

DRAFT ECOLOGICAL RISK ASSESSMENT – STEPS 1 AND 2 OF USEPA ECOLOGICAL RISK ASSESSMENT PROCESS VAN BUREN LANDFILL

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TABLE OF CONTENTS

1	INTRODUCTION	1
2	STEP 1: SCREENING LEVEL.....	2
2.1	Site Visit.....	2
2.2	Initial Problem Formulation and Environmental Setting	3
2.3	Threatened and Endangered Species Identification.....	3
2.4	Initial Conceptual Site Model.....	4
2.5	Screening Level Assessment Approach.....	6
2.6	Toxicity Evaluation	6
2.6.1	Surface Water Screening Levels	7
2.6.2	Soil Screening Levels.....	7
3	STEP 2: SCREENING LEVEL EXPOSURE ESTIMATE AND RISK CALCULATION.....	9
3.1	Exposure Estimate	9
3.1.1	Surface Water Exposure.....	9
3.1.2	Soil Bore Data	10
3.1.3	Incremental Soil Data.....	10
3.1.3.1	Incremental Surface Soil Sampling Approach	10
3.2	Risk Calculation	13
3.2.1	Surface Water Data	13
3.2.2	Soil Bore Data	14
3.2.3	Incremental Soil Data.....	15
3.3	Differences between Soil Bore and Incremental Samples	15
3.4	Next Steps in Ecological Risk Assessment	16
4	REFERENCES	18

List of Tables

Table 1	Wayne County, Michigan, Federally Listed Threatened, Endangered, and Proposed Species	1
Table 2	Key Receptor Foraging Ranges	2
Table 3	Sample Zone Locations and Types	3
Table 4	Detected Chemicals with Hazard Quotients Greater than 1	4
Table 5	Chemicals Not Detected and Method Detection Limit was Greater than 20% of Screening Level	6
Table 6	Chemicals Not Detected and Method Detection Limit was Less than 20% of Screening Level	8
Table 7	Detected Chemicals with Hazard Quotients Less than 1	9
Table 8	No Screening Level and Not Detected	10
Table 9	No Screening Level and Detected	12

List of Figures

Figure 1	Eight-step Ecological Risk Assessment Process for Superfund
Figure 2	Conceptual Site Model
Figure 3	Study Area
Figure 4	Sample Zones for the Landfill
Figure 5	Example of Incremental and Replicate Grid Cells for a Zone

List of Appendices

Appendix A	Surface Soil and Surface Water Data and Results of Screens

LIST OF ACRONYMS AND ABBREVIATIONS

BERA	baseline ecological risk assessment
bgs	below ground surface
COPEC	constituent of potential ecological concern
CSM	Conceptual Site Model
Eco-SSL	ecological soil screening level
EPC	exposure point concentration
ERA	ecological risk assessment
ESA	Environmental Site Assessment
HPAH	high molecular weight polycyclic aromatic hydrocarbon
HQ	hazard quotient
ITRC	Interstate Technology & Regulatory Council
L	liter
LPAH	low molecular weight polycyclic aromatic hydrocarbon
MDL	method detection limit
mg	milligram
NOAEL	no observed adverse effects level
PAH	polycyclic aromatic hydrocarbon
PCB	polychlorinated biphenyl
RCRA	Resource Conservation and Recovery Act
Site	Van Buren Landfill Site
SL	screening level
SLERA	screening level ecological risk assessment
SVOC	semi-volatile organic compound
SLERA	screening level ecological risk assessment
USEPA	U.S. Environmental Protection Agency
VOC	volatile organic compound

1 INTRODUCTION

The Van Buren Landfill Site (Site) is located at Michigan Avenue and Ecorse Road, Van Buren Township, Wayne County, Michigan. An ecological risk assessment (ERA) is being completed for the Site as part of a Resource Conservation and Recovery Act (RCRA) investigation of the Site. The ERA is following the United States Environmental Protection Agency's (USEPA) eight-step ERA process as depicted in Figure 1 (USEPA 1997). The objective of this report is to document the completion of the initial two steps of the eight-step ERA process.

As outlined in Figure 1 and discussed in detail in the USEPA's risk assessment guidance (USEPA 1997), the first two steps are as follows:

- Step 1 – Screening Level:
 - Site Visit
 - Initial Problem Formulation or Site Assessment
 - Threatened and Endangered Species Evaluation
 - Toxicity Evaluation
- Step 2 – Screening Level:
 - Exposure Estimate
 - Risk Calculation

Essentially, the first two steps of the ERA process involve the completion of a screening level ecological risk assessment (SLERA), and include defining the constituents of potential ecological concern (COPECs); developing the Conceptual Site Model (CSM) of exposure to COPECs through various media, including the receptors of concern; and developing the overall approach for completing the site-specific baseline ecological risk assessment (BERA) at a site, including additional data that are required to complete the BERA. The following sections of this report document the completion of the first two steps of the ERA process at the Site.

2 STEP 1: SCREENING LEVEL

During Step 1 of the ERA process, a site visit, description of the environmental setting, and toxicity evaluation are completed. The site visit and description of the environmental setting are important for describing the site to be evaluated, refining an understanding of the exposure pathways, and defining the receptors for the site. The toxicity evaluation is used to determine whether the levels of chemicals present in various media at a site have the potential to cause adverse effects to ecological receptors that might be exposed to the chemicals.

2.1 Site Visit

A Site visit was conducted on May 29, 2014. The purpose of the Site visit was to refine a preliminary CSM, including potential receptors and exposure areas, which was developed based on an initial review of existing information for the Site. The preliminary CSM included exposure to COPECs in surficial soils by soil invertebrates and terrestrial birds and mammals, and to COPECs in surface water by aquatic organisms. During the Site visit, the following key observations were made related to potential receptors at the Site:

- The surface waterbody located in the south-central portion of the Site, where a surface water sample was collected previously, is a temporary or vernal pool. There were no signs of plants that require water in their lifecycle (e.g., cattails) associated with the pool. There was some aquatic life in the pool, including tadpoles for an unknown amphibian, aquatic beetles, and snails.
- No aquatic life activity was observed with previously identified seep areas.
- Activity related to voles was observed (e.g., signs of tunneling under logs).
- American robins (*Turdus migratorius*; robins) were observed on the ground and in trees.
- Shrews were not observed but were likely present because their habitat was available (e.g., logs).
- Earthworms were observed at several locations.

Based on these observations, an initial ecological CSM for the Site was developed. The initial CSM for the Site is presented in Section 2.4. There have been no modifications to the Site since the May 2014 site visit.

2.2 Initial Problem Formulation and Environmental Setting

The Site comprises approximately 68 acres of land located in the Van Buren Township, Wayne County, Michigan. The Site is zoned for general industrial use and located in an area surrounded by mixed commercial, agricultural, industrial, residential, and airport properties (Mannik & Smith 2012). The Site has been vacant since the closure of the Van Buren Development Company landfill in 1969, when the Site was purchased by the General Motors Corporation. The Site is heavily wooded throughout most of the property.

Historical records identified in the Phase I Environmental Site Assessment (ESA; Encore Environmental Consortium, LLC 2007) indicate various wastes were landfilled at the Site (Mannik & Smith 2012), including the following wastes:

- Incinerator ash
- Demolition waste and domestic refuse
- Waste paper
- Crankcase oil sludge
- Liquid waste stored in 55-gallon drums

2.3 Threatened and Endangered Species Identification

There are six threatened, endangered, or proposed as threatened species identified for Wayne County in the State of Michigan (USFWS 2016). For three of the species, the required habitat does not exist at the Site (Table 1). Appropriate habitat may exist at the Site for the remaining three of those six species (Table 1). A brief description of the three species for which suitable habitat may be available at the Site follows.

The Northern long-eared bat (*Myotis septentrionalis*) is threatened in the State of Michigan. The bat hibernates in caves and mines during the winter and swarms in surrounding wooded areas during autumn. The bat roosts and forages in upland forests during spring and summer. Roosting habitat may be present at the Site.

The Eastern massasauga (*Sistrurus catenatus*) is a rattlesnake that is proposed as threatened in the State of Michigan. This species utilizes grass-dominated plant communities (e.g., fens,

sedge meadows, peatlands, and wet prairies) open woodlands, and shrub land. This type of habitat may be present at the Site.

The Eastern prairie fringed orchid (*Platanthera leucophaea*) is threatened in the State of Michigan. This plant needs mesic to wet prairies and meadows. There are a limited amount of wet meadows at the Site, which may provide suitable habitat.

2.4 Initial Conceptual Site Model

The initial ecological CSM for the Site is presented in Figure 2. The CSM helps define the relationships between COPECs and assessment endpoints. The CSM provides a basis for predicting effects on ecological receptors and a template for generating risk questions and testable hypotheses (USEPA 2004). More specifically, the CSM describes the primary and secondary sources of contaminants, ecological receptors, and exposure pathways that link the sources to the receptors. This CSM presents the receptors that may be present at a site and the relevant exposure pathways for these receptors.

A CSM describes the relationships between the receptors (i.e., aquatic life and wildlife) that are potentially at risk at a site and how they may be exposed to COPECs. The potential exposures are evaluated through the identification of the primary and secondary sources at the Site. For example, surface soil and surface water are secondary sources at the Site, and the former landfill is a primary source. Based on these sources, the exposure pathways are described for the receptors. The receptors proposed for quantitative evaluation for the Site are based on best professional judgment and species that were observed during the Site visit. These receptors may be directly exposed to contaminants in soils at the Site or are indirectly exposed via their diet. They are also species for which quantitative evaluation of potential risk addresses potential risk for other species. The following receptor groups and representative receptors will be evaluated quantitatively in the BERA:

- Terrestrial plants
- Soil invertebrates (e.g., earthworms)
- Avian receptors
 - Invertivore (robin)
 - Herbivore (mourning dove)

- Mammalian receptors
 - Invertivore (shrew)
 - Herbivore (Vole)

Although many exposure pathways may exist in an ecosystem, not all pathways are complete. For complete exposure pathways, some may be of greater relevance for potential risk than others (USEPA 1997). Exposure pathways are typically described in the following ways:

- **Complete and significant** – There is a link between the source and the receptor, and the pathway is considered a potentially important driver for risk. This pathway will be evaluated quantitatively.
- **Complete and insignificant or significance unknown** – There is a link between the source and the receptor; however, the significance of this pathway in terms of overall exposure is either minor relative to other exposure pathways or is unknown.
- **Incomplete** – There is no link between the source and the receptor. Further assessment of these pathways will not be performed.

