23	<0.051	—	—	<0.051	<0.045	<0.044	<0.045	—	<0.052	<0.045	—	<0.045	<0.23
111-91-1	Bis(2-chloroethoxy)methane	#N/A	mg/kg	mg/kg	<0.074	<0.38	<0.79	<0.077	<1.6	<0.38	—	—	<0.38	<0.089	—	—	<0.088	<0.077	<0.077	<0.078	—	<0.090	<0.076	—	<0.076	<0.39
111-44-4	Bis(2-chloroethyl)ether	2.8	mg/kg	mg/kg	<0.078	<0.40	<0.83	<0.081	<1.6	<0.40	—	—	<0.40	<0.093	—	—	<0.093	<0.081	<0.081	<0.082	—	<0.093	<0.080	—	<0.080	<0.41
39638-32-9	Bis(2chloroisopropyl)ether	#N/A	mg/kg	mg/kg	<0.085	<0.45	<0.92	<0.090	<1.9	<0.44	—	—	<0.45	<0.10	—	—	<0.10	<0.089	<0.089	<0.090	—	<0.10	<0.088	—	<0.088	<0.45
117-81-7	Bis(2-ethylhexyl)phthalate	170	mg/kg	mg/kg	<0.032	<0.17	0.54	<0.033	26.6	<0.17	—	—	<0.17	<0.038	—	—	0.26	<0.034	<0.033	<0.034	—	<0.038	<0.033	—	<0.033	<0.17
86-74-8	Carbazole	120	mg/kg	mg/kg	<0.039	<0.21	<0.43	<0.041	<0.86	<0.21	—	—	<0.21	<0.046	—	—	<0.046	0.05	<0.040	<0.041	—	<0.047	<0.040	—	<0.041	<0.21
218-01-9	Chrysene	310	mg/kg	mg/kg	<0.030	<0.16	0.54	<0.031	<0.64	0.58	—	—	<0.16	<0.035	—	—	0.17	4.7	<0.031	<0.032	—	<0.036	<0.031	—	<0.031	<0.16
	Cresols, Total	#N/A	mg/kg	mg/kg	<0.157	<0.818	<1.68	<0.165	<3.40	<0.811	—	—	<0.811	<0.189	—	—	<0.188	<0.164	<0.163	<0.166	—	<0.190	<0.162	—	<0.162	<0.834
53-70-3	Dibenzo(a,h)anthracene	0.31	mg/kg	mg/kg	<0.077	<0.39	<0.81	<0.080	<1.6	<0.39	—	—	<0.39	<0.092	—	—	<0.091	0.27	<0.080	<0.081	—	<0.092	<0.079	—	<0.079	<0.40

US EPA ARCHIVE DOCUMENT

Table 2-2: Soil Analytical Results (2004 and 2006)
Former Chamberlain Property - Waterloo, Iowa

CAS No	Parameter	Iowa Statewide Soil Standard		Sample ID	SB-1 2'	SB-1 6'	SB-2 2'	SB-2 4'	SB-3 2'	SB-3 6'	SB-4 2'	SB-4 10'	SB-5 2'	SB-5 8'	SB-6 2'	SB-6 4'	SB-6 10'	SB-7 2'	SB-7 8'	SB-8 2'	SB-9 2'	SB-10 14'	SB-10 2'	SB-11 2'	SB-12 2'	SB-13 2'
		Value	Unit	Date Sampled	9/9/2004	9/9/2004	9/9/2004	9/9/2004	9/9/2004	9/9/2004	9/8/2004	9/8/2004	9/9/2004	9/9/2004	9/8/2004	9/8/2004	9/8/2004	9/7/2004	9/7/2004	8/30/2004	8/31/2004	9/14/2004	9/14/2004	8/31/2004	8/30/2004	8/31/2004
				Units																						
132-64-9	Dibenzofuran	76	mg/kg	mg/kg	<0.047	<0.25	<0.52	<0.049	<1.0	<0.25	---	---	<0.25	0.09	---	---	2.23	<0.049	<0.049	<0.049	---	<0.057	<0.049	---	<0.049	<0.25
84-66-2	Diethyl phthalate	49000	mg/kg	mg/kg	<0.047	<0.25	<0.52	<0.049	<1.0	<0.25	---	---	<0.25	<0.056	---	---	<0.056	<0.049	<0.049	<0.049	---	<0.057	<0.049	---	<0.049	<0.25
131-11-3	Dimethyl phthalate	#N/A	mg/kg	mg/kg	<0.042	<0.22	<0.45	<0.044	<0.90	<0.22	---	---	<0.22	<0.050	---	---	<0.050	<0.044	<0.043	<0.044	---	<0.050	<0.044	---	<0.044	<0.22
84-74-2	Di-n-butylphthalate	6100	mg/kg	mg/kg	<0.043	<0.23	<0.48	<0.045	1.3	<0.23	---	---	<0.23	<0.051	---	---	0.08	<0.045	<0.044	<0.045	---	<0.052	<0.045	---	<0.045	<0.23
117-84-0	Di-n-octylphthalate	1200	mg/kg	mg/kg	<0.059	<0.31	<0.64	<0.063	<1.3	<0.30	---	---	<0.31	<0.072	---	---	<0.071	<0.062	<0.062	<0.063	---	<0.072	<0.061	---	<0.061	<0.32
206-44-0	Fluoranthene	2300	mg/kg	mg/kg	<0.036	<0.19	1.3	<0.038	<0.77	1	---	---	<0.19	<0.043	---	---	0.51	11.8	0.05	<0.038	---	<0.043	<0.037	---	<0.037	<0.19
86-73-7	Fluorene	2300	mg/kg	mg/kg	<0.052	<0.27	<0.55	<0.055	<1.1	<0.26	---	---	<0.27	<0.064	---	---	0.96	0.21	<0.055	<0.056	---	<0.064	<0.054	---	<0.054	<0.27
87-68-3	Hexachloro-1,3-butadiene	40	mg/kg	mg/kg	<0.067	<0.35	<0.72	<0.070	<1.4	<0.35	---	---	<0.35	<0.081	---	---	<0.080	<0.069	<0.069	<0.070	---	<0.081	<0.069	---	<0.069	<0.36
118-74-1	Hexachlorobenzene	1.5	mg/kg	mg/kg	<0.029	<0.14	<0.30	<0.030	<0.60	<0.15	---	---	<0.15	<0.034	---	---	<0.034	<0.030	<0.030	<0.030	---	<0.034	<0.030	---	<0.030	<0.15
77-47-4	Hexachlorocyclopentadiene	460	mg/kg	mg/kg	<0.057	<0.30	<0.62	<0.060	<1.2	<0.29	---	---	<0.30	<0.070	---	---	<0.069	<0.060	<0.060	<0.061	---	<0.070	<0.059	---	<0.059	<0.31
67-72-1	Hexachloroethane	77	mg/kg	mg/kg	<0.082	<0.42	<0.87	<0.085	<1.7	<0.42	---	---	<0.43	<0.098	---	---	<0.097	<0.085	<0.085	<0.086	---	<0.098	<0.084	---	<0.084	<0.43
193-39-5	Indeno(1,2,3-cd)pyrene	3.1	mg/kg	mg/kg	<0.031	<0.17	<0.35	<0.032	<0.69	0.4	---	---	<0.17	<0.037	---	---	<0.037	2.99	<0.032	<0.033	---	<0.037	<0.032	---	<0.032	<0.17
78-59-1	Isophorone	2600	mg/kg	mg/kg	<0.058	<0.31	<0.64	<0.061	1.3	<0.30	---	---	<0.31	<0.071	---	---	<0.070	<0.061	<0.061	<0.062	---	<0.071	<0.060	---	<0.060	<0.32
91-20-3	Naphthalene	1100	mg/kg	mg/kg	<0.073	<0.37	<0.77	<0.076	<1.5	<0.37	---	---	<0.37	<0.088	---	---	3.81	<0.075	<0.075	<0.077	<5.2	<0.088	<0.075	<5.5	<0.075	<0.38
98-95-3	Nitrobenzene	No std	mg/kg	mg/kg	<0.076	<0.39	<0.81	<0.079	<1.6	<0.39	---	---	<0.39	<0.090	---	---	<0.090	<0.079	<0.079	<0.080	---	<0.091	<0.078	---	<0.078	<0.40
62-75-9	N-Nitrosodimethylamine	0.048	mg/kg	mg/kg	<0.111	<0.575	<1.19	<0.116	<2.38	<0.570	---	---	<0.569	<0.133	---	---	<0.132	<0.115	<0.115	<0.117	---	<0.134	<0.114	---	<0.114	<0.586
621-64-7	N-Nitrosodi-n-propylamine	#N/A	mg/kg	mg/kg	<0.083	<0.43	<0.90	<0.086	<1.9	<0.43	---	---	<0.44	<0.099	---	---	<0.099	<0.086	<0.086	<0.087	---	<0.10	<0.085	---	<0.085	<0.44
86-30-6	N-Nitrosodiphenylamine	500	mg/kg	mg/kg	<0.034	<0.18	<0.37	<0.035	<0.73	<0.18	---	---	<0.18	<0.040	---	---	0.26	<0.036	<0.035	<0.036	---	<0.041	<0.035	---	<0.035	<0.18
87-86-5	Pentachlorophenol	4.5	mg/kg	mg/kg	<0.077	<0.39	<0.81	<0.080	<1.6	<0.39	---	---	<0.39	<0.092	---	---	<0.091	<0.080	<0.080	<0.081	---	<0.092	<0.079	---	<0.079	<0.40
85-01-8	Phenanthrene	1700	mg/kg	mg/kg	<0.038	<0.20	1	<0.040	<0.82	0.4	---	---	<0.20	<0.045	---	---	1.22	2.22	<0.039	<0.040	---	<0.045	<0.039	---	<0.039	<0.20
108-95-2	Phenol	18000	mg/kg	mg/kg	<0.077	<0.39	<0.81	<0.080	<1.6	<0.39	---	---	<0.39	<0.092	---	---	<0.091	<0.080	<0.080	<0.081	---	<0.092	<0.079	---	<0.079	<0.40
129-00-0	Pyrene	1700	mg/kg	mg/kg	<0.049	<0.26	1.2	<0.052	<1.1	0.89	---	---	<0.26	<0.060	---	---	0.42	8.49	<0.052	<0.053	---	<0.060	<0.052	---	<0.052	<0.26
110-86-1	Pyridine	#N/A	mg/kg	mg/kg	<0.112	<0.580	<1.20	<0.117	<2.41	<0.575	---	---	<0.574	<0.134	---	---	<0.133	<0.116	<0.116	<0.118	---	<0.135	<0.115	---	<0.115	<0.591
Sample ID					SB-1 2'	SB-1 6'	SB-2 2'	SB-2 4'	SB-3 2'	SB-3 6'	SB-4 2'	SB-4 10'	SB-5 2'	SB-5 8'	SB-6 2'	SB-6 4'	SB-6 10'	SB-7 2'	SB-7 8'	SB-8 2'	SB-9 2'	SB-10 14'	SB-10 2'	SB-11 2'	SB-12 2'	SB-13 2'
# of SCOIs exceeding criteria					0	0	0	0	0	1	0	0	0	0	0	1	0	3	0	0	0	0	0	0	0	0

Notes:
1. Iowa standard for mercury (CAS # 7439-97-6) used.
2. Iowa standard for PCBs (CAS# 1336-36-3) used.
3. Shaded values indicate concentrations above Iowa Statewide Soil Standard.

Table 2-2: Soil Analytical Results (2004 and 2006)
Former Chamberlain Property - Waterloo, Iowa

CAS No	Parameter	Iowa Statewide Soil Standard Value	Iowa Statewide Soil Standard Unit	Sample ID / Date Sampled / Units	SB-14 2'	SB-105 2'	SB-15 2'	SB-15 4'	SB-16 2'	SB-16R 2'	SB-18 2'	SB-18 4'	SB-19 2'	SB-19 6'	SB-20 2'	SB-20 6'	SB-21 2'	SB-21 10'	SB-22 2'	SB-22 4'	SB-23 2'	SB-23 6'	SB-24 2'	SB-24 10'	SB-25 2'	SB-25 4'	SB-26 2'
				Date Sampled	8/30/2004	9/14/2004	9/14/2004	9/14/2004	8/30/2004	8/30/2004	9/3/2004	9/3/2004	9/3/2004	9/3/2004	9/3/2004	9/3/2004	9/7/2004	9/7/2004	9/7/2004	9/7/2004	9/7/2004	9/7/2004	9/7/2004	9/7/2004	9/10/2004	9/10/2004	9/3/2004
		Value	Unit	Units																							
INORGANIC PARAMETERS																											
7440-38-2	Arsenic	17	mg/kg	mg/kg	0.97	2.00	1.80	1.40	0.80	0.84	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7440-39-3	Barium	15000	mg/kg	mg/kg	32	33	32	27	25	26	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7440-43-9	Cadmium	70	mg/kg	mg/kg	0.93	1	1	0.3	<0.25	<0.25	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7440-47-3	Chromium	190	mg/kg	mg/kg	4.9	8.6	10	4.9	3.5	3.7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7439-92-1	Lead	400	mg/kg	mg/kg	8.7	8.5	9.1	6.9	<5.1	<5.1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7487-94-7	Mercury[1]	23	mg/kg	mg/kg	0.00723	0.0088	0.009	0.0068	0.00416	0.00351	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7782-49-2	Selenium	390	mg/kg	mg/kg	<7.9	<7.8	<7.8	<7.7	<7.7	<7.7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7440-22-4	Silver	370	mg/kg	mg/kg	<0.60	<0.59	<0.59	<0.59	<0.59	<0.59	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
57-12-5	Cyanide	46	mg/kg		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
POLYCHLORINATED BIPHENYLS																											
11097-69-1	PCB-1016	#N/A	mg/kg	mg/kg	<0.26	<0.26	<0.26	---	<0.26	<0.26	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<2.6
11097-69-1	PCB-1221	#N/A	mg/kg	mg/kg	<0.26	<0.26	<0.26	---	<0.26	<0.26	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<2.6
11097-69-1	PCB-1232	#N/A	mg/kg	mg/kg	<0.26	<0.26	<0.26	---	<0.26	<0.26	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<2.6
11097-69-1	PCB-1242	#N/A	mg/kg	mg/kg	<0.26	<0.26	<0.26	---	<0.26	<0.26	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<2.6
11097-69-1	PCB-1248	#N/A	mg/kg	mg/kg	<0.26	<0.26	<0.26	---	<0.26	<0.26	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<2.6
11097-69-1	PCB-1254[2]	1.1	mg/kg	mg/kg	<0.26	<0.26	<0.26	---	<0.26	<0.26	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<2.6
11097-69-1	PCB-1260	#N/A	mg/kg	mg/kg	<0.26	<0.26	<0.26	---	<0.26	<0.26	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<2.6
11097-69-1	PCB-1268	#N/A	mg/kg	mg/kg	<0.26	<0.26	<0.26	---	<0.26	<0.26	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<2.6
VOLATILE ORGANIC COMPOUNDS																											
630-20-6	1,1,1,2-Tetrachloroethane	2.3E+05	µg/kg	µg/kg	---	<1.87	<1.87	<1.85	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
71-55-6	1,1,1-Trichloroethane	1.5E+08	µg/kg	µg/kg	---	47.3	40.4	46.9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
79-34-5	1,1,2,2-Tetrachloroethane	1.5E+04	µg/kg	µg/kg	---	<1.1	<1.1	<1.1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
79-00-5	1,1,2-Trichloroethane	5.4E+04	µg/kg	µg/kg	---	<1.2	<1.2	<1.2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
75-34-3	1,1-Dichloroethane	1.5E+06	µg/kg	µg/kg	---	0.85	0.84	<0.82	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
75-35-4	1,1-Dichloroethene	3.8E+05	µg/kg	µg/kg	---	<0.348	<0.348	<0.345	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
563-58-6	1,1-Dichloropropene	#N/A	µg/kg	µg/kg	---	<0.88	<0.88	<0.87	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
87-61-6	1,2,3-Trichlorobenzene	#N/A	µg/kg	µg/kg	---	<5.2	<5.2	<5.1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
96-18-4	1,2,3-Trichloropropane	1.0E+02	µg/kg	µg/kg	---	<0.93	<0.93	<0.93	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
120-82-1	1,2,4-Trichlorobenzene	7.6E+05	µg/kg	µg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
95-63-6	1,2,4-Trimethylbenzene	3.8E+06	µg/kg	µg/kg	---	<5.2	<5.2	<5.1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
96-12-8	1,2-Dibromo-3-chloropropane	2.6E+03	µg/kg	µg/kg	---	<10	<10	<10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
106-93-4	1,2-Dibromoethane (EDB)	1.5E+03	µg/kg	µg/kg	---	<3.06	<3.06	<3.04	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
95-50-1	1,2-Dichlorobenzene	5.5E+06	µg/kg	µg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
107-06-2	1,2-Dichloroethane	3.4E+04	µg/kg	µg/kg	---	<1.1	<1.1	<1.1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
78-87-5	1,2-Dichloropropane	5.3E+04	µg/kg	µg/kg	---	<0.45	<0.45	<0.44	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
108-67-8	1,3,5-Trimethylbenzene	7.6E+05	µg/kg	µg/kg	---	<5.2	<5.2	<5.1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
541-73-1	1,3-Dichlorobenzene	6.8E+06	µg/kg	µg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
142-28-9	1,3-Dichloropropane	#N/A	µg/kg	µg/kg	---	<0.88	<0.88	<0.87	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
106-46-7	1,4-Dichlorobenzene	7.6E+05	µg/kg	µg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
594-20-7	2,2-Dichloropropane	#N/A	µg/kg	µg/kg	---	<0.37	<0.37	<0.37	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
95-49-8	2-Chlorotoluene	1.5E+06	µg/kg	µg/kg	---	<0.68	<0.67	<0.67	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
591-78-6	2-Hexanone	#N/A	µg/kg	µg/kg	---	<0.57	<0.57	<0.57	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
106-43-4	4-Chlorotoluene	1.5E+06	µg/kg	µg/kg	---	<0.57	<0.57	<0.57	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
67-64-1	Acetone	6.8E+07	µg/kg	µg/kg	---	19.9	19.5	25	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
107-13-1	Acrylonitrile	5.7E+03	µg/kg	µg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
71-43-2	Benzene	5.6E+04	µg/kg	µg/kg	---	<0.57	<0.57	<0.57	---	---	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.5	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
108-86-1	Bromobenzene	#N/A	µg/kg	µg/kg	---	<0.73	<0.73	<0.72	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
74-97-5	Bromochloromethane	7.6E+05	µg/kg	µg/kg	---	<0.99	<0.99	<0.98	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
75-27-4	Bromodichloromethane	5.0E+04	µg/kg	µg/kg	---	<2.34	<2.34	<2.32	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
75-25-2	Bromoform	3.9E+05	µg/kg	µg/kg	---	<3.48	<3.48	<3.45	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
74-83-9	Bromomethane	1.1E+05	µg/kg	µg/kg	---	<5.09	<5.09	<5.04	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
75-15-0	Carbon disulfide	7.6E+06	µg/kg	µg/kg	---	<6.2	<6.2	<6.2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
56-23-5	Carbon Tetrachloride	4.4E+04	µg/kg	µg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
108-90-7	Chlorobenzene	1.5E+06	µg/kg	µg/kg	---	<0.441	<0.441	<0.437	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
124-48-1	Chlorodibromomethane	1.5E+05	µg/kg	µg/kg	---	<1.45	<1.45	<1.44	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
75-00-3	Chloroethane	3.0E+07	µg/kg	µg/kg	---	<0.73	<0.73	<0.72	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
67-66-3	Chloroform	No std	µg/kg	µg/kg	---	1.72	1.47	1.72	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
74-87-3	Chloromethane	No std	µg/kg	µg/kg	---	<0.5	<0.5	<0.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
156-59-2	cis-1,2-Dichloroethene	1.5E+05	µg/kg	µg/kg	---	5.06	4.83	5.73	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10061-01-5	cis-1,3-Dichloropropene	#N/A	µg/kg	µg/kg	---	<0.83	<0.83	<0.82	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
74-95-3	Dibromomethane	7.6E+05	µg/kg	µg/kg	---	<0.78	<0.78	<0.77	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
75-71-8	Dichlorodifluoromethane	1.5E+07	µg/kg	µg/kg	---	<0.99	<0.99	<0.98	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
100-41-4	Ethylbenzene	7.6E+06	µg/kg	µg/kg	---	<0.57	<0.57	<0.57	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	2.2	<0.5	<0.5	<0.5	<0.5	<0.5
87-68-3	Hexachlorobutadiene	4.0E+04	µg/kg	µg/kg	---	<3.01	<3.01	<2.98	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
110-54-3	Hexane	4.6E+06	µg/kg	µg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

US EPA ARCHIVE DOCUMENT

Table 2-2: Soil Analytical Results (2004 and 2006)
Former Chamberlain Property - Waterloo, Iowa

CAS No	Parameter	Iowa Statewide Soil Standard		Sample ID	SB-14 2'	SB-105 2'	SB-15 2'	SB-15 4'	SB-16 2'	SB-16R 2'	SB-18 2'	SB-18 4'	SB-19 2'	SB-19 6'	SB-20 2'	SB-20 6'	SB-21 2'	SB-21 10'	SB-22 2'	SB-22 4'	SB-23 2'	SB-23 6'	SB-24 2'	SB-24 10'	SB-25 2'	SB-25 4'	SB-26 2'
				Date Sampled	8/30/2004	9/14/2004	9/14/2004	9/14/2004	8/30/2004	8/30/2004	9/3/2004	9/3/2004	9/3/2004	9/3/2004	9/3/2004	9/3/2004	9/7/2004	9/7/2004	9/7/2004	9/7/2004	9/7/2004	9/7/2004	9/7/2004	9/7/2004	9/10/2004	9/10/2004	9/3/2004
		Value	Unit	Units																							
98-82-8	Isopropylbenzene	7.6E+06	µg/kg	µg/kg	---	<0.37	<0.37	<0.37	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
78-93-3	Methyl ethyl ketone (MEK)	4.6E+07	µg/kg	µg/kg	---	<0.88	<0.88	<0.87	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
108-10-1	Methyl isobutyl ketone	6.1E+06	µg/kg	µg/kg	---	<0.73	<0.73	<0.72	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1634-04-4	Methyl tert-Butyl Ether	2.3E+06	µg/kg	µg/kg	---	<4.93	<4.93	<4.89	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
75-09-2	Methylene chloride	1.5E+06	µg/kg	µg/kg	---	<52	<52	<51	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
104-51-8	n-Butylbenzene	3.8E+06	µg/kg	µg/kg	---	<5.2	<5.2	<5.1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
103-65-1	n-Propylbenzene	7.6E+06	µg/kg	µg/kg	---	<5.2	<5.2	<5.1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
99-87-6	p-Isopropyltoluene	#N/A	µg/kg	µg/kg	---	<0.5	<0.5	<0.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
135-9-88	sec-Butylbenzene	#N/A	µg/kg	µg/kg	---	<5.2	<5.2	<5.1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
100-42-5	Styrene	1.5E+07	µg/kg	µg/kg	---	<0.39	<0.39	<0.39	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
98-06-6	tert-Butylbenzene	#N/A	µg/kg	µg/kg	---	<5.2	<5.2	<5.1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
127-18-4	Tetrachloroethene	1.5E+06	µg/kg	µg/kg	---	20	16.1	33.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
108-88-3	Toluene	6.1E+06	µg/kg	µg/kg	---	<0.73	0.78	<0.72	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
156-60-5	trans-1,2-Dichloroethene	1.5E+06	µg/kg	µg/kg	---	<0.78	<0.78	<0.77	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10061-02-6	trans-1,3-Dichloropropene	#N/A	µg/kg	µg/kg	---	<0.78	<0.78	<0.77	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
79-01-6	Trichloroethylene	6.7E+04	µg/kg	µg/kg	---	179	162	224	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
75-69-4	Trichlorofluoromethane	2.3E+07	µg/kg	µg/kg	---	0.46	0.5	0.74	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
75-01-4	Vinyl Chloride	2.1E+03	µg/kg	µg/kg	---	<0.78	<0.78	<0.77	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1330-20-7	Xylenes, Total	1.5E+07	µg/kg	µg/kg	---	<5.2	<5.2	<5.1	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	7.7	<0.5	<0.5	0.59	<0.5	<0.5
SEMI-VOLATILE ORGANIC COMPOUNDS																											
120-82-1	1,2,4-Trichlorobenzene	760	mg/kg	mg/kg	<0.076	<0.37	<0.37	<0.075	<0.074	<0.074	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.084	---	---
95-50-1	1,2-Dichlorobenzene	5500	mg/kg	mg/kg	<0.108	<0.530	<0.535	<0.106	<0.105	<0.105	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.119	---	---
541-73-1	1,3-Dichlorobenzene	6800	mg/kg	mg/kg	<0.096	<0.48	<0.48	<0.095	<0.094	<0.093	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.11	---	---
106-46-7	1,4-Dichlorobenzene	760	mg/kg	mg/kg	<0.089	<0.44	<0.44	<0.087	<0.086	<0.086	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.098	---	---
95-95-4	2,4,5-Trichlorophenol	6100	mg/kg	mg/kg	<0.072	<0.35	<0.35	<0.071	<0.070	<0.070	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.080	---	---
88-06-2	2,4,6-Trichlorophenol	220	mg/kg	mg/kg	<0.056	<0.28	<0.28	<0.056	<0.055	<0.054	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.062	---	---
120-83-2	2,4-Dichlorophenol	180	mg/kg	mg/kg	<0.077	<0.38	<0.38	<0.076	<0.075	<0.075	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.085	---	---
105-67-9	2,4-Dimethylphenol	1200	mg/kg	mg/kg	<0.065	<0.33	<0.33	<0.065	<0.064	<0.064	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.073	---	---
51-28-5	2,4-Dinitrophenol	120	mg/kg	mg/kg	<0.030	<0.15	<0.15	<0.029	<0.029	<0.029	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.032	---	---
121-14-2	2,4-Dinitrotoluene	3.5	mg/kg	mg/kg	<0.050	<0.25	<0.25	<0.048	<0.048	<0.048	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.054	---	---
606-20-2	2,6-Dinitrotoluene	3.6	mg/kg	mg/kg	<0.069	<0.34	<0.34	<0.068	<0.067	<0.067	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.076	---	---
91-58-7	2-Chloronaphthalene	6100	mg/kg	mg/kg	<0.073	<0.36	<0.36	<0.072	<0.071	<0.071	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.081	---	---
95-57-8	2-chlorophenol	310	mg/kg	mg/kg	<0.090	<0.45	<0.45	<0.088	<0.087	<0.087	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.099	---	---
534-52-1	2-Methyl-4,6-dinitrophenol	#N/A	mg/kg	mg/kg	<0.110	<0.540	<0.545	<0.108	<0.107	<0.107	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.121	---	---
91-57-6	2-Methylnaphthalene	230	mg/kg	mg/kg	<0.067	<0.33	<0.33	<0.066	<0.065	<0.065	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.074	---	---
95-48-7	2-Methylphenol	3100	mg/kg	mg/kg	<0.081	<0.41	<0.40	<0.080	<0.079	<0.079	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.090	---	---
88-74-4	2-Nitroaniline	#N/A	mg/kg	mg/kg	<0.073	<0.36	<0.36	<0.072	<0.071	<0.071	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.081	---	---
88-75-5	2-Nitrophenol	#N/A	mg/kg	mg/kg	<0.117	<0.575	<0.581	<0.115	<0.114	<0.114	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.129	---	---
91-94-1	3,3-Dichlorobenzidine	5.4	mg/kg	mg/kg	<0.112	<0.550	<0.555	<0.110	<0.109	<0.109	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.123	---	---
99-09-2	3-Nitroaniline	#N/A	mg/kg	mg/kg	<0.061	<0.31	<0.31	<0.061	<0.060	<0.060	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.068	---	---
101-55-3	4-Bromophenyl phenyl ether	#N/A	mg/kg	mg/kg	<0.051	<0.25	<0.25	<0.049	<0.049	<0.049	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.055	---	---
59-50-7	4-Chloro-3-methylphenol	6100	mg/kg	mg/kg	<0.075	<0.37	<0.37	<0.074	<0.073	<0.073	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.083	---	---
106-47-8	4-Chloroaniline	240	mg/kg	mg/kg	<0.109	<0.535	<0.540	<0.107	<0.106	<0.106	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.120	---	---
7005-72-3	4-Chlorophenylphenyl ether	#N/A	mg/kg	mg/kg	<0.057	<0.29	<0.29	<0.057	<0.056	<0.055	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.063	---	---
106-44-5	4-Methylphenol	6100	mg/kg	mg/kg	<0.083	<0.42	<0.42	<0.082	<0.081	<0.081	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.092	---	---
100-01-6	4-Nitroaniline	#N/A	mg/kg	mg/kg	<0.072	<0.35	<0.35	<0.071	<0.070	<0.070	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.080	---	---
100-02-7	4-Nitrophenol	490	mg/kg	mg/kg	<0.069	<0.34	<0.34	<0.068	<0.067	<0.067	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.076	---	---
83-32-9	Acenaphthene	3400	mg/kg	mg/kg	<0.065	<0.33	<0.33	<0.065	<0.064	<0.064	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.073	---	---
208-96-8	Acenaphthylene	1700	mg/kg	mg/kg	<0.061	<0.31	<0.31	<0.061	<0.060	<0.060	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.068	---	---
120-12-7	Anthracene	17000	mg/kg	mg/kg	<0.041	<0.21	<0.21	<0.040	<0.040	<0.040	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.045	---	---
92-87-5	Benzidine	0.011	mg/kg	mg/kg	<0.10	<0.51	<0.51	<0.10	<0.10	<0.10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.11	---	---
56-55-3	Benzo(a)anthracene	3.1	mg/kg	mg/kg	0.1	<0.19	<0.19	<0.036	<0.036	<0.036	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.040	---	---
50-32-8	Benzo(a)pyrene	0.31	mg/kg	mg/kg	0.08	<0.25	<0.25	<0.050	<0.050	<0.050	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.056	---	---
205-99-2	Benzo(b)fluoranthene	3.1	mg/kg	mg/kg	0.08	<0.19	<0.19	<0.038	<0.038	<0.038	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.043	---	---
191-24-2	Benzo(ghi)perylene	170	mg/kg	mg/kg	0.06	<0.21	<0.21	<0.040	<0.040	<0.040	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.045	---	---
207-08-9	Benzo(k)fluoranthene	31	mg/kg	mg/kg	0.08	<0.25	<0.25	<0.050	<0.050	<0.050	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.056	---	---
65-85-0	Benzoic Acid	#N/A	mg/kg	mg/kg	<0.35	<1.7	<1.7	<0.34	<0.34	<0.34	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.38	---	---
100-51-6	Benzyl alcohol	6100	mg/kg	mg/kg	<0.085	<0.42	<0.42	<0.083	<0.082	<0.082	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.093	---	---
85-68-7	Benzyl butyl phthalate	1300	mg/kg	mg/kg	<0.045	<0.23	<0.23	<0.044	<0.044	<0.044	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.050	---	---
111-91-1	Bis(2-chloroethoxy)methane	#N/A	mg/kg	mg/kg	<0.077	<0.38	<0.38	<0.076	<0.075	<0.075	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.085	---	---
111-44-4	Bis(2-chloroethyl)ether	2.8	mg/kg	mg/kg	<0.081	<0.41	<0.40	<0.080	<0.079	<0.079	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.090	---	---
39638-32-9	Bis(2chloroisopropyl)ether	#N/A	mg/kg	mg/kg	<0.090	<0.45	<0.45	<0.088	<0.087	<0.087	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.099	---	---
117-81-7	Bis(2-ethylhexyl)phthalate	170	mg/kg	mg/kg	<0.034	<0.17	<0.17	<0.033	<0.033	<0.033	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.037	---	---
86-74-8	Carbazole	120	mg/kg	mg/kg	<0.041	<0.21	<0.21	<0.040	<0.040	<0.040	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.045	---	---
218-01-9	Chrysene	310	mg/kg	mg/kg	0.13	<0.16	<0.16	<0.031	<0.031	<0.031	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.035	---	---
	Cresols, Total	#N/A	mg/kg	mg/kg	<0.165	<0.812	<0.820	<0.163	<0.160	<0.160	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.182	---	---
53-70-3	Dibenzo(a,h)anthracene	0.31	mg/kg	mg/kg	<0.080	<0.39	<0.39	<0.079	<0.078	<0.078	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.089	---	---