Based on current understanding of the Site, Figure 2 presents the ecological CSM as it relates to the exposure pathways. The following are complete and significant exposure pathways for the Site:

- Direct contact to soil (for plants and soil invertebrates)
- Indirect exposure to the soil via the consumption of soil invertebrates by avian and mammalian receptors
- Direct exposure to the soil for avian and mammalian receptors by incidental soil consumption
- Direct contact to surface water for the vernal pool (for aquatic life)

Although direct contact to surface water for aquatic life in the vernal pool is complete, the seeps associated with the Site are not believed to be utilized by aquatic life and, thus, the seeps themselves are an incomplete pathway for aquatic life at the Site. The seeps are located offsite on a bank that was created when the adjacent roadway and railroad underpass were constructed.

The ecological CSM is based on information about the sources of the chemicals, the existing habitat, and the significance of the exposure pathways from the sources to the receptors. The CSM also provides the basis for identifying assessment endpoints and measurement endpoints for representative receptors in the BERA.

2.5 Screening Level Assessment Approach

The screening level (SL) assessment for chemicals in surface water and in soil samples comprise the following steps:

- **Identification of SLs** – See Section 2.6.1 for surface water and Section 2.6.2 for soil.
- **Screening Process** – See Section 3:
 - Detected chemicals:
 - If the maximum detected concentration for any chemical is less than its respective SL, the chemical is eliminated from further consideration.
 - If the maximum detected concentration for any chemical is greater than its SL, the chemical is defined as a COPEC and is carried forward to the BERA.
 - For those detected chemicals for which a SL is not available, the chemical is defined as an uncertain COPEC and is evaluated qualitatively in the BERA.
 - Non-detected Chemicals
 - If the method detection limit (MDL) for any chemical is less than 20% of its respective SL, the chemical is eliminated from further consideration.
 - If the MDL for any chemical is greater than 20% of its respective SL, the chemical is identified as an uncertain COPEC and is evaluated qualitatively in the BERA.
 - For those non-detected chemicals for which a SL is not available, the chemical is defined as an uncertain COPEC and is evaluated qualitatively in the BERA.

2.6 Toxicity Evaluation

A toxicity evaluation or ecological effects evaluation review of relevant information was completed during Step 1 to determine whether the levels of chemicals present in various media at the Site (as a result of the historical landfilling operations) have the potential to cause adverse effects to ecological receptors that might be exposed to the chemicals.

Specifically, SLs were selected for use in the toxicity evaluation. SLs are conservative, risk-based toxicity values that can be used to evaluate the potential that exposure to chemicals at a site will cause adverse effects to the receptors located at a site.

2.6.1 Surface Water Screening Levels

For the aquatic life toxicity evaluation, the SLs for the Site are based primarily on water quality criteria for aquatic receptors. See Appendix A, Table A-1, for a list of the SLs for chemicals evaluated in surface water samples from the Site for which the toxicity evaluation was completed. SLs for these detected chemicals were derived from the USEPA Region 4 list of SLs for surface water exposure (USEPA 2015), USEPA's National Recommended Water Quality Criteria (USEPA 2014), and State of Michigan water quality standards for silver (MDEQ 2014). For the hardness-dependent metals, equations were taken from these two sources and adjusted using the results from a sample collected from the temporary pool in 2016; the hardness in that sample was 2,200 milligrams per liter (mg/L; see Section 3.1.1). Because the studies on the relationship between hardness and metals are limited to a maximum of 400 mg/L and USEPA recommends setting the hardness to 400 mg/L when the measured hardness is higher (USEPA 2002), the hardness was set at 400 mg/L.

2.6.2 Soil Screening Levels

The SLs for exposure to surficial soils are based on the receptors found at a site. The ecological receptors for surficial soil exposure at the Site are those based on the initial CSM presented in Section 2.4. The following is a list of these receptors:

- Terrestrial plants
- Soil invertebrates (e.g., earthworms)
- Avian receptors
 - Invertivore (robin)
 - Herbivore (mourning dove)
- Mammalian receptors
 - Invertivore (shrew)
 - Herbivore (vole)

The surficial soil exposure SLs for these receptors are based on ecological soil SLs developed by USEPA Region 4 (USEPA 2015). Several of the Region 4 ecological soil screening levels (Eco-SSLs) were derived by USEPA as a set of risk-based Eco-SSLs for many of the contaminants often found in soil that are of ecological concern for wildlife receptors, earthworms, and plants at hazardous waste sites (USEPA 2003). Eco-SSLs are available for several metals and polycyclic aromatic hydrocarbons (PAHs). PAHs are evaluated as either low molecular weight PAHs (LPAHs) or high molecular weight PAHs (HPAH), and the SLs are only available for mammals. Although many of the USEPA Region 4 soil SLs are based on USEPA's Eco-SSL documents, the SLs included in the Region 4 document are used here because Region 4 has selected the lowest SL and is therefore protective of all receptors presented above. Appendix A, Table A-2, includes Region 4 SLs for all chemicals evaluated at the Site in the surficial soil samples (0 to 2 feet below the ground surface [0 to 2 bgs]). Notwithstanding the completeness of the Region 4 SL database, some of the chemicals evaluated at the Site do not have SLs.

In general, the most conservative SL values were used for each chemical because the Region 4 SLs were developed for this purpose (USEPA 2015). The most conservative SL is one that protects all receptors that have a chance of exposure to a chemical at the Site and is based on the no observed adverse effects level (NOAEL) for the chemical (Table A-2).

The results of the screening evaluation for the receptors included in the Site CSM are presented in Step 2 of the ERA process (see Section 3).

3 STEP 2: SCREENING LEVEL EXPOSURE ESTIMATE AND RISK CALCULATION

In Step 2 of the ERA process, the exposure estimates and risk calculations are completed to initially describe potential risk for receptors at a site. After these two tasks are completed, the COPECs for the Site are identified.

3.1 Exposure Estimate

There are two datasets for surface water data and two datasets for soil data for the Site. One of the surface water datasets and one of the soil datasets (from soil bore analyses) are historical samples collected between 2013 and 2014. The second surface water dataset comprises a sample collected from the vernal pool in July 2016, as discussed below. The historical soil bore samples did not fully characterize the entire Site. Specifically, Figure 3 shows these historical soil sample locations were not evenly distributed throughout the Site and, therefore, the distribution of potential COPECs was not well characterized spatially. Additional sample locations that are spatially distributed throughout the Site were necessary to evaluate exposure to COPECs in surficial soils by receptors foraging in different areas throughout the Site. For the second exposure assessment, the Site was divided into ten different zones, which were sampled in an incremental soil sample collection effort that is described in Section 3.1.3.

3.1.1 Surface Water Exposure

For aquatic receptors, surface water data from Mannik & Smith (2014a) and *RACER Van Buren Landfill Site – Phase III Site Investigation* (Mannik & Smith 2014b), along with a sample collected from the temporary pool in 2016, were used for the exposure assessment. Surface water data from these two reports and the 2016 sample event represent data for samples collected in 2013, 2014, and 2016. There are limited areas at the Site where surface water is present. In 2013 and 2014, two samples were collected from seeps (SW-1 and SW-3) adjacent to the western boundary of the Site and two from the temporary pool (SW-2) located in the south-central section of the Site (Appendix A, Table A-3). Surface water samples were analyzed for metals, volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and PAHs. In July 2016, a surface water sample was analyzed for hardness-dependent metals and hardness to fill a data gap on site-specific hardness levels.

3.1.2 Soil Bore Data

For the exposure assessment using the historical soil bore dataset, the Site is evaluated without any zones; these data were not collected within any pre-determined zone boundaries. The maximum concentration for all samples is used in the screening process. Any analyses that may be based on defined zones within the landfill in the BERA will utilize soil samples collected during the incremental sampling program.

For terrestrial receptors (i.e., plants, soil invertebrates, and avian and mammalian wildlife), surficial soil data from the *RACER Van Buren Landfill Site – Phase II Site Investigation* (Mannik & Smith 2014a) were used for the exposure estimates. Soil samples that were collected in 2012 and 2013 were presented in Mannik & Smith (2014a). In this context, surface soil was defined as the soil samples that represented the interval from 0 to 2 feet bgs. There are 16 existing surface soil samples from the Site (Appendix A, Tables A-4 and A-5). Soil samples were analyzed for metals, VOCs, SVOCs, PAHs, pesticides, and polychlorinated biphenyls (PCBs).

3.1.3 Incremental Soil Data

A second set of soil samples were collected in 2015 to further characterize the Site. This was done because the soil bore samples were collected in a manner that did not allow for a full characterization of possible exposures for ecological receptors at the Site. For the second exposure assessment, the Site was evaluated using ten different zones, which were sampled in an incremental soil sample collection effort (Figures 4 and 5). The following is a description of the incremental soil sample collection approach. Details on the sample design for the collection of soil samples following an incremental soil sample collection approach were submitted in August 2014 (Anchor QEA 2014) and verbally approved by the USEPA in October 2014.

3.1.3.1 Incremental Surface Soil Sampling Approach

The surface soil sampling design was based on incremental soil sample collection methods. Incremental samples are prepared by collecting multiple increments of soil (usually 30) from a specified grid, zone, or decision unit and combining these increments into a single sample. Samples collected using this methodology are expected to result in a soil sample with a

contaminant concentration that is representative of the zone (ITRC 2012). The following are key components of the soil sampling approach:

- To achieve the data needs for the ERA, the former landfill was separated into zones. The zones were defined to meet ERA needs and were generally based on the foraging and home ranges of receptors that have been observed at the Site and represent the feeding guilds included in the CSM. Because home ranges for different receptors vary in size, the selection of the area for the zone did attempt to balance the needs for all receptors. The home ranges for two receptors, a shrew and a robin, were selected because they have the highest potential risks compared to the other two receptors, the dove and the vole, and their foraging ranges encompass the vole's (Table 2). The dove's foraging area is much larger than the other receptors; the data from all zones combined did adequately cover this receptor. All but one zone represents the area potentially used for foraging by a key avian or mammalian receptor (Table 2).
- The area for each of the ten zones is at least 87,000 square feet (2 acres) to cover the foraging area for robin and shrew. One zone (Zone 5) is larger to capture the area between two soil bore stations that have elevated risks for robin and shrew.
- The other six zones were selected to cover areas where soil samples have not been collected during previous sampling efforts. These additional zones allow for a good overall coverage of the landfill in addition to samples collected during Phase II. To date, most samples have been collected from the northern and western sections of the landfill (Table 3 and Figure 3); the additional six zones helped to fill any spatial data gaps.
- Each zone was divided into 30 equally sized cells. Within each cell, the sample locations needed for the incremental sampling approach were randomly selected, where each grid cell covers approximately 2,900 square feet when the total zone size is 87,000 square feet (Figure 4). With this method of sample collection, when the random sampling location is identified within the first grid cell, samples (increments) are obtained from adjacent cells sequentially and from the same location within each cell. Replicate samples are collected within the same grid but from a different randomly selected starting location in each cell. Incremental soil samples were collected from each cell.