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Table 2-2: Soil Analytical Results (2004 and 2006)
Former Chamberlain Property - Waterloo, Iowa

CAS No	Parameter	Iowa Statewide Soil Standard		Sample ID	SB-14 2'	SB-105 2'	SB-15 2'	SB-15 4'	SB-16 2'	SB-16R 2'	SB-18 2'	SB-18 4'	SB-19 2'	SB-19 6'	SB-20 2'	SB-20 6'	SB-21 2'	SB-21 10'	SB-22 2'	SB-22 4'	SB-23 2'	SB-23 6'	SB-24 2'	SB-24 10'	SB-25 2'	SB-25 4'	SB-26 2'
				Date Sampled	8/30/2004	9/14/2004	9/14/2004	9/14/2004	8/30/2004	8/30/2004	9/3/2004	9/3/2004	9/3/2004	9/3/2004	9/3/2004	9/3/2004	9/7/2004	9/7/2004	9/7/2004	9/7/2004	9/7/2004	9/7/2004	9/7/2004	9/7/2004	9/10/2004	9/10/2004	9/3/2004
		Value	Unit	Units																							
132-64-9	Dibenzofuran	76	mg/kg	mg/kg	<0.050	<0.25	<0.25	<0.048	<0.048	<0.048	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.054	---	---
84-66-2	Diethyl phthalate	49000	mg/kg	mg/kg	<0.050	<0.25	<0.25	<0.048	<0.048	<0.048	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.054	---	---
131-11-3	Dimethyl phthalate	#N/A	mg/kg	mg/kg	<0.044	<0.22	<0.22	<0.043	<0.043	<0.043	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.048	---	---
84-74-2	Di-n-butylphthalate	6100	mg/kg	mg/kg	<0.045	<0.23	<0.23	<0.044	<0.044	<0.044	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.050	---	---
117-84-0	Di-n-octylphthalate	1200	mg/kg	mg/kg	<0.062	<0.31	<0.31	<0.062	<0.061	<0.061	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.069	---	---
206-44-0	Fluoranthene	2300	mg/kg	mg/kg	0.23	<0.19	<0.19	<0.037	<0.037	<0.037	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.041	---	---
86-73-7	Fluorene	2300	mg/kg	mg/kg	<0.055	<0.27	<0.27	<0.055	<0.053	<0.053	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.061	---	---
87-68-3	Hexachloro-1,3-butadiene	40	mg/kg	mg/kg	<0.070	<0.35	<0.35	<0.069	<0.068	<0.068	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.077	---	---
118-74-1	Hexachlorobenzene	1.5	mg/kg	mg/kg	<0.031	<0.15	<0.15	<0.030	<0.030	<0.030	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.033	---	---
77-47-4	Hexachlorocyclopentadiene	460	mg/kg	mg/kg	<0.060	<0.30	<0.30	<0.060	<0.059	<0.059	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.067	---	---
67-72-1	Hexachloroethane	77	mg/kg	mg/kg	<0.086	<0.43	<0.43	<0.084	<0.083	<0.083	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.095	---	---
193-39-5	Indeno(1,2,3-cd)pyrene	3.1	mg/kg	mg/kg	0.06	<0.17	<0.17	<0.032	<0.032	<0.032	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.036	---	---
78-59-1	Isophorone	2600	mg/kg	mg/kg	<0.061	<0.31	<0.31	<0.061	<0.060	<0.060	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.068	---	---
91-20-3	Naphthalene	1100	mg/kg	mg/kg	<0.076	<0.37	<0.37	<0.075	<0.074	<0.074	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.084	---	---
98-95-3	Nitrobenzene	No std	mg/kg	mg/kg	<0.079	<0.39	<0.39	<0.078	<0.077	<0.077	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.088	---	---
62-75-9	N-Nitrosodimethylamine	0.048	mg/kg	mg/kg	<0.116	<0.570	<0.576	<0.114	<0.113	<0.113	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.128	---	---
621-64-7	N-Nitrosodi-n-propylamine	#N/A	mg/kg	mg/kg	<0.087	<0.44	<0.44	<0.085	<0.084	<0.084	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.096	---	---
86-30-6	N-Nitrosodiphenylamine	500	mg/kg	mg/kg	<0.036	<0.18	<0.18	<0.035	<0.035	<0.035	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.039	---	---
87-86-5	Pentachlorophenol	4.5	mg/kg	mg/kg	<0.080	<0.39	<0.39	<0.079	<0.078	<0.078	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.089	---	---
85-01-8	Phenanthrene	1700	mg/kg	mg/kg	0.18	<0.20	<0.20	0.05	<0.039	<0.039	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.044	---	---
108-95-2	Phenol	18000	mg/kg	mg/kg	<0.080	<0.39	<0.39	<0.079	<0.078	<0.078	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.089	---	---
129-00-0	Pyrene	1700	mg/kg	mg/kg	0.2	<0.26	<0.26	<0.051	<0.051	<0.051	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.058	---	---
110-86-1	Pyridine	#N/A	mg/kg	mg/kg	<0.117	<0.575	<0.581	<0.115	<0.114	<0.114	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.129	---	---
Sample ID					SB-14 2'	SB-105 2'	SB-15 2'	SB-15 4'	SB-16 2'	SB-16R 2'	SB-18 2'	SB-18 4'	SB-19 2'	SB-19 6'	SB-20 2'	SB-20 6'	SB-21 2'	SB-21 10'	SB-22 2'	SB-22 4'	SB-23 2'	SB-23 6'	SB-24 2'	SB-24 10'	SB-25 2'	SB-25 4'	SB-26 2'
# of SCOIs exceeding criteria					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Notes:
1. Iowa standard for mercury (CAS # 7439-97-6) used.
2. Iowa standard for PCBs (CAS# 1336-36-3) used.
3. Shaded values indicate concentrations above Iowa Statewide Soil Standard.

Table 2-2: Soil Analytical Results (2004 and 2006)
Former Chamberlain Property - Waterloo, Iowa

CAS No	Parameter	Iowa Statewide Soil Standard		Sample ID	SB-27 2'	SB-28 2'	SB-29 2'	SB-30 14'	SB-30 2'	SB-31 2'	SB-32 2'	SB-33 2'	SB-33 8'	SB-34 2'	SB-34 4'	SB-35 2'	SB-35 6'	SB-36 2'	SB-36 8'	SB-37 2'	SB-37 8'	SB-38 2'	SB-38 22'	SB-39 2'	SB-39 4'	SB-40 14'	SB-40 2'
				Date Sampled	9/3/2004	9/3/2004	9/3/2004	9/2/2004	9/2/2004	9/3/2004	9/15/2004	9/7/2004	9/7/2004	9/2/2004	9/2/2004	9/2/2004	9/2/2004	9/2/2004	9/2/2004	9/2/2004	9/2/2004	8/31/2004	8/31/2004	9/2/2004	9/2/2004	8/30/2004	8/30/2004
		Value	Unit	Units																							
INORGANIC PARAMETERS																											
7440-38-2	Arsenic	17	mg/kg	mg/kg	---	---	---	---	---	---	---	---	---	1.27	1.53	1.89	1.51	---	---	---	---	---	---	3.13	2.41	---	---
7440-39-3	Barium	15000	mg/kg	mg/kg	---	---	---	---	---	---	---	---	---	35	58	26	26	---	---	---	---	---	---	65	94	---	---
7440-43-9	Cadmium	70	mg/kg	mg/kg	---	---	---	---	---	---	---	---	---	<0.25	0.31	<0.25	<0.25	---	---	---	---	---	---	4.2	1.5	---	---
7440-47-3	Chromium	190	mg/kg	mg/kg	---	---	---	---	---	---	---	---	---	5.6	8.8	4.5	5.5	---	---	---	---	---	---	30	14	---	---
7439-92-1	Lead	400	mg/kg	mg/kg	---	---	---	---	---	---	---	---	---	10	27	<5.2	<5.2	---	---	---	---	---	---	34	44	---	---
7487-94-7	Mercury[1]	23	mg/kg	mg/kg	---	---	---	---	---	---	---	---	---	0.00609	0.00898	0.00534	0.00169	---	---	---	---	---	---	0.00433	0.113	---	---
7782-49-2	Selenium	390	mg/kg	mg/kg	---	---	---	---	---	---	---	---	---	<7.8	<7.8	<7.7	<7.8	---	---	---	---	---	---	33	<16	---	---
7440-22-4	Silver	370	mg/kg	mg/kg	---	---	---	---	---	---	---	---	---	<0.59	<0.59	<0.59	<0.59	---	---	---	---	---	---	<2.5	<1.2	---	---
57-12-5	Cyanide	46	mg/kg		---	---	---	---	---	---	---	<0.11	<0.12	<0.11	0.22	<0.11	<0.11	3.4	0.6	<0.12	<0.11	0.29	<0.11	0.43	0.23	<0.13	2.2
POLYCHLORINATED BIPHENYLS																											
11097-69-1	PCB-1016	#N/A	mg/kg	mg/kg	---	---	---	---	---	---	<0.26	---	---	---	---	<0.26	---	---	---	---	---	<0.26	---	---	---	---	---
11097-69-1	PCB-1221	#N/A	mg/kg	mg/kg	---	---	---	---	---	---	<0.26	---	---	---	---	<0.26	---	---	---	---	---	<0.26	---	---	---	---	---
11097-69-1	PCB-1232	#N/A	mg/kg	mg/kg	---	---	---	---	---	---	<0.26	---	---	---	---	<0.26	---	---	---	---	---	<0.26	---	---	---	---	---
11097-69-1	PCB-1242	#N/A	mg/kg	mg/kg	---	---	---	---	---	---	<0.26	---	---	---	---	<0.26	---	---	---	---	---	<0.26	---	---	---	---	---
11097-69-1	PCB-1248	#N/A	mg/kg	mg/kg	---	---	---	---	---	---	<0.26	---	---	---	---	<0.26	---	---	---	---	---	<0.26	---	---	---	---	---
11097-69-1	PCB-1254[2]	1.1	mg/kg	mg/kg	---	---	---	---	---	---	<0.26	---	---	---	---	<0.26	---	---	---	---	---	<0.26	---	---	---	---	---
11097-69-1	PCB-1260	#N/A	mg/kg	mg/kg	---	---	---	---	---	---	<0.26	---	---	---	---	<0.26	---	---	---	---	---	<0.26	---	---	---	---	---
11097-69-1	PCB-1268	#N/A	mg/kg	mg/kg	---	---	---	---	---	---	<0.26	---	---	---	---	<0.26	---	---	---	---	---	<0.26	---	---	---	---	---
VOLATILE ORGANIC COMPOUNDS																											
630-20-6	1,1,1,2-Tetrachloroethane	2.3E+05	µg/kg	µg/kg	---	---	---	---	---	---	---	<1.87	<1.91	<1.88	<1.87	<1.86	<1.87	---	---	---	---	---	<1.87	---	---	---	---
71-55-6	1,1,1-Trichloroethane	1.5E+08	µg/kg	µg/kg	---	---	---	---	---	---	---	<1.09	<1.11	20.2	20.3	18.6	12.4	---	---	---	---	---	1.5	---	---	---	---
79-34-5	1,1,2,2-Tetrachloroethane	1.5E+04	µg/kg	µg/kg	---	---	---	---	---	---	---	<1.1	<1.2	<1.1	<1.1	<1.1	<1.1	---	---	---	---	---	<1.1	---	---	---	---
79-00-5	1,1,2-Trichloroethane	5.4E+04	µg/kg	µg/kg	---	---	---	---	---	---	---	<1.2	<1.3	<1.3	<1.2	<1.2	<1.2	---	---	---	---	---	<1.2	---	---	---	---
75-34-3	1,1-Dichloroethane	1.5E+06	µg/kg	µg/kg	---	---	---	---	---	---	---	<0.83	<0.85	<0.83	<0.83	<0.83	<0.83	---	---	---	---	---	<0.83	---	---	---	---
75-35-4	1,1-Dichloroethene	3.8E+05	µg/kg	µg/kg	---	---	---	---	---	---	---	<0.348	<0.355	<0.349	<0.348	<0.346	<0.348	---	---	---	---	---	<0.348	---	---	---	---
563-58-6	1,1-Dichloropropene	#N/A	µg/kg	µg/kg	---	---	---	---	---	---	---	<0.88	<0.90	<0.89	<0.88	<0.88	<0.88	---	---	---	---	---	<0.88	---	---	---	---
87-61-6	1,2,3-Trichlorobenzene	#N/A	µg/kg	µg/kg	---	---	---	---	---	---	---	<5.2	<5.3	<5.2	<5.2	<5.2	<5.2	---	---	---	---	---	<5.2	---	---	---	---
96-18-4	1,2,3-Trichloropropane	1.0E+02	µg/kg	µg/kg	---	---	---	---	---	---	---	<0.94	<0.95	<0.94	<0.93	<0.93	<0.93	---	---	---	---	---	<0.93	---	---	---	---
120-82-1	1,2,4-Trichlorobenzene	7.6E+05	µg/kg	µg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
95-63-6	1,2,4-Trimethylbenzene	3.8E+06	µg/kg	µg/kg	---	---	---	---	---	---	---	<5.2	<5.3	<5.2	<5.2	<5.2	<5.2	---	---	---	---	---	<5.2	---	---	---	---
96-12-8	1,2-Dibromo-3-chloropropane	2.6E+03	µg/kg	µg/kg	---	---	---	---	---	---	---	<10	<11	<10	<10	<10	<10	---	---	---	---	---	<10	---	---	---	---
106-93-4	1,2-Dibromoethane (EDB)	1.5E+03	µg/kg	µg/kg	---	---	---	---	---	---	---	<3.07	<3.13	<3.08	<3.06	<3.05	<3.06	---	---	---	---	---	<3.06	---	---	---	---
95-50-1	1,2-Dichlorobenzene	5.5E+06	µg/kg	µg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
107-06-2	1,2-Dichloroethane	3.4E+04	µg/kg	µg/kg	---	---	---	---	---	---	---	<1.1	<1.2	<1.1	<1.1	<1.1	<1.1	---	---	---	---	---	<1.1	---	---	---	---
78-87-5	1,2-Dichloropropane	5.3E+04	µg/kg	µg/kg	---	---	---	---	---	---	---	<0.45	<0.46	<0.45	<0.45	<0.44	<0.45	---	---	---	---	---	<0.45	---	---	---	---
108-67-8	1,3,5-Trimethylbenzene	7.6E+05	µg/kg	µg/kg	---	---	---	---	---	---	---	<5.2	<5.3	<5.2	<5.2	<5.2	<5.2	---	---	---	---	---	<5.2	---	---	---	---
541-73-1	1,3-Dichlorobenzene	6.8E+06	µg/kg	µg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
142-28-9	1,3-Dichloropropane	#N/A	µg/kg	µg/kg	---	---	---	---	---	---	---	<0.88	<0.90	<0.89	<0.88	<0.88	<0.88	---	---	---	---	---	<0.88	---	---	---	---
106-46-7	1,4-Dichlorobenzene	7.6E+05	µg/kg	µg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
594-20-7	2,2-Dichloropropane	#N/A	µg/kg	µg/kg	---	---	---	---	---	---	---	<0.37	<0.38	<0.38	<0.37	<0.37	<0.37	---	---	---	---	---	<0.37	---	---	---	---
95-49-8	2-Chlorotoluene	1.5E+06	µg/kg	µg/kg	---	---	---	---	---	---	---	<0.68	<0.69	<0.68	<0.68	<0.67	<0.68	---	---	---	---	---	<0.68	---	---	---	---
591-78-6	2-Hexanone	#N/A	µg/kg	µg/kg	---	---	---	---	---	---	---	<0.57	<0.58	<0.57	<0.57	<0.57	<0.57	---	---	---	---	---	<0.57	---	---	---	---
106-43-4	4-Chlorotoluene	1.5E+06	µg/kg	µg/kg	---	---	---	---	---	---	---	<0.57	<0.58	<0.57	<0.57	<0.57	<0.57	---	---	---	---	---	<0.57	---	---	---	---
67-64-1	Acetone	6.8E+07	µg/kg	µg/kg	---	---	---	---	---	---	---	23.1	15.3	27.2	16.5	14.4	13.7	---	---	---	---	---	8.45	---	---	---	---
107-13-1	Acrylonitrile	5.7E+03	µg/kg	µg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
71-43-2	Benzene	5.6E+04	µg/kg	µg/kg	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	---	<0.57	<0.58	0.98	2.07	0.65	<0.57	---	---	---	---	---	<0.57	---	---	---	---
108-86-1	Bromobenzene	#N/A	µg/kg	µg/kg	---	---	---	---	---	---	---	<0.73	<0.74	<0.73	<0.73	<0.72	<0.73	---	---	---	---	---	<0.73	---	---	---	---
74-97-5	Bromochloromethane	7.6E+05	µg/kg	µg/kg	---	---	---	---	---	---	---	<0.99	<1.0	<0.99	<0.99	<0.98	<0.99	---	---	---	---	---	<0.99	---	---	---	---
75-27-4	Bromodichloromethane	5.0E+04	µg/kg	µg/kg	---	---	---	---	---	---	---	<2.34	<2.38	<2.35	<2.34	<2.32	<2.34	---	---	---	---	---	<2.34	---	---	---	---
75-25-2	Bromoform	3.9E+05	µg/kg	µg/kg	---	---	---	---	---	---	---	<3.48	<3.55	<3.49	<3.48	<3.46	<3.48	---	---	---	---	---	<3.48	---	---	---	---
74-83-9	Bromomethane	1.1E+05	µg/kg	µg/kg	---	---	---	---	---	---	---	<5.09	<5.19	<5.11	<5.09	<5.06	<5.09	---	---	---	---	---	<5.09	---	---	---	---
75-15-0	Carbon disulfide	7.6E+06	µg/kg	µg/kg	---	---	---	---	---	---	---	<6.2	<6.4	<6.3	<6.2	<6.2	<6.2	---	---	---	---	---	<6.2	---	---	---	---
56-23-5	Carbon Tetrachloride	4.4E+04	µg/kg	µg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
108-90-7	Chlorobenzene	1.5E+06	µg/kg	µg/kg	---	---	---	---	---	---	---	<0.442	<0.450	<0.443	<0.441	<0.439	<0.441	---	---	---	---	---	<0.441	---	---	---	---
124-48-1	Chlorodibromomethane	1.5E+05	µg/kg	µg/kg	---	---	---	---	---	---	---	<1.45	<1.48	<1.46	<1.45	<1.45	<1.45	---	---	---	---	---	<1.45	---	---	---	---
75-00-3	Chloroethane	3.0E+07	µg/kg	µg/kg	---	---	---	---	---	---	---	<0.73	<0.74	<0.73	<0.73	<0.72	<0.73	---	---	---	---	---	<0.73	---	---	---	---
67-66-3	Chloroform	No std	µg/kg	µg/kg	---	---	---	---	---	---	---	<0.88	<0.90	<0.89	<0.88	<0.88	<0.88	---	---	---	---	---	<0.88	---	---	---	---
74-87-3	Chloromethane	No std	µg/kg	µg/kg	---	---	---	---	---	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---	<0.5	---	---	---	---
156-59-2	cis-1,2-Dichloroethene	1.5E+05	µg/kg	µg/kg	---	---	---	---	---	---	---	<0.99	<1.0	<0.99	<0.99	<0.98	<0.99	---	---	---	---	---	<0.99	---	---	---	---
10061-01-5	cis-1,3-Dichloropropene	#N/A	µg/kg	µg/kg	---	---	---	---	---	---	---	<0.83	<0.85	<0.83	<0.83	<0.83	<0.83	---	---	---	---	---	<0.83	---	---	---	---
74-95-3	Dibromomethane	7.6E+05	µg/kg	µg/kg	---	---	---	---	---	---	---	<0.78	<0.79	<0.78	<0.78	<0.77	<0.78	---	---	---	---	---	<0.78	---	---	---	---
75-71-8	Dichlorodifluoromethane	1.5E+07	µg/kg	µg/kg	---	---	---	---	---	---	---	<0.99	<1.0	<0.99	<0.99	<0.98	<0.99	---	---	---	---	---	<0.99	---	---	---	---
100-41-4	Ethylbenzene	7.6E+06	µg/kg	µg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---	<0.57	<0.58	0.66	1.12	0.66	<0.57	---	---	---	---	---	<0.57	---	---	---	---
87-68-3	Hexachlorobutadiene	4.0E+04	µg/kg	µg/kg	---	---	---	---	---	---	---	<3.01	<3.07	<3.02	<3.01	<2.99	<3.01	---	---	---	---	---	<3.01	---	---	---	---
110-54-3	Hexane	4.6E+06	µg/kg	µg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

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Table 2-2: Soil Analytical Results (2004 and 2006)
Former Chamberlain Property - Waterloo, Iowa

CAS No	Parameter	Iowa Statewide Soil Standard		Sample ID	SB-27 2'	SB-28 2'	SB-29 2'	SB-30 14'	SB-30 2'	SB-31 2'	SB-32 2'	SB-33 2'	SB-33 8'	SB-34 2'	SB-34 4'	SB-35 2'	SB-35 6'	SB-36 2'	SB-36 8'	SB-37 2'	SB-37 8'	SB-38 2'	SB-38 22'	SB-39 2'	SB-39 4'	SB-40 14'	SB-40 2'
				Date Sampled	9/3/2004	9/3/2004	9/3/2004	9/2/2004	9/2/2004	9/3/2004	9/15/2004	9/7/2004	9/7/2004	9/2/2004	9/2/2004	9/2/2004	9/2/2004	9/2/2004	9/2/2004	9/2/2004	9/2/2004	8/31/2004	8/31/2004	9/2/2004	9/2/2004	8/30/2004	8/30/2004
		Value	Unit	Units																							
98-82-8	Isopropylbenzene	7.6E+06	µg/kg	µg/kg	---	---	---	---	---	---	---	<0.37	<0.38	<0.38	<0.37	<0.37	<0.37	---	---	---	---	---	<0.37	---	---	---	---
78-93-3	Methyl ethyl ketone (MEK)	4.6E+07	µg/kg	µg/kg	---	---	---	---	---	---	---	<0.88	<0.90	<0.89	<0.88	<0.88	<0.88	---	---	---	---	---	<0.88	---	---	---	---
108-10-1	Methyl isobutyl ketone	6.1E+06	µg/kg	µg/kg	---	---	---	---	---	---	---	<0.73	<0.74	<0.73	<0.73	<0.72	<0.73	---	---	---	---	---	<0.73	---	---	---	---
1634-04-4	Methyl tert-Butyl Ether	2.3E+06	µg/kg	µg/kg	---	---	---	---	---	---	---	<4.94	<5.03	<4.95	<4.93	<4.90	<4.93	---	---	---	---	---	<4.93	---	---	---	---
75-09-2	Methylene chloride	1.5E+06	µg/kg	µg/kg	---	---	---	---	---	---	---	<52	<53	<52	<52	<52	<52	---	---	---	---	---	<52	---	---	---	---
104-51-8	n-Butylbenzene	3.8E+06	µg/kg	µg/kg	---	---	---	---	---	---	---	<5.2	<5.3	<5.2	<5.2	<5.2	<5.2	---	---	---	---	---	<5.2	---	---	---	---
103-65-1	n-Propylbenzene	7.6E+06	µg/kg	µg/kg	---	---	---	---	---	---	---	<5.2	<5.3	<5.2	<5.2	<5.2	<5.2	---	---	---	---	---	<5.2	---	---	---	---
99-87-6	p-Isopropyltoluene	#N/A	µg/kg	µg/kg	---	---	---	---	---	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---	<0.5	---	---	---	---
135-9-88	sec-Butylbenzene	#N/A	µg/kg	µg/kg	---	---	---	---	---	---	---	<5.2	<5.3	<5.2	<5.2	<5.2	<5.2	---	---	---	---	---	<5.2	---	---	---	---
100-42-5	Styrene	1.5E+07	µg/kg	µg/kg	---	---	---	---	---	---	---	<0.39	<0.40	<0.40	<0.39	<0.39	<0.39	---	---	---	---	---	<0.39	---	---	---	---
98-06-6	tert-Butylbenzene	#N/A	µg/kg	µg/kg	---	---	---	---	---	---	---	<5.2	<5.3	<5.2	<5.2	<5.2	<5.2	---	---	---	---	---	<5.2	---	---	---	---
127-18-4	Tetrachloroethene	1.5E+06	µg/kg	µg/kg	---	---	---	---	---	---	---	<0.68	<0.69	4.33	4.06	7.44	4.16	---	---	---	---	---	6.04	---	---	---	---
108-88-3	Toluene	6.1E+06	µg/kg	µg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---	0.78	1.16	5.71	2.56	3.72	1.52	---	---	---	---	---	<0.73	---	---	---	---
156-60-5	trans-1,2-Dichloroethene	1.5E+06	µg/kg	µg/kg	---	---	---	---	---	---	---	<0.78	<0.79	<0.78	<0.78	<0.77	<0.78	---	---	---	---	---	<0.78	---	---	---	---
10061-02-6	trans-1,3-Dichloropropene	#N/A	µg/kg	µg/kg	---	---	---	---	---	---	---	<0.78	<0.79	<0.78	<0.78	<0.77	<0.78	---	---	---	---	---	<0.78	---	---	---	---
79-01-6	Trichloroethylene	6.7E+04	µg/kg	µg/kg	---	---	---	---	---	---	---	<0.99	<1.0	5.89	7.53	3.27	2	---	---	---	---	---	<0.99	---	---	---	---
75-69-4	Trichlorofluoromethane	2.3E+07	µg/kg	µg/kg	---	---	---	---	---	---	---	<0.46	0.63	<0.46	<0.46	<0.45	<0.46	---	---	---	---	---	<0.46	---	---	---	---
75-01-4	Vinyl Chloride	2.1E+03	µg/kg	µg/kg	---	---	---	---	---	---	---	<0.78	<0.79	<0.78	<0.78	<0.77	<0.78	---	---	---	---	---	<0.78	---	---	---	---
1330-20-7	Xylenes, Total	1.5E+07	µg/kg	µg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---	<5.2	<5.3	<5.2	<5.2	<5.2	<5.2	---	---	---	---	---	<5.2	---	---	---	---
SEMI-VOLATILE ORGANIC COMPOUNDS																											
120-82-1	1,2,4-Trichlorobenzene	760	mg/kg	mg/kg	---	---	---	---	---	---	<0.074	<5.2	<5.3	<5.2	<5.2	<0.074	<0.075	---	---	---	---	<0.077	<0.076	---	---	---	---
95-50-1	1,2-Dichlorobenzene	5500	mg/kg	mg/kg	---	---	---	---	---	---	<0.104	<1.1	<1.2	<1.1	<1.1	<0.104	<0.106	---	---	---	---	<0.108	<0.107	---	---	---	---
541-73-1	1,3-Dichlorobenzene	6800	mg/kg	mg/kg	---	---	---	---	---	---	<0.093	<1.1	<1.2	<1.1	<1.1	<0.093	<0.095	---	---	---	---	<0.097	<0.096	---	---	---	---
106-46-7	1,4-Dichlorobenzene	760	mg/kg	mg/kg	---	---	---	---	---	---	<0.085	<0.68	<0.69	<0.68	<0.68	<0.086	<0.087	---	---	---	---	<0.089	<0.088	---	---	---	---
95-95-4	2,4,5-Trichlorophenol	6100	mg/kg	mg/kg	---	---	---	---	---	---	<0.070	---	---	---	---	<0.070	<0.071	---	---	---	---	<0.073	<0.072	---	---	---	---
88-06-2	2,4,6-Trichlorophenol	220	mg/kg	mg/kg	---	---	---	---	---	---	<0.054	---	---	---	---	<0.055	<0.055	---	---	---	---	<0.057	<0.056	---	---	---	---
120-83-2	2,4-Dichlorophenol	180	mg/kg	mg/kg	---	---	---	---	---	---	<0.075	---	---	---	---	<0.075	<0.076	---	---	---	---	<0.078	<0.077	---	---	---	---
105-67-9	2,4-Dimethylphenol	1200	mg/kg	mg/kg	---	---	---	---	---	---	<0.064	---	---	---	---	<0.064	<0.064	---	---	---	---	<0.066	<0.065	---	---	---	---
51-28-5	2,4-Dinitrophenol	120	mg/kg	mg/kg	---	---	---	---	---	---	<0.028	---	---	---	---	<0.028	<0.029	---	---	---	---	<0.029	<0.029	---	---	---	---
121-14-2	2,4-Dinitrotoluene	3.5	mg/kg	mg/kg	---	---	---	---	---	---	<0.048	---	---	---	---	<0.047	<0.049	---	---	---	---	<0.049	<0.049	---	---	---	---
606-20-2	2,6-Dinitrotoluene	3.6	mg/kg	mg/kg	---	---	---	---	---	---	<0.067	---	---	---	---	<0.067	<0.068	---	---	---	---	<0.069	<0.069	---	---	---	---
91-58-7	2-Chloronaphthalene	6100	mg/kg	mg/kg	---	---	---	---	---	---	<0.071	---	---	---	---	<0.071	<0.072	---	---	---	---	<0.074	<0.073	---	---	---	---
95-57-8	2-chlorophenol	310	mg/kg	mg/kg	---	---	---	---	---	---	<0.087	---	---	---	---	<0.087	<0.088	---	---	---	---	<0.091	<0.089	---	---	---	---
534-52-1	2-Methyl-4,6-dinitrophenol	#N/A	mg/kg	mg/kg	---	---	---	---	---	---	<0.106	---	---	---	---	<0.106	<0.108	---	---	---	---	<0.111	<0.109	---	---	---	---
91-57-6	2-Methylnaphthalene	230	mg/kg	mg/kg	---	---	---	---	---	---	<0.065	---	---	---	---	<0.065	<0.065	---	---	---	---	<0.067	<0.066	---	---	---	---
95-48-7	2-Methylphenol	3100	mg/kg	mg/kg	---	---	---	---	---	---	<0.079	---	---	---	---	<0.078	<0.080	---	---	---	---	<0.082	<0.081	---	---	---	---
88-74-4	2-Nitroaniline	#N/A	mg/kg	mg/kg	---	---	---	---	---	---	<0.071	---	---	---	---	<0.071	<0.072	---	---	---	---	<0.074	<0.073	---	---	---	---
88-75-5	2-Nitrophenol	#N/A	mg/kg	mg/kg	---	---	---	---	---	---	<0.114	---	---	---	---	<0.114	<0.115	---	---	---	---	<0.118	<0.116	---	---	---	---
91-94-1	3,3-Dichlorobenzidine	5.4	mg/kg	mg/kg	---	---	---	---	---	---	<0.108	---	---	---	---	<0.108	<0.110	---	---	---	---	<0.113	<0.111	---	---	---	---
99-09-2	3-Nitroaniline	#N/A	mg/kg	mg/kg	---	---	---	---	---	---	<0.059	---	---	---	---	<0.060	<0.060	---	---	---	---	<0.062	<0.061	---	---	---	---
101-55-3	4-Bromophenyl phenyl ether	#N/A	mg/kg	mg/kg	---	---	---	---	---	---	<0.049	---	---	---	---	<0.049	<0.050	---	---	---	---	<0.051	<0.050	---	---	---	---
59-50-7	4-Chloro-3-methylphenol	6100	mg/kg	mg/kg	---	---	---	---	---	---	<0.073	---	---	---	---	<0.073	<0.074	---	---	---	---	<0.076	<0.075	---	---	---	---
106-47-8	4-Chloroaniline	240	mg/kg	mg/kg	---	---	---	---	---	---	<0.105	---	---	---	---	<0.105	<0.107	---	---	---	---	<0.109	<0.108	---	---	---	---
7005-72-3	4-Chlorophenylphenyl ether	#N/A	mg/kg	mg/kg	---	---	---	---	---	---	<0.055	---	---	---	---	<0.056	<0.056	---	---	---	---	<0.058	<0.057	---	---	---	---
106-44-5	4-Methylphenol	6100	mg/kg	mg/kg	---	---	---	---	---	---	<0.081	---	---	---	---	<0.081	<0.082	---	---	---	---	<0.084	<0.083	---	---	---	---
100-01-6	4-Nitroaniline	#N/A	mg/kg	mg/kg	---	---	---	---	---	---	<0.070	---	---	---	---	<0.070	<0.071	---	---	---	---	<0.073	<0.072	---	---	---	---
100-02-7	4-Nitrophenol	490	mg/kg	mg/kg	---	---	---	---	---	---	<0.067	---	---	---	---	<0.067	<0.068	---	---	---	---	<0.069	<0.069	---	---	---	---
83-32-9	Acenaphthene	3400	mg/kg	mg/kg	---	---	---	---	---	---	<0.064	---	---	---	---	<0.064	<0.064	---	---	---	---	<0.066	<0.065	---	---	---	---
208-96-8	Acenaphthylene	1700	mg/kg	mg/kg	---	---	---	---	---	---	<0.059	---	---	---	---	<0.060	<0.060	---	---	---	---	<0.062	<0.061	---	---	---	---
120-12-7	Anthracene	17000	mg/kg	mg/kg	---	---	---	---	---	---	<0.040	---	---	---	---	<0.039	<0.041	---	---	---	---	<0.041	<0.041	---	---	---	---
92-87-5	Benzidine	0.011	mg/kg	mg/kg	---	---	---	---	---	---	<0.099	---	---	---	---	<0.099	<0.10	---	---	---	---	<0.10	<0.10	---	---	---	---
56-55-3	Benzo(a)anthracene	3.1	mg/kg	mg/kg	---	---	---	---	---	---	<0.035	---	---	---	---	<0.035	0.06	---	---	---	---	0.09	<0.036	---	---	---	---
50-32-8	Benzo(a)pyrene	0.31	mg/kg	mg/kg	---	---	---	---	---	---	<0.050	---	---	---	---	<0.050	<0.051	---	---	---	---	0.08	<0.051	---	---	---	---
205-99-2	Benzo(b)fluoranthene	3.1	mg/kg	mg/kg	---	---	---	---	---	---	<0.038	---	---	---	---	<0.037	0.04	---	---	---	---	0.08	<0.038	---	---	---	---
191-24-2	Benzo(ghi)perylene	170	mg/kg	mg/kg	---	---	---	---	---	---	<0.040	---	---	---	---	<0.039	<0.041	---	---	---	---	0.06	<0.041	---	---	---	---
207-08-9	Benzo(k)fluoranthene	31	mg/kg	mg/kg	---	---	---	---	---	---	<0.050	---	---	---	---	<0.050	<0.051	---	---	---	---	0.08	<0.051	---	---	---	---
65-85-0	Benzoic Acid	#N/A	mg/kg	mg/kg	---	---	---	---	---	---	<0.33	---	---	---	---	<0.33	<0.34	---	---	---	---	<0.35	<0.34	---	---	---	---
100-51-6	Benzyl alcohol	6100	mg/kg	mg/kg	---	---	---	---	---	---	<0.082	---	---	---	---	<0.082	<0.083	---	---	---	---	<0.085	<0.084	---	---	---	---
85-68-7	Benzyl butyl phthalate	1300	mg/kg	mg/kg	---	---	---	---	---	---	<0.044	---	---	---	---	<0.043	<0.045	---	---	---	---	<0.045	<0.045	---	---	---	---
111-91-1	Bis(2-chloroethoxy)methane	#N/A	mg/kg	mg/kg	---	---	---	---	---	---	<0.075	---	---	---	---	<0.075	<0.076	---	---	---	---	<0.078	<0.077	---	---	---	---
111-44-4	Bis(2-chloroethyl)ether	2.8	mg/kg	mg/kg	---	---	---	---	---	---	<0.079	---	---	---	---	<0.078	<0.080	---	---	---	---	<0.082	<0.081	---	---	---	---
39638-32-9	Bis(2chloroisopropyl)ether	#N/A	mg/kg	mg/kg	---	---	---	---	---	---	<0.087	---	---	---	---	<0.087	<0.088	---	---	---	---	<0.091	<0.089	---	---	---	---
117-81-7	Bis(2-ethylhexyl)phthalate	170	mg/kg	mg/kg	---	---	---	---	---	---	<0.032	---	---	---	---	<0.032	<0.033	---	---	---	---	<0.034	<0.033	---	---	---	---
86-74-8	Carbazole	120	mg/kg	mg/kg	---	---	---	---	---	---	<0.040	---	---	---	---	<0.039	<0.041	---	---	---	---	<0.041	<0.041	---	---	---	---
218-01-9	Chrysene	310	mg/kg	mg/kg	---	---	---	---	---	---	<0.030	---	---	---	---	0.04	0.06	---	---	---	---	0.11	<0.031	---	---	---	---
	Cresols, Total	#N/A	mg/kg	mg/kg	---	---	---	---	---	---	<0.159	---	---	---	---	<0.160	<0.162	---	---	---	---	<0.166	<0.164	---	---	---	---
53-70-3	Dibenzo(a,h)anthracene	0.31	mg/kg	mg/kg	---	---	---	---	---	---	<0.078	---	---	---	---	<0.077	<0.079	---	---	---	---	<0.081	<0.080	---	---	---	---

Table 2-2: Soil Analytical Results (2004 and 2006)
Former Chamberlain Property - Waterloo, Iowa

CAS No	Parameter	Iowa Statewide Soil Standard		Sample ID	SB-27 2'	SB-28 2'	SB-29 2'	SB-30 14'	SB-30 2'	SB-31 2'	SB-32 2'	SB-33 2'	SB-33 8'	SB-34 2'	SB-34 4'	SB-35 2'	SB-35 6'	SB-36 2'	SB-36 8'	SB-37 2'	SB-37 8'	SB-38 2'	SB-38 22'	SB-39 2'	SB-39 4'	SB-40 14'	SB-40 2'
				Date Sampled	9/3/2004	9/3/2004	9/3/2004	9/2/2004	9/2/2004	9/3/2004	9/15/2004	9/7/2004	9/7/2004	9/2/2004	9/2/2004	9/2/2004	9/2/2004	9/2/2004	9/2/2004	9/2/2004	9/2/2004	8/31/2004	8/31/2004	9/2/2004	9/2/2004	8/30/2004	8/30/2004
		Value	Unit	Units																							
132-64-9	Dibenzofuran	76	mg/kg	mg/kg	---	---	---	---	---	---	<0.048	---	---	---	---	<0.047	<0.049	---	---	---	---	<0.049	<0.049	---	---	---	---
84-66-2	Diethyl phthalate	49000	mg/kg	mg/kg	---	---	---	---	---	---	<0.048	---	---	---	---	<0.047	<0.049	---	---	---	---	<0.049	<0.049	---	---	---	---
131-11-3	Dimethyl phthalate	#N/A	mg/kg	mg/kg	---	---	---	---	---	---	<0.043	---	---	---	---	<0.042	<0.044	---	---	---	---	<0.044	<0.044	---	---	---	---
84-74-2	Di-n-butylphthalate	6100	mg/kg	mg/kg	---	---	---	---	---	---	<0.044	---	---	---	---	<0.043	<0.045	---	---	---	---	<0.045	<0.045	---	---	---	---
117-84-0	Di-n-octylphthalate	1200	mg/kg	mg/kg	---	---	---	---	---	---	<0.060	---	---	---	---	<0.061	<0.061	---	---	---	---	<0.063	<0.062	---	---	---	---
206-44-0	Fluoranthene	2300	mg/kg	mg/kg	---	---	---	---	---	---	<0.036	---	---	---	---	0.06	0.15	---	---	---	---	0.22	<0.037	---	---	---	---
86-73-7	Fluorene	2300	mg/kg	mg/kg	---	---	---	---	---	---	<0.053	---	---	---	---	<0.054	<0.054	---	---	---	---	<0.056	<0.055	---	---	---	---
87-68-3	Hexachloro-1,3-butadiene	40	mg/kg	mg/kg	---	---	---	---	---	---	<0.068	---	---	---	---	<0.068	<0.069	---	---	---	---	<0.071	<0.070	---	---	---	---
118-74-1	Hexachlorobenzene	1.5	mg/kg	mg/kg	---	---	---	---	---	---	<0.029	---	---	---	---	<0.029	<0.030	---	---	---	---	<0.031	<0.030	---	---	---	---
77-47-4	Hexachlorocyclopentadiene	460	mg/kg	mg/kg	---	---	---	---	---	---	<0.058	---	---	---	---	<0.059	<0.059	---	---	---	---	<0.061	<0.060	---	---	---	---
67-72-1	Hexachloroethane	77	mg/kg	mg/kg	---	---	---	---	---	---	<0.083	---	---	---	---	<0.083	<0.084	---	---	---	---	<0.086	<0.085	---	---	---	---
193-39-5	Indeno(1,2,3-cd)pyrene	3.1	mg/kg	mg/kg	---	---	---	---	---	---	<0.031	---	---	---	---	<0.031	<0.032	---	---	---	---	0.06	<0.032	---	---	---	---
78-59-1	Isophorone	2600	mg/kg	mg/kg	---	---	---	---	---	---	<0.059	---	---	---	---	<0.060	<0.060	---	---	---	---	<0.062	<0.061	---	---	---	---
91-20-3	Naphthalene	1100	mg/kg	mg/kg	---	---	---	---	---	---	<0.074	<5.2	<5.3	<5.2	<5.2	<0.074	<0.075	---	---	---	---	<0.077	<0.076	---	---	---	---
98-95-3	Nitrobenzene	No std	mg/kg	mg/kg	---	---	---	---	---	---	<0.077	---	---	---	---	<0.076	<0.078	---	---	---	---	<0.080	<0.079	---	---	---	---
62-75-9	N-Nitrosodimethylamine	0.048	mg/kg	mg/kg	---	---	---	---	---	---	<0.113	---	---	---	---	<0.113	<0.114	---	---	---	---	<0.117	<0.115	---	---	---	---
621-64-7	N-Nitrosodi-n-propylamine	#N/A	mg/kg	mg/kg	---	---	---	---	---	---	<0.084	---	---	---	---	<0.084	<0.085	---	---	---	---	<0.087	<0.086	---	---	---	---
86-30-6	N-Nitrosodiphenylamine	500	mg/kg	mg/kg	---	---	---	---	---	---	<0.034	---	---	---	---	<0.034	<0.035	---	---	---	---	<0.036	<0.035	---	---	---	---
87-86-5	Pentachlorophenol	4.5	mg/kg	mg/kg	---	---	---	---	---	---	<0.078	---	---	---	---	<0.077	<0.079	---	---	---	---	<0.081	<0.080	---	---	---	---
85-01-8	Phenanthrene	1700	mg/kg	mg/kg	---	---	---	---	---	---	<0.039	---	---	---	---	<0.038	0.07	---	---	---	---	0.12	<0.039	---	---	---	---
108-95-2	Phenol	18000	mg/kg	mg/kg	---	---	---	---	---	---	<0.078	---	---	---	---	<0.077	<0.079	---	---	---	---	<0.081	<0.080	---	---	---	---
129-00-0	Pyrene	1700	mg/kg	mg/kg	---	---	---	---	---	---	<0.050	---	---	---	---	<0.051	0.1	---	---	---	---	0.18	<0.052	---	---	---	---
110-86-1	Pyridine	#N/A	mg/kg	mg/kg	---	---	---	---	---	---	<0.114	---	---	---	---	<0.114	<0.115	---	---	---	---	<0.118	<0.116	---	---	---	---
Sample ID					SB-27 2'	SB-28 2'	SB-29 2'	SB-30 14'	SB-30 2'	SB-31 2'	SB-32 2'	SB-33 2'	SB-33 8'	SB-34 2'	SB-34 4'	SB-35 2'	SB-35 6'	SB-36 2'	SB-36 8'	SB-37 2'	SB-37 8'	SB-38 2'	SB-38 22'	SB-39 2'	SB-39 4'	SB-40 14'	SB-40 2'
# of SCOIs exceeding criteria					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Notes:
1. Iowa standard for mercury (CAS # 7439-97-6) used.
2. Iowa standard for PCBs (CAS# 1336-36-3) used.
3. Shaded values indicate concentrations above Iowa Statewide Soil Standard.

Table 2-2: Soil Analytical Results (2004 and 2006)
Former Chamberlain Property - Waterloo, Iowa

CAS No	Parameter	Iowa Statewide Soil Standard		Sample ID	SB-41 2'	SB-42 2'	SB-43 2'	SB-44 2'	SB-45 2'	SB-45 6'	SB-46 2'	SB-46 4'	SB-47 2'	SB-47 4'	SB-48 2'	SB-48 4'	SB-49 2'	SB-49 6'	SB-50 2'	SB-50 6'	SB-51 2'	SB-52 2'	SB-53 2'	SB-54 2'	SB-54 10'	SB-55 2'
				Date Sampled	9/15/2004	9/10/2004	9/10/2004	9/10/2004	9/13/2004	9/13/2004	9/8/2004	9/8/2004	9/8/2004	9/8/2004	9/8/2004	9/8/2004	9/20/2004	9/20/2004	8/31/2004	8/31/2004	9/1/2004	9/1/2004	9/1/2004	9/8/2004	9/8/2004	9/1/2004
		Value	Unit	Units																						
INORGANIC PARAMETERS																										
7440-38-2	Arsenic	17	mg/kg	mg/kg	1.70	2.23	---	---	---	---	---	---	---	---	---	---	---	---	0.96	0.77	3.80	1.84	1.00	---	---	---
7440-39-3	Barium	15000	mg/kg	mg/kg	57	52	---	---	---	---	---	---	---	---	---	---	---	---	29	32	2420	62	29	---	---	---
7440-43-9	Cadmium	70	mg/kg	mg/kg	2.36	31	---	---	---	---	---	---	---	---	---	---	---	---	<0.25	<0.26	132	11	0.31	---	---	---
7440-47-3	Chromium	190	mg/kg	mg/kg	9	11	---	---	---	---	---	---	---	---	---	---	---	---	4.6	4.1	67	5.6	4.1	---	---	---
7439-92-1	Lead	400	mg/kg	mg/kg	16.8	42	---	---	---	---	---	---	---	---	---	---	---	---	<5.2	<5.3	121	48	<5.2	---	---	---
7487-94-7	Mercury[1]	23	mg/kg	mg/kg	0.026	0.097	---	---	---	---	---	---	---	---	---	---	---	---	0.00686	0.00257	9.8	0.222	0.00691	---	---	---
7782-49-2	Selenium	390	mg/kg	mg/kg	<7.9	<7.9	---	---	---	---	---	---	---	---	---	---	---	---	<7.8	<8.0	<66	<7.6	<7.7	---	---	---
7440-22-4	Silver	370	mg/kg	mg/kg	<0.60	<0.60	---	---	---	---	---	---	---	---	---	---	---	---	<0.59	<0.61	<5.1	<0.58	<0.59	---	---	---
57-12-5	Cyanide	46	mg/kg		---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.11	<0.12	---	---	---	---	---	---
POLYCHLORINATED BIPHENYLS																										
11097-69-1	PCB-1016	#N/A	mg/kg	mg/kg	<0.26	---	---	---	<0.26	---	<0.26	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.27
11097-69-1	PCB-1221	#N/A	mg/kg	mg/kg	<0.26	---	---	---	<0.26	---	<0.26	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.27
11097-69-1	PCB-1232	#N/A	mg/kg	mg/kg	<0.26	---	---	---	<0.26	---	<0.26	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.27
11097-69-1	PCB-1242	#N/A	mg/kg	mg/kg	<0.26	---	---	---	<0.26	---	<0.26	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.27
11097-69-1	PCB-1248	#N/A	mg/kg	mg/kg	<0.26	---	---	---	<0.26	---	<0.26	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.27
11097-69-1	PCB-1254[2]	1.1	mg/kg	mg/kg	<0.26	---	---	---	<0.26	---	<0.26	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.27
11097-69-1	PCB-1260	#N/A	mg/kg	mg/kg	<0.26	---	---	---	<0.26	---	<0.26	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.27
11097-69-1	PCB-1268	#N/A	mg/kg	mg/kg	<0.26	---	---	---	<0.26	---	<0.26	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.27
VOLATILE ORGANIC COMPOUNDS																										
630-20-6	1,1,1,2-Tetrachloroethane	2.3E+05	µg/kg	µg/kg	---	<1.89	---	<1.85	---	---	---	---	<1.87	<1.86	<1.83	<1.87	<1.88	<1.91	<1.88	<1.91	---	<1.82	<1.86	<1.86	<1.85	---
71-55-6	1,1,1-Trichloroethane	1.5E+08	µg/kg	µg/kg	---	26.2	---	<1.08	---	---	---	---	<1.09	<1.09	<1.07	1.14	3.72	10.9	<1.09	<1.12	---	18.8	<1.08	<1.09	<1.08	---
79-34-5	1,1,2,2-Tetrachloroethane	1.5E+04	µg/kg	µg/kg	---	<1.2	---	<1.1	---	---	---	---	<1.1	<1.1	<1.1	<1.1	<1.1	<1.2	<1.1	<1.2	---	<1.1	<1.1	<1.1	<1.1	---
79-00-5	1,1,2-Trichloroethane	5.4E+04	µg/kg	µg/kg	---	<1.3	---	<1.2	---	---	---	---	<1.2	<1.2	<1.2	<1.2	<1.3	<1.3	<1.3	<1.3	---	<1.2	<1.2	<1.2	<1.2	---
75-34-3	1,1-Dichloroethane	1.5E+06	µg/kg	µg/kg	---	<0.84	---	<0.82	---	---	---	---	<0.83	<0.83	<0.81	<0.83	<0.83	<0.85	<0.83	<0.85	---	<0.81	<0.83	<0.83	<0.82	---
75-35-4	1,1-Dichloroethene	3.8E+05	µg/kg	µg/kg	---	<0.352	---	<0.344	---	---	---	---	<0.348	<0.347	<0.341	<0.348	<0.349	<0.355	<0.349	<0.356	---	<0.338	<0.346	<0.346	<0.345	---
563-58-6	1,1-Dichloropropene	#N/A	µg/kg	µg/kg	---	<0.89	---	<0.87	---	---	---	---	<0.88	<0.88	<0.86	<0.88	<0.89	<0.90	<0.89	<0.90	---	<0.86	<0.88	<0.88	<0.88	---
87-61-6	1,2,3-Trichlorobenzene	#N/A	µg/kg	µg/kg	---	<5.3	---	<5.1	---	---	---	---	<5.2	<5.2	<5.1	<5.2	<5.2	<5.3	<5.2	<5.3	---	<5.1	<5.2	<5.2	<5.2	---
96-18-4	1,2,3-Trichloropropane	1.0E+02	µg/kg	µg/kg	---	<0.95	---	<0.92	---	---	---	---	<0.94	<0.93	<0.92	<0.93	<0.94	<0.95	<0.94	<0.96	---	<0.91	<0.93	<0.93	<0.93	---
120-82-1	1,2,4-Trichlorobenzene	7.6E+05	µg/kg	µg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
95-63-6	1,2,4-Trimethylbenzene	3.8E+06	µg/kg	µg/kg	---	<5.3	---	<5.1	---	---	---	---	<5.2	<5.2	<5.1	<5.2	<5.2	<5.3	<5.2	<5.3	---	<5.1	<5.2	<5.2	<5.2	---
96-12-8	1,2-Dibromo-3-chloropropane	2.6E+03	µg/kg	µg/kg	---	<11	---	<10	---	---	---	---	<10	<10	<10	<10	<10	<11	<10	<11	---	<10	<10	<10	<10	---
106-93-4	1,2-Dibromoethane (EDB)	1.5E+03	µg/kg	µg/kg	---	<3.10	---	<3.03	---	---	---	---	<3.07	<3.05	<3.00	<3.06	<3.08	<3.12	<3.08	<3.13	---	<2.98	<3.04	<3.05	<3.04	---
95-50-1	1,2-Dichlorobenzene	5.5E+06	µg/kg	µg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
107-06-2	1,2-Dichloroethane	3.4E+04	µg/kg	µg/kg	---	<1.2	---	<1.1	---	---	---	---	<1.1	<1.1	<1.1	<1.1	<1.1	<1.2	<1.1	<1.2	---	<1.1	<1.1	<1.1	<1.1	---
78-87-5	1,2-Dichloropropane	5.3E+04	µg/kg	µg/kg	---	<0.45	---	<0.44	---	---	---	---	<0.45	<0.44	<0.44	<0.45	<0.45	<0.46	<0.45	<0.46	---	<0.43	1.58	<0.44	<0.44	---
108-67-8	1,3,5-Trimethylbenzene	7.6E+05	µg/kg	µg/kg	---	<5.3	---	<5.1	---	---	---	---	<5.2	<5.2	<5.1	<5.2	<5.2	<5.3	<5.2	<5.3	---	<5.1	<5.2	<5.2	<5.2	---
541-73-1	1,3-Dichlorobenzene	6.8E+06	µg/kg	µg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
142-28-9	1,3-Dichloropropane	#N/A	µg/kg	µg/kg	---	<0.89	---	<0.87	---	---	---	---	<0.88	<0.88	<0.86	<0.88	<0.89	<0.90	<0.89	<0.90	---	<0.86	<0.88	<0.88	<0.88	---
106-46-7	1,4-Dichlorobenzene	7.6E+05	µg/kg	µg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
594-20-7	2,2-Dichloropropane	#N/A	µg/kg	µg/kg	---	<0.38	---	<0.37	---	---	---	---	<0.37	<0.37	<0.37	<0.37	<0.38	<0.38	<0.38	<0.38	---	<0.36	<0.37	<0.37	<0.37	---
95-49-8	2-Chlorotoluene	1.5E+06	µg/kg	µg/kg	---	<0.68	---	<0.67	---	---	---	---	<0.68	<0.67	<0.66	<0.67	<0.68	<0.69	<0.68	<0.69	---	<0.66	<0.67	<0.67	<0.67	---
591-78-6	2-Hexanone	#N/A	µg/kg	µg/kg	---	<0.58	---	<0.57	---	---	---	---	<0.57	<0.57	<0.56	<0.57	<0.57	<0.58	<0.57	<0.58	---	<0.56	<0.57	<0.57	<0.57	---
106-43-4	4-Chlorotoluene	1.5E+06	µg/kg	µg/kg	---	<0.58	---	<0.57	---	---	---	---	<0.57	<0.57	<0.56	<0.57	<0.57	<0.58	<0.57	<0.58	---	<0.56	<0.57	<0.57	<0.57	---
67-64-1	Acetone	6.8E+07	µg/kg	µg/kg	---	37.3	---	26.6	---	---	---	---	38.3	38.3	9.9	29.1	21	67.4	19.2	26.9	---	16.4	21.9	35	14.7	---
107-13-1	Acrylonitrile	5.7E+03	µg/kg	µg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
71-43-2	Benzene	5.6E+04	µg/kg	µg/kg	---	0.84	---	<0.57	---	---	---	---	<0.57	<0.57	0.94	<0.57	0.89	2.58	1.07	0.66	---	0.92	<0.57	0.72	<0.57	---
108-86-1	Bromobenzene	#N/A	µg/kg	µg/kg	---	<0.74	---	<0.72	---	---	---	---	<0.73	<0.72	<0.71	<0.73	<0.73	<0.74	<0.73	<0.74	---	<0.71	<0.72	<0.72	<0.72	---
74-97-5	Bromochloromethane	7.6E+05	µg/kg	µg/kg	---	<1.0	---	<0.98	---	---	---	---	<0.99	<0.98	<0.97	<0.99	<0.99	<1.0	<0.99	<1.0	---	<0.96	<0.98	<0.98	<0.98	---
75-27-4	Bromodichloromethane	5.0E+04	µg/kg	µg/kg	---	<2.37	---	<2.31	---	---	---	---	<2.34	<2.33	<2.29	<2.34	<2.35	<2.38	<2.35	<2.39	---	<2.27	<2.32	<2.33	<2.32	---
75-25-2	Bromoform	3.9E+05	µg/kg	µg/kg	---	<3.52	---	<3.44	---	---	---	---	<3.48	<3.47	<3.41	<3.48	<3.49	<3.55	<3.49	<3.56	---	<3.38	<3.46	<3.46	<3.45	---
74-83-9	Bromomethane	1.1E+05	µg/kg	µg/kg	---	<5.16	---	<5.03	---	---	---	---	<5.09	<5.07	<4.98	<5.09	<5.11	<5.19	<5.11	<5.21	---	<4.95	<5.05	<5.07	<5.05	---
75-15-0	Carbon disulfide	7.6E+06	µg/kg	µg/kg	---	<6.3	---	<6.2	---	---	---	---	<6.2	<6.2	<6.1	<6.2	<6.3	<6.4	<6.3	<6.4	---	<6.1	<6.2	<6.2	<6.2	---
56-23-5	Carbon Tetrachloride	4.4E+04	µg/kg	µg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
108-90-7	Chlorobenzene	1.5E+06	µg/kg	µg/kg	---	<0.447	---	<0.437	---	---	---	---	<0.442	<0.440	<0.432	<0.441	<0.443	<0.450	<0.443	<0.452	---	<0.429	<0.438	<0.439	<0.438	---
124-48-1	Chlorodibromomethane	1.5E+05	µg/kg	µg/kg	---	<1.47	---	<1.44	---	---	---	---	<1.46	<1.45	<1.42	<1.45	<1.46	<1.48	<1.46	<1.49	---	<1.41	<1.44	<1.45	<1.44	---
75-00-3	Chloroethane	3.0E+07	µg/kg	µg/kg	---	<0.74	---	<0.72	---	---	---	---	<0.73	<0.72	<0.71	<0.73	<0.73	<0.74	<0.73	<0.74	---	<0.71	<0.72	<0.72	<0.72	---
67-66-3	Chloroform	No std	µg/kg	µg/kg	---	<0.89	---	<0.87	---	---	---	---	<0.88	<0.88	<0.86	<0.88	<0.89	<0.90	<0.89	<0.90	---	1.57	<0.88	<0.88	<0.88	---
74-87-3	Chloromethane	No std	µg/kg	µg/kg	---	<0.5	---	<0.5	---	---	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---	<0.5	<0.5	<0.5	<0.5	---
156-59-2	cis-1,2-Dichloroethene	1.5E+05	µg/kg	µg/kg	---	<1.0	---	<0.98	---	---	---	---	<0.99	<0.98	<0.97	<0.99	<0.99	<1.0	<0.99	<1.0	---	1.37	<0.98	<0.98	<0.98	---
10061-01-5	cis-1,3-Dichloropropene	#N/A	µg/kg	µg/kg	---	<0.84	---	<0.82	---	---	---	---	<0.83	<0.83	<0.81	<0.83	<0.83	<0.85	<0.83	<0.85	---	<0.81	<0.83	<0.83	<0.82	---
74-95-3	Dibromomethane	7.6E+05	µg/kg	µg/kg	---	<0.79	---	<0.77	---	---	---	---	<0.78	<0.78	<0.76	<0.78	<0.78	<0.79	<0.78	<0.80	---	<0.76	<0.77	<0.78	<0.77	---
75-71-8	Dichlorodifluoromethane	1.5E+07	µg/kg	µg/kg	---	<1.0	---	<0.98	---	---	---	---	<0.99	<0.98	<0.97	<0.99	<0.99	<1.0	<0.99	<1.0	---	<0.96	<0.98	<0.98	<0.98	---
100-41-4	Ethylbenzene	7.6E+06	µg/kg	µg/kg	---	<0.58	---	0.8	---	---	---	---	<0.57	<0.57	0.93	<0.57	0.58	<0.58	0.72	<0.58	---	<0.56	<0.57	<0.57	<0.57	---
87-68-3	Hexachlorobutadiene	4.0E+04	µg/kg	µg/kg	---	<3.05	---	<2.98	---	---	---	---	<3.01	<3.00	<2.95	<3.01	<3.02	<3.07	<3.02	<3.08	---	<2.93	<2.99	<3.00	<2.99	---
110-54-3	Hexane	4.6E+06	µg/kg	µg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Table 2-2: Soil Analytical Results (2004 and 2006)
Former Chamberlain Property - Waterloo, Iowa