- A composite sample from a zone was prepared by collecting multiple increments of soil core samples (30 increments; 1 from each of the 30 cells in the zone) from the zone and mixing samples for analytical purposes (ITRC 2012).
- Three replicate samples were used for each zone. As noted above, replicate samples are collected within the same grid but from a different randomly selected starting location in each cell.
- According to Interstate Technology & Regulatory Council (ITRC; ITRC 2012) methods, “When the individual increment mass is adequate, this number of increments (n) generally results in a soil sample with a contaminant concentration representative of the estimate of the mean contaminant level within a decision unit (i.e., a representative sample). That is, even when the distribution of individual data points (i.e., discrete sample results) is non-normal, the distribution of sets of means from the population will approach a normal or Gaussian shape as the number of increments (n) increases.” For the collection of incremental samples in each zone of the landfill, 30 increments are believed to be adequate to characterize a zone because the chemical concentrations are not expected to have high distributional heterogeneity within a particular zone.
- Each incremental sample was collected using a 1-inch-diameter core sample that covers a 2-foot depth interval. For less cohesive soils, attempts were made to retain the entire core.
- Samples were collected moving from one cell to the next and then, when encountering the end of a zone, moving in a serpentine manner; that is, collect five increments, then move in the opposite direction in the zone (Figure 5).
- Each cell is approximately 54 feet long, so each incremental sample was approximately 54 feet from the previous sample.
- This incremental sampling approach is also appropriate for ProUCL needs in the BERA—three replicate samples collected using an incremental sampling approach are appropriate to calculate a 95% upper confidence limit on the mean (USEPA 2013).

The collection of surface soil samples using the incremental soil sample collection methods described above provided a uniform assessment of exposures at the Site.

It is important to note that the Site is generally homogeneous from a habitat perspective, and none of the ten zones were selected to evaluate a specific habitat condition and/or exposure conditions for a particular receptor. For the screening process, all of the incremental data were pooled into one dataset; none of the zones were evaluated individually. No water samples were collected during the incremental soil collection effort.

The chemical data generated as a result of the analysis of the soil samples from each of the ten zones are included in Appendix A, Tables A-6 and A-7. Soil samples were analyzed for metals, SVOCs, VOCs, and PCBs. However, due to the level of effort needed to collect volatile samples, these chemicals were only analyzed in samples from Zones 1 and 4. These two zones were selected because they are the only two zones where these chemicals were detected in previous soil samples (Mannik & Smith 2014b).

For terrestrial receptors (i.e., plants, soil invertebrates, and avian and mammalian wildlife), the new surficial soil data were used for a second set of exposure estimates. Historical data were not included in the second exposure assessment because the new dataset was based on incremental soil sample collection, and, in most cases, overlapped spatially with the historical sampling locations. The new data, therefore, are more comprehensive and more representative of existing conditions than the historical data.

3.2 Risk Calculation

The initial risk calculations for surface water and soil samples completed under this step of the ERA process are intended to be a conservative SLERA to define COPECs, which will then be carried forward to be evaluated further in the BERA completed for the Site. Hazard quotients (HQs) are calculated to identify contaminants that may be of concern for the Site. An HQ is the ratio of the exposure point concentration (EPC) to the SL identified in the toxicity evaluation completed at part of Step 1. For purposes of the SLERA, the EPC for any chemical is defined as the maximum concentration in the existing Site data.

3.2.1 Surface Water Data

For the evaluation of surface water risks at the Site, only the samples from the vernal pool are being evaluated. The seep samples were not evaluated because no aquatic life is

supported by the seeps. As noted above, for the purposes of the risk calculations, the maximum concentrations for the vernal pool data are used. The calculation of HQs and comparisons of MDLs to SLs for all vernal pool samples are presented in Appendix A, Table A-8. The results of the screening process for the surface water dataset are presented in Appendix A, Table A-9. If the maximum detected concentration for any chemical is greater than its SL, the chemical is defined as a COPEC and is carried forward to the BERA. The maximum detected concentration for the following chemicals was greater than its respective SL (Appendix A, Table A-9): acetone; di-n-butyl phthalate; fluoranthene; manganese; and dissolved manganese. The HQs for these chemicals ranged from 1.7 to 12.0. All other chemicals are either uncertain or not chemicals of concern (Appendix A, Table A-9).

3.2.2 Soil Bore Data

As noted above, for the purposes of the risk calculations, the maximum concentrations for the surficial soil bore data are used. In addition, for purposes of the initial risk calculations, the Site was not divided into any specific exposure zones to evaluate whether there are any spatial differences in exposure based on the location of the existing surficial soil data. The calculation of HQs and comparisons of MDLs to SLs for all soil bore samples are presented in Appendix A, Table A-10. The results of the screening process for the soil bore dataset are presented in Appendix A, Table A-11 (all chemicals are flagged with “a” when the maximum soil concentration exceeded the SL). If the maximum detected concentration for any chemical is greater than its SL, the chemical is defined as a COPEC and is carried forward to the BERA. The maximum detected concentration for the following chemicals was greater than its respective SL (Appendix A, Table A-11): cyanide-total; mercury; antimony; barium; cadmium; chromium; copper; lead; manganese; nickel; selenium; silver; vanadium; zinc; Aroclor 1248; Aroclor 1254; sum of all HPAHs; benzo(a)anthracene; benzo(b)fluoranthene; bis(2-ethylhexyl)phthalate; butyl benzyl phthalate; chrysene; di-n-butyl phthalate; di-n-octyl phthalate; fluoranthene; pyrene; toluene; and xylenes-total. The HQs for these chemicals in surface soil ranged from 1.1 to 370.0. All other chemicals are either uncertain or not chemicals of concern (Appendix A, Table A-11).

3.2.3 Incremental Soil Data

As with the soil bore samples, the risk calculations completed under this step of the ERA process are intended to be a conservative SLERA to define COPECs, which will then be carried forward to be evaluated further in the BERA completed for the Site. For purposes of these initial risk calculations, the EPC for any chemical is defined as the maximum concentration in the existing Site data. In addition, for purposes of the initial risk calculations, the Site was not divided into any specific exposure zones to evaluate whether there are any spatial differences in exposure based on the location of the existing surficial soil data. The degree to which spatial bias in the existing samples and/or heterogeneity in the chemical data are important factors in the completion of the risk assessment will be discussed in the BERA. The calculation of HQs and comparisons of MDLs to SLs for all incremental soil samples are presented in Appendix A, Table A-12. Results of the screens are presented in Table A-13. If the maximum detected concentration for any chemical is greater than its SL, the chemical is defined as a COPEC and is carried forward to the BERA. The detected concentration for the following chemicals was greater than its respective SL (Appendix A, Table A-13): mercury; antimony; barium; cadmium; chromium; copper; lead; manganese; nickel; selenium; silver; vanadium; zinc; Aroclor 1248; Aroclor 1254; PCBs-total; 1,1'-biphenyl; sum of all HPAHs; benzo(a)anthracene; benzo(a)pyrene; benzo(b)fluoranthene; benzo(g,h,i)perylene; benzo(k)fluoranthene; bis(2-ethylhexyl)phthalate; butyl benzyl phthalate; carbazole; chrysene; dibenzo(a,h)anthracene; dibenzofuran; di-n-butyl phthalate; di-n-octyl phthalate; fluoranthene; indeno(1,2,3-cd)pyrene; phenanthrene; pyrene; toluene; and xylenes-total. The HQs for these chemicals in surface soil ranged from 1.1 to 700.0. All other chemicals are either uncertain or not chemicals of concern (Appendix A, Table A-13).

3.3 Differences between Soil Bore and Incremental Samples

There were two steps in the screening process where there were differences in the results when comparing the soil bore and incremental soil sample datasets. The first important step was when the maximum detected concentration for any chemical is greater than its SL, the chemical is defined as a COPEC and is carried forward to the BERA. There were more chemicals identified as COPECs with the incremental soil samples (Table 4). There were more HPAHs that were detected in the incremental soil samples, and the HQs for the HPAHs were greater than 1.0 (Table 4). However, the metals, phthalates, and VOCs

identified as COPECs were nearly the same (Table 4). As noted above, all of these chemicals are COPECs.

The other big difference between the soil bore and incremental samples is with the chemical where the MDL is greater than 20% of its respective SL. With this set of chemicals, the chemical is identified as an uncertain COPEC and is evaluated qualitatively in the BERA. The list is much smaller with the incremental sample group (Table 5). However, a large part of the difference is due to the number of pesticides in the soil bore list that were not analyzed in the incremental soil samples. All of these chemicals are uncertain COPECs.

There were similarities between the soil bore and incremental soil data when the MDL is less than 20% of its respective SL (Table 6). However, the differences that did exist between the two datasets were due to pesticides and SVOCs (Table 6). All of these chemicals are eliminated from further evaluation. All of these chemicals are not of concern.

There were also similarities between the soil bore and incremental soil data when the chemical was detected and the HQ was less than 1.0 (Table 7). However, the differences that did exist between the two datasets were due to SVOCs that included HPAHs (Table 7). All of these chemicals are eliminated for further evaluation. All of these chemicals are not of concern.

Finally, for the chemicals without a SL, the two datasets were similar with the biggest difference being between which chemicals were detected and which ones were not detected (Tables 8 and 9). All of these chemicals are uncertain COPECs.

3.4 Next Steps in Ecological Risk Assessment

The chemicals identified as COPECs in surface water and soil will be evaluated further in the BERA. As outlined in Figure 1 and discussed in detail in USEPA's ERA guidance (USEPA 1997), Steps 3 through 8 of the ERA process are completed in the BERA and comprise the following tasks:

- Step 3 – Problem Formulation:
 - o Refining the COPEC List

- o Chemical Transport and Fate
 - o Ecological Conceptual Site Model (CSM)
 - o Assessment Endpoints
- Step 4 – Study Design and Data Quality Objective Process:
 - o Measurement Endpoints
 - o Lines of Evidence
 - o Data Gaps
 - o Work Plan and Sampling and Analysis Plan
- Step 5 – Verification of Field Sampling Design:
 - o Evaluate whether the Sampling and Analysis Plan can be completed
 - o Evaluate whether any changes in the Sampling and Analysis Plan are needed
- Step 6 – Data Analysis:
 - o Complete the Exposure Characterization
 - o Complete the Toxicological Effects Evaluation
- Step 7 – Risk Characterization:
 - o Complete the Risk Characterization
 - o Complete the Uncertainty Analysis
- Step 8 – Risk Management

Essentially, Steps 5 through 8 of the ERA process are the final steps toward the completion of a Site-specific BERA.

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TABLES

Table 1
Wayne County, Michigan, Federally Listed Threatened, Endangered, and Proposed Species

Species	Status	Habitat	Van Buren Landfill
Indiana bat (<i>Myotis sodalis</i>)	Endangered	Summer habitat includes small to medium river and stream corridors with well-developed riparian woods; woodlots within 1 to 3 miles of small to medium rivers and streams; and upland forests (uses caves and mines as hibernacula in winter)	Habitat requirements not present at Van Buren landfill
Northern long-eared bat (<i>Myotis septentrionalis</i>)	Threatened	Hibernates in caves and mines in winter, swarming in surrounding wooded areas in autumn; roosts and forages in upland forests during spring and summer	Habitat requirements may be present
Rufa Red knot (<i>Calidris canutus rufa</i>)	Threatened	For this bird, only actions that occur along coastal areas during the Red Knot migratory window of May 1 to September 30	Habitat requirements not present at Van Buren landfill
Eastern massasauga (<i>Sistrurus catenatus</i>)	Proposed as Threatened	Graminoid (grass)-dominated plant communities (e.g., fens, sedge meadows, peatlands, and wet prairies), open woodlands, and shrublands	Habitat requirements may be present
Northern riffleshell (<i>Epioblasma torulosa rangiana</i>)	Endangered	Freshwater mussel that inhabits large streams and small rivers in firm sand of riffle areas; also occurs in Lake Erie	Habitat requirements not present at Van Buren landfill
Eastern prairie fringed orchid (<i>Platanthera leucophaea</i>)	Threatened	Mesic to wet prairies and meadows	Habitat requirements may be present

Source:

USFWS 2016

Table 2
Key Receptor Foraging Ranges

Receptor	Foraging Range (hectare)^{1,2}	Foraging Range (square feet)
American robin	0.81 ± 0.13 SE	87,187
Mourning dove	100	10,800,000
Least shrew	0.36 ± 0.036	38,750
Meadow vole	0.083 ± 0.037	8,934

Notes:

1 = Robin, shrew, and vole, derived from USEPA 1993

2 = Mourning dove derived from California Wildlife Habitat Relationships System 1990

SE = standard error

Table 3
Sample Zone Locations and Types

Sample Zone	Nearest Soil Bore or Test Pit	Zone Type
1	SB-1	Some Data
2	SB-5	Some Data
3	SB-7	Some Data
4	SB-6A	Some Data
4	SB-12	Some Data
5	TP-7	No Data
6	Northeast of TP-3	No Data
7	TP-11, TP-12	No Data
8	TP-20	No Data
9	TP-26, TP-30	No Data
10	South of SB-4	No Data

Table 4
Detected Chemicals with Hazard Quotients Greater than 1

Soil Bore, Van Buren Analytes	Incremental, Van Buren Analytes
Cyanide, Total	--
Mercury	Mercury
Antimony	Antimony
Barium	Barium
Cadmium	Cadmium
Chromium	Chromium
Copper	Copper
Lead	Lead
Manganese	Manganese
Nickel	Nickel
Selenium	Selenium
Silver	Silver
Vanadium	Vanadium
Zinc	Zinc
Aroclor 1248	Aroclor 1248
Aroclor 1254	Aroclor 1254
PCBs, Total	PCBs, Total
--	1,1'-Biphenyl
Benzo(a)anthracene	Benzo(a)anthracene
--	Benzo(a)pyrene
Benzo(b)fluoranthene	Benzo(b)fluoranthene
--	Benzo(g,h,i)perylene
--	Benzo(k)fluoranthene
Bis(2-ethylhexyl)phthalate	Bis(2-ethylhexyl)phthalate
Butyl benzyl phthalate	Butyl benzyl phthalate
--	Carbazole
Chrysene	Chrysene
--	Dibenzo(a,h)anthracene
--	Dibenzofuran
Di-n-butyl phthalate	Di-n-butyl phthalate
Di-n-octyl phthalate	Di-n-octyl phthalate
Fluoranthene	Fluoranthene
Sum High Molecular Weight PAHs	Sum High Molecular Weight PAHs
--	Indeno(1,2,3-cd)pyrene

Soil Bore, Van Buren Analytes	Incremental, Van Buren Analytes
--	Phenanthrene
Pyrene	Pyrene
Toluene	Toluene
Xylenes, Total	Xylenes, Total

Table 5
Chemicals Not Detected and Method Detection Limit
was Greater than 20% of Screening Level

Soil Bore, Van Buren Analytes	Incremental, Van Buren Analytes
--	Thallium
Aroclor 1242	Aroclor 1242
4,4'-DDE	--
4,4'-DDT	--
Aldrin	--
alpha-Chlordane	--
beta-BHC	--
Chlordane, Technical	--
Dieldrin	--
Endosulfan II	--
Endosulfan sulfate	--
Endrin	--
gamma-BHC (Lindane)	--
Heptachlor	--
Heptachlor epoxide	--
1,1'-Biphenyl	--
2,4,5-Trichlorophenol	2,4,5-Trichlorophenol
2,4,6-Trichlorophenol	2,4,6-Trichlorophenol
2,4-Dichlorophenol	2,4-Dichlorophenol
2,4-Dimethylphenol	2,4-Dimethylphenol
2,4-Dinitrophenol	2,4-Dinitrophenol
2-Methylphenol	2-Methylphenol
4-Methylphenol	--
Carbazole	--
--	4-Chlorophenyl phenyl ether
Diethyl phthalate	Dimethyl phthalate
Hexachlorobenzene	Hexachlorobenzene
Hexachlorobutadiene	Hexachlorobutadiene
Hexachlorocyclopentadiene	Hexachlorocyclopentadiene
N-Nitrosodiphenylamine	N-Nitrosodiphenylamine
1,2-Dichlorobenzene	--
1,3-Dichlorobenzene	--
Carbon disulfide	Carbon disulfide

Soil Bore, Van Buren Analytes	Incremental, Van Buren Analytes
cis-1,2-Dichloroethene	cis-1,2-Dichloroethene
Isopropylbenzene	--
Tetrachloroethene	Tetrachloroethene

Table 6
Chemicals Not Detected and Method Detection Limit
was Less than 20% of Screening Level

Soil Bore, Van Buren Analytes	Incremental, Van Buren Analytes
2,4,5-TP (Silvex)	--
Aroclor 1016	Aroclor 1016
Aroclor 1260	--
alpha-BHC	--
Endosulfan I	--
gamma-Chlordane	--
Methoxychlor	--
Toxaphene	--
2,4-Dinitrotoluene	2,4-Dinitrotoluene
-	4-Chloro-3-methylphenol
4-Chloroaniline	--
4-Nitrophenol	--
Acenaphthene	--
Fluorene	--
Nitrobenzene	Nitrobenzene
Pentachlorophenol	Pentachlorophenol
--	Phenol
--	1,2-Dichlorobenzene
--	1,3-Dichlorobenzene
1,4-Dichlorobenzene	1,4-Dichlorobenzene
2-Butanone	2-Butanone
Acetone	Acetone
--	Benzene
Chlorobenzene	Chlorobenzene
Methylene chloride	Methylene chloride

Table 7
Detected Chemicals with Hazard Quotients Less than 1

Soil Bore, Van Buren Analytes	Incremental, Van Buren Analytes
--	3&4-Methylphenol
--	4-Chloroaniline
Arsenic	Arsenic
Beryllium	Beryllium
Cobalt	Cobalt
Thallium	-
--	Aroclor 1260
2-Methylnaphthalene	2-Methylnaphthalene
--	4-Nitrophenol
--	Acenaphthene
Acenaphthylene	Acenaphthylene
Anthracene	Anthracene
Benzo(a)pyrene	--
Benzo(g,h,i)perylene	--
Benzo(k)fluoranthene	--
Dibenzo(a,h)anthracene	--
Dibenzofuran	--
--	Diethyl phthalate
Dimethyl phthalate	--
--	Fluorene
Indeno(1,2,3-cd)pyrene	--
Naphthalene	Naphthalene
Phenanthrene	--
Phenol	--
Benzene	--
Ethylbenzene	Ethylbenzene
--	Isopropylbenzene