CAS No	Parameter	Iowa Statewide Soil Standard		Sample ID	SB-41 2'	SB-42 2'	SB-43 2'	SB-44 2'	SB-45 2'	SB-45 6'	SB-46 2'	SB-46 4'	SB-47 2'	SB-47 4'	SB-48 2'	SB-48 4'	SB-49 2'	SB-49 6'	SB-50 2'	SB-50 6'	SB-51 2'	SB-52 2'	SB-53 2'	SB-54 2'	SB-54 10'	SB-55 2'
				Date Sampled	9/15/2004	9/10/2004	9/10/2004	9/10/2004	9/13/2004	9/13/2004	9/8/2004	9/8/2004	9/8/2004	9/8/2004	9/8/2004	9/8/2004	9/20/2004	9/20/2004	8/31/2004	8/31/2004	9/1/2004	9/1/2004	9/1/2004	9/8/2004	9/8/2004	9/1/2004
		Value	Unit	Units																						
98-82-8	Isopropylbenzene	7.6E+06	µg/kg	µg/kg	---	<0.38	---	<0.37	---	---	---	---	<0.37	<0.37	<0.37	<0.37	<0.38	<0.38	<0.38	<0.38	---	<0.36	<0.37	<0.37	<0.37	---
78-93-3	Methyl ethyl ketone (MEK)	4.6E+07	µg/kg	µg/kg	---	<0.89	---	<0.87	---	---	---	---	<0.88	<0.88	<0.86	<0.88	6.35	8.45	<0.89	<0.90	---	<0.86	<0.88	<0.88	<0.88	---
108-10-1	Methyl isobutyl ketone	6.1E+06	µg/kg	µg/kg	---	<0.74	---	<0.72	---	---	---	---	<0.73	<0.72	<0.71	<0.73	<0.73	<0.74	<0.73	<0.74	---	<0.71	<0.72	<0.72	<0.72	---
1634-04-4	Methyl tert-Butyl Ether	2.3E+06	µg/kg	µg/kg	---	<5.00	---	<4.88	---	---	---	---	<4.94	<4.92	<4.83	<4.93	<4.95	<5.03	<4.95	<5.05	---	<4.80	<4.90	<4.91	<4.89	---
75-09-2	Methylene chloride	1.5E+06	µg/kg	µg/kg	---	<53	---	<51	---	---	---	---	<52	<52	<51	<52	<52	<53	<52	<53	---	<51	<52	<52	<52	---
104-51-8	n-Butylbenzene	3.8E+06	µg/kg	µg/kg	---	<5.3	---	<5.1	---	---	---	---	<5.2	<5.2	<5.1	<5.2	<5.2	<5.3	<5.2	<5.3	---	<5.1	<5.2	<5.2	<5.2	---
103-65-1	n-Propylbenzene	7.6E+06	µg/kg	µg/kg	---	<5.3	---	<5.1	---	---	---	---	<5.2	<5.2	<5.1	<5.2	<5.2	<5.3	<5.2	<5.3	---	<5.1	<5.2	<5.2	<5.2	---
99-87-6	p-Isopropyltoluene	#N/A	µg/kg	µg/kg	---	<0.5	---	<0.5	---	---	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---	<0.5	<0.5	<0.5	<0.5	---
135-9-88	sec-Butylbenzene	#N/A	µg/kg	µg/kg	---	<5.3	---	<5.1	---	---	---	---	<5.2	<5.2	<5.1	<5.2	<5.2	<5.3	<5.2	<5.3	---	<5.1	<5.2	<5.2	<5.2	---
100-42-5	Styrene	1.5E+07	µg/kg	µg/kg	---	<0.40	---	<0.39	---	---	---	---	<0.40	<0.39	<0.39	<0.39	<0.40	<0.40	<0.40	<0.40	---	<0.38	<0.39	<0.39	<0.39	---
98-06-6	tert-Butylbenzene	#N/A	µg/kg	µg/kg	---	<5.3	---	<5.1	---	---	---	---	<5.2	<5.2	<5.1	<5.2	<5.2	<5.3	<5.2	<5.3	---	<5.1	<5.2	<5.2	<5.2	---
127-18-4	Tetrachloroethene	1.5E+06	µg/kg	µg/kg	---	<0.68	---	<0.67	---	---	---	---	<0.68	<0.67	<0.66	0.7	1.32	2.76	<0.68	<0.69	---	1.15	<0.67	<0.67	<0.67	---
108-88-3	Toluene	6.1E+06	µg/kg	µg/kg	---	2.25	---	3.98	---	---	---	---	0.73	<0.72	2.02	1	1.1	1.41	1.52	<0.74	---	5.34	0.84	0.88	<0.72	---
156-60-5	trans-1,2-Dichloroethene	1.5E+06	µg/kg	µg/kg	---	<0.79	---	<0.77	---	---	---	---	<0.78	<0.78	<0.76	<0.78	<0.78	<0.79	<0.78	<0.80	---	<0.76	<0.77	<0.78	<0.77	---
10061-02-6	trans-1,3-Dichloropropene	#N/A	µg/kg	µg/kg	---	<0.79	---	<0.77	---	---	---	---	<0.78	<0.78	<0.76	<0.78	<0.78	<0.79	<0.78	<0.80	---	<0.76	<0.77	<0.78	<0.77	---
79-01-6	Trichloroethylene	6.7E+04	µg/kg	µg/kg	---	48.6	---	1.41	---	---	---	---	1.06	<0.98	36.7	27.9	78	172	1.88	<1.0	---	288	12.8	9.7	<0.98	---
75-69-4	Trichlorofluoromethane	2.3E+07	µg/kg	µg/kg	---	<0.46	---	0.67	---	---	---	---	<0.46	<0.46	<0.45	<0.46	<0.46	<0.47	<0.46	<0.47	---	0.64	0.73	<0.45	<0.45	---
75-01-4	Vinyl Chloride	2.1E+03	µg/kg	µg/kg	---	<0.79	---	<0.77	---	---	---	---	<0.78	<0.78	<0.76	<0.78	<0.78	<0.79	<0.78	<0.80	---	<0.76	<0.77	<0.78	<0.77	---
1330-20-7	Xylenes, Total	1.5E+07	µg/kg	µg/kg	---	<5.3	---	<5.1	---	---	---	---	<5.2	<5.2	<5.1	<5.2	<5.2	<5.3	<5.2	<5.3	---	<5.1	<5.2	<5.2	<5.2	---
SEMI-VOLATILE ORGANIC COMPOUNDS																										
120-82-1	1,2,4-Trichlorobenzene	760	mg/kg	mg/kg	---	<0.38	<0.073	<5.1	---	---	---	---	<5.2	<5.2	<5.1	<5.2	<5.2	<5.3	<0.076	<0.38	<0.40	<5.1	<5.2	<0.36	<0.074	---
95-50-1	1,2-Dichlorobenzene	5500	mg/kg	mg/kg	---	<0.537	<0.104	<1.1	---	---	---	---	<1.1	<1.1	<1.1	<1.1	<1.1	<1.2	<0.107	<0.547	<0.566	<1.1	<1.1	<0.522	<0.104	---
541-73-1	1,3-Dichlorobenzene	6800	mg/kg	mg/kg	---	<0.48	<0.093	<1.1	---	---	---	---	<1.1	<1.1	<1.1	<1.1	<1.1	<1.2	<0.096	<0.49	<0.51	<1.1	<1.1	<0.47	<0.093	---
106-46-7	1,4-Dichlorobenzene	760	mg/kg	mg/kg	---	<0.44	<0.085	<0.67	---	---	---	---	<0.68	<0.67	<0.66	<0.67	<0.68	<0.69	<0.089	<0.45	<0.46	<0.66	<0.67	<0.42	<0.086	---
95-95-4	2,4,5-Trichlorophenol	6100	mg/kg	mg/kg	---	<0.36	<0.069	---	---	---	---	---	---	---	---	---	---	---	<0.072	<0.36	<0.37	---	---	<0.34	<0.070	---
88-06-2	2,4,6-Trichlorophenol	220	mg/kg	mg/kg	---	<0.28	<0.054	---	---	---	---	---	---	---	---	---	---	---	<0.056	<0.29	<0.30	---	---	<0.27	<0.055	---
120-83-2	2,4-Dichlorophenol	180	mg/kg	mg/kg	---	<0.39	<0.074	---	---	---	---	---	---	---	---	---	---	---	<0.077	<0.39	<0.41	---	---	<0.37	<0.075	---
105-67-9	2,4-Dimethylphenol	1200	mg/kg	mg/kg	---	<0.34	<0.063	---	---	---	---	---	---	---	---	---	---	---	<0.066	<0.34	<0.35	---	---	<0.32	<0.064	---
51-28-5	2,4-Dinitrophenol	120	mg/kg	mg/kg	---	<0.15	<0.028	---	---	---	---	---	---	---	---	---	---	---	<0.029	<0.15	<0.15	---	---	<0.14	<0.028	---
121-14-2	2,4-Dinitrotoluene	3.5	mg/kg	mg/kg	---	<0.25	<0.048	---	---	---	---	---	---	---	---	---	---	---	<0.049	<0.26	<0.26	---	---	<0.25	<0.047	---
606-20-2	2,6-Dinitrotoluene	3.6	mg/kg	mg/kg	---	<0.35	<0.066	---	---	---	---	---	---	---	---	---	---	---	<0.069	<0.35	<0.36	---	---	<0.33	<0.067	---
91-58-7	2-Chloronaphthalene	6100	mg/kg	mg/kg	---	<0.37	<0.070	---	---	---	---	---	---	---	---	---	---	---	<0.073	<0.37	<0.38	---	---	<0.35	<0.071	---
95-57-8	2-chlorophenol	310	mg/kg	mg/kg	---	<0.45	<0.087	---	---	---	---	---	---	---	---	---	---	---	<0.090	<0.46	<0.47	---	---	<0.43	<0.087	---
534-52-1	2-Methyl-4,6-dinitrophenol	#N/A	mg/kg	mg/kg	---	<0.547	<0.106	---	---	---	---	---	---	---	---	---	---	---	<0.109	<0.558	<0.577	---	---	<0.531	<0.106	---
91-57-6	2-Methylnaphthalene	230	mg/kg	mg/kg	---	<0.34	<0.064	---	---	---	---	---	---	---	---	---	---	---	<0.067	<0.34	<0.35	---	---	<0.32	<0.065	---
95-48-7	2-Methylphenol	3100	mg/kg	mg/kg	---	<0.41	<0.078	---	---	---	---	---	---	---	---	---	---	---	<0.081	<0.41	<0.43	---	---	<0.39	<0.078	---
88-74-4	2-Nitroaniline	#N/A	mg/kg	mg/kg	---	<0.37	<0.070	---	---	---	---	---	---	---	---	---	---	---	<0.073	<0.37	<0.38	---	---	<0.35	<0.071	---
88-75-5	2-Nitrophenol	#N/A	mg/kg	mg/kg	---	<0.583	<0.113	---	---	---	---	---	---	---	---	---	---	---	<0.117	<0.595	<0.616	---	---	<0.568	<0.113	---
91-94-1	3,3-Dichlorobenzidine	5.4	mg/kg	mg/kg	---	<0.558	<0.108	---	---	---	---	---	---	---	---	---	---	---	<0.112	<0.568	<0.588	---	---	<0.542	<0.108	---
99-09-2	3-Nitroaniline	#N/A	mg/kg	mg/kg	---	<0.32	<0.059	---	---	---	---	---	---	---	---	---	---	---	<0.062	<0.32	<0.33	---	---	<0.30	<0.060	---
101-55-3	4-Bromophenyl phenyl ether	#N/A	mg/kg	mg/kg	---	<0.25	<0.049	---	---	---	---	---	---	---	---	---	---	---	<0.050	<0.26	<0.26	---	---	<0.25	<0.048	---
59-50-7	4-Chloro-3-methylphenol	6100	mg/kg	mg/kg	---	<0.38	<0.072	---	---	---	---	---	---	---	---	---	---	---	<0.075	<0.38	<0.40	---	---	<0.36	<0.073	---
106-47-8	4-Chloroaniline	240	mg/kg	mg/kg	---	<0.542	<0.105	---	---	---	---	---	---	---	---	---	---	---	<0.108	<0.553	<0.572	---	---	<0.527	<0.105	---
7005-72-3	4-Chlorophenylphenyl ether	#N/A	mg/kg	mg/kg	---	<0.29	<0.055	---	---	---	---	---	---	---	---	---	---	---	<0.057	<0.30	<0.31	---	---	<0.28	<0.056	---
106-44-5	4-Methylphenol	6100	mg/kg	mg/kg	---	<0.42	<0.080	---	---	---	---	---	---	---	---	---	---	---	<0.083	<0.43	<0.44	---	---	<0.40	<0.080	---
100-01-6	4-Nitroaniline	#N/A	mg/kg	mg/kg	---	<0.36	<0.069	---	---	---	---	---	---	---	---	---	---	---	<0.072	<0.36	<0.37	---	---	<0.34	<0.070	---
100-02-7	4-Nitrophenol	490	mg/kg	mg/kg	---	<0.35	<0.066	---	---	---	---	---	---	---	---	---	---	---	<0.069	<0.35	<0.36	---	---	<0.33	<0.067	---
83-32-9	Acenaphthene	3400	mg/kg	mg/kg	---	<0.34	<0.063	---	---	---	---	---	---	---	---	---	---	---	<0.066	<0.34	<0.35	---	---	<0.32	<0.064	---
208-96-8	Acenaphthylene	1700	mg/kg	mg/kg	---	<0.32	<0.059	---	---	---	---	---	---	---	---	---	---	---	<0.062	<0.32	<0.33	---	---	<0.30	<0.060	---
120-12-7	Anthracene	17000	mg/kg	mg/kg	---	<0.21	<0.040	---	---	---	---	---	---	---	---	---	---	---	<0.041	<0.21	<0.22	---	---	<0.21	<0.039	---
92-87-5	Benzidine	0.011	mg/kg	mg/kg	---	<0.52	<0.099	---	---	---	---	---	---	---	---	---	---	---	<0.10	<0.52	<0.54	---	---	<0.50	<0.099	---
56-55-3	Benzo(a)anthracene	3.1	mg/kg	mg/kg	---	0.2	<0.036	---	---	---	---	---	---	---	---	---	---	---	0.14	<0.19	<0.20	---	---	<0.19	<0.035	---
50-32-8	Benzo(a)pyrene	0.31	mg/kg	mg/kg	---	<0.25	<0.050	---	---	---	---	---	---	---	---	---	---	---	0.13	<0.26	<0.26	---	---	<0.25	<0.049	---
205-99-2	Benzo(b)fluoranthene	3.1	mg/kg	mg/kg	---	<0.19	<0.038	---	---	---	---	---	---	---	---	---	---	---	0.14	<0.19	<0.20	---	---	<0.19	<0.037	---
191-24-2	Benzo(ghi)perylene	170	mg/kg	mg/kg	---	<0.21	<0.040	---	---	---	---	---	---	---	---	---	---	---	0.09	<0.21	<0.22	---	---	<0.21	<0.039	---
207-08-9	Benzo(k)fluoranthene	31	mg/kg	mg/kg	---	<0.25	<0.050	---	---	---	---	---	---	---	---	---	---	---	0.11	<0.26	<0.26	---	---	<0.25	<0.049	---
65-85-0	Benzoic Acid	#N/A	mg/kg	mg/kg	---	<1.7	<0.34	---	---	---	---	---	---	---	---	---	---	---	<0.34	<1.7	<1.8	---	---	<1.7	<0.33	---
100-51-6	Benzyl alcohol	6100	mg/kg	mg/kg	---	<0.42	<0.081	---	---	---	---	---	---	---	---	---	---	---	<0.084	<0.43	<0.44	---	---	<0.40	<0.081	---
85-68-7	Benzyl butyl phthalate	1300	mg/kg	mg/kg	---	<0.23	<0.044	---	---	---	---	---	---	---	---	---	---	---	<0.045	<0.23	<0.24	---	---	<0.23	<0.043	---
111-91-1	Bis(2-chloroethoxy)methane	#N/A	mg/kg	mg/kg	---	<0.39	<0.074	---	---	---	---	---	---	---	---	---	---	---	<0.077	<0.39	<0.41	---	---	<0.37	<0.075	---
111-44-4	Bis(2-chloroethyl)ether	2.8	mg/kg	mg/kg	---	<0.41	<0.078	---	---	---	---	---	---	---	---	---	---	---	<0.081	<0.41	<0.43	---	---	<0.39	<0.078	---
39638-32-9	Bis(2chloroisopropyl)ether	#N/A	mg/kg	mg/kg	---	<0.45	<0.087	---	---	---	---	---	---	---	---	---	---	---	<0.090	<0.46	<0.47	---	---	<0.43	<0.087	---
117-81-7	Bis(2-ethylhexyl)phthalate	170	mg/kg	mg/kg	---	<0.17	<0.033	---	---	---	---	---	---	---	---	---	---	---	<0.033	<0.17	<0.18	---	---	<0.17	<0.032	---
86-74-8	Carbazole	120	mg/kg	mg/kg	---	<0.21	<0.040	---	---	---	---	---	---	---	---	---	---	---	<0.041	<0.21	<0.22	---	---	<0.21	<0.039	---
218-01-9	Chrysene	310	mg/kg	mg/kg	---	0.2	<0.031	---	---	---	---	---	---	---	---	---	---	---	0.16	<0.16	0.2	---	---	<0.16	<0.030	---
	Cresols, Total	#N/A	mg/kg	mg/kg	---	<0.823	<0.159	---	---	---	---	---	---	---	---	---	---	---	<0.165	<0.839	<0.869	---	---	<0.800	<0.160	---
53-70-3	Dibenzo(a,h)anthracene	0.31	mg/kg	mg/kg	---	<0.40	<0.077	---	---	---	---	---	---	---	---	---	---	---	<0.080	<0.40	<0.42	---	---	<0.38	<0.077	---

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Table 2-2: Soil Analytical Results (2004 and 2006)
Former Chamberlain Property - Waterloo, Iowa

CAS No	Parameter	Iowa Statewide Soil Standard		Sample ID	SB-41 2'	SB-42 2'	SB-43 2'	SB-44 2'	SB-45 2'	SB-45 6'	SB-46 2'	SB-46 4'	SB-47 2'	SB-47 4'	SB-48 2'	SB-48 4'	SB-49 2'	SB-49 6'	SB-50 2'	SB-50 6'	SB-51 2'	SB-52 2'	SB-53 2'	SB-54 2'	SB-54 10'	SB-55 2'
				Date Sampled	9/15/2004	9/10/2004	9/10/2004	9/10/2004	9/13/2004	9/13/2004	9/8/2004	9/8/2004	9/8/2004	9/8/2004	9/8/2004	9/8/2004	9/20/2004	9/20/2004	8/31/2004	8/31/2004	9/1/2004	9/1/2004	9/1/2004	9/8/2004	9/8/2004	9/1/2004
		Value	Unit	Units																						
132-64-9	Dibenzofuran	76	mg/kg	mg/kg	---	<0.25	<0.048	---	---	---	---	---	---	---	---	---	---	---	<0.049	<0.26	<0.26	---	---	<0.25	<0.047	---
84-66-2	Diethyl phthalate	49000	mg/kg	mg/kg	---	<0.25	<0.048	---	---	---	---	---	---	---	---	---	---	---	<0.049	<0.26	<0.26	---	---	<0.25	<0.047	---
131-11-3	Dimethyl phthalate	#N/A	mg/kg	mg/kg	---	<0.22	<0.043	---	---	---	---	---	---	---	---	---	---	---	<0.044	<0.22	<0.23	---	---	<0.22	<0.042	---
84-74-2	Di-n-butylphthalate	6100	mg/kg	mg/kg	---	<0.23	<0.044	---	---	---	---	---	---	---	---	---	---	---	<0.045	<0.23	<0.24	---	---	<0.23	<0.043	---
117-84-0	Di-n-octylphthalate	1200	mg/kg	mg/kg	---	<0.32	<0.060	---	---	---	---	---	---	---	---	---	---	---	<0.063	<0.32	<0.33	---	---	<0.30	<0.061	---
206-44-0	Fluoranthene	2300	mg/kg	mg/kg	---	0.4	<0.037	---	---	---	---	---	---	---	---	---	---	---	0.26	<0.19	0.3	---	---	<0.19	<0.036	---
86-73-7	Fluorene	2300	mg/kg	mg/kg	---	<0.27	<0.053	---	---	---	---	---	---	---	---	---	---	---	<0.055	<0.28	<0.29	---	---	<0.26	<0.054	---
87-68-3	Hexachloro-1,3-butadiene	40	mg/kg	mg/kg	---	<0.36	<0.067	---	---	---	---	---	---	---	---	---	---	---	<0.070	<0.36	<0.37	---	---	<0.34	<0.068	---
118-74-1	Hexachlorobenzene	1.5	mg/kg	mg/kg	---	<0.15	<0.030	---	---	---	---	---	---	---	---	---	---	---	<0.030	<0.15	<0.15	---	---	<0.14	<0.029	---
77-47-4	Hexachlorocyclopentadiene	460	mg/kg	mg/kg	---	<0.31	<0.058	---	---	---	---	---	---	---	---	---	---	---	<0.060	<0.31	<0.32	---	---	<0.29	<0.059	---
67-72-1	Hexachloroethane	77	mg/kg	mg/kg	---	<0.43	<0.082	---	---	---	---	---	---	---	---	---	---	---	<0.086	<0.44	<0.45	---	---	<0.41	<0.082	---
193-39-5	Indeno(1,2,3-cd)pyrene	3.1	mg/kg	mg/kg	---	<0.17	<0.032	---	---	---	---	---	---	---	---	---	---	---	0.09	<0.17	<0.18	---	---	<0.17	<0.031	---
78-59-1	Isophorone	2600	mg/kg	mg/kg	---	<0.32	<0.059	---	---	---	---	---	---	---	---	---	---	---	<0.062	<0.32	<0.33	---	---	<0.30	<0.060	---
91-20-3	Naphthalene	1100	mg/kg	mg/kg	---	<0.38	<0.073	<5.1	---	---	---	---	<5.2	<5.2	<5.1	<5.2	<5.2	<5.3	<0.076	<0.38	<0.40	<5.1	<5.2	<0.36	<0.074	---
98-95-3	Nitrobenzene	No std	mg/kg	mg/kg	---	<0.40	<0.076	---	---	---	---	---	---	---	---	---	---	---	<0.079	<0.40	<0.42	---	---	<0.38	<0.076	---
62-75-9	N-Nitrosodimethylamine	0.048	mg/kg	mg/kg	---	<0.578	<0.112	---	---	---	---	---	---	---	---	---	---	---	<0.116	<0.590	<0.610	---	---	<0.562	<0.112	---
621-64-7	N-Nitrosodi-n-propylamine	#N/A	mg/kg	mg/kg	---	<0.44	<0.083	---	---	---	---	---	---	---	---	---	---	---	<0.087	<0.45	<0.46	---	---	<0.42	<0.083	---
86-30-6	N-Nitrosodiphenylamine	500	mg/kg	mg/kg	---	<0.18	<0.035	---	---	---	---	---	---	---	---	---	---	---	<0.035	<0.18	<0.19	---	---	<0.18	<0.034	---
87-86-5	Pentachlorophenol	4.5	mg/kg	mg/kg	---	<0.40	<0.077	---	---	---	---	---	---	---	---	---	---	---	<0.080	<0.40	<0.42	---	---	<0.38	<0.077	---
85-01-8	Phenanthrene	1700	mg/kg	mg/kg	---	0.4	<0.039	---	---	---	---	---	---	---	---	---	---	---	0.1	<0.20	<0.21	---	---	<0.20	<0.038	---
108-95-2	Phenol	18000	mg/kg	mg/kg	---	<0.40	<0.077	---	---	---	---	---	---	---	---	---	---	---	<0.080	<0.40	<0.42	---	---	<0.38	<0.077	---
129-00-0	Pyrene	1700	mg/kg	mg/kg	---	0.4	<0.051	---	---	---	---	---	---	---	---	---	---	---	0.22	<0.27	0.29	---	---	<0.25	<0.050	---
110-86-1	Pyridine	#N/A	mg/kg	mg/kg	---	<0.583	<0.113	---	---	---	---	---	---	---	---	---	---	---	<0.117	<0.595	<0.616	---	---	<0.568	<0.113	---
Sample ID					SB-41 2'	SB-42 2'	SB-43 2'	SB-44 2'	SB-45 2'	SB-45 6'	SB-46 2'	SB-46 4'	SB-47 2'	SB-47 4'	SB-48 2'	SB-48 4'	SB-49 2'	SB-49 6'	SB-50 2'	SB-50 6'	SB-51 2'	SB-52 2'	SB-53 2'	SB-54 2'	SB-54 10'	SB-55 2'
# of SCOIs exceeding criteria					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0

Notes:
1. Iowa standard for mercury (CAS # 7439-97-6) used.
2. Iowa standard for PCBs (CAS# 1336-36-3) used.
3. Shaded values indicate concentrations above Iowa Statewide Soil Standard.

Table 2-2: Soil Analytical Results (2004 and 2006)
Former Chamberlain Property - Waterloo, Iowa