Table 8
No Screening Level and Not Detected

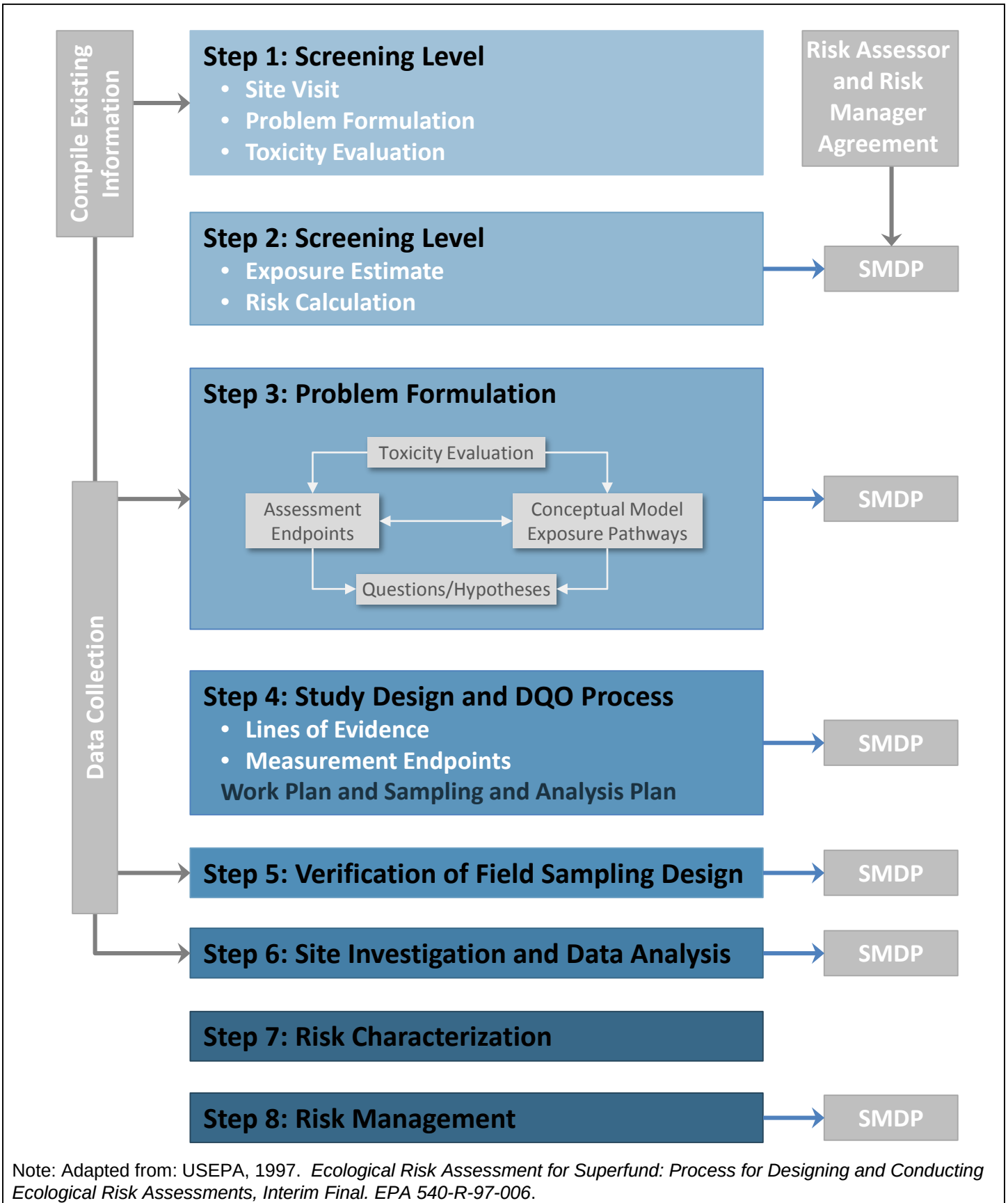
Soil Bore, Van Buren Analytes	Incremental, Van Buren Analytes
2,4,5-T	--
2,4-D	--
Aroclor 1221	Aroclor 1221
Aroclor 1232	Aroclor 1232
4,4'-DDD	--
delta-BHC	--
Endrin aldehyde	--
Endrin ketone	--
2,6-Dinitrotoluene	2,6-Dinitrotoluene
2-Chloronaphthalene	2-Chloronaphthalene
2-Chlorophenol	2-Chlorophenol
2-Nitroaniline	2-Nitroaniline
2-Nitrophenol	2-Nitrophenol
3,3'-Dichlorobenzidine	3,3'-Dichlorobenzidine
3-Nitroaniline	3-Nitroaniline
4,6-Dinitro-2-methylphenol	4,6-Dinitro-2-methylphenol
4-Bromophenyl phenyl ether	4-Bromophenyl phenyl ether
4-Chloro-3-methylphenol	4-Chloro-3-methylphenol
4-Chlorophenyl phenyl ether	4-Chlorophenyl phenyl ether
4-Nitroaniline	4-Nitroaniline
Acetophenone	--
Atrazine	Atrazine
--	Bis(2-chloroethoxy)methane
--	Bis(2-chloroethyl)ether
--	Bis(2-chloroisopropyl)ether
Hexachloroethane	Hexachloroethane
--	Isophorone
N-Nitrosodi-n-propylamine	N-Nitrosodi-n-propylamine
1,1,1-Trichloroethane	1,1,1-Trichloroethane
1,1,2,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane
1,1,2-Trichloroethane	1,1,2-Trichloroethane
1,1,2-Trichlorotrifluoroethane	1,1,2-Trichlorotrifluoroethane
1,1-Dichloroethane	1,1-Dichloroethane
1,1-Dichloroethene	1,1-Dichloroethene
1,2,4-Trichlorobenzene	1,2,4-Trichlorobenzene
1,2-Dibromo-3-chloropropane	1,2-Dibromo-3-chloropropane

Soil Bore, Van Buren Analytes	Incremental, Van Buren Analytes
1,2-Dibromoethane	1,2-Dibromoethane
1,2-Dichloroethane	1,2-Dichloroethane
1,2-Dichloropropane	1,2-Dichloropropane
2-Hexanone	2-Hexanone
4-Methyl-2-pentanone	4-Methyl-2-pentanone
Bromodichloromethane	Bromodichloromethane
Bromoform	Bromoform
Bromomethane	Bromomethane
Carbon tetrachloride	Carbon tetrachloride
Chloroethane	Chloroethane
Chloroform	Chloroform
Chloromethane	Chloromethane
cis-1,3-Dichloropropene	cis-1,3-Dichloropropene
--	Cyclohexane
Dibromochloromethane	Dibromochloromethane
Dichlorodifluoromethane	Dichlorodifluoromethane
Methyl tert-butyl ether	Methyl tert-butyl ether
Styrene	Styrene
trans-1,2-Dichloroethene	trans-1,2-Dichloroethene
trans-1,3-Dichloropropene	trans-1,3-Dichloropropene
Trichloroethene	Trichloroethene
Trichlorofluoromethane	Trichlorofluoromethane
Vinyl chloride	Vinyl chloride

Table 9
No Screening Level and Detected

Soil Bore, Van Buren Analytes	Incremental, Van Buren Analytes
Benzaldehyde	Benzaldehyde
Caprolactam	Caprolactam
Methyl acetate	Methyl acetate
Methylcyclohexane	Methylcyclohexane
Aluminum	Aluminum
Iron	Iron
--	Acetophenone
Bis(2-chloroethoxy)methane	--
Bis(2-chloroethyl)ether	--
Bis(2-chloroisopropyl)ether	--
Isophorone	--
Cyclohexane	--

FIGURES

**Figure 1**

Eight-step Ecological Risk Assessment Process for Superfund
 Draft Ecological Risk Assessment – Steps 1 to 2 of USEPA ERA Process
 Van Buren Landfill

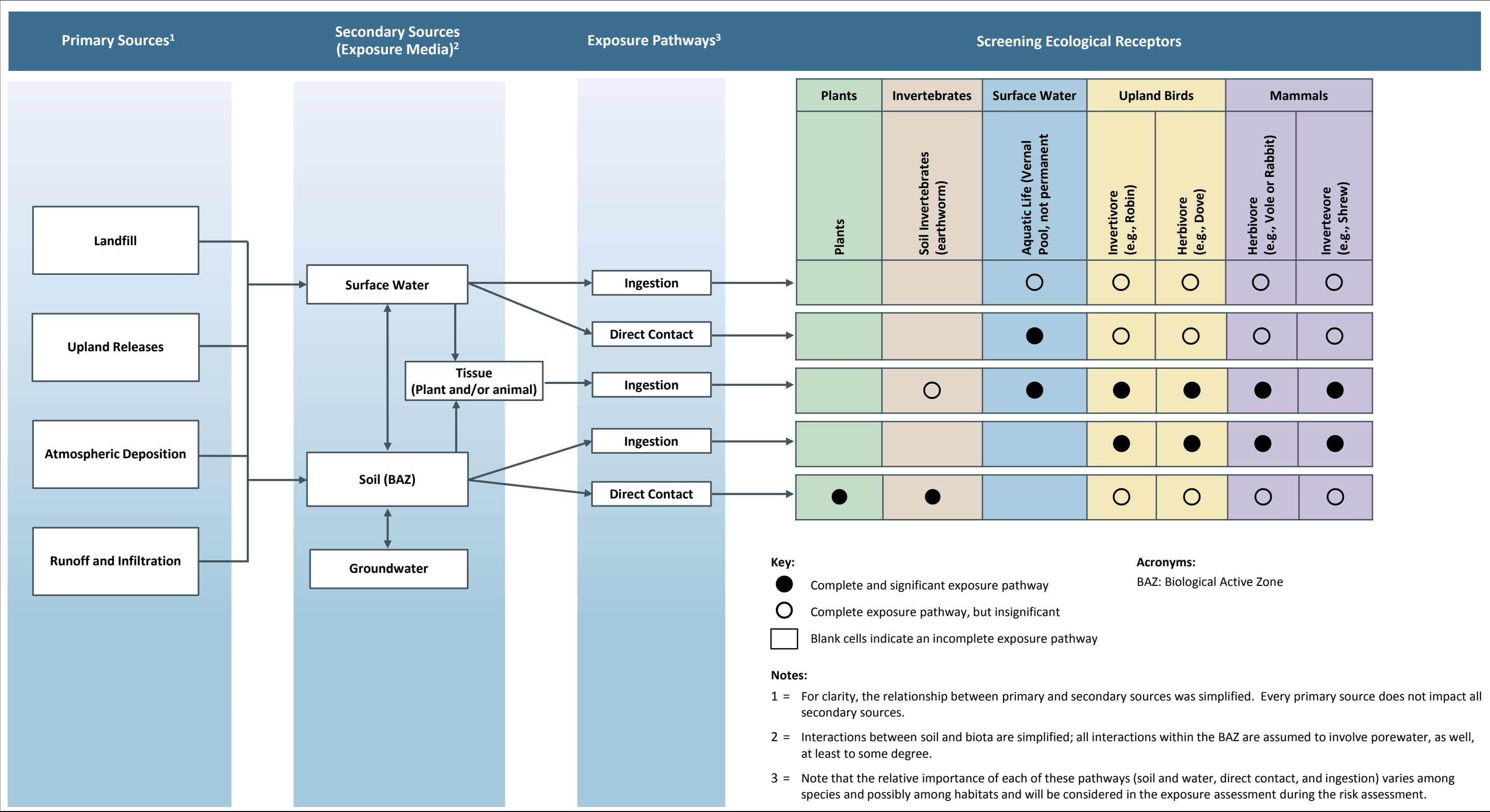
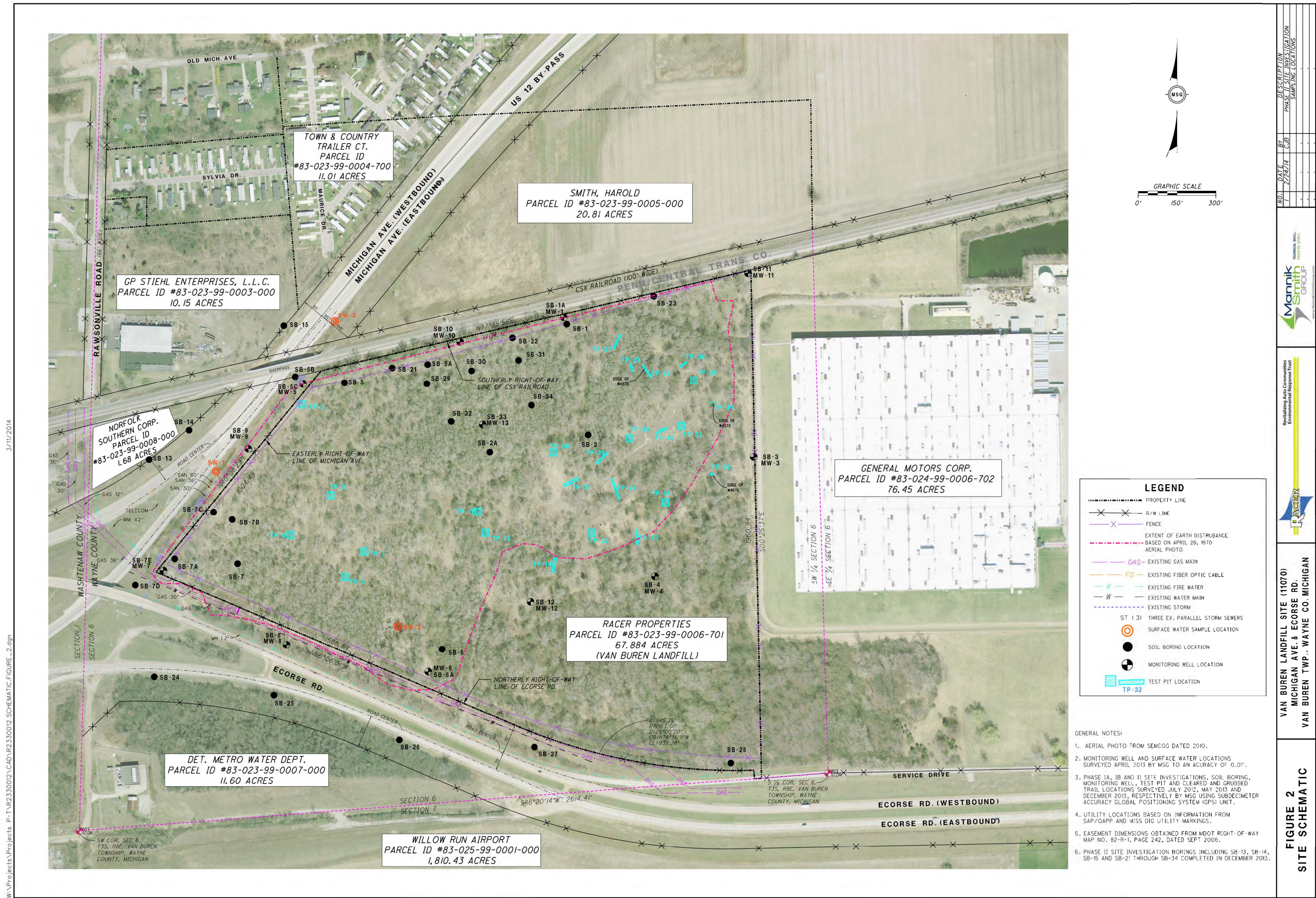