CAS No	Parameter	Iowa Statewide Soil Standard Value	Iowa Statewide Soil Standard Unit	Sample ID	SB-56 14'	SB-56 2'	SB-57 2'	SB-58 2'	SB-59 2'	SB-60 2'	SB-60 4'	SB-61 2'	SB-62 2'	SB-63 2'	SB-64 10'	SB-65 14'	SB-65 2'	SB-66 2'	SB-67 2'	SB-68 2'	SB-70 2'	SB-70 6'	SB-71 2'	SB-71 6'	SB-86 2'	SB-89 2'
				Date Sampled	9/17/2004	9/16/2004	9/1/2004	9/1/2004	9/1/2004	9/15/2004	9/15/2004	9/1/2004	9/16/2004	9/16/2004	9/17/2004	9/16/2004	9/16/2004	9/1/2004	9/2/2004	9/1/2004	9/15/2004	9/15/2004	9/17/2004	9/20/2004	9/15/2004	9/3/2004
				Units																						
INORGANIC PARAMETERS																										
7440-38-2	Arsenic	17	mg/kg	mg/kg	---	---	2.43	1.85	1.49	---	---	6.55	5.80	2.10	---	---	---	0.88	1.13	---	---	---	---	---	1.10	---
7440-39-3	Barium	15000	mg/kg	mg/kg	---	---	35	39	41	---	---	51	208	33.1	---	---	---	29	16	---	---	---	---	---	30.7	---
7440-43-9	Cadmium	70	mg/kg	mg/kg	---	---	<0.53	0.89	42	---	---	176	13.5	3.96	---	---	---	<0.25	1.9	---	---	---	---	---	0.35	---
7440-47-3	Chromium	190	mg/kg	mg/kg	---	---	9.7	4.3	19	---	---	7.8	13.1	5.01	---	---	---	3.4	6.2	---	---	---	---	---	4.31	---
7439-92-1	Lead	400	mg/kg	mg/kg	---	---	91	19	34	---	---	83	70.3	22.6	---	---	---	10	8.8	---	---	---	---	---	<5.2	---
7487-94-7	Mercury[1]	23	mg/kg	mg/kg	---	---	0.00802	0.01216	0.116	---	---	0.02078	0.0223	0.027	---	---	---	0.00384	0.00312	---	---	---	---	---	0.015	---
7782-49-2	Selenium	390	mg/kg	mg/kg	---	---	<17	<8.0	<8.1	---	---	<24	<17	<7.8	---	---	---	<7.9	<7.8	---	---	---	---	---	<7.8	---
7440-22-4	Silver	370	mg/kg	mg/kg	---	---	<1.2	<0.61	<0.61	---	---	<1.9	<0.66	<0.60	---	---	---	<0.60	<0.60	---	---	---	---	---	<0.59	---
57-12-5	Cyanide	46	mg/kg		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
POLYCHLORINATED BIPHENYLS																										
11097-69-1	PCB-1016	#N/A	mg/kg	mg/kg	---	---	---	<0.27	---	<0.27	---	<0.28	---	---	---	---	---	---	---	---	---	---	---	---	---	---
11097-69-1	PCB-1221	#N/A	mg/kg	mg/kg	---	---	---	<0.27	---	<0.27	---	<0.28	---	---	---	---	---	---	---	---	---	---	---	---	---	---
11097-69-1	PCB-1232	#N/A	mg/kg	mg/kg	---	---	---	<0.27	---	<0.27	---	<0.28	---	---	---	---	---	---	---	---	---	---	---	---	---	---
11097-69-1	PCB-1242	#N/A	mg/kg	mg/kg	---	---	---	<0.27	---	<0.27	---	<0.28	---	---	---	---	---	---	---	---	---	---	---	---	---	---
11097-69-1	PCB-1248	#N/A	mg/kg	mg/kg	---	---	---	<0.27	---	<0.27	---	<0.28	---	---	---	---	---	---	---	---	---	---	---	---	---	---
11097-69-1	PCB-1254[2]	1.1	mg/kg	mg/kg	---	---	---	<0.27	---	<0.27	---	<0.28	---	---	---	---	---	---	---	---	---	---	---	---	---	---
11097-69-1	PCB-1260	#N/A	mg/kg	mg/kg	---	---	---	<0.27	---	<0.27	---	<0.28	---	---	---	---	---	---	---	---	---	---	---	---	---	---
11097-69-1	PCB-1268	#N/A	mg/kg	mg/kg	---	---	---	<0.27	---	<0.27	---	<0.28	---	---	---	---	---	---	---	---	---	---	---	---	---	---
VOLATILE ORGANIC COMPOUNDS																										
630-20-6	1,1,1,2-Tetrachloroethane	2.3E+05	µg/kg	µg/kg	---	---	---	<1.92	---	---	---	---	---	<1.88	---	---	---	<1.89	---	---	---	---	---	---	---	---
71-55-6	1,1,1-Trichloroethane	1.5E+08	µg/kg	µg/kg	---	---	---	1.73	---	---	---	---	---	3.63	---	---	---	1.71	---	---	---	---	---	---	---	---
79-34-5	1,1,2,2-Tetrachloroethane	1.5E+04	µg/kg	µg/kg	---	---	---	<1.2	---	---	---	---	---	<1.1	---	---	---	<1.2	---	---	---	---	---	---	---	---
79-00-5	1,1,2-Trichloroethane	5.4E+04	µg/kg	µg/kg	---	---	---	<1.3	---	---	---	---	---	<1.3	---	---	---	<1.3	---	---	---	---	---	---	---	---
75-34-3	1,1-Dichloroethane	1.5E+06	µg/kg	µg/kg	---	---	---	<0.85	---	---	---	---	---	<0.84	---	---	---	<0.84	---	---	---	---	---	---	---	---
75-35-4	1,1-Dichloroethene	3.8E+05	µg/kg	µg/kg	---	---	---	<0.357	---	---	---	---	---	<0.350	---	---	---	<0.351	---	---	---	---	---	---	---	---
563-58-6	1,1-Dichloropropene	#N/A	µg/kg	µg/kg	---	---	---	<0.90	---	---	---	---	---	<0.89	---	---	---	<0.89	---	---	---	---	---	---	---	---
87-61-6	1,2,3-Trichlorobenzene	#N/A	µg/kg	µg/kg	---	---	---	<5.3	---	---	---	---	---	<5.2	---	---	---	<5.2	---	---	---	---	---	---	---	---
96-18-4	1,2,3-Trichloropropane	1.0E+02	µg/kg	µg/kg	---	---	---	<0.96	---	---	---	---	---	<0.94	---	---	---	<0.94	---	---	---	---	---	---	---	---
120-82-1	1,2,4-Trichlorobenzene	7.6E+05	µg/kg	µg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
95-63-6	1,2,4-Trimethylbenzene	3.8E+06	µg/kg	µg/kg	---	---	---	<5.3	---	---	---	---	---	<5.2	---	---	---	<5.2	---	---	---	---	---	---	---	---
96-12-8	1,2-Dibromo-3-chloropropane	2.6E+03	µg/kg	µg/kg	---	---	---	<11	---	---	---	---	---	<10	---	---	---	<10	---	---	---	---	---	---	---	---
106-93-4	1,2-Dibromoethane (EDB)	1.5E+03	µg/kg	µg/kg	---	---	---	<3.14	---	---	---	---	---	<3.08	---	---	---	<3.09	---	---	---	---	---	---	---	---
95-50-1	1,2-Dichlorobenzene	5.5E+06	µg/kg	µg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
107-06-2	1,2-Dichloroethane	3.4E+04	µg/kg	µg/kg	---	---	---	<1.2	---	---	---	---	---	<1.1	---	---	---	<1.2	---	---	---	---	---	---	---	---
78-87-5	1,2-Dichloropropane	5.3E+04	µg/kg	µg/kg	---	---	---	<0.46	---	---	---	---	---	<0.45	---	---	---	1.9	---	---	---	---	---	---	---	---
108-67-8	1,3,5-Trimethylbenzene	7.6E+05	µg/kg	µg/kg	---	---	---	<5.3	---	---	---	---	---	<5.2	---	---	---	<5.2	---	---	---	---	---	---	---	---
541-73-1	1,3-Dichlorobenzene	6.8E+06	µg/kg	µg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
142-28-9	1,3-Dichloropropane	#N/A	µg/kg	µg/kg	---	---	---	<0.90	---	---	---	---	---	<0.89	---	---	---	<0.89	---	---	---	---	---	---	---	---
106-46-7	1,4-Dichlorobenzene	7.6E+05	µg/kg	µg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
594-20-7	2,2-Dichloropropane	#N/A	µg/kg	µg/kg	---	---	---	<0.38	---	---	---	---	---	<0.38	---	---	---	<0.38	---	---	---	---	---	---	---	---
95-49-8	2-Chlorotoluene	1.5E+06	µg/kg	µg/kg	---	---	---	<0.69	---	---	---	---	---	<0.68	---	---	---	<0.68	---	---	---	---	---	---	---	---
591-78-6	2-Hexanone	#N/A	µg/kg	µg/kg	---	---	---	<0.59	---	---	---	---	---	<0.57	---	---	---	<0.58	---	---	---	---	---	---	---	---
106-43-4	4-Chlorotoluene	1.5E+06	µg/kg	µg/kg	---	---	---	<0.59	---	---	---	---	---	<0.57	---	---	---	<0.58	---	---	---	---	---	---	---	---
67-64-1	Acetone	6.8E+07	µg/kg	µg/kg	---	---	---	23.3	---	---	---	---	---	16.2	---	---	---	23.9	---	---	---	---	---	---	---	---
107-13-1	Acrylonitrile	5.7E+03	µg/kg	µg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
71-43-2	Benzene	5.6E+04	µg/kg	µg/kg	---	---	---	0.77	---	---	---	---	---	1.93	<0.25	<0.25	<0.25	<0.58	---	<0.25	<0.25	<0.25	<0.25	<0.25	---	<0.25
108-86-1	Bromobenzene	#N/A	µg/kg	µg/kg	---	---	---	<0.75	---	---	---	---	---	<0.73	---	---	---	<0.73	---	---	---	---	---	---	---	---
74-97-5	Bromochloromethane	7.6E+05	µg/kg	µg/kg	---	---	---	<1.0	---	---	---	---	---	<0.99	---	---	---	<1.0	---	---	---	---	---	---	---	---
75-27-4	Bromodichloromethane	5.0E+04	µg/kg	µg/kg	---	---	---	<2.39	---	---	---	---	---	<2.35	---	---	---	<2.36	---	---	---	---	---	---	---	---
75-25-2	Bromoform	3.9E+05	µg/kg	µg/kg	---	---	---	<3.57	---	---	---	---	---	<3.50	---	---	---	<3.51	---	---	---	---	---	---	---	---
74-83-9	Bromomethane	1.1E+05	µg/kg	µg/kg	---	---	---	<5.22	---	---	---	---	---	<5.12	---	---	---	<5.14	---	---	---	---	---	---	---	---
75-15-0	Carbon disulfide	7.6E+06	µg/kg	µg/kg	---	---	---	<6.4	---	---	---	---	---	<6.3	---	---	---	<6.3	---	---	---	---	---	---	---	---
56-23-5	Carbon Tetrachloride	4.4E+04	µg/kg	µg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
108-90-7	Chlorobenzene	1.5E+06	µg/kg	µg/kg	---	---	---	<0.452	---	---	---	---	---	<0.444	---	---	---	<0.446	---	---	---	---	---	---	---	---
124-48-1	Chlorodibromomethane	1.5E+05	µg/kg	µg/kg	---	---	---	<1.49	---	---	---	---	---	<1.46	---	---	---	<1.47	---	---	---	---	---	---	---	---
75-00-3	Chloroethane	3.0E+07	µg/kg	µg/kg	---	---	---	<0.75	---	---	---	---	---	<0.73	---	---	---	<0.73	---	---	---	---	---	---	---	---
67-66-3	Chloroform	No std	µg/kg	µg/kg	---	---	---	<0.90	---	---	---	---	---	<0.89	---	---	---	<0.89	---	---	---	---	---	---	---	---
74-87-3	Chloromethane	No std	µg/kg	µg/kg	---	---	---	<0.5	---	---	---	---	---	<0.5	---	---	---	<0.5	---	---	---	---	---	---	---	---
156-59-2	cis-1,2-Dichloroethene	1.5E+05	µg/kg	µg/kg	---	---	---	<1.0	---	---	---	---	---	<0.99	---	---	---	<1.0	---	---	---	---	---	---	---	---
10061-01-5	cis-1,3-Dichloropropene	#N/A	µg/kg	µg/kg	---	---	---	<0.85	---	---	---	---	---	<0.84	---	---	---	<0.84	---	---	---	---	---	---	---	---
74-95-3	Dibromomethane	7.6E+05	µg/kg	µg/kg	---	---	---	<0.80	---	---	---	---	---	<0.78	---	---	---	<0.79	---	---	---	---	---	---	---	---
75-71-8	Dichlorodifluoromethane	1.5E+07	µg/kg	µg/kg	---	---	---	<1.0	---	---	---	---	---	<0.99	---	---	---	<1.0	---	---	---	---	---	---	---	---
100-41-4	Ethylbenzene	7.6E+06	µg/kg	µg/kg	---	---	---	<0.59	---	---	---	---	---	0.63	<0.5	<0.5	<0.5	<0.58	---	<0.5	<0.5	<0.5	<0.5	<0.5	---	<0.5
87-68-3	Hexachlorobutadiene	4.0E+04	µg/kg	µg/kg	---	---	---	<3.09	---	---	---	---	---	<3.03	---	---	---	<3.04	---	---	---	---	---	---	---	---
110-54-3	Hexane	4.6E+06	µg/kg	µg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

US EPA ARCHIVE DOCUMENT

Table 2-2: Soil Analytical Results (2004 and 2006)
Former Chamberlain Property - Waterloo, Iowa

CAS No	Parameter	Iowa Statewide Soil Standard		Sample ID	SB-56 14'	SB-56 2'	SB-57 2'	SB-58 2'	SB-59 2'	SB-60 2'	SB-60 4'	SB-61 2'	SB-62 2'	SB-63 2'	SB-64 10'	SB-65 14'	SB-65 2'	SB-66 2'	SB-67 2'	SB-68 2'	SB-70 2'	SB-70 6'	SB-71 2'	SB-71 6'	SB-86 2'	SB-89 2'
		Value	Unit	Date Sampled	9/17/2004	9/16/2004	9/1/2004	9/1/2004	9/1/2004	9/15/2004	9/15/2004	9/1/2004	9/16/2004	9/16/2004	9/17/2004	9/16/2004	9/16/2004	9/1/2004	9/2/2004	9/1/2004	9/15/2004	9/15/2004	9/17/2004	9/20/2004	9/15/2004	9/3/2004
				Units																						
98-82-8	Isopropylbenzene	7.6E+06	µg/kg	µg/kg	---	---	---	<0.38	---	---	---	---	---	<0.38	---	---	---	<0.38	---	---	---	---	---	---	---	---
78-93-3	Methyl ethyl ketone (MEK)	4.6E+07	µg/kg	µg/kg	---	---	---	<0.90	---	---	---	---	---	<0.89	---	---	---	<0.89	---	---	---	---	---	---	---	---
108-10-1	Methyl isobutyl ketone	6.1E+06	µg/kg	µg/kg	---	---	---	<0.75	---	---	---	---	---	<0.73	---	---	---	<0.73	---	---	---	---	---	---	---	---
1634-04-4	Methyl tert-Butyl Ether	2.3E+06	µg/kg	µg/kg	---	---	---	<5.06	---	---	---	---	---	<4.96	---	---	---	<4.98	---	---	---	---	---	---	---	---
75-09-2	Methylene chloride	1.5E+06	µg/kg	µg/kg	---	---	---	<53	---	---	---	---	---	<52	---	---	---	<52	---	---	---	---	---	---	---	---
104-51-8	n-Butylbenzene	3.8E+06	µg/kg	µg/kg	---	---	---	<5.3	---	---	---	---	---	<5.2	---	---	---	<5.2	---	---	---	---	---	---	---	---
103-65-1	n-Propylbenzene	7.6E+06	µg/kg	µg/kg	---	---	---	<5.3	---	---	---	---	---	<5.2	---	---	---	<5.2	---	---	---	---	---	---	---	---
99-87-6	p-Isopropyltoluene	#N/A	µg/kg	µg/kg	---	---	---	<0.5	---	---	---	---	---	<0.5	---	---	---	<0.5	---	---	---	---	---	---	---	---
135-9-88	sec-Butylbenzene	#N/A	µg/kg	µg/kg	---	---	---	<5.3	---	---	---	---	---	<5.2	---	---	---	<5.2	---	---	---	---	---	---	---	---
100-42-5	Styrene	1.5E+07	µg/kg	µg/kg	---	---	---	<0.40	---	---	---	---	---	<0.40	---	---	---	<0.40	---	---	---	---	---	---	---	---
98-06-6	tert-Butylbenzene	#N/A	µg/kg	µg/kg	---	---	---	<5.3	---	---	---	---	---	<5.2	---	---	---	<5.2	---	---	---	---	---	---	---	---
127-18-4	Tetrachloroethene	1.5E+06	µg/kg	µg/kg	---	---	---	2.58	---	---	---	---	---	1.23	---	---	---	1.11	---	---	---	---	---	---	---	---
108-88-3	Toluene	6.1E+06	µg/kg	µg/kg	---	---	---	<0.75	---	---	---	---	---	1.95	<0.5	<0.5	<0.5	<0.73	---	<0.5	<0.5	<0.5	<0.5	<0.5	---	<0.5
156-60-5	trans-1,2-Dichloroethene	1.5E+06	µg/kg	µg/kg	---	---	---	<0.80	---	---	---	---	---	<0.78	---	---	---	<0.79	---	---	---	---	---	---	---	---
10061-02-6	trans-1,3-Dichloropropene	#N/A	µg/kg	µg/kg	---	---	---	<0.80	---	---	---	---	---	<0.78	---	---	---	<0.79	---	---	---	---	---	---	---	---
79-01-6	Trichloroethylene	6.7E+04	µg/kg	µg/kg	---	---	---	93.6	---	---	---	---	---	155	---	---	---	19.6	---	---	---	---	---	---	---	---
75-69-4	Trichlorofluoromethane	2.3E+07	µg/kg	µg/kg	---	---	---	<0.47	---	---	---	---	---	<0.46	---	---	---	<0.46	---	---	---	---	---	---	---	---
75-01-4	Vinyl Chloride	2.1E+03	µg/kg	µg/kg	---	---	---	<0.80	---	---	---	---	---	<0.78	---	---	---	<0.79	---	---	---	---	---	---	---	---
1330-20-7	Xylenes, Total	1.5E+07	µg/kg	µg/kg	---	---	---	<5.3	---	---	---	---	---	<5.2	<0.5	<0.5	<0.5	<5.2	---	<0.5	<0.5	<0.5	<0.5	<0.5	---	<0.5
SEMI-VOLATILE ORGANIC COMPOUNDS																										
120-82-1	1,2,4-Trichlorobenzene	760	mg/kg	mg/kg	<0.084	<0.073	---	<5.3	---	<0.39	<0.075	---	---	<5.2	---	---	---	<5.2	---	---	---	---	---	---	---	---
95-50-1	1,2-Dichlorobenzene	5500	mg/kg	mg/kg	<0.118	<0.104	---	<1.2	---	<0.553	<0.105	---	---	<1.1	---	---	---	<1.2	---	---	---	---	---	---	---	---
541-73-1	1,3-Dichlorobenzene	6800	mg/kg	mg/kg	<0.11	<0.093	---	<1.2	---	<0.50	<0.093	---	---	<1.1	---	---	---	<1.2	---	---	---	---	---	---	---	---
106-46-7	1,4-Dichlorobenzene	760	mg/kg	mg/kg	<0.097	<0.086	---	<0.69	---	<0.46	<0.086	---	---	<0.68	---	---	---	<0.68	---	---	---	---	---	---	---	---
95-95-4	2,4,5-Trichlorophenol	6100	mg/kg	mg/kg	<0.079	<0.069	---	---	---	<0.37	<0.070	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
88-06-2	2,4,6-Trichlorophenol	220	mg/kg	mg/kg	<0.062	<0.054	---	---	---	<0.29	<0.055	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
120-83-2	2,4-Dichlorophenol	180	mg/kg	mg/kg	<0.085	<0.074	---	---	---	<0.40	<0.076	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
105-67-9	2,4-Dimethylphenol	1200	mg/kg	mg/kg	<0.072	<0.063	---	---	---	<0.35	<0.064	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
51-28-5	2,4-Dinitrophenol	120	mg/kg	mg/kg	<0.032	<0.029	---	---	---	<0.15	<0.028	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
121-14-2	2,4-Dinitrotoluene	3.5	mg/kg	mg/kg	<0.055	<0.048	---	---	---	<0.26	<0.048	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
606-20-2	2,6-Dinitrotoluene	3.6	mg/kg	mg/kg	<0.076	<0.066	---	---	---	<0.36	<0.067	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
91-58-7	2-Chloronaphthalene	6100	mg/kg	mg/kg	<0.081	<0.070	---	---	---	<0.38	<0.071	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
95-57-8	2-chlorophenol	310	mg/kg	mg/kg	<0.098	<0.087	---	---	---	<0.47	<0.087	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
534-52-1	2-Methyl-4,6-dinitrophenol	#N/A	mg/kg	mg/kg	<0.121	<0.106	---	---	---	<0.564	<0.107	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
91-57-6	2-Methylnaphthalene	230	mg/kg	mg/kg	<0.073	<0.064	---	---	---	<0.35	<0.065	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
95-48-7	2-Methylphenol	3100	mg/kg	mg/kg	<0.090	<0.079	---	---	---	<0.42	<0.080	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
88-74-4	2-Nitroaniline	#N/A	mg/kg	mg/kg	<0.081	<0.070	---	---	---	<0.38	<0.071	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
88-75-5	2-Nitrophenol	#N/A	mg/kg	mg/kg	<0.129	<0.113	---	---	---	<0.601	<0.114	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
91-94-1	3,3-Dichlorobenzidine	5.4	mg/kg	mg/kg	<0.123	<0.108	---	---	---	<0.575	<0.109	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
99-09-2	3-Nitroaniline	#N/A	mg/kg	mg/kg	<0.068	<0.059	---	---	---	<0.33	<0.060	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
101-55-3	4-Bromophenyl phenyl ether	#N/A	mg/kg	mg/kg	<0.056	<0.049	---	---	---	<0.26	<0.049	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
59-50-7	4-Chloro-3-methylphenol	6100	mg/kg	mg/kg	<0.083	<0.072	---	---	---	<0.39	<0.073	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
106-47-8	4-Chloroaniline	240	mg/kg	mg/kg	<0.120	<0.105	---	---	---	<0.559	<0.106	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7005-72-3	4-Chlorophenylphenyl ether	#N/A	mg/kg	mg/kg	<0.063	<0.055	---	---	---	<0.30	<0.056	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
106-44-5	4-Methylphenol	6100	mg/kg	mg/kg	<0.092	<0.081	---	---	---	<0.43	<0.082	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
100-01-6	4-Nitroaniline	#N/A	mg/kg	mg/kg	<0.079	<0.069	---	---	---	<0.37	<0.070	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
100-02-7	4-Nitrophenol	490	mg/kg	mg/kg	<0.076	<0.066	---	---	---	<0.36	<0.067	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
83-32-9	Acenaphthene	3400	mg/kg	mg/kg	<0.072	<0.063	---	---	---	<0.35	<0.064	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
208-96-8	Acenaphthylene	1700	mg/kg	mg/kg	<0.068	<0.059	---	---	---	<0.33	<0.060	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
120-12-7	Anthracene	17000	mg/kg	mg/kg	<0.045	<0.040	---	---	---	<0.22	<0.040	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
92-87-5	Benzidine	0.011	mg/kg	mg/kg	<0.11	<0.099	---	---	---	<0.53	<0.10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
56-55-3	Benzo(a)anthracene	3.1	mg/kg	mg/kg	<0.040	<0.036	---	---	---	0.2	<0.036	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
50-32-8	Benzo(a)pyrene	0.31	mg/kg	mg/kg	<0.057	<0.050	---	---	---	<0.26	<0.050	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
205-99-2	Benzo(b)fluoranthene	3.1	mg/kg	mg/kg	<0.043	<0.038	---	---	---	0.2	<0.038	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
191-24-2	Benzo(ghi)perylene	170	mg/kg	mg/kg	<0.045	<0.040	---	---	---	<0.22	<0.040	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
207-08-9	Benzo(k)fluoranthene	31	mg/kg	mg/kg	<0.057	<0.050	---	---	---	<0.26	<0.050	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
65-85-0	Benzoic Acid	#N/A	mg/kg	mg/kg	<0.38	<0.34	---	---	---	<1.7	<0.34	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
100-51-6	Benzyl alcohol	6100	mg/kg	mg/kg	<0.094	<0.082	---	---	---	<0.43	<0.083	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
85-68-7	Benzyl butyl phthalate	1300	mg/kg	mg/kg	<0.050	<0.044	---	---	---	<0.24	<0.044	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
111-91-1	Bis(2-chloroethoxy)methane	#N/A	mg/kg	mg/kg	<0.085	<0.074	---	---	---	<0.40	<0.076	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
111-44-4	Bis(2-chloroethyl)ether	2.8	mg/kg	mg/kg	<0.090	<0.079	---	---	---	<0.42	<0.080	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
39638-32-9	Bis(2chloroisopropyl)ether	#N/A	mg/kg	mg/kg	<0.098	<0.087	---	---	---	<0.47	<0.087	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
117-81-7	Bis(2-ethylhexyl)phthalate	170	mg/kg	mg/kg	<0.037	<0.033	---	---	---	<0.17	<0.033	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
86-74-8	Carbazole	120	mg/kg	mg/kg	<0.045	<0.040	---	---	---	<0.22	<0.040	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
218-01-9	Chrysene	310	mg/kg	mg/kg	<0.034	<0.031	---	---	---	0.2	<0.030	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	Cresols, Total	#N/A	mg/kg	mg/kg	<0.181	<0.159	---	---	---	<0.848	<0.161	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
53-70-3	Dibenzo(a,h)anthracene	0.31	mg/kg	mg/kg	<0.089	<0.077	---	---	---	<0.41	<0.079	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Table 2-2: Soil Analytical Results (2004 and 2006)
Former Chamberlain Property - Waterloo, Iowa

CAS No	Parameter	Iowa Statewide Soil Standard		Sample ID	SB-56 14'	SB-56 2'	SB-57 2'	SB-58 2'	SB-59 2'	SB-60 2'	SB-60 4'	SB-61 2'	SB-62 2'	SB-63 2'	SB-64 10'	SB-65 14'	SB-65 2'	SB-66 2'	SB-67 2'	SB-68 2'	SB-70 2'	SB-70 6'	SB-71 2'	SB-71 6'	SB-86 2'	SB-89 2'
		Value	Unit	Date Sampled	9/17/2004	9/16/2004	9/1/2004	9/1/2004	9/1/2004	9/15/2004	9/15/2004	9/1/2004	9/16/2004	9/16/2004	9/17/2004	9/16/2004	9/16/2004	9/1/2004	9/2/2004	9/1/2004	9/15/2004	9/15/2004	9/17/2004	9/20/2004	9/15/2004	9/3/2004
				Units																						
132-64-9	Dibenzofuran	76	mg/kg	mg/kg	<0.055	<0.048	---	---	---	<0.26	<0.048	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
84-66-2	Diethyl phthalate	49000	mg/kg	mg/kg	<0.055	<0.048	---	---	---	<0.26	<0.048	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
131-11-3	Dimethyl phthalate	#N/A	mg/kg	mg/kg	<0.049	<0.043	---	---	---	<0.23	<0.043	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
84-74-2	Di-n-butylphthalate	6100	mg/kg	mg/kg	<0.050	<0.044	---	---	---	<0.24	<0.044	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
117-84-0	Di-n-octylphthalate	1200	mg/kg	mg/kg	<0.069	<0.060	---	---	---	<0.33	<0.061	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
206-44-0	Fluoranthene	2300	mg/kg	mg/kg	<0.041	<0.037	---	---	---	0.4	<0.037	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
86-73-7	Fluorene	2300	mg/kg	mg/kg	<0.060	<0.053	---	---	---	<0.28	<0.054	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
87-68-3	Hexachloro-1,3-butadiene	40	mg/kg	mg/kg	<0.077	<0.067	---	---	---	<0.37	<0.068	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
118-74-1	Hexachlorobenzene	1.5	mg/kg	mg/kg	<0.033	<0.030	---	---	---	<0.15	<0.029	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
77-47-4	Hexachlorocyclopentadiene	460	mg/kg	mg/kg	<0.066	<0.058	---	---	---	<0.31	<0.059	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
67-72-1	Hexachloroethane	77	mg/kg	mg/kg	<0.095	<0.083	---	---	---	<0.44	<0.084	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
193-39-5	Indeno(1,2,3-cd)pyrene	3.1	mg/kg	mg/kg	<0.036	<0.032	---	---	---	<0.17	<0.031	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
78-59-1	Isophorone	2600	mg/kg	mg/kg	<0.068	<0.059	---	---	---	<0.33	<0.060	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
91-20-3	Naphthalene	1100	mg/kg	mg/kg	<0.084	<0.073	---	<5.3	---	<0.39	<0.075	---	---	<5.2	---	---	---	<5.2	---	---	---	---	---	---	---	---
98-95-3	Nitrobenzene	No std	mg/kg	mg/kg	<0.088	<0.076	---	---	---	<0.41	<0.078	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
62-75-9	N-Nitrosodimethylamine	0.048	mg/kg	mg/kg	<0.128	<0.112	---	---	---	<0.596	<0.113	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
621-64-7	N-Nitrosodi-n-propylamine	#N/A	mg/kg	mg/kg	<0.096	<0.084	---	---	---	<0.46	<0.085	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
86-30-6	N-Nitrosodiphenylamine	500	mg/kg	mg/kg	<0.039	<0.035	---	---	---	<0.18	<0.035	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
87-86-5	Pentachlorophenol	4.5	mg/kg	mg/kg	<0.089	<0.077	---	---	---	<0.41	<0.079	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
85-01-8	Phenanthrene	1700	mg/kg	mg/kg	<0.044	<0.039	---	---	---	0.4	<0.039	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
108-95-2	Phenol	18000	mg/kg	mg/kg	<0.089	<0.077	---	---	---	<0.41	<0.079	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
129-00-0	Pyrene	1700	mg/kg	mg/kg	<0.057	<0.051	---	---	---	0.4	<0.050	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
110-86-1	Pyridine	#N/A	mg/kg	mg/kg	<0.129	<0.113	---	---	---	<0.601	<0.114	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Sample ID					SB-56 14'	SB-56 2'	SB-57 2'	SB-58 2'	SB-59 2'	SB-60 2'	SB-60 4'	SB-61 2'	SB-62 2'	SB-63 2'	SB-64 10'	SB-65 14'	SB-65 2'	SB-66 2'	SB-67 2'	SB-68 2'	SB-70 2'	SB-70 6'	SB-71 2'	SB-71 6'	SB-86 2'	SB-89 2'
# of SCOIs exceeding criteria					0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Notes:
1. Iowa standard for mercury (CAS # 7439-97-6) used.
2. Iowa standard for PCBs (CAS# 1336-36-3) used.
3. Shaded values indicate concentrations above Iowa Statewide Soil Standard.

Table 2-2: Soil Analytical Results (2004 and 2006)
Former Chamberlain Property - Waterloo, Iowa

CAS No	Parameter	Iowa Statewide Soil Standard		Sample ID	SB-89 6'	SB-101 0-2'	SB-101 6-10'	SB-102 0-2'	SB-102 2-6'	SB-103 0-2'	SB-103 2-6'	SB-104 0.5-2.5'	SB-104 6.5-10.5'	SB-105 0-2'	SB-105 6-10'	SB-106 0.5-2.5'	SB-106 2.5-4.5'	SB-107 0.5-2.5'	SB-107 8.5-10.5'
				Date Sampled	9/3/2004	12/5/2006	12/5/2006	12/5/2006	12/5/2006	12/5/2006	12/5/2006	12/5/2006	12/5/2006	12/5/2006	12/5/2006	12/5/2006	12/5/2006	12/8/2006	12/8/2006
		Value	Unit	Units															
INORGANIC PARAMETERS																			
7440-38-2	Arsenic	17	mg/kg	mg/kg	---	4.41	<1.15	5.55	4.56	---	---	3.73	1.07	13.50	2.30	1.07	<1.02	26.40	<1.15
7440-39-3	Barium	15000	mg/kg	mg/kg	---	35.3	37.2	45.1	40.6	---	---	42.4	40.6	79.8	44.7	37.2	33.7	3450	13
7440-43-9	Cadmium	70	mg/kg	mg/kg	---	5.95	<2.31	20	13.6	---	---	6.34	2.57	28.7	42.9	<2.02	<2.04	<14.7	<1.15
7440-47-3	Chromium	190	mg/kg	mg/kg	---	14.5	3.85	12.4	7.99	---	---	7.69	7.27	25.6	19.8	5.09	3.07	118	4.73
7439-92-1	Lead	400	mg/kg	mg/kg	---	95.1	<11.5	37.8	15.7	---	---	51.4	<10.7	73	22	<10.1	<10.2	80	<5.75
7487-94-7	Mercury[1]	23	mg/kg	mg/kg	---	0.071	<0.0231	0.0335	<0.0217	---	---	0.0587	<0.0215	0.0992	0.0298	<0.0202	<0.0204	<0.0226	<0.0230
7782-49-2	Selenium	390	mg/kg	mg/kg	---	33.3	<17.3	<16.1	<16.3	---	---	23.3	<16.1	25.5	17.1	<15.2	<15.3	284	<8.63
7440-22-4	Silver	370	mg/kg	mg/kg	---	<2.11	<2.31	<2.14	<2.17	---	---	<2.13	<2.15	<2.20	<2.23	<2.02	<2.04	<14.7	<1.15
57-12-5	Cyanide	46	mg/kg		---														
POLYCHLORINATED BIPHENYLS																			
11097-69-1	PCB-1016	#N/A	mg/kg	mg/kg	---	---	---	---	---	<0.277	<0.278	---	---	---	---	---	---	---	---
11097-69-1	PCB-1221	#N/A	mg/kg	mg/kg	---	---	---	---	---	<0.277	<0.278	---	---	---	---	---	---	---	---
11097-69-1	PCB-1232	#N/A	mg/kg	mg/kg	---	---	---	---	---	<0.277	<0.278	---	---	---	---	---	---	---	---
11097-69-1	PCB-1242	#N/A	mg/kg	mg/kg	---	---	---	---	---	<0.277	<0.278	---	---	---	---	---	---	---	---
11097-69-1	PCB-1248	#N/A	mg/kg	mg/kg	---	---	---	---	---	<0.277	<0.278	---	---	---	---	---	---	---	---
11097-69-1	PCB-1254[2]	1.1	mg/kg	mg/kg	---	---	---	---	---	<0.277	<0.278	---	---	---	---	---	---	---	---
11097-69-1	PCB-1260	#N/A	mg/kg	mg/kg	---	---	---	---	---	<0.555	<0.278	---	---	---	---	---	---	---	---
11097-69-1	PCB-1268	#N/A	mg/kg	mg/kg	---	---	---	---	---	<0.277	<0.278	---	---	---	---	---	---	---	---
VOLATILE ORGANIC COMPOUNDS																			
630-20-6	1,1,1,2-Tetrachloroethane	2.3E+05	µg/kg	µg/kg	---	<9.36	<11.7	<11.2	<9.55	---	---	---	---	<9.35	<9.28	<23.9	<14.1	<14.9	<9.71
71-55-6	1,1,1-Trichloroethane	1.5E+08	µg/kg	µg/kg	---	<9.36	<11.7	<11.2	<9.55	---	---	---	---	11.7	<9.28	<23.9	<14.1	<14.9	<9.71
79-34-5	1,1,2,2-Tetrachloroethane	1.5E+04	µg/kg	µg/kg	---	<9.36	<11.7	<11.2	<9.55	---	---	---	---	<9.35	<9.28	<23.9	<14.1	<14.9	<9.71
79-00-5	1,1,2-Trichloroethane	5.4E+04	µg/kg	µg/kg	---	<9.36	<11.7	<11.2	<9.55	---	---	---	---	<9.35	<9.28	<23.9	<14.1	<14.9	<9.71
75-34-3	1,1-Dichloroethane	1.5E+06	µg/kg	µg/kg	---	<9.36	<11.7	<11.2	<9.55	---	---	---	---	<9.35	<9.28	<23.9	<14.1	<14.9	<9.71
75-35-4	1,1-Dichloroethene	3.8E+05	µg/kg	µg/kg	---	<9.36	<11.7	<11.2	<9.55	---	---	---	---	<9.35	<9.28	<23.9	<14.1	<14.9	<9.71
563-58-6	1,1-Dichloropropene	#N/A	µg/kg	µg/kg	---	<9.36	<11.7	<11.2	<9.55	---	---	---	---	<9.35	<9.28	<23.9	<14.1	<14.9	<9.71
87-61-6	1,2,3-Trichlorobenzene	#N/A	µg/kg	µg/kg	---	<46.8	<58.6	<56.0	<47.8	---	---	---	---	<46.7	<46.4	<120	<70.7	<74.6	<48.5
96-18-4	1,2,3-Trichloropropane	1.0E+02	µg/kg	µg/kg	---	<9.36	<11.7	<11.2	<9.55	---	---	---	---	<9.35	<9.28	<23.9	<14.1	<14.9	<9.71
120-82-1	1,2,4-Trichlorobenzene	7.6E+05	µg/kg	µg/kg	---	<46.8	<58.6	<56.0	<47.8	---	---	---	---	<46.7	<46.4	<120	<70.7	<74.6	<48.5
95-63-6	1,2,4-Trimethylbenzene	3.8E+06	µg/kg	µg/kg	---	<9.36	<11.7	<11.2	<9.55	---	---	---	---	<9.35	<9.28	<23.9	<14.1	32.8	<9.71
96-12-8	1,2-Dibromo-3-chloropropane	2.6E+03	µg/kg	µg/kg	---	<93.6	<117	<112	<95.5	---	---	---	---	<93.5	<92.8	<239	<141	<149	<97.1
106-93-4	1,2-Dibromoethane (EDB)	1.5E+03	µg/kg	µg/kg	---	<93.6	<117	<112	<95.5	---	---	---	---	<93.5	<92.8	<239	<141	<149	<97.1
95-50-1	1,2-Dichlorobenzene	5.5E+06	µg/kg	µg/kg	---	<9.36	<11.7	<11.2	<9.55	---	---	---	---	<9.35	<9.28	<23.9	<14.1	<14.9	<9.71
107-06-2	1,2-Dichloroethane	3.4E+04	µg/kg	µg/kg	---	<9.36	<11.7	<11.2	<9.55	---	---	---	---	<9.35	<9.28	<23.9	<14.1	<14.9	<9.71
78-87-5	1,2-Dichloropropane	5.3E+04	µg/kg	µg/kg	---	<9.36	<11.7	<11.2	<9.55	---	---	---	---	<9.35	<9.28	<23.9	<14.1	<14.9	<9.71
108-67-8	1,3,5-Trimethylbenzene	7.6E+05	µg/kg	µg/kg	---	<9.36	<11.7	<11.2	<9.55	---	---	---	---	<9.35	<9.28	<23.9	<14.1	<14.9	<9.71
541-73-1	1,3-Dichlorobenzene	6.8E+06	µg/kg	µg/kg	---	<9.36	<11.7	<11.2	<9.55	---	---	---	---	<9.35	<9.28	<23.9	<14.1	<14.9	<9.71
142-28-9	1,3-Dichloropropane	#N/A	µg/kg	µg/kg	---	<9.36	<11.7	<11.2	<9.55	---	---	---	---	<9.35	<9.28	<23.9	<14.1	<14.9	<9.71
106-46-7	1,4-Dichlorobenzene	7.6E+05	µg/kg	µg/kg	---	<9.36	<11.7	<11.2	<9.55	---	---	---	---	<9.35	<9.28	<23.9	<14.1	<14.9	<9.71
594-20-7	2,2-Dichloropropane	#N/A	µg/kg	µg/kg	---	<37.5	<46.8	<44.8	<38.2	---	---	---	---	<37.4	<37.1	<95.7	<56.6	<59.7	<38.8
95-49-8	2-Chlorotoluene	1.5E+06	µg/kg	µg/kg	---	<9.36	<11.7	<11.2	<9.55	---	---	---	---	<9.35	<9.28	<23.9	<14.1	<14.9	<9.71
591-78-6	2-Hexanone	#N/A	µg/kg	µg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
106-43-4	4-Chlorotoluene	1.5E+06	µg/kg	µg/kg	---	<9.36	<11.7	<11.2	<9.55	---	---	---	---	<9.35	<9.28	<23.9	<14.1	<14.9	<9.71
67-64-1	Acetone	6.8E+07	µg/kg	µg/kg	---	<93.6	<117	<112	<95.5	---	---	---	---	<93.5	<92.8	<239	<141	387	<97.1
107-13-1	Acrylonitrile	5.7E+03	µg/kg	µg/kg	---	<93.6	<117	<112	<95.5	---	---	---	---	<93.5	<92.8	<239	<141	<149	<97.1
71-43-2	Benzene	5.6E+04	µg/kg	µg/kg	<0.25	<9.36	<11.7	<11.2	<9.55	---	---	---	---	<9.35	<9.28	<23.9	<14.1	<14.9	<9.71
108-86-1	Bromobenzene	#N/A	µg/kg	µg/kg	---	<9.36	<11.7	<11.2	<9.55	---	---	---	---	<9.35	<9.28	<23.9	<14.1	<14.9	<9.71
74-97-5	Bromochloromethane	7.6E+05	µg/kg	µg/kg	---	<9.36	<11.7	<11.2	<9.55	---	---	---	---	<9.35	<9.28	<23.9	<14.1	<14.9	<9.71
75-27-4	Bromodichloromethane	5.0E+04	µg/kg	µg/kg	---	<9.36	<11.7	<11.2	<9.55	---	---	---	---	<9.35	<9.28	<23.9	<14.1	<14.9	<9.71
75-25-2	Bromoform	3.9E+05	µg/kg	µg/kg	---	<18.7	<23.4	<22.4	<19.1	---	---	---	---	<18.7	<18.6	<47.9	<28.3	<29.8	<19.4
74-83-9	Bromomethane	1.1E+05	µg/kg	µg/kg	---	<37.5	<46.8	<44.8	<38.2	---	---	---	---	<37.4	<37.1	<95.7	<56.6	<59.7	<38.8
75-15-0	Carbon disulfide	7.6E+06	µg/kg	µg/kg	---	<9.36	<11.7	<11.2	<9.55	---	---	---	---	<9.35	<9.28	<23.9	<14.1	16.7	<9.71
56-23-5	Carbon Tetrachloride	4.4E+04	µg/kg	µg/kg	---	<9.36	<11.7	<11.2	<9.55	---	---	---	---	<9.35	<9.28	<23.9	<14.1	<14.9	<9.71
108-90-7	Chlorobenzene	1.5E+06	µg/kg	µg/kg	---	<9.36	<11.7	<11.2	<9.55	---	---	---	---	<9.35	<9.28	<23.9	<14.1	<14.9	<9.71
124-48-1	Chlorodibromomethane	1.5E+05	µg/kg	µg/kg	---	<9.36	<11.7	<11.2	<9.55	---	---	---	---	<9.35	<9.28	<23.9	<14.1	<14.9	<9.71
75-00-3	Chloroethane	3.0E+07	µg/kg	µg/kg	---	<37.5	<46.8	<44.8	<38.2	---	---	---	---	<37.4	<37.1	<95.7	<56.6	<59.7	<38.8
67-66-3	Chloroform	No std	µg/kg	µg/kg	---	<9.36	<11.7	<11.2	<9.55	---	---	---	---	<9.35	<9.28	<23.9	<14.1	<14.9	<9.71
74-87-3	Chloromethane	No std	µg/kg	µg/kg	---	<37.5	<46.8	<44.8	<38.2	---	---	---	---	<37.4	<37.1	<95.7	<56.6	<59.7	<38.8
156-59-2	cis-1,2-Dichloroethene	1.5E+05	µg/kg	µg/kg	---	<9.36	<11.7	<11.2	<9.55	---	---	---	---	<9.35	<9.28	<23.9	<14.1	127	<9.71
10061-01-5	cis-1,3-Dichloropropene	#N/A	µg/kg	µg/kg	---	<9.36	<11.7	<11.2	<9.55	---	---	---	---	<9.35	<9.28	<23.9	<14.1	<14.9	<9.71
74-95-3	Dibromomethane	7.6E+05	µg/kg	µg/kg	---	<9.36	<11.7	<11.2	<9.55	---	---	---	---	<9.35	<9.28	<23.9	<14.1	<14.9	<9.71
75-71-8	Dichlorodifluoromethane	1.5E+07	µg/kg	µg/kg	---	<28.1	<35.1	<33.6	<28.7	---	---	---	---	<28.0	<27.8	<71.8	<42.4	<44.7	<29.1
100-41-4	Ethylbenzene	7.6E+06	µg/kg	µg/kg	<0.5	<9.36	<11.7	<11.2	<9.55	---	---	---	---	<9.35	<9.28	<23.9	<14.1	<14.9	<9.71
87-68-3	Hexachlorobutadiene	4.0E+04	µg/kg	µg/kg	---	<46.8	<58.6	<56.0	<47.8	---	---	---	---	<46.7	<46.4	<120	<70.7	<74.6	<48.5
110-54-3	Hexane	4.6E+06	µg/kg	µg/kg	---	<46.8	<58.6	<56.0	<47.8	---	---	---	---	<46.7	<46.4	<120	<70.7	<74.6	<48.5

Table 2-2: Soil Analytical Results (2004 and 2006)
Former Chamberlain Property - Waterloo, Iowa

CAS No	Parameter	Iowa Statewide Soil Standard		Sample ID	SB-89 6'	SB-101 0-2'	SB-101 6-10'	SB-102 0-2'	SB-102 2-6'	SB-103 0-2'	SB-103 2-6'	SB-104 0.5-2.5'	SB-104 6.5-10.5'	SB-105 0-2'	SB-105 6-10'	SB-106 0.5-2.5'	SB-106 2.5-4.5'	SB-107 0.5-2.5'	SB-107 8.5-10.5'
				Date Sampled	9/3/2004	12/5/2006	12/5/2006	12/5/2006	12/5/2006	12/5/2006	12/5/2006	12/5/2006	12/5/2006	12/5/2006	12/5/2006	12/5/2006	12/5/2006	12/8/2006	12/8/2006
		Value	Unit	Units															
98-82-8	Isopropylbenzene	7.6E+06	µg/kg	µg/kg	---	<9.36	<11.7	<11.2	<9.55	---	---	---	---	<9.35	<9.28	<23.9	<14.1	<14.9	<9.71
78-93-3	Methyl ethyl ketone (MEK)	4.6E+07	µg/kg	µg/kg	---	<93.6	<117	<112	<95.5	---	---	---	---	<93.5	<92.8	<239	<141	<149	<97.1
108-10-1	Methyl isobutyl ketone	6.1E+06	µg/kg	µg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1634-04-4	Methyl tert-Butyl Ether	2.3E+06	µg/kg	µg/kg	---	<9.36	<11.7	<11.2	<9.55	---	---	---	---	<9.35	<9.28	<23.9	<14.1	<14.9	<9.71
75-09-2	Methylene chloride	1.5E+06	µg/kg	µg/kg	---	<93.6	<117	<112	<95.5	---	---	---	---	<93.5	<92.8	<239	<141	<149	<97.1
104-51-8	n-Butylbenzene	3.8E+06	µg/kg	µg/kg	---	<9.36	<11.7	<11.2	<9.55	---	---	---	---	<9.35	<9.28	<23.9	<14.1	<14.9	<9.71
103-65-1	n-Propylbenzene	7.6E+06	µg/kg	µg/kg	---	<9.36	<11.7	<11.2	<9.55	---	---	---	---	<9.35	<9.28	<23.9	<14.1	<14.9	<9.71
99-87-6	p-Isopropyltoluene	#N/A	µg/kg	µg/kg	---	<9.36	<11.7	<11.2	<9.55	---	---	---	---	<9.35	<9.28	<23.9	<14.1	<14.9	<9.71
135-9-88	sec-Butylbenzene	#N/A	µg/kg	µg/kg	---	<9.36	<11.7	<11.2	<9.55	---	---	---	---	<9.35	<9.28	<23.9	<14.1	<14.9	<9.71
100-42-5	Styrene	1.5E+07	µg/kg	µg/kg	---	<9.36	<11.7	<11.2	<9.55	---	---	---	---	<9.35	<9.28	<23.9	<14.1	<14.9	<9.71
98-06-6	tert-Butylbenzene	#N/A	µg/kg	µg/kg	---	<9.36	<11.7	<11.2	<9.55	---	---	---	---	<9.35	<9.28	<23.9	<14.1	<14.9	<9.71
127-18-4	Tetrachloroethene	1.5E+06	µg/kg	µg/kg	---	<9.36	<11.7	<11.2	<9.55	---	---	---	---	<9.35	<9.28	<23.9	<14.1	<14.9	<9.71
108-88-3	Toluene	6.1E+06	µg/kg	µg/kg	<0.5	<9.36	<11.7	<11.2	<9.55	---	---	---	---	<9.35	<9.28	<23.9	<14.1	<14.9	<9.71
156-60-5	trans-1,2-Dichloroethene	1.5E+06	µg/kg	µg/kg	---	<9.36	<11.7	<11.2	<9.55	---	---	---	---	<9.35	<9.28	<23.9	<14.1	<14.9	<9.71
10061-02-6	trans-1,3-Dichloropropene	#N/A	µg/kg	µg/kg	---	<9.36	<11.7	<11.2	<9.55	---	---	---	---	<9.35	<9.28	<23.9	<14.1	<14.9	<9.71
79-01-6	Trichloroethylene	6.7E+04	µg/kg	µg/kg	---	<9.36	<11.7	50.3	95.2	---	---	---	---	150	73.1	<23.9	<14.1	26	<9.71
75-69-4	Trichlorofluoromethane	2.3E+07	µg/kg	µg/kg	---	<37.5	<46.8	<44.8	<38.2	---	---	---	---	<37.4	<37.1	<95.7	<56.6	<59.7	<38.8
75-01-4	Vinyl Chloride	2.1E+03	µg/kg	µg/kg	---	<28.1	<35.1	<33.6	<28.7	---	---	---	---	<28.0	<27.8	<71.8	<42.4	<44.7	<29.1
1330-20-7	Xylenes, Total	1.5E+07	µg/kg	µg/kg	<0.5	<28.1	<35.1	<33.6	<28.7	---	---	---	---	<28.0	<27.8	<71.8	<42.4	<44.7	<29.1
SEMI-VOLATILE ORGANIC COMPOUNDS																			
120-82-1	1,2,4-Trichlorobenzene	760	mg/kg	mg/kg	---	<1.74	<0.381	<1.77	<1.79	---	---	---	---	<1.81	<1.84	---	---	<29.6	<0.380
95-50-1	1,2-Dichlorobenzene	5500	mg/kg	mg/kg	---	<1.74	<0.381	<1.77	<1.79	---	---	---	---	<1.81	<1.84	---	---	<29.6	<0.380
541-73-1	1,3-Dichlorobenzene	6800	mg/kg	mg/kg	---	<1.74	<0.381	<1.77	<1.79	---	---	---	---	<1.81	<1.84	---	---	<29.6	<0.380
106-46-7	1,4-Dichlorobenzene	760	mg/kg	mg/kg	---	<1.74	<0.381	<1.77	<1.79	---	---	---	---	<1.81	<1.84	---	---	<29.6	<0.380
95-95-4	2,4,5-Trichlorophenol	6100	mg/kg	mg/kg	---	<1.74	<0.381	<1.77	<1.79	---	---	---	---	<1.81	<1.84	---	---	<29.6	<0.380
88-06-2	2,4,6-Trichlorophenol	220	mg/kg	mg/kg	---	<1.74	<0.381	<1.77	<1.79	---	---	---	---	<1.81	<1.84	---	---	<29.6	<0.380
120-83-2	2,4-Dichlorophenol	180	mg/kg	mg/kg	---	<1.74	<0.381	<1.77	<1.79	---	---	---	---	<1.81	<1.84	---	---	<29.6	<0.380
105-67-9	2,4-Dimethylphenol	1200	mg/kg	mg/kg	---	<1.74	<0.381	<1.77	<1.79	---	---	---	---	<1.81	<1.84	---	---	<29.6	<0.380
51-28-5	2,4-Dinitrophenol	120	mg/kg	mg/kg	---	<1.74	<0.381	<1.77	<1.79	---	---	---	---	<1.81	<1.84	---	---	<29.6	<0.380
121-14-2	2,4-Dinitrotoluene	3.5	mg/kg	mg/kg	---	<1.74	<0.381	<1.77	<1.79	---	---	---	---	<1.81	<1.84	---	---	<29.6	<0.380
606-20-2	2,6-Dinitrotoluene	3.6	mg/kg	mg/kg	---	<1.74	<0.381	<1.77	<1.79	---	---	---	---	<1.81	<1.84	---	---	<29.6	<0.380
91-58-7	2-Chloronaphthalene	6100	mg/kg	mg/kg	---	<1.74	<0.381	<1.77	<1.79	---	---	---	---	<1.81	<1.84	---	---	<29.6	<0.380
95-57-8	2-chlorophenol	310	mg/kg	mg/kg	---	<1.74	<0.381	<1.77	<1.79	---	---	---	---	<1.81	<1.84	---	---	<29.6	<0.380
534-52-1	2-Methyl-4,6-dinitrophenol	#N/A	mg/kg	mg/kg	---	<1.74	<0.381	<1.77	<1.79	---	---	---	---	<1.81	<1.84	---	---	<29.6	<0.380
91-57-6	2-Methylnaphthalene	230	mg/kg	mg/kg	---	<1.74	<0.381	<1.77	<1.79	---	---	---	---	<1.81	<1.84	---	---	<29.6	<0.380
95-48-7	2-Methylphenol	3100	mg/kg	mg/kg	---	<1.74	<0.381	<1.77	<1.79	---	---	---	---	<1.81	<1.84	---	---	<29.6	<0.380
88-74-4	2-Nitroaniline	#N/A	mg/kg	mg/kg	---	<1.74	<0.381	<1.77	<1.79	---	---	---	---	<1.81	<1.84	---	---	<29.6	<0.380
88-75-5	2-Nitrophenol	#N/A	mg/kg	mg/kg	---	<1.74	<0.381	<1.77	<1.79	---	---	---	---	<1.81	<1.84	---	---	<29.6	<0.380
91-94-1	3,3-Dichlorobenzidine	5.4	mg/kg	mg/kg	---	<1.74	<0.381	<1.77	<1.79	---	---	---	---	<1.81	<1.84	---	---	<29.6	<0.380
99-09-2	3-Nitroaniline	#N/A	mg/kg	mg/kg	---	<1.74	<0.381	<1.77	<1.79	---	---	---	---	<1.81	<1.84	---	---	<29.6	<0.380
101-55-3	4-Bromophenyl phenyl ether	#N/A	mg/kg	mg/kg	---	<1.74	<0.381	<1.77	<1.79	---	---	---	---	<1.81	<1.84	---	---	<29.6	<0.380
59-50-7	4-Chloro-3-methylphenol	6100	mg/kg	mg/kg	---	<1.74	<0.381	<1.77	<1.79	---	---	---	---	<1.81	<1.84	---	---	<29.6	<0.380
106-47-8	4-Chloroaniline	240	mg/kg	mg/kg	---	<1.74	<0.381	<1.77	<1.79	---	---	---	---	<1.81	<1.84	---	---	<29.6	<0.380
7005-72-3	4-Chlorophenylphenyl ether	#N/A	mg/kg	mg/kg	---	<1.74	<0.381	<1.77	<1.79	---	---	---	---	<1.81	<1.84	---	---	<29.6	<0.380
106-44-5	4-Methylphenol	6100	mg/kg	mg/kg	---	<1.74	<0.381	<1.77	<1.79	---	---	---	---	<1.81	<1.84	---	---	<29.6	<0.380
100-01-6	4-Nitroaniline	#N/A	mg/kg	mg/kg	---	<1.74	<0.381	<1.77	<1.79	---	---	---	---	<1.81	<1.84	---	---	<29.6	<0.380
100-02-7	4-Nitrophenol	490	mg/kg	mg/kg	---	<1.74	<0.381	<1.77	<1.79	---	---	---	---	<1.81	<1.84	---	---	<29.6	<0.380
83-32-9	Acenaphthene	3400	mg/kg	mg/kg	---	<1.74	<0.381	<1.77	<1.79	---	---	<1.76	<0.354	<1.81	<1.84	<0.667	<0.337	<29.6	<0.380
208-96-8	Acenaphthylene	1700	mg/kg	mg/kg	---	<1.74	<0.381	<1.77	<1.79	---	---	<1.76	<0.354	<1.81	<1.84	<0.667	<0.337	<29.6	<0.380
120-12-7	Anthracene	17000	mg/kg	mg/kg	---	<1.74	<0.381	<1.77	<1.79	---	---	<1.76	<0.354	<1.81	<1.84	<0.667	<0.337	<29.6	<0.380
92-87-5	Benzidine	0.011	mg/kg	mg/kg	---	<17.4	<3.81	<17.7	<17.9	---	---	---	---	<18.1	<18.4	---	---	<296	<3.80
56-55-3	Benzo(a)anthracene	3.1	mg/kg	mg/kg	---	<1.74	<0.381	<1.77	<1.79	---	---	<1.76	<0.354	<1.81	<1.84	<0.667	<0.337	<29.6	<0.380
50-32-8	Benzo(a)pyrene	0.31	mg/kg	mg/kg	---	<1.74	<0.381	<1.77	<1.79	---	---	<1.76	<0.354	<1.81	<1.84	<0.667	<0.337	<29.6	<0.380
205-99-2	Benzo(b)fluoranthene	3.1	mg/kg	mg/kg	---	<1.74	<0.381	<1.77	<1.79	---	---	<1.76	<0.354	<1.81	<1.84	<0.667	<0.337	<29.6	<0.380
191-24-2	Benzo(ghi)perylene	170	mg/kg	mg/kg	---	<1.74	<0.381	<1.77	<1.79	---	---	<1.76	<0.354	<1.81	<1.84	<0.667	<0.337	<29.6	<0.380
207-08-9	Benzo(k)fluoranthene	31	mg/kg	mg/kg	---	<1.74	<0.381	<1.77	<1.79	---	---	<1.76	<0.354	<1.81	<1.84	<0.667	<0.337	<29.6	<0.380
65-85-0	Benzoic Acid	#N/A	mg/kg	mg/kg	---	<3.48	<0.761	<3.54	<3.58	---	---	---	---	<3.63	<3.68	---	---	<59.2	<0.759
100-51-6	Benzyl alcohol	6100	mg/kg	mg/kg	---	<1.74	<0.381	<1.77	<1.79	---	---	---	---	<1.81	<1.84	---	---	<29.6	<0.380
85-68-7	Benzyl butyl phthalate	1300	mg/kg	mg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	<29.6	<0.380
111-91-1	Bis(2-chloroethoxy)methane	#N/A	mg/kg	mg/kg	---	<1.74	<0.381	<1.77	<1.79	---	---	---	---	<1.81	<1.84	---	---	<29.6	<0.380
111-44-4	Bis(2-chloroethyl)ether	2.8	mg/kg	mg/kg	---	<1.74	<0.381	<1.77	<1.79	---	---	---	---	<1.81	<1.84	---	---	<29.6	<0.380
39638-32-9	Bis(2chloroisopropyl)ether	#N/A	mg/kg	mg/kg	---	<1.74	<0.381	<1.77	<1.79	---	---	---	---	<1.81	<1.84	---	---	<29.6	<0.380
117-81-7	Bis(2-ethylhexyl)phthalate	170	mg/kg	mg/kg	---	<1.74	<0.381	<1.77	<1.79	---	---	---	---	<1.81	<1.84	---	---	<29.6	<0.380
86-74-8	Carbazole	120	mg/kg	mg/kg	---	<1.74	<0.381	<1.77	<1.79	---	---	---	---	<1.81	<1.84	---	---	<29.6	<0.380
218-01-9	Chrysene	310	mg/kg	mg/kg	---	<1.74	<0.381	<1.77	<1.79	---	---	<1.76	<0.354	<1.81	<1.84	<0.667	<0.337	<29.6	<0.380
	Cresols, Total	#N/A	mg/kg	mg/kg	---	<1.74	<0.381	<1.77	<1.79	---	---	---	---	<1.81	<1.84	---	---	<29.6	<0.380
53-70-3	Dibenzo(a,h)anthracene	0.31	mg/kg	mg/kg	---	<1.74	<0.381	<1.77	<1.79	---	---	<1.76	<0.354	<1.81	<1.84	<0.667	<0.337	<29.6	<0.380

Table 2-2: Soil Analytical Results (2004 and 2006)
Former Chamberlain Property - Waterloo, Iowa

CAS No	Parameter	Iowa Statewide Soil Standard		Sample ID	SB-89 6'	SB-101 0-2'	SB-101 6-10'	SB-102 0-2'	SB-102 2-6'	SB-103 0-2'	SB-103 2-6'	SB-104 0.5-2.5'	SB-104 6.5-10.5'	SB-105 0-2'	SB-105 6-10'	SB-106 0.5-2.5'	SB-106 2.5-4.5'	SB-107 0.5-2.5'	SB-107 8.5-10.5'
				Date Sampled	9/3/2004	12/5/2006	12/5/2006	12/5/2006	12/5/2006	12/5/2006	12/5/2006	12/5/2006	12/5/2006	12/5/2006	12/5/2006	12/5/2006	12/5/2006	12/8/2006	12/8/2006
		Value	Unit	Units															
132-64-9	Dibenzofuran	76	mg/kg	mg/kg	---	<1.74	<0.381	<1.77	<1.79	---	---	---	---	<1.81	<1.84	---	---	<29.6	<0.380
84-66-2	Diethyl phthalate	49000	mg/kg	mg/kg	---	<1.74	<0.381	<1.77	<1.79	---	---	---	---	<1.81	<1.84	---	---	<29.6	<0.380
131-11-3	Dimethyl phthalate	#N/A	mg/kg	mg/kg	---	<1.74	<0.381	<1.77	<1.79	---	---	---	---	<1.81	<1.84	---	---	<29.6	<0.380
84-74-2	Di-n-butylphthalate	6100	mg/kg	mg/kg	---	<1.74	<0.381	<1.77	<1.79	---	---	---	---	<1.81	<1.84	---	---	<29.6	<0.380
117-84-0	Di-n-octylphthalate	1200	mg/kg	mg/kg	---	<1.74	<0.381	<1.77	<1.79	---	---	---	---	<1.81	<1.84	---	---	<29.6	<0.380
206-44-0	Fluoranthene	2300	mg/kg	mg/kg	---	<1.74	<0.381	<1.77	<1.79	---	---	<1.76	<0.354	<1.81	<1.84	<0.667	<0.337	<29.6	<0.380
86-73-7	Fluorene	2300	mg/kg	mg/kg	---	<1.74	<0.381	<1.77	<1.79	---	---	<1.76	<0.354	<1.81	<1.84	<0.667	<0.337	<29.6	<0.380
87-68-3	Hexachloro-1,3-butadiene	40	mg/kg	mg/kg	---	<1.74	<0.381	<1.77	<1.79	---	---	---	---	<1.81	<1.84	---	---	<29.6	<0.380
118-74-1	Hexachlorobenzene	1.5	mg/kg	mg/kg	---	<1.74	<0.381	<1.77	<1.79	---	---	---	---	<1.81	<1.84	---	---	<29.6	<0.380
77-47-4	Hexachlorocyclopentadiene	460	mg/kg	mg/kg	---	<3.48	<0.761	<3.54	<3.58	---	---	---	---	<3.63	<3.68	---	---	<59.2	<0.759
67-72-1	Hexachloroethane	77	mg/kg	mg/kg	---	<1.74	<0.381	<1.77	<1.79	---	---	---	---	<1.81	<1.84	---	---	<29.6	<0.380
193-39-5	Indeno(1,2,3-cd)pyrene	3.1	mg/kg	mg/kg	---	<1.74	<0.381	<1.77	<1.79	---	---	<1.76	<0.354	<1.81	<1.84	<0.667	<0.337	<29.6	<0.380
78-59-1	Isophorone	2600	mg/kg	mg/kg	---	<1.74	<0.381	<1.77	<1.79	---	---	---	---	<1.81	<1.84	---	---	<29.6	<0.380
91-20-3	Naphthalene	1100	mg/kg	mg/kg	---	<1.74	<0.381	<1.77	<1.79	---	---	<1.76	<0.354	<1.81	<1.84	<0.667	<0.337	<29.6	<0.380
98-95-3	Nitrobenzene	No std	mg/kg	mg/kg	---	<1.74	<0.381	<1.77	<1.79	---	---	---	---	<1.81	<1.84	---	---	<29.6	<0.380
62-75-9	N-Nitrosodimethylamine	0.048	mg/kg	mg/kg	---	<1.74	<0.381	<1.77	<1.79	---	---	---	---	<1.81	<1.84	---	---	<29.6	<0.380
621-64-7	N-Nitrosodi-n-propylamine	#N/A	mg/kg	mg/kg	---	<1.74	<0.381	<1.77	<1.79	---	---	---	---	<1.81	<1.84	---	---	<29.6	<0.380
86-30-6	N-Nitrosodiphenylamine	500	mg/kg	mg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	<29.6	<0.380
87-86-5	Pentachlorophenol	4.5	mg/kg	mg/kg	---	2.09	<0.381	<1.77	<1.79	---	---	---	---	<1.81	<1.84	---	---	<29.6	<0.380
85-01-8	Phenanthrene	1700	mg/kg	mg/kg	---	<1.74	<0.381	<1.77	<1.79	---	---	<1.76	<0.354	<1.81	<1.84	<0.667	<0.337	<29.6	<0.380
108-95-2	Phenol	18000	mg/kg	mg/kg	---	<1.74	<0.381	<1.77	<1.79	---	---	---	---	<1.81	<1.84	---	---	<29.6	<0.380
129-00-0	Pyrene	1700	mg/kg	mg/kg	---	<1.74	<0.381	<1.77	<1.79	---	---	<1.76	<0.354	<1.81	<1.84	<0.667	<0.337	<29.6	<0.380
110-86-1	Pyridine	#N/A	mg/kg	mg/kg	---	<1.74	<0.381	<1.77	<1.79	---	---	---	---	<1.81	<1.84	---	---	<29.6	<0.380
Sample ID					SB-89 6'	SB-101 0-2'	SB-101 6-10'	SB-102 0-2'	SB-102 2-6'	SB-103 0-2'	SB-103 2-6'	SB-104 0.5-2.5'	SB-104 6.5-10.5'	SB-105 0-2'	SB-105 6-10'	SB-106 0.5-2.5'	SB-106 2.5-4.5'	SB-107 0.5-2.5'	SB-107 8.5-10.5'
# of SCOIs exceeding criteria					0	0	0	0	0	0	0	0	0	0	0	0	0	1	0

Notes:
1. Iowa standard for mercury (CAS # 7439-97-6) used.
2. Iowa standard for PCBs (CAS# 1336-36-3) used.
3. Shaded values indicate concentrations above Iowa Statewide Soil Standard.