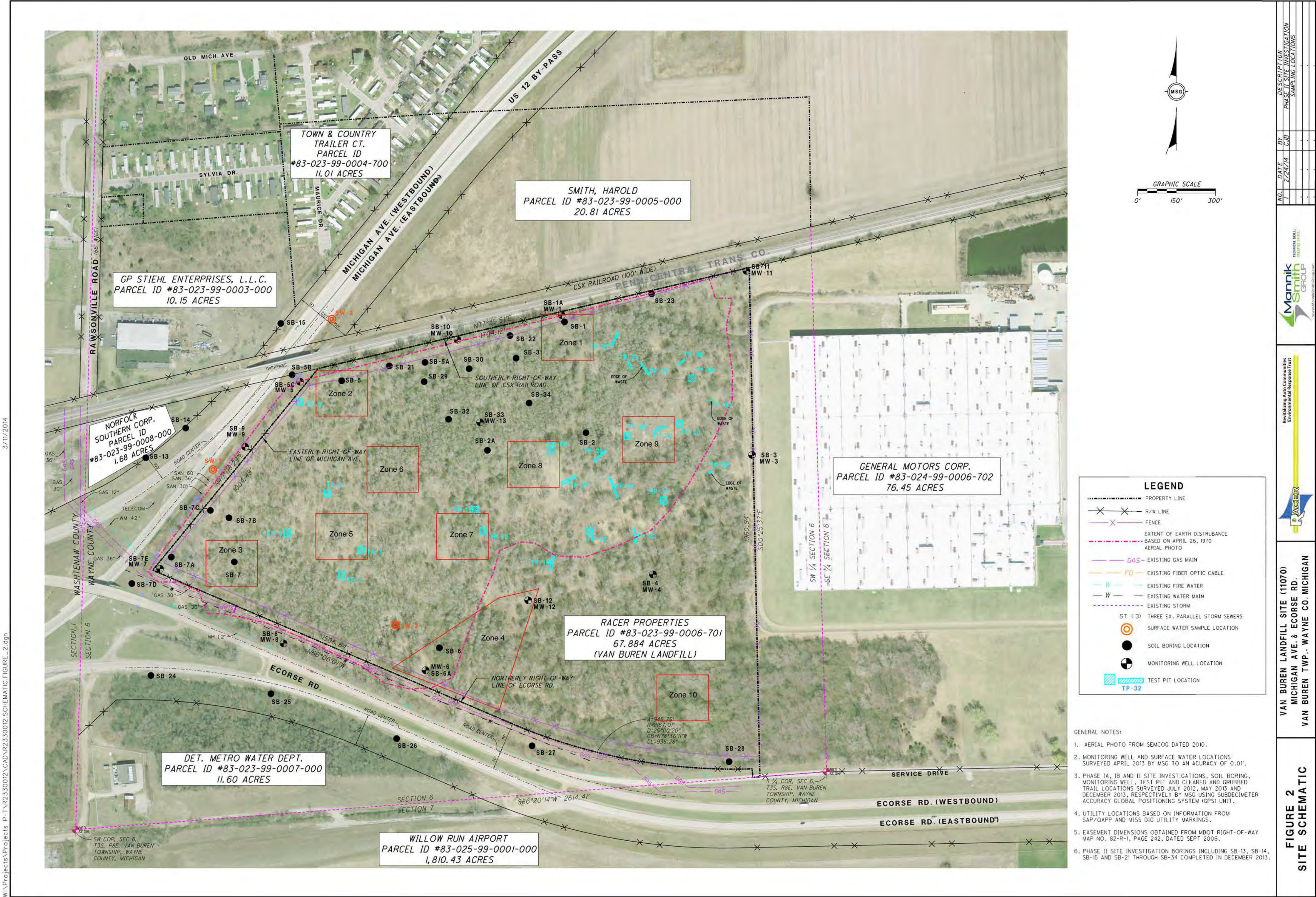
Figure 2
Conceptual Site Model
Draft Ecological Risk Assessment – Steps 1 to 2 of USEPA ERA Process
Van Buren Landfill



Source: Mannik & Smith Group, Inc., 2013. Phase IB Site Investigation. RACER Van Buren Landfill Site. October 2013.



Figure 3
Study Area
Draft Ecological Risk Assessment – Steps 1 to 2 of USEPA ERA Process
Van Buren Landfill



Note: Adapted from: Mannik & Smith Group, Inc., 2013. Phase IB Site Investigation. RACER Van Buren Landfill Site. October 2013.

Figure 4
Sample Zones for the Landfill
Draft Ecological Risk Assessment – Steps 1 to 2 of USEPA ERA Process
Van Buren Landfill

X	X	X	X	X
X X	X X	X X	X X	X X
X	X	X	X	X
X X	X X	X X	X X	X X
X	X	X	X	X
X X	X X	X X	X X	X X
X	X	X	X	X
X X	X X	X X	X X	X X
X	X	X	X	X
X X	X X	X X	X X	X X

Figure 5
Example of Incremental and Replicate Grid Cells for a Zone
Draft Ecological Risk Assessment – Steps 1 to 2 of USEPA ERA Process
Van Buren Landfill

APPENDIX A
SURFACE SOIL AND SURFACE WATER
DATA AND RESULTS OF SCREENS

Table A-1
Region 4 Screening Levels for Vernal Pool Receptors for the Van Buren Landfill

Van Buren Analyte	Test Name	Region 4 Chemical	Source	Van Buren Analyte, R units	Max of Freshwater, Chronic, µg/L
Cyanide, Amenable	Cyanide, Amenable	Cyanide (free)	a	mg/L	5.2
Mercury	Mercury by CVAA	Mercury (unfiltered) ^ (aquatic)	a	mg/L	0.77
Mercury	Mercury by CVAA (dissolved)	Mercury (dissolved) ^ (aquatic)	a	mg/L	0.65
Aluminum	Metals by ICP-MS	Aluminum (pH 6.5 -9.0)	a	mg/L	87
Antimony	Metals by ICP-MS	Antimony	b	mg/L	190
Arsenic	Metals by ICP-MS	Arsenic III (unfiltered) ^	b	mg/L	148
Barium	Metals by ICP-MS	Barium	b	mg/L	220
Beryllium	Metals by ICP-MS	Beryllium	b	mg/L	11
Cobalt	Metals by ICP-MS	Cobalt	b	mg/L	19
Iron	Metals by ICP-MS	Iron	a	mg/L	1000
Manganese	Metals by ICP-MS	Manganese	b	mg/L	93
Selenium	Metals by ICP-MS	Selenium (unfiltered) ^ (aquatic)	a	mg/L	5
Silver	Metals by ICP-MS	Silver (unfiltered) ^ *	b	mg/L	0.06
Thallium	Metals by ICP-MS	Thallium	b	mg/L	6
Vanadium	Metals by ICP-MS	Vanadium	b	mg/L	27
Aluminum	Metals by ICP-MS (dissolved)	Aluminum (pH 6.5 -9.0)	a	mg/L	87
Antimony	Metals by ICP-MS (dissolved)	Antimony	b	mg/L	190
Arsenic	Metals by ICP-MS (dissolved)	Arsenic III (unfiltered) ^	b	mg/L	148
Barium	Metals by ICP-MS (dissolved)	Barium	b	mg/L	220
Beryllium	Metals by ICP-MS (dissolved)	Beryllium	b	mg/L	11
Cadmium	Metals by ICP-MS (dissolved)	Cadmium (dissolved) ^ *	a	mg/L	0.3260
Chromium	Metals by ICP-MS (dissolved)	Chromium III (dissolved) ^ *	a	mg/L	103.31
Cobalt	Metals by ICP-MS (dissolved)	Cobalt	b	mg/L	19
Copper	Metals by ICP-MS (dissolved)	Copper (dissolved) ^ *	a	mg/L	12.66
Iron	Metals by ICP-MS (dissolved)	Iron	a	mg/L	1000
Lead	Metals by ICP-MS (dissolved)	Lead (dissolved) ^ *	a	mg/L	3.90
Manganese	Metals by ICP-MS (dissolved)	Manganese	b	mg/L	93
Nickel	Metals by ICP-MS (dissolved)	Nickel (dissolved) ^ *	a	mg/L	73.29
Selenium	Metals by ICP-MS (dissolved)	Selenium (unfiltered) ^ (aquatic)	a	mg/L	5
Silver	Metals by ICP-MS (dissolved)	Silver (dissolved) ^ *	b	mg/L	0.06
Thallium	Metals by ICP-MS (dissolved)	Thallium	b	mg/L	6
Vanadium	Metals by ICP-MS (dissolved)	Vanadium	b	mg/L	27
Zinc	Metals by ICP-MS (dissolved)	Zinc (dissolved) ^ *	a	mg/L	166.57
1,1'-Biphenyl	Semi-Volatile Organic Compounds	1,1-Biphenyl	b	µg/L	6.5
2,4,5-Trichlorophenol	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	b	µg/L	1.9
2,4,6-Trichlorophenol	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	b	µg/L	4.9
2,4-Dichlorophenol	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	b	µg/L	11
2,4-Dimethylphenol	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	b	µg/L	15
2,4-Dinitrophenol	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	b	µg/L	71
2,4-Dinitrotoluene	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	b	µg/L	44
2,6-Dinitrotoluene	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	b	µg/L	81
2-Chloronaphthalene	Semi-Volatile Organic Compounds	(blank)	(blank)	µg/L	
2-Chlorophenol	Semi-Volatile Organic Compounds	2-Chlorophenol	b	µg/L	32
2-Methylnaphthalene	Semi-Volatile Organic Compounds	2-Methylnaphthalene	b	µg/L	4.7
2-Methylphenol	Semi-Volatile Organic Compounds	2-Methylphenol (Cresol, o-)	b	µg/L	67
2-Nitroaniline	Semi-Volatile Organic Compounds	(blank)	(blank)	µg/L	