Table 2-2: Soil Analytical Results (2004 and 2006)
Former Chamberlain Property - Waterloo, Iowa

CAS No	Parameter	Iowa Statewide Soil Standard		Sample ID	SB-108 0.5-2.5'	SB-108 6.5-8.5'	SB-109 0.5-2.5'	SB-109 8.5-10.5'	SB-111 0-2'	SB-111 2-10'	SB-112 2-4'	SB-113 8-10'	SB-114 2-4'	SB-115 2-4'	SB-116 8.5-10.5'	Duplicate 1	Frequency of Detection	Frequency of [soil] > criteria
				Date Sampled	12/8/2006	12/8/2006	12/8/2006	12/8/2006	12/27/2006	12/27/2006	12/8/2006	12/8/2006	12/8/2006	12/8/2006	12/8/2006	12/8/2006		
		Value	Unit	Units														
INORGANIC PARAMETERS																		
7440-38-2	Arsenic	17	mg/kg	mg/kg	<1.04	<1.19	<1.01	<1.12	---	2.01	4.54	---	---	---	---	<1.16	45 of 53 (85%)	2 / 53 4%
7440-39-3	Barium	15000	mg/kg	mg/kg	29.2	41.3	26.2	24.1	---	41.2	104	---	---	---	---	26.9	53 of 53 (100%)	0 / 53 0%
7440-43-9	Cadmium	70	mg/kg	mg/kg	<1.04	<1.19	<1.01	<1.12	---	11.2	111	---	---	---	---	<1.16	31 of 53 (58%)	3 / 53 6%
7440-47-3	Chromium	190	mg/kg	mg/kg	4.52	3.72	3.11	4.92	---	6.35	7.5	---	---	---	---	3.97	53 of 53 (100%)	0 / 53 0%
7439-92-1	Lead	400	mg/kg	mg/kg	<5.19	<5.93	<5.07	<5.61	---	15.1	56.5	---	---	---	---	<5.78	32 of 53 (60%)	0 / 53 0%
7487-94-7	Mercury[1]	23	mg/kg	mg/kg	<0.0207	<0.0237	<0.0203	<0.0224	---	0.16	<0.0208	---	---	---	---	<0.0231	40 of 53 (75%)	0 / 53 0%
7782-49-2	Selenium	390	mg/kg	mg/kg	<7.78	<8.90	<7.61	8.75	---	<8.29	11.3	---	---	---	---	<8.67	8 of 53 (15%)	0 / 53 0%
7440-22-4	Silver	370	mg/kg	mg/kg	2.61	<1.19	<1.01	<1.12	---	<1.10	<1.04	---	---	---	---	<1.16	2 of 53 (4%)	0 / 53 0%
57-12-5	Cyanide	46	mg/kg														13 of 32 (41%)	0 / 58 0%
POLYCHLORINATED BIPHENYLS																		
11097-69-1	PCB-1016	#N/A	mg/kg	mg/kg	---	---	---	---	---	---	---	---	---	---	---	---	0 of 24 (0%)	NA / NA NA
11097-69-1	PCB-1221	#N/A	mg/kg	mg/kg	---	---	---	---	---	---	---	---	---	---	---	---	0 of 24 (0%)	NA / NA NA
11097-69-1	PCB-1232	#N/A	mg/kg	mg/kg	---	---	---	---	---	---	---	---	---	---	---	---	0 of 24 (0%)	NA / NA NA
11097-69-1	PCB-1242	#N/A	mg/kg	mg/kg	---	---	---	---	---	---	---	---	---	---	---	---	0 of 24 (0%)	NA / NA NA
11097-69-1	PCB-1248	#N/A	mg/kg	mg/kg	---	---	---	---	---	---	---	---	---	---	---	---	0 of 24 (0%)	NA / NA NA
11097-69-1	PCB-1254[2]	1.1	mg/kg	mg/kg	---	---	---	---	---	---	---	---	---	---	---	---	1 of 24 (4%)	0 / 24 0%
11097-69-1	PCB-1260	#N/A	mg/kg	mg/kg	---	---	---	---	---	---	---	---	---	---	---	---	0 of 24 (0%)	NA / NA NA
11097-69-1	PCB-1268	#N/A	mg/kg	mg/kg	---	---	---	---	---	---	---	---	---	---	---	---	0 of 24 (0%)	NA / NA NA
VOLATILE ORGANIC COMPOUNDS																		
630-20-6	1,1,1,2-Tetrachloroethane	2.3E+05	µg/kg	µg/kg	<13.1	<10.1	<8.59	<8.86	<13.1	<8.79	---	<12.0	<17.1	<12.6	<10.4	<17.0	0 of 64 (0%)	0 / 64 0%
71-55-6	1,1,1-Trichloroethane	1.5E+08	µg/kg	µg/kg	<13.1	<10.1	<8.59	<8.86	<13.1	<8.79	---	<12.0	<17.1	<12.6	<10.4	<17.0	21 of 64 (33%)	0 / 64 0%
79-34-5	1,1,2,2-Tetrachloroethane	1.5E+04	µg/kg	µg/kg	<13.1	<10.1	<8.59	<8.86	<13.1	<8.79	---	<12.0	<17.1	<12.6	<10.4	<17.0	0 of 64 (0%)	0 / 64 0%
79-00-5	1,1,2-Trichloroethane	5.4E+04	µg/kg	µg/kg	<13.1	<10.1	<8.59	<8.86	<13.1	<8.79	---	<12.0	<17.1	<12.6	<10.4	<17.0	0 of 64 (0%)	0 / 64 0%
75-34-3	1,1-Dichloroethane	1.5E+06	µg/kg	µg/kg	<13.1	<10.1	<8.59	<8.86	<13.1	<8.79	---	<12.0	<17.1	<12.6	<10.4	<17.0	2 of 64 (3%)	0 / 64 0%
75-35-4	1,1-Dichloroethene	3.8E+05	µg/kg	µg/kg	<13.1	<10.1	<8.59	<8.86	<13.1	<8.79	---	<12.0	<17.1	<12.6	<10.4	<17.0	0 of 64 (0%)	0 / 64 0%
563-58-6	1,1-Dichloropropene	#N/A	µg/kg	µg/kg	<13.1	<10.1	<8.59	<8.86	<13.1	<8.79	---	<12.0	<17.1	<12.6	<10.4	<17.0	0 of 64 (0%)	NA / NA NA
87-61-6	1,2,3-Trichlorobenzene	#N/A	µg/kg	µg/kg	<65.7	<50.7	<43.0	<44.3	<65.7	<44.0	---	<59.9	<85.6	<63.1	<51.8	<84.8	0 of 64 (0%)	NA / NA NA
96-18-4	1,2,3-Trichloropropane	1.0E+02	µg/kg	µg/kg	<13.1	<10.1	<8.59	<8.86	<13.1	<8.79	---	<12.0	<17.1	<12.6	<10.4	<17.0	0 of 64 (0%)	0 / 64 0%
120-82-1	1,2,4-Trichlorobenzene	7.6E+05	µg/kg	µg/kg	<65.7	<50.7	<43.0	<44.3	<65.7	<44.0	---	<59.9	<85.6	<63.1	<51.8	<84.8	0 of 21 (0%)	0 / 21 0%
95-63-6	1,2,4-Trimethylbenzene	3.8E+06	µg/kg	µg/kg	<13.1	<10.1	<8.59	<8.86	<13.1	<8.79	---	<12.0	<17.1	<12.6	<10.4	<17.0	3 of 64 (5%)	0 / 64 0%
96-12-8	1,2-Dibromo-3-chloropropane	2.6E+03	µg/kg	µg/kg	<131	<101	<85.9	<88.6	<131	<87.9	---	<120	<171	<126	<104	<170	0 of 64 (0%)	0 / 64 0%
106-93-4	1,2-Dibromoethane (EDB)	1.5E+03	µg/kg	µg/kg	<131	<101	<85.9	<88.6	<131	<87.9	---	<120	<171	<126	<104	<170	0 of 64 (0%)	0 / 64 0%
95-50-1	1,2-Dichlorobenzene	5.5E+06	µg/kg	µg/kg	<13.1	<10.1	<8.59	<8.86	<13.1	<8.79	---	<12.0	<17.1	<12.6	<10.4	<17.0	0 of 21 (0%)	0 / 21 0%
107-06-2	1,2-Dichloroethane	3.4E+04	µg/kg	µg/kg	<13.1	<10.1	<8.59	<8.86	<13.1	<8.79	---	<12.0	<17.1	<12.6	<10.4	<17.0	0 of 64 (0%)	0 / 64 0%
78-87-5	1,2-Dichloropropane	5.3E+04	µg/kg	µg/kg	<13.1	<10.1	<8.59	<8.86	<13.1	<8.79	---	<12.0	<17.1	<12.6	<10.4	<17.0	2 of 64 (3%)	0 / 64 0%
108-67-8	1,3,5-Trimethylbenzene	7.6E+05	µg/kg	µg/kg	<13.1	<10.1	<8.59	<8.86	<13.1	<8.79	---	<12.0	<17.1	<12.6	<10.4	<17.0	1 of 64 (2%)	0 / 64 0%
541-73-1	1,3-Dichlorobenzene	6.8E+06	µg/kg	µg/kg	<13.1	<10.1	<8.59	<8.86	<13.1	<8.79	---	<12.0	<17.1	<12.6	<10.4	<17.0	0 of 21 (0%)	0 / 21 0%
142-28-9	1,3-Dichloropropane	#N/A	µg/kg	µg/kg	<13.1	<10.1	<8.59	<8.86	<13.1	<8.79	---	<12.0	<17.1	<12.6	<10.4	<17.0	0 of 64 (0%)	NA / NA NA
106-46-7	1,4-Dichlorobenzene	7.6E+05	µg/kg	µg/kg	<13.1	<10.1	<8.59	<8.86	<13.1	<8.79	---	<12.0	<17.1	<12.6	<10.4	<17.0	0 of 21 (0%)	0 / 21 0%
594-20-7	2,2-Dichloropropane	#N/A	µg/kg	µg/kg	<52.5	<40.6	<34.4	<35.4	<52.5	<35.2	---	<47.9	<68.5	<50.5	<41.5	<67.8	0 of 64 (0%)	NA / NA NA
95-49-8	2-Chlorotoluene	1.5E+06	µg/kg	µg/kg	<13.1	<10.1	<8.59	<8.86	<13.1	<8.79	---	<12.0	<17.1	<12.6	<10.4	<17.0	1 of 64 (2%)	0 / 64 0%
591-78-6	2-Hexanone	#N/A	µg/kg	µg/kg	---	---	---	---	---	---	---	---	---	---	---	---	0 of 43 (0%)	NA / NA NA
106-43-4	4-Chlorotoluene	1.5E+06	µg/kg	µg/kg	<13.1	<10.1	<8.59	<8.86	<13.1	<8.79	---	<12.0	<17.1	<12.6	<10.4	<17.0	1 of 64 (2%)	0 / 64 0%
67-64-1	Acetone	6.8E+07	µg/kg	µg/kg	<131	<101	<85.9	<88.6	<131	<87.9	---	<120	<171	<126	<104	<170	41 of 64 (64%)	0 / 64 0%
107-13-1	Acrylonitrile	5.7E+03	µg/kg	µg/kg	<131	<101	<85.9	<88.6	<131	<87.9	---	<120	<171	<126	<104	<170	0 of 21 (0%)	0 / 21 0%
71-43-2	Benzene	5.6E+04	µg/kg	µg/kg	<13.1	<10.1	<8.59	<8.86	<13.1	<8.79	---	<12.0	<17.1	<12.6	<10.4	<17.0	24 of 97 (25%)	0 / 97 0%
108-86-1	Bromobenzene	#N/A	µg/kg	µg/kg	<13.1	<10.1	<8.59	<8.86	<13.1	<8.79	---	<12.0	<17.1	<12.6	<10.4	<17.0	0 of 64 (0%)	NA / NA NA
74-97-5	Bromochloromethane	7.6E+05	µg/kg	µg/kg	<13.1	<10.1	<8.59	<8.86	<13.1	<8.79	---	<12.0	<17.1	<12.6	<10.4	<17.0	0 of 64 (0%)	0 / 64 0%
75-27-4	Bromodichloromethane	5.0E+04	µg/kg	µg/kg	<13.1	<10.1	<8.59	<8.86	<13.1	<8.79	---	<12.0	<17.1	<12.6	<10.4	<17.0	0 of 64 (0%)	0 / 64 0%
75-25-2	Bromoform	3.9E+05	µg/kg	µg/kg	<26.3	<20.3	<17.2	<17.7	<26.3	<17.6	---	<24.0	<34.3	<25.2	<20.7	<33.9	0 of 64 (0%)	0 / 64 0%
74-83-9	Bromomethane	1.1E+05	µg/kg	µg/kg	<52.5	<40.6	<34.4	<35.4	<52.5	<35.2	---	<47.9	<68.5	<50.5	<41.5	<67.8	0 of 64 (0%)	0 / 64 0%
75-15-0	Carbon disulfide	7.6E+06	µg/kg	µg/kg	<13.1	<10.1	<8.59	<8.86	<13.1	<8.79	---	<12.0	<17.1	<12.6	<10.4	<17.0	1 of 64 (2%)	0 / 64 0%
56-23-5	Carbon Tetrachloride	4.4E+04	µg/kg	µg/kg	<13.1	<10.1	<8.59	<8.86	<13.1	<8.79	---	<12.0	<17.1	<12.6	<10.4	<17.0	0 of 21 (0%)	0 / 21 0%
108-90-7	Chlorobenzene	1.5E+06	µg/kg	µg/kg	<13.1	<10.1	<8.59	<8.86	<13.1	<8.79	---	<12.0	<17.1	<12.6	<10.4	<17.0	0 of 64 (0%)	0 / 64 0%
124-48-1	Chlorodibromomethane	1.5E+05	µg/kg	µg/kg	<13.1	<10.1	<8.59	<8.86	<13.1	<8.79	---	<12.0	<17.1	<12.6	<10.4	<17.0	0 of 64 (0%)	0 / 64 0%
75-00-3	Chloroethane	3.0E+07	µg/kg	µg/kg	<52.5	<40.6	<34.4	<35.4	<52.5	<35.2	---	<47.9	<68.5	<50.5	<41.5	<67.8	0 of 64 (0%)	0 / 64 0%
67-66-3	Chloroform	No std	µg/kg	µg/kg	<13.1	<10.1	<8.59	<8.86	<13.1	<8.79	---	<12.0	<17.1	<12.6	<10.4	<17.0	4 of 64 (6%)	No std / No std No std
74-87-3	Chloromethane	No std	µg/kg	µg/kg	<52.5	<40.6	<34.4	<35.4	<52.5	<35.2	---	<47.9	<68.5	<50.5	<41.5	<67.8	0 of 64 (0%)	No std / No std No std
156-59-2	cis-1,2-Dichloroethene	1.5E+05	µg/kg	µg/kg	<13.1	<10.1	<8.59	<8.86	<13.1	<8.79	---	<12.0	<17.1	<12.6	<10.4	<17.0	11 of 64 (17%)	0 / 64 0%
10061-01-5	cis-1,3-Dichloropropene	#N/A	µg/kg	µg/kg	<13.1	<10.1	<8.59	<8.86	<13.1	<8.79	---	<12.0	<17.1	<12.6	<10.4	<17.0	0 of 64 (0%)	NA / NA NA
74-95-3	Dibromomethane	7.6E+05	µg/kg	µg/kg	<13.1	<10.1	<8.59	<8.86	<13.1	<8.79	---	<12.0	<17.1	<12.6	<10.4	<17.0	0 of 64 (0%)	0 / 64 0%
75-71-8	Dichlorodifluoromethane	1.5E+07	µg/kg	µg/kg	<39.4	<30.4	<25.8	<26.6	<39.4	<26.4	---	<35.9	<51.4	<37.8	<31.1	<50.9	0 of 64 (0%)	0 / 64 0%
100-41-4	Ethylbenzene	7.6E+06	µg/kg	µg/kg	<13.1	<10.1	<8.59	<8.86	<13.1	<8.79	---	<12.0	<17.1	<12.6	<10.4	<17.0	20 of 97 (21%)	0 / 97 0%
87-68-3	Hexachlorobutadiene	4.0E+04	µg/kg	µg/kg	<65.7	<50.7	<43.0	<44.3	<65.7	<44.0	---	<59.9	<85.6	<63.1	<51.8	<84.8	0 of 64 (0%)	0 / 64 0%
110-54-3	Hexane	4.6E+06	µg/kg	µg/kg	<65.7	<50.7	<43.0	<44.3	<65.7	<44.0	---	<59.9	<85.6	<63.1	<51.8	<84.8	0 of 21 (0%)	0 / 21 0%

US EPA ARCHIVE DOCUMENT

Table 2-2: Soil Analytical Results (2004 and 2006)
Former Chamberlain Property - Waterloo, Iowa

CAS No	Parameter	Iowa Statewide Soil Standard		Sample ID	SB-108 0.5-2.5'	SB-108 6.5-8.5'	SB-109 0.5-2.5'	SB-109 8.5-10.5'	SB-111 0-2'	SB-111 2-10'	SB-112 2-4'	SB-113 8-10'	SB-114 2-4'	SB-115 2-4'	SB-116 8.5-10.5'	Duplicate 1	Frequency of Detection	Frequency of [soil] > criteria	
				Date Sampled	12/8/2006	12/8/2006	12/8/2006	12/8/2006	12/27/2006	12/27/2006	12/8/2006	12/8/2006	12/8/2006	12/8/2006	12/8/2006	12/8/2006			
		Value	Unit	Units															
98-82-8	Isopropylbenzene	7.6E+06	µg/kg	µg/kg	<13.1	<10.1	<8.59	<8.86	<13.1	<8.79	---	<12.0	<17.1	<12.6	<10.4	<17.0	1 of 64 (2%)	0 / 64	0%
78-93-3	Methyl ethyl ketone (MEK)	4.6E+07	µg/kg	µg/kg	<131	<101	<85.9	<88.6	<131	<87.9	---	<120	<171	<126	<104	<170	2 of 64 (3%)	0 / 64	0%
108-10-1	Methyl isobutyl ketone	6.1E+06	µg/kg	µg/kg	---	---	---	---	---	---	---	---	---	---	---	---	0 of 43 (0%)	0 / 43	0%
1634-04-4	Methyl tert-Butyl Ether	2.3E+06	µg/kg	µg/kg	<13.1	<10.1	<8.59	<8.86	<13.1	<8.79	---	<12.0	<17.1	<12.6	<10.4	<17.0	0 of 64 (0%)	0 / 64	0%
75-09-2	Methylene chloride	1.5E+06	µg/kg	µg/kg	<131	<101	<85.9	<88.6	<131	<87.9	---	<120	<171	<126	<104	<170	0 of 64 (0%)	0 / 64	0%
104-51-8	n-Butylbenzene	3.8E+06	µg/kg	µg/kg	<13.1	<10.1	<8.59	<8.86	<13.1	<8.79	---	<12.0	<17.1	<12.6	<10.4	<17.0	1 of 64 (2%)	0 / 64	0%
103-65-1	n-Propylbenzene	7.6E+06	µg/kg	µg/kg	<13.1	<10.1	<8.59	<8.86	<13.1	<8.79	---	<12.0	<17.1	<12.6	<10.4	<17.0	1 of 64 (2%)	0 / 64	0%
99-87-6	p-Isopropyltoluene	#N/A	µg/kg	µg/kg	<13.1	<10.1	<8.59	<8.86	<13.1	<8.79	---	<12.0	<17.1	<12.6	<10.4	<17.0	0 of 64 (0%)	NA / NA	NA
135-9-88	sec-Butylbenzene	#N/A	µg/kg	µg/kg	<13.1	<10.1	<8.59	<8.86	<13.1	<8.79	---	<12.0	<17.1	<12.6	<10.4	<17.0	1 of 64 (2%)	NA / NA	NA
100-42-5	Styrene	1.5E+07	µg/kg	µg/kg	<13.1	<10.1	<8.59	<8.86	<13.1	<8.79	---	<12.0	<17.1	<12.6	<10.4	<17.0	0 of 64 (0%)	0 / 64	0%
98-06-6	tert-Butylbenzene	#N/A	µg/kg	µg/kg	<13.1	<10.1	<8.59	<8.86	<13.1	<8.79	---	<12.0	<17.1	<12.6	<10.4	<17.0	1 of 64 (2%)	NA / NA	NA
127-18-4	Tetrachloroethene	1.5E+06	µg/kg	µg/kg	<13.1	<10.1	<8.59	<8.86	<13.1	<8.79	---	<12.0	27.2	<12.6	<10.4	<17.0	20 of 64 (31%)	0 / 64	0%
108-88-3	Toluene	6.1E+06	µg/kg	µg/kg	<13.1	<10.1	<8.59	<8.86	<13.1	<8.79	---	<12.0	<17.1	<12.6	<10.4	<17.0	32 of 97 (33%)	0 / 97	0%
156-60-5	trans-1,2-Dichloroethene	1.5E+06	µg/kg	µg/kg	<13.1	<10.1	<8.59	<8.86	<13.1	<8.79	---	<12.0	<17.1	<12.6	<10.4	<17.0	1 of 64 (2%)	0 / 64	0%
10061-02-6	trans-1,3-Dichloropropene	#N/A	µg/kg	µg/kg	<13.1	<10.1	<8.59	<8.86	<13.1	<8.79	---	<12.0	<17.1	<12.6	<10.4	<17.0	0 of 64 (0%)	NA / NA	NA
79-01-6	Trichloroethylene	6.7E+04	µg/kg	µg/kg	<13.1	<10.1	<8.59	<8.86	<13.1	<8.79	---	<12.0	207	<12.6	<10.4	<17.0	40 of 64 (63%)	0 / 64	0%
75-69-4	Trichlorofluoromethane	2.3E+07	µg/kg	µg/kg	<52.5	<40.6	<34.4	<35.4	<52.5	<35.2	---	<47.9	<68.5	<50.5	<41.5	<67.8	12 of 64 (19%)	0 / 64	0%
75-01-4	Vinyl Chloride	2.1E+03	µg/kg	µg/kg	<39.4	<30.4	<25.8	<26.6	<39.4	<26.4	---	<35.9	<51.4	<37.8	<31.1	<50.9	0 of 64 (0%)	0 / 64	0%
1330-20-7	Xylenes, Total	1.5E+07	µg/kg	µg/kg	<39.4	<30.4	<25.8	<26.6	<39.4	<26.4	---	<35.9	<51.4	<37.8	<31.1	<50.9	4 of 97 (4%)	0 / 97	0%
SEMI-VOLATILE ORGANIC COMPOUNDS																			
120-82-1	1,2,4-Trichlorobenzene	760	mg/kg	mg/kg	<0.342	<0.391	---	---	---	---	---	---	---	---	---	<1.91	0 of 68 (0%)	0 / 68	0%
95-50-1	1,2-Dichlorobenzene	5500	mg/kg	mg/kg	<0.342	<0.391	---	---	---	---	---	---	---	---	---	<1.91	0 of 68 (0%)	0 / 68	0%
541-73-1	1,3-Dichlorobenzene	6800	mg/kg	mg/kg	<0.342	<0.391	---	---	---	---	---	---	---	---	---	<1.91	0 of 68 (0%)	0 / 68	0%
106-46-7	1,4-Dichlorobenzene	760	mg/kg	mg/kg	<0.342	<0.391	---	---	---	---	---	---	---	---	---	<1.91	0 of 68 (0%)	0 / 68	0%
95-95-4	2,4,5-Trichlorophenol	6100	mg/kg	mg/kg	<0.342	<0.391	---	---	---	---	---	---	---	---	---	<1.91	0 of 50 (0%)	0 / 50	0%
88-06-2	2,4,6-Trichlorophenol	220	mg/kg	mg/kg	<0.342	<0.391	---	---	---	---	---	---	---	---	---	<1.91	0 of 50 (0%)	0 / 50	0%
120-83-2	2,4-Dichlorophenol	180	mg/kg	mg/kg	<0.342	<0.391	---	---	---	---	---	---	---	---	---	<1.91	1 of 50 (2%)	0 / 50	0%
105-67-9	2,4-Dimethylphenol	1200	mg/kg	mg/kg	<0.342	<0.391	---	---	---	---	---	---	---	---	---	<1.91	0 of 50 (0%)	0 / 50	0%
51-28-5	2,4-Dinitrophenol	120	mg/kg	mg/kg	<0.342	<0.391	---	---	---	---	---	---	---	---	---	<1.91	0 of 50 (0%)	0 / 50	0%
121-14-2	2,4-Dinitrotoluene	3.5	mg/kg	mg/kg	<0.342	<0.391	---	---	---	---	---	---	---	---	---	<1.91	0 of 50 (0%)	0 / 50	0%
606-20-2	2,6-Dinitrotoluene	3.6	mg/kg	mg/kg	<0.342	<0.391	---	---	---	---	---	---	---	---	---	<1.91	0 of 50 (0%)	0 / 50	0%
91-58-7	2-Chloronaphthalene	6100	mg/kg	mg/kg	<0.342	<0.391	---	---	---	---	---	---	---	---	---	<1.91	0 of 50 (0%)	0 / 50	0%
95-57-8	2-chlorophenol	310	mg/kg	mg/kg	<0.342	<0.391	---	---	---	---	---	---	---	---	---	<1.91	0 of 50 (0%)	0 / 50	0%
534-52-1	2-Methyl-4,6-dinitrophenol	#N/A	mg/kg	mg/kg	<0.342	<0.391	---	---	---	---	---	---	---	---	---	<1.91	0 of 50 (0%)	NA / NA	NA
91-57-6	2-Methylnaphthalene	230	mg/kg	mg/kg	<0.342	<0.391	---	---	---	---	---	---	---	---	---	<1.91	1 of 50 (2%)	0 / 50	0%
95-48-7	2-Methylphenol	3100	mg/kg	mg/kg	<0.342	<0.391	---	---	---	---	---	---	---	---	---	<1.91	0 of 50 (0%)	0 / 50	0%
88-74-4	2-Nitroaniline	#N/A	mg/kg	mg/kg	<0.342	<0.391	---	---	---	---	---	---	---	---	---	<1.91	0 of 50 (0%)	NA / NA	NA
88-75-5	2-Nitrophenol	#N/A	mg/kg	mg/kg	<0.342	<0.391	---	---	---	---	---	---	---	---	---	<1.91	0 of 50 (0%)	NA / NA	NA
91-94-1	3,3-Dichlorobenzidine	5.4	mg/kg	mg/kg	<0.342	<0.391	---	---	---	---	---	---	---	---	---	<1.91	0 of 50 (0%)	0 / 50	0%
99-09-2	3-Nitroaniline	#N/A	mg/kg	mg/kg	<0.342	<0.391	---	---	---	---	---	---	---	---	---	<1.91	0 of 50 (0%)	NA / NA	NA
101-55-3	4-Bromophenyl phenyl ether	#N/A	mg/kg	mg/kg	<0.342	<0.391	---	---	---	---	---	---	---	---	---	<1.91	0 of 50 (0%)	NA / NA	NA
59-50-7	4-Chloro-3-methylphenol	6100	mg/kg	mg/kg	<0.342	<0.391	---	---	---	---	---	---	---	---	---	<1.91	0 of 50 (0%)	0 / 50	0%
106-47-8	4-Chloroaniline	240	mg/kg	mg/kg	<0.342	<0.391	---	---	---	---	---	---	---	---	---	<1.91	0 of 50 (0%)	0 / 50	0%
7005-72-3	4-Chlorophenylphenyl ether	#N/A	mg/kg	mg/kg	<0.342	<0.391	---	---	---	---	---	---	---	---	---	<1.91	0 of 50 (0%)	NA / NA	NA
106-44-5	4-Methylphenol	6100	mg/kg	mg/kg	<0.342	<0.391	---	---	---	---	---	---	---	---	---	<1.91	0 of 50 (0%)	0 / 50	0%
100-01-6	4-Nitroaniline	#N/A	mg/kg	mg/kg	<0.342	<0.391	---	---	---	---	---	---	---	---	---	<1.91	0 of 50 (0%)	NA / NA	NA
100-02-7	4-Nitrophenol	490	mg/kg	mg/kg	<0.342	<0.391	---	---	---	---	---	---	---	---	---	<1.91	0 of 50 (0%)	0 / 50	0%
83-32-9	Acenaphthene	3400	mg/kg	mg/kg	<0.342	<0.391	---	---	---	---	---	---	---	---	---	<1.91	3 of 54 (6%)	0 / 54	0%
208-96-8	Acenaphthylene	1700	mg/kg	mg/kg	<0.342	<0.391	---	---	---	---	---	---	---	---	---	<1.91	1 of 54 (2%)	0 / 54	0%
120-12-7	Anthracene	17000	mg/kg	mg/kg	<0.342	<0.391	---	---	---	---	---	---	---	---	---	<1.91	2 of 54 (4%)	0 / 54	0%
92-87-5	Benzidine	0.011	mg/kg	mg/kg	<3.42	<3.91	---	---	---	---	---	---	---	---	---	<19.1	0 of 50 (0%)	0 / 50	0%
56-55-3	Benzo(a)anthracene	3.1	mg/kg	mg/kg	<0.342	<0.391	---	---	---	---	---	---	---	---	---	<1.91	10 of 54 (19%)	1 / 54	2%
50-32-8	Benzo(a)pyrene	0.31	mg/kg	mg/kg	<0.342	<0.391	---	---	---	---	---	---	---	---	---	<1.91	6 of 54 (11%)	2 / 54	4%
205-99-2	Benzo(b)fluoranthene	3.1	mg/kg	mg/kg	<0.342	<0.391	---	---	---	---	---	---	---	---	---	<1.91	9 of 54 (17%)	1 / 54	2%
191-24-2	Benzo(ghi)perylene	170	mg/kg	mg/kg	<0.342	<0.391	---	---	---	---	---	---	---	---	---	<1.91	5 of 54 (9%)	0 / 54	0%
207-08-9	Benzo(k)fluoranthene	31	mg/kg	mg/kg	<0.342	<0.391	---	---	---	---	---	---	---	---	---	<1.91	6 of 54 (11%)	0 / 54	0%
65-85-0	Benzoic Acid	#N/A	mg/kg	mg/kg	<0.685	<0.783	---	---	---	---	---	---	---	---	---	<3.82	0 of 50 (0%)	NA / NA	NA
100-51-6	Benzyl alcohol	6100	mg/kg	mg/kg	<0.342	<0.391	---	---	---	---	---	---	---	---	---	<1.91	0 of 50 (0%)	0 / 50	0%
85-68-7	Benzyl butyl phthalate	1300	mg/kg	mg/kg	<0.342	<0.391	---	---	---	---	---	---	---	---	---	<1.91	0 of 44 (0%)	0 / 44	0%
111-91-1	Bis(2-chloroethoxy)methane	#N/A	mg/kg	mg/kg	<0.342	<0.391	---	---	---	---	---	---	---	---	---	<1.91	0 of 50 (0%)	NA / NA	NA
111-44-4	Bis(2-chloroethyl)ether	2.8	mg/kg	mg/kg	<0.342	<0.391	---	---	---	---	---	---	---	---	---	<1.91	0 of 50 (0%)	0 / 50	0%
39638-32-9	Bis(2chloroisopropyl)ether	#N/A	mg/kg	mg/kg	<0.342	<0.391	---	---	---	---	---	---	---	---	---	<1.91	0 of 50 (0%)	NA / NA	NA
117-81-7	Bis(2-ethylhexyl)phthalate	170	mg/kg	mg/kg	<0.342	<0.391	---	---	---	---	---	---	---	---	---	<1.91	3 of 50 (6%)	0 / 50	0%
86-74-8	Carbazole	120	mg/kg	mg/kg	<0.342	<0.391	---	---	---	---	---	---	---	---	---	<1.91	1 of 50 (2%)	0 / 50	0%
218-01-9	Chrysene	310	mg/kg	mg/kg	<0.342	<0.391	---	---	---	---	---	---	---	---	---	<1.91	12 of 54 (22%)	0 / 54	0%
	Cresols, Total	#N/A	mg/kg	mg/kg	<0.342	<0.391	---	---	---	---	---	---	---	---	---	<1.91	0 of 50 (0%)	NA / NA	NA
53-70-3	Dibenzo(a,h)anthracene	0.31	mg/kg	mg/kg	<0.342	<0.391	---	---	---	---	---	---	---	---	---	<1.91	1 of 54 (2%)	0 / 54	0%

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Table 2-2: Soil Analytical Results (2004 and 2006)
Former Chamberlain Property - Waterloo, Iowa

CAS No	Parameter	Iowa Statewide Soil Standard		Sample ID	SB-108 0.5-2.5'	SB-108 6.5-8.5'	SB-109 0.5-2.5'	SB-109 8.5-10.5'	SB-111 0-2'	SB-111 2-10'	SB-112 2-4'	SB-113 8-10'	SB-114 2-4'	SB-115 2-4'	SB-116 8.5-10.5'	Duplicate 1	Frequency of Detection	Frequency of [soil] > criteria
		Value	Unit	Date Sampled	12/8/2006	12/8/2006	12/8/2006	12/8/2006	12/27/2006	12/27/2006	12/8/2006	12/8/2006	12/8/2006	12/8/2006	12/8/2006	12/8/2006		
				Units														
132-64-9	Dibenzofuran	76	mg/kg	mg/kg	<0.342	<0.391	---	---	---	---	---	---	---	---	---	<1.91	2 of 50 (4%)	0 / 50 0%
84-66-2	Diethyl phthalate	49000	mg/kg	mg/kg	<0.342	<0.391	---	---	---	---	---	---	---	---	---	<1.91	0 of 50 (0%)	0 / 50 0%
131-11-3	Dimethyl phthalate	#N/A	mg/kg	mg/kg	<0.342	<0.391	---	---	---	---	---	---	---	---	---	<1.91	0 of 50 (0%)	NA / NA NA
84-74-2	Di-n-butylphthalate	6100	mg/kg	mg/kg	<0.342	<0.391	---	---	---	---	---	---	---	---	---	<1.91	2 of 50 (4%)	0 / 50 0%
117-84-0	Di-n-octylphthalate	1200	mg/kg	mg/kg	<0.342	<0.391	---	---	---	---	---	---	---	---	---	<1.91	0 of 50 (0%)	0 / 50 0%
206-44-0	Fluoranthene	2300	mg/kg	mg/kg	<0.342	<0.391	---	---	---	---	---	---	---	---	---	<1.91	13 of 54 (24%)	0 / 54 0%
86-73-7	Fluorene	2300	mg/kg	mg/kg	<0.342	<0.391	---	---	---	---	---	---	---	---	---	<1.91	2 of 54 (4%)	0 / 54 0%
87-68-3	Hexachloro-1,3-butadiene	40	mg/kg	mg/kg	<0.342	<0.391	---	---	---	---	---	---	---	---	---	<1.91	0 of 50 (0%)	0 / 50 0%
118-74-1	Hexachlorobenzene	1.5	mg/kg	mg/kg	<0.342	<0.391	---	---	---	---	---	---	---	---	---	<1.91	0 of 50 (0%)	0 / 50 0%
77-47-4	Hexachlorocyclopentadiene	460	mg/kg	mg/kg	<0.685	<0.783	---	---	---	---	---	---	---	---	---	<3.82	0 of 50 (0%)	0 / 50 0%
67-72-1	Hexachloroethane	77	mg/kg	mg/kg	<0.342	<0.391	---	---	---	---	---	---	---	---	---	<1.91	0 of 50 (0%)	0 / 50 0%
193-39-5	Indeno(1,2,3-cd)pyrene	3.1	mg/kg	mg/kg	<0.342	<0.391	---	---	---	---	---	---	---	---	---	<1.91	5 of 54 (9%)	0 / 54 0%
78-59-1	Isophorone	2600	mg/kg	mg/kg	<0.342	<0.391	---	---	---	---	---	---	---	---	---	<1.91	1 of 50 (2%)	0 / 50 0%
91-20-3	Naphthalene	1100	mg/kg	mg/kg	<0.342	<0.391	---	---	---	---	---	---	---	---	---	<1.91	1 of 72 (1%)	0 / 72 0%
98-95-3	Nitrobenzene	No std	mg/kg	mg/kg	<0.342	<0.391	---	---	---	---	---	---	---	---	---	<1.91	0 of 50 (0%)	No std / No std No std
62-75-9	N-Nitrosodimethylamine	0.048	mg/kg	mg/kg	<0.342	<0.391	---	---	---	---	---	---	---	---	---	<1.91	0 of 50 (0%)	0 / 50 0%
621-64-7	N-Nitrosodi-n-propylamine	#N/A	mg/kg	mg/kg	<0.342	<0.391	---	---	---	---	---	---	---	---	---	<1.91	0 of 50 (0%)	NA / NA NA
86-30-6	N-Nitrosodiphenylamine	500	mg/kg	mg/kg	<0.342	<0.391	---	---	---	---	---	---	---	---	---	<1.91	1 of 44 (2%)	0 / 44 0%
87-86-5	Pentachlorophenol	4.5	mg/kg	mg/kg	<0.342	<0.391	---	---	---	---	---	---	---	---	---	<1.91	1 of 50 (2%)	0 / 50 0%
85-01-8	Phenanthrene	1700	mg/kg	mg/kg	<0.342	<0.391	---	---	---	---	---	---	---	---	---	<1.91	11 of 54 (20%)	0 / 54 0%
108-95-2	Phenol	18000	mg/kg	mg/kg	<0.342	<0.391	---	---	---	---	---	---	---	---	---	<1.91	0 of 50 (0%)	0 / 50 0%
129-00-0	Pyrene	1700	mg/kg	mg/kg	<0.342	<0.391	---	---	---	---	---	---	---	---	---	<1.91	11 of 54 (20%)	0 / 54 0%
110-86-1	Pyridine	#N/A	mg/kg	mg/kg	<0.342	<0.391	---	---	---	---	---	---	---	---	---	<0.382	0 of 50 (0%)	NA / NA NA
Sample ID					SB-108 0.5-2.5'	SB-108 6.5-8.5'	SB-109 0.5-2.5'	SB-109 8.5-10.5'	SB-111 0-2'	SB-111 2-10'	SB-112 2-4'	SB-113 8-10'	SB-114 2-4'	SB-115 2-4'	SB-116 8.5-10.5'	Duplicate 1		
# of SCOIs exceeding criteria					0	0	0	0	0	0	1	0	0	0	0	0		

Notes:
1. Iowa standard for mercury (CAS # 7439-97-6) used.
2. Iowa standard for PCBs (CAS# 1336-36-3) used.
3. Shaded values indicate concentrations above Iowa Statewide Soil Standard.

Figures

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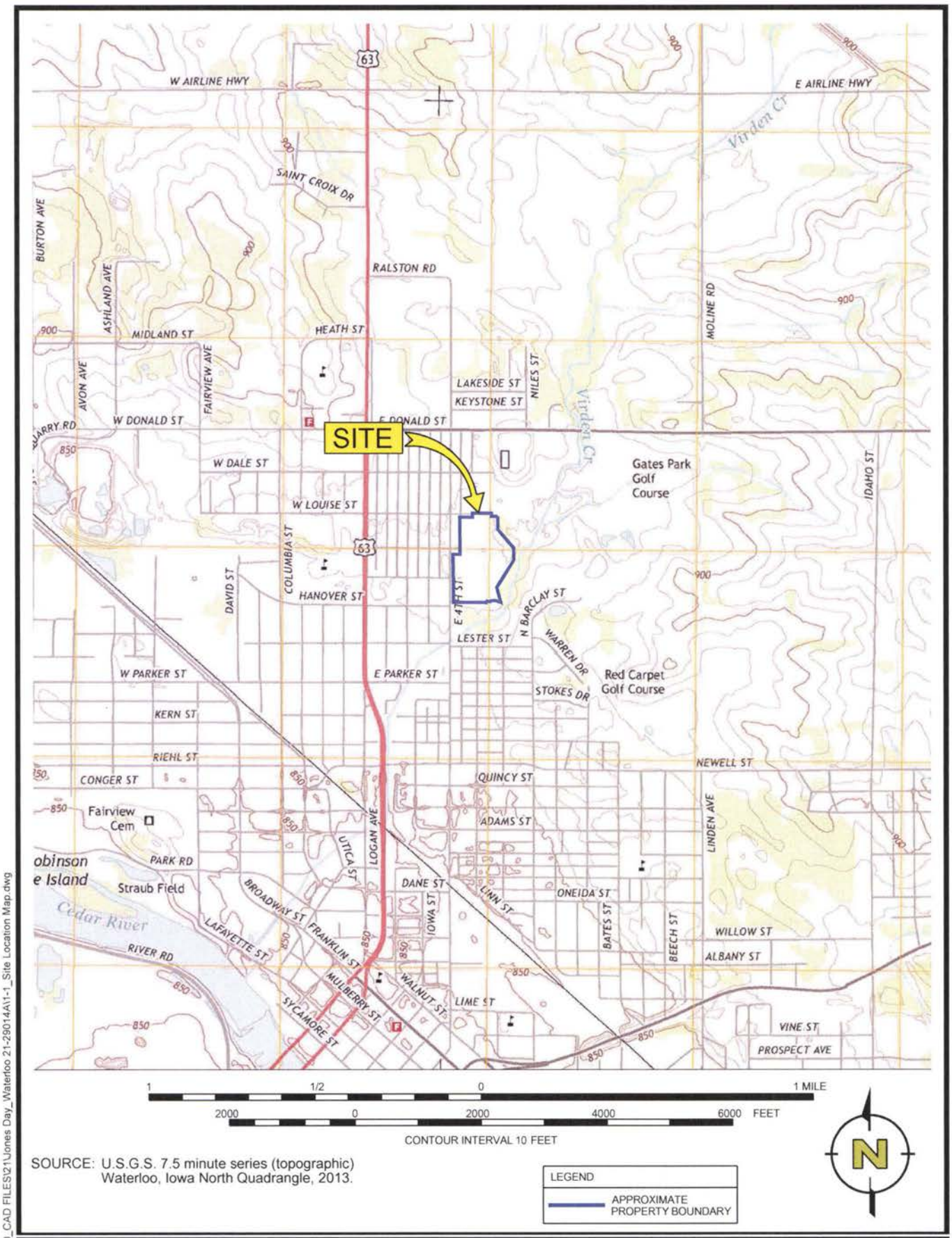


SOURCE: U.S.G.S. 7.5 minute series (topographic)
Waterloo, Iowa North Quadrangle, 2013.

ENVIRON

SITE LOCATION MAP
FORMER CHAMBERLAIN MANUFACTURING PROPERTY
WATERLOO, IOWA

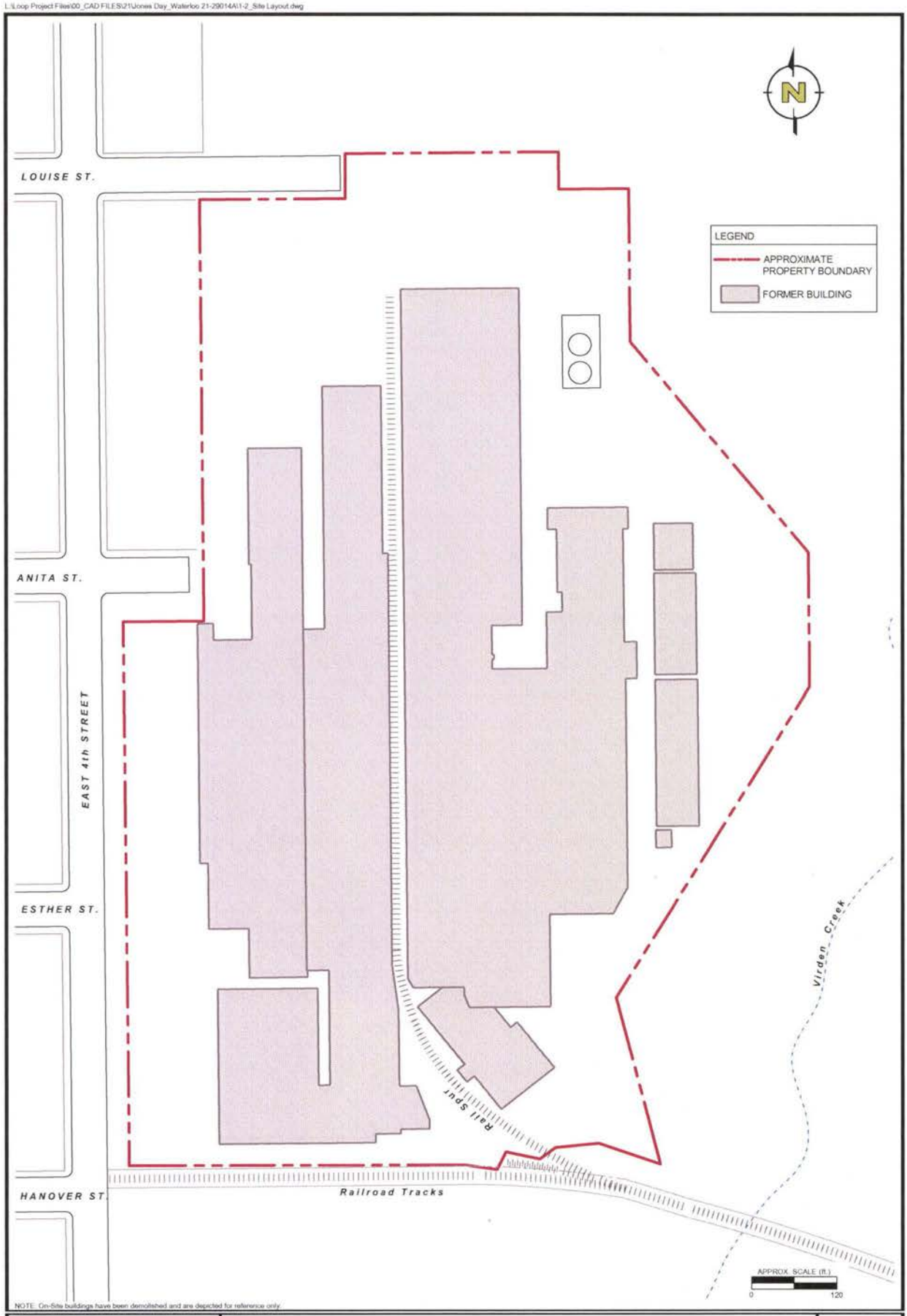
FIGURE
1-1

DRAFTED BY: ELS | DATE: 6/27/13 | 21-29014A

L:\Loop Project Files\00_CAD FILES\21\Jones Day_Waterloo 21-29014A\1-1_Site Location Map.dwg

US EPA ARCHIVE DOCUMENT

L:\Loop Project Files\00_CAD FILES\21\Jones Day_Waterloo 21-29014A\1-2_Site Layout.dwg



NOTE: On-Site buildings have been demolished and are depicted for reference only.

ENVIRON

DRAFTED BY: ELS | DATE: 6/28/13

SITE LAYOUT
FORMER CHAMBERLAIN MANUFACTURING PROPERTY
WATERLOO, IOWA

FIGURE
1-2

21-29014A

US EPA ARCHIVE DOCUMENT

ENVIRON

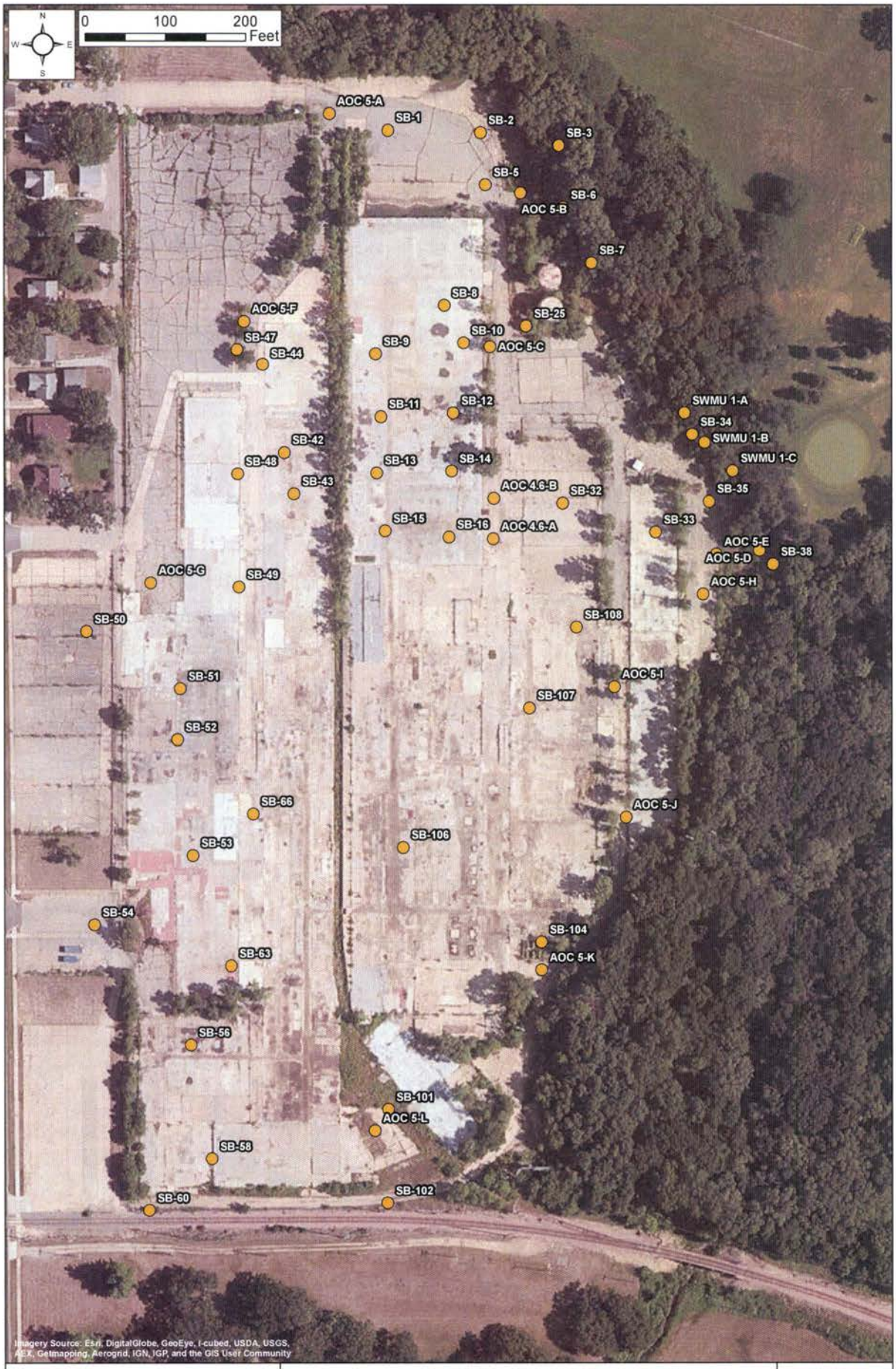
Previous Soil Sample Locations
Analyzed for VOCs

Figure
2-1

Date: 1/23/2014

Document Path: M:\Waterloo\GIS\MXD\Sample Classes.mxd

US EPA ARCHIVE DOCUMENT



ENVIRON

Previous Soil Sample Locations
Analyzed for SVOCs

Figure
2-2

Date: 1/23/2014

Document Path: M:\Waterloo\GIS\MXD\Sample Classes.mxd

US EPA ARCHIVE DOCUMENT

ENVIRON

Previous Soil Sample Locations Analyzed for PCBs

Figure 2-3

Date: 1/23/2014

Document Path: M:\Waterloo\GIS\MXD\Sample Classes.mxd

US EPA ARCHIVE DOCUMENT

ENVIRON

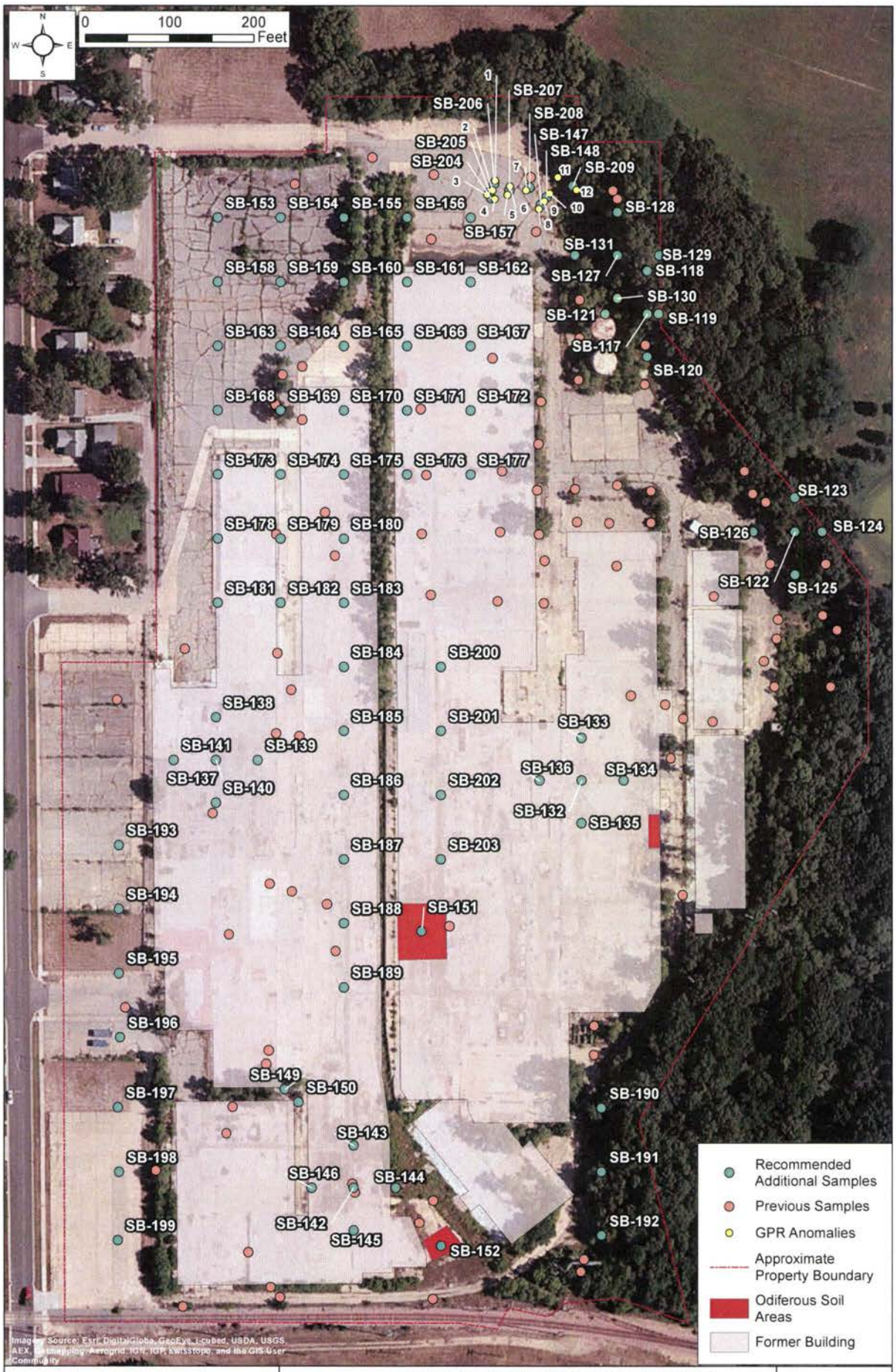
Previous Soil Sample Locations
Analyzed for Metals

Figure
2-4

Date: 1/23/2014

Document Path: M:\Waterloo\GIS\MXD\Sample Classes.mxd

US EPA ARCHIVE DOCUMENT



ENVIRON

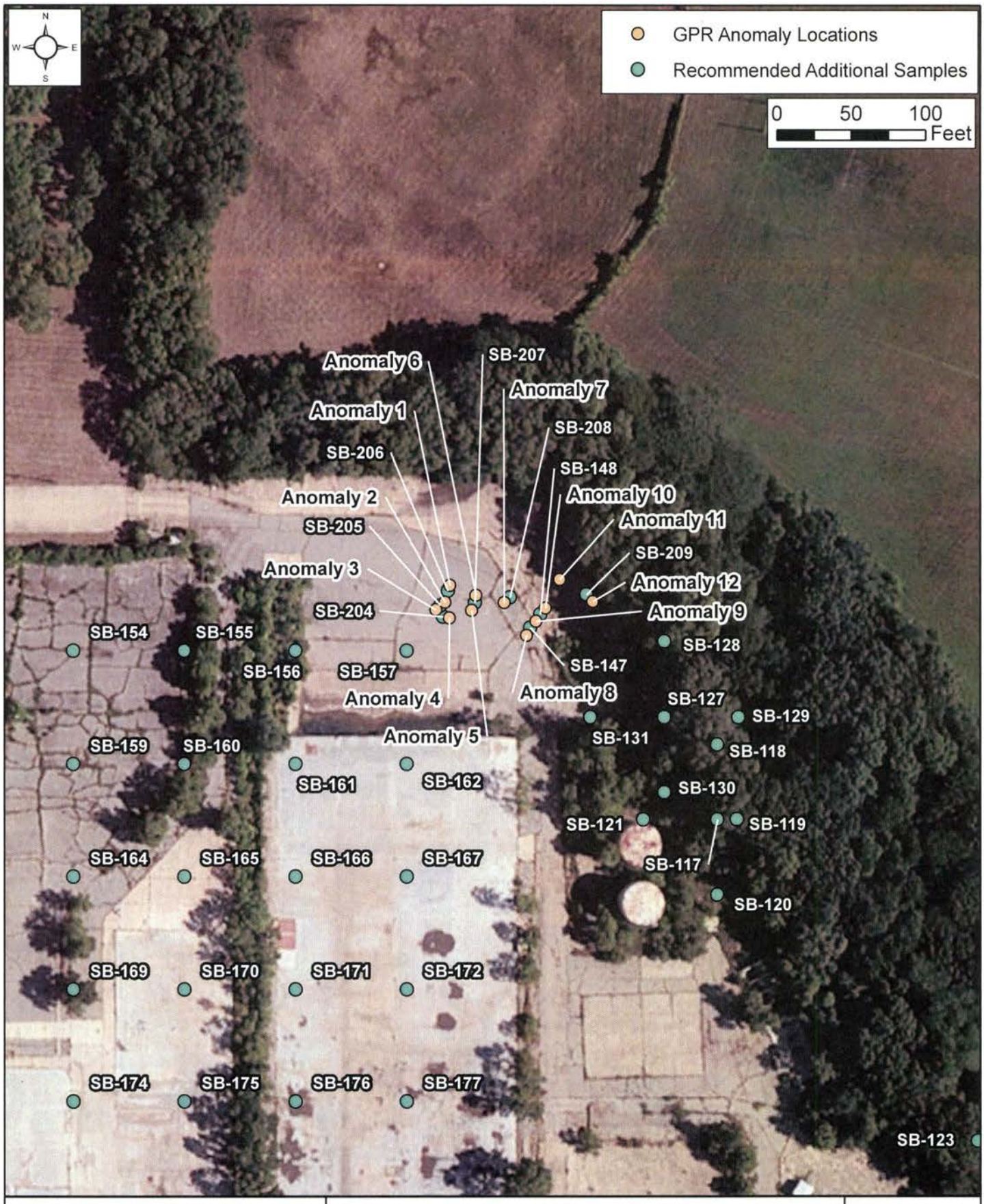
Previous and Recommended Additional Soil Sampling Locations

Former Chamberlain Manufacturing Property, Waterloo, Iowa

Figure 2-5

Date: 3/26/2014

Document Path: M:\Waterloo\GIS\MXD\ProposedSamples.mxd



ENVIRON

Locations of Identified Geophysical Anomalies

Figure 2-6

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