Table A-1
Region 4 Screening Levels for Vernal Pool Receptors for the Van Buren Landfill

Van Buren Analyte	Test Name	Region 4 Chemical	Source	Van Buren Analyte, R units	Max of Freshwater, Chronic, µg/L
2-Nitrophenol	Semi-Volatile Organic Compounds	2-Nitrophenol	b	µg/L	73
3,3'-Dichlorobenzidine	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	n	µg/L	4.5
3-Nitroaniline	Semi-Volatile Organic Compounds	(blank)	(blank)	µg/L	
4,6-Dinitro-2-methylphenol	Semi-Volatile Organic Compounds	(blank)	(blank)	µg/L	
4-Bromophenyl phenyl ether	Semi-Volatile Organic Compounds	4-Bromophenyl Phenyl Ether	c	µg/L	1.5
4-Chloro-3-methylphenol	Semi-Volatile Organic Compounds	(blank)	(blank)	µg/L	
4-Chloroaniline	Semi-Volatile Organic Compounds	4-Chloroaniline	j	µg/L	19
4-Chlorophenyl phenyl ether	Semi-Volatile Organic Compounds	(blank)	(blank)	µg/L	
4-Methylphenol	Semi-Volatile Organic Compounds	4-Methylphenol (Cresol, p-)	b	µg/L	53
4-Nitroaniline	Semi-Volatile Organic Compounds	(blank)	(blank)	µg/L	
4-Nitrophenol	Semi-Volatile Organic Compounds	4-Nitrophenol	b	µg/L	58
Acenaphthene	Semi-Volatile Organic Compounds	Acenaphthene	b	µg/L	15
Acenaphthylene	Semi-Volatile Organic Compounds	Acenaphthylene	b	µg/L	13
Acetophenone	Semi-Volatile Organic Compounds	(blank)	(blank)	µg/L	
Anthracene	Semi-Volatile Organic Compounds	Anthracene	b	µg/L	0.02
Atrazine	Semi-Volatile Organic Compounds	(blank)	(blank)	µg/L	
Benzaldehyde	Semi-Volatile Organic Compounds	Benzaldehyde	j	µg/L	57
Benzo(a)anthracene	Semi-Volatile Organic Compounds	Benz(a)anthracene	b	µg/L	4.7
Benzo(a)pyrene	Semi-Volatile Organic Compounds	Benzo(a)pyrene	b	µg/L	0.06
Benzo(b)fluoranthene	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	b	µg/L	2.6
Benzo(g,h,i)perylene	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	q, j	µg/L	0.44
Benzo(k)fluoranthene	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	q, i	µg/L	0.64
Bis(2-chloroethoxy)methane	Semi-Volatile Organic Compounds	(blank)	(blank)	µg/L	
Bis(2-chloroethyl)ether	Semi-Volatile Organic Compounds	(blank)	(blank)	µg/L	
Bis(2-chloroisopropyl)ether	Semi-Volatile Organic Compounds	(blank)	(blank)	µg/L	
Bis(2-ethylhexyl)phthalate	Semi-Volatile Organic Compounds	bis(2-Ethylhexyl) Phthalate	c	µg/L	3
Butyl benzyl phthalate	Semi-Volatile Organic Compounds	Butylbenzyl Phthalate	b	µg/L	23
Caprolactam	Semi-Volatile Organic Compounds	(blank)	(blank)	µg/L	
Carbazole	Semi-Volatile Organic Compounds	(blank)	(blank)	µg/L	
Chrysene	Semi-Volatile Organic Compounds	Chrysene	b	µg/L	4.7
Dibenzo(a,h)anthracene	Semi-Volatile Organic Compounds	Dibenz(a,h)anthracene	q, j	µg/L	0.28
Dibenzofuran	Semi-Volatile Organic Compounds	Dibenzofuran	b	µg/L	4
Diethyl phthalate	Semi-Volatile Organic Compounds	Diethyl Phthalate	b	µg/L	220
Dimethyl phthalate	Semi-Volatile Organic Compounds	Dimethyl Phthalate	b	µg/L	1100
Di-n-butyl phthalate	Semi-Volatile Organic Compounds	Di-n-Butyl Phthalate	b	µg/L	19
Di-n-octyl phthalate	Semi-Volatile Organic Compounds	(blank)	(blank)	µg/L	
Fluoranthene	Semi-Volatile Organic Compounds	Fluoranthene	b	µg/L	0.8
Fluorene	Semi-Volatile Organic Compounds	Fluorene	b	µg/L	19
Hexachlorobenzene	Semi-Volatile Organic Compounds	Hexachlorobenzene (wildlife based)	n	µg/L	0.0003
Hexachlorobutadiene	Semi-Volatile Organic Compounds	Hexachlorobutadiene (Aquatic Life)	b	µg/L	1
Hexachlorocyclopentadiene	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	b	µg/L	0.45
Hexachloroethane	Semi-Volatile Organic Compounds	Hexachloroethane	c	µg/L	12
Indeno(1,2,3-cd)pyrene	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	q, j	µg/L	0.28
Isophorone	Semi-Volatile Organic Compounds	Isophorone	b	µg/L	920
Naphthalene	Semi-Volatile Organic Compounds	Naphthalene	b	µg/L	21
Nitrobenzene	Semi-Volatile Organic Compounds	Nitrobenzene	b	µg/L	380

Table A-1
Region 4 Screening Levels for Vernal Pool Receptors for the Van Buren Landfill

Van Buren Analyte	Test Name	Region 4 Chemical	Source	Van Buren Analyte, R units	Max of Freshwater, Chronic, µg/L
N-Nitrosodi-n-propylamine	Semi-Volatile Organic Compounds	(blank)	(blank)	µg/L	
N-Nitrosodiphenylamine	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	b	µg/L	25
Pentachlorophenol	Semi-Volatile Organic Compounds	Pentachlorophenol # (aquatic)	a	µg/L	15
Phenanthrene	Semi-Volatile Organic Compounds	Phenanthrene	b	µg/L	2.3
Phenol	Semi-Volatile Organic Compounds	Phenol	b	µg/L	160
Pyrene	Semi-Volatile Organic Compounds	Pyrene	b	µg/L	4.6
1,1,1-Trichloroethane	Volatile Organic Compounds	1,1,1-Trichloroethane	b	µg/L	76
1,1,2,2-Tetrachloroethane	Volatile Organic Compounds	1,1,2,2-Tetrachloroethane	b	µg/L	200
1,1,2-Trichloroethane	Volatile Organic Compounds	1,1,2-Trichloroethane	b	µg/L	730
1,1,2-Trichlorotrifluoroethane	Volatile Organic Compounds	(blank)	(blank)	µg/L	
1,1-Dichloroethane	Volatile Organic Compounds	1,1-Dichloroethane	b	µg/L	410
1,1-Dichloroethene	Volatile Organic Compounds	1,1-Dichloroethene (1,1-Dichloroethylene)	b	µg/L	130
1,2,4-Trichlorobenzene	Volatile Organic Compounds	1,2,4-Trichlorobenzene	b	µg/L	130
1,2-Dibromo-3-chloropropane	Volatile Organic Compounds	(blank)	(blank)	µg/L	
1,2-Dibromoethane	Volatile Organic Compounds	(blank)	(blank)	µg/L	
1,2-Dichlorobenzene	Volatile Organic Compounds	1,2-Dichlorobenzene	b	µg/L	23
1,2-Dichloroethane	Volatile Organic Compounds	1,2-Dichloroethane	b	µg/L	2000
1,2-Dichloropropane	Volatile Organic Compounds	1,2-Dichloropropane	b	µg/L	520
1,3-Dichlorobenzene	Volatile Organic Compounds	1,3-Dichlorobenzene	b	µg/L	22
1,4-Dichlorobenzene	Volatile Organic Compounds	1,4-Dichlorobenzene	b	µg/L	9.4
2-Butanone	Volatile Organic Compounds	2-Butanone (methyl ethyl ketone)	b	µg/L	22000
2-Hexanone	Volatile Organic Compounds	2-Hexanone (methyl butyl ketone)	c	µg/L	99
4-Methyl-2-pentanone	Volatile Organic Compounds	4-Methyl-2-pentanone (MIBK)	c	µg/L	170
Acetone	Volatile Organic Compounds	Acetone	b	µg/L	1700
Benzene	Volatile Organic Compounds	Benzene	b	µg/L	160
Bromodichloromethane	Volatile Organic Compounds	Dichlorobromomethane	b	µg/L	340
Bromoform	Volatile Organic Compounds	Bromoform (tribromomethane)	b	µg/L	230
Bromomethane	Volatile Organic Compounds	Bromomethane (methyl bromide)	b	µg/L	16
Carbon disulfide	Volatile Organic Compounds	Carbon disulfide	b	µg/L	15
Carbon tetrachloride	Volatile Organic Compounds	Tetrachloromethane (Carbon tetrachloride)	b	µg/L	77
Chlorobenzene	Volatile Organic Compounds	Chlorobenzene	b	µg/L	25
Chloroethane	Volatile Organic Compounds	(blank)	(blank)	µg/L	
Chloroform	Volatile Organic Compounds	Trichloromethane (Chloroform)	b	µg/L	140
Chloromethane	Volatile Organic Compounds	(blank)	(blank)	µg/L	
cis-1,2-Dichloroethene	Volatile Organic Compounds	1,2-cis-Dichloroethyene	b	µg/L	620
cis-1,3-Dichloropropene	Volatile Organic Compounds	1,3-Dichloropropene (cis and trans)	b	µg/L	1.7
Cyclohexane	Volatile Organic Compounds	Cyclohexane	e	µg/L	230
Dibromochloromethane	Volatile Organic Compounds	Dibromochloromethane	b	µg/L	320
Dichlorodifluoromethane	Volatile Organic Compounds	(blank)	(blank)	µg/L	
Ethylbenzene	Volatile Organic Compounds	Ethylbenzene	b	µg/L	61
Isopropylbenzene	Volatile Organic Compounds	Isopropylbenzene (Cumene)	b	µg/L	4.8
Methyl acetate	Volatile Organic Compounds	(blank)	(blank)	µg/L	
Methyl tert-butyl ether	Volatile Organic Compounds	Methyl tert-butyl ether (MTBE)	b	µg/L	730
Methylcyclohexane	Volatile Organic Compounds	(blank)	(blank)	µg/L	
Methylene chloride	Volatile Organic Compounds	Dichloromethane (Methylene chloride)	b	µg/L	1500
Styrene	Volatile Organic Compounds	Styrene (vinyl benzene)	b	µg/L	32

Table A-1
Region 4 Screening Levels for Vernal Pool Receptors for the Van Buren Landfill

Van Buren Analyte	Test Name	Region 4 Chemical	Source	Van Buren Analyte, R units	Max of Freshwater, Chronic, µg/L
Tetrachloroethene	Volatile Organic Compounds	1,1,2,2-Tetrachloroethylene (PCE)	b	µg/L	53
Toluene	Volatile Organic Compounds	Toluene	b	µg/L	62
trans-1,2-Dichloroethene	Volatile Organic Compounds	1,2-trans-Dichloroethylene	b	µg/L	558
trans-1,3-Dichloropropene	Volatile Organic Compounds	1,3-Dichloropropene (cis and trans)	b	µg/L	1.7
Trichloroethene	Volatile Organic Compounds	1,1,2-Trichloroethylene (TCE)	b	µg/L	200
Trichlorofluoromethane	Volatile Organic Compounds	(blank)	(blank)	µg/L	
Vinyl chloride	Volatile Organic Compounds	Chloroethene (Vill chloride)	b	µg/L	930
Xylenes, Total	Volatile Organic Compounds	Xylenes (total)	b	µg/L	27

Notes

Region 4 Table 1a Sources (USEPA 2015):

a - National Recommended Water Quality Criteria <http://water.epa.gov/s>
b - Great Lakes Initiative (GLI) Clearinghouse resources Tier II criteria revised 2013 <http://www.epa.gov/gliclearinghouse/>
c - Suter, G.W. II, and Tsao, C.L. 1996. Toxicological benchmarks for screening potential contaminants of concern for effects on aquatic biota: 1996 Revision. ES/ER/TM-96/R2. <http://www.esd.ornl.gov/programs/ecorisk/documents/tm96r2.pdf>
e - North Carolina Department of Natural Resources (NCDNR) Surface Water Standards <http://portal.ncdenr.org/web/wq/ps/csu/swstandards>
j - ECOSAR program predicted lowest chronic or acute value. See Section 6.1.4 in text.
i - Region 4 Surface Water Model - See text Section 6.1.4 Equation 1.
n - Michigan Water Quality Values - Rule 57: http://www.michigan.gov/deq/0,4561,7-135-3313_3686_3728-11383--,00.
q - EPA. 2003. Equilibrium Partitioning Sediment Benchmarks for Protection of Benthic Organisms: PAH Mixtures. EPA-600-R-02-013. http://www.epa.gov/nheerl/download_files/publications/PAHESB.pdf
* - The freshwater screening value is hardness dependent. The screening value shown in Table 1a is for total metals assuming a hardness of 50 mg/L as CaCO3.
^ - Screening value in the table is for total metals. A conversion factor (CF) was used to convert the screening value for total metals in surface water to a screening value for dissolved metals in surface water. CMC (dissolved) = CMC (total) × CF. See Table 1b in USEPA (2015) for screening values for dissolved metals.
A correction for site-specific hardness was based on equations listed in Tables 1b and 1c in USEPA (2015). If hardness data are unavailable hardness may be estimated as: H = 2.497 × Ca (mg/L) + 4.118 × Mg (mg/L).

Acronyms

µg/L = micrograms per liter
ICP-MS = Inductively Coupled Plasma-Mass Spectrometry
mg/L = milligrams per liter

Notes not used from the source (USEPA 2015)

k - Talmadge et al. (1999)
l - New York Ambient Water Quality Criteria and Guidance Values: http://www.dec.ny.gov/docs/water_pdf/togs111.pdf
p - Mississippi Water Quality Standards: http://www.deq.state.ms.us/mdeq.nsf/page/WQSB_Water_Quality_Standards
[citech/swguidance/standards/criteria/current/index.cfm](http://www.deq.state.ms.us/mdeq.nsf/page/WQSB_Water_Quality_Standards)
total metals in surface water to a screening value for dissolved metals in surface water. CMC (dissolved) = CMC (total) × CF. See Table 1b for screening values for dissolved metals.
r - Office of Pesticide Programs (OPP) Aquatic Life Benchmarks: http://www.epa.gov/oppefed1/ecorisk_ders/aquatic_life_benchmark.htm
d - Florida State Criteria for Surface Water Quality Classifications <http://www.dep.state.fl.us/legal/Rules/shared/62-302/302-Table.pdf>
f - Georgia Department of Natural Resources (GADNR) Water Use Classifications and Water Quality Standards <http://rules.sos.state.ga.us/docs/391/3/6/03.pdf> g - Hawaii Department of Health (HDOH) Environmental Action Levels, Chronic and Acute Surface Water (Aquatic Habitat) Standards <http://eha-web.doh.hawaii.gov/eha-cma/Leaders/HEER/environmental-hazard-evaluation-and-environmental-action-levels>
h - CCME (Canadian Council of Ministers of the Environment). 2003. Canadian Environmental Quality Guidelines: Summary Table December 2003. Canadian Council of Ministers of the Environment, Winnipeg, Manitoba. Available at: http://www.ccme.ca/en/resources/canadian_environmental_quality_guidelines/index.html
- Freshwater criteria for pentachlorophenol are pH Dependent. Values displayed are for a pH of 7.8.
m - New Jersey Department of Environmental Protection (NJDEP) Ecological Screening Criteria http://www.nj.gov/dep/sce/ecoscreening/esc_table.pdf
o - Texas Surface Water Quality Standards: <https://www.tceq.texas.gov/waterquality/standards/2014standards.html>

Table A-2
Region 4 Screening Levels for Soil Receptors for the Van Buren Landfill

Media	TestName	Racer Trust, Van Buren Landfill, Analyte	Region 4, Chemical	CAS	Region 4 (2015), Screening Level (mg/Kg-dry)	Ref.	Receptor	Region 4, Screening Level (µg/kg-dry)
Soil	Herbicides	2,4,5-T	--	--	--	--	--	--
Soil	Herbicides	2,4,5-TP (Silvex)	2,4,5-TP (Silvex)	93-72-1	12	d	SI	12000
Soil	Herbicides	2,4-D	--	--	--	--	--	--
Soil	Mercury by CVAA	Mercury	Mercury (total)	7439-97-6	0.1	b	All	100
Soil	Metals by ICP-MS	Aluminum	Aluminum	7429-90-5	--	a	All	--
Soil	Metals by ICP-MS	Antimony	Antimony	7440-36-0	0.27	a	All	0.27
Soil	Metals by ICP-MS	Arsenic	Arsenic	7440-38-2	18	a	All	18000
Soil	Metals by ICP-MS	Barium	Barium	7440-39-3	330	a	All	330000
Soil	Metals by ICP-MS	Beryllium	Beryllium	7440-41-7	10	b	All	10000
Soil	Metals by ICP-MS	Cadmium	Cadmium	7440-43-9	0.36	a	All	360
Soil	Metals by ICP-MS	Chromium	Chromium III	16065-83-1	18	a	All	18000
Soil	Metals by ICP-MS	Cobalt	Cobalt	7440-48-4	13	a	All	13000
Soil	Metals by ICP-MS	Copper	Copper	7440-50-8	28	a	All	28000
Soil	Metals by ICP-MS	Iron	Iron	7439-89-6	--	a	All	--
Soil	Metals by ICP-MS	Lead	Lead	7439-92-1	11	a	All	11000
Soil	Metals by ICP-MS	Manganese	Manganese	7439-96-5	220	a	All	220000
Soil	Metals by ICP-MS	Nickel	Nickel	7440-02-0	38	a	All	38000
Soil	Metals by ICP-MS	Selenium	Selenium	7782-49-2	0.52	a	All	520
Soil	Metals by ICP-MS	Silver	Silver	7440-22-4	4.2	a	All	4200
Soil	Metals by ICP-MS	Thallium	Thallium	7440-28-0	0.22	c	All	220
Soil	Metals by ICP-MS	Vanadium	Vanadium	7440-62-2	7.8	a	All	7800
Soil	Metals by ICP-MS	Zinc	Zinc	7440-66-6	46	a	All	46000
Soil	Moisture	Moisture	--	--	--	--	--	--
Soil	PCBs	Aroclor 1016	Aroclor-1016	12674-11-2	1	c	All	1000
Soil	PCBs	Aroclor 1221	--	--	--	--	--	--
Soil	PCBs	Aroclor 1232	--	--	--	--	--	--
Soil	PCBs	Aroclor 1242	Aroclor-1242	53469-21-9	0.041	c	All	41
Soil	PCBs	Aroclor 1248	Aroclor-1248	12672-29-6	0.0072	c	All	7.2
Soil	PCBs	Aroclor 1254	Aroclor-1254	11097-69-1	0.014	c	All	14
Soil	PCBs	Aroclor 1260	Aroclor-1260	11096-82-5	0.88	c	All	880
Soil	Pesticides	4,4'-DDD	--	--	--	--	--	--
Soil	Pesticides	4,4'-DDE	DDE (sum 4,4- & 2,4-DDE)	72-55-9	0.11	c	M, A	110
Soil	Pesticides	4,4'-DDT	DDT (sum 4,4- & 2,4-DDT)	72-54-8	0.044	c	All	44
Soil	Pesticides	Aldrin	Aldrin	309-00-2	0.037	c	SI, M	37
Soil	Pesticides	alpha-BHC	BHC - alpha	319-84-6	0.34	d	SI, M	340
Soil	Pesticides	alpha-Chlordane	Chlordane - alpha	5103-71-9	0.27	c	P, M, A	270
Soil	Pesticides	beta-BHC	BHC - beta	319-85-7	0.27	c	M, A	270
Soil	Pesticides	Chlordane, Technical	BHC - gamma (Lindane)	58-89-9	0.0094	c	P, M, A	9.4
Soil	Pesticides	delta-BHC	--	--	--	--	--	--
Soil	Pesticides	Dieldrin	Dieldrin	60-57-1	0.0049	a	All	4.9
Soil	Pesticides	Endosulfan I	Endosulfan - alpha	959-98-8	0.64	c	M, A	640
Soil	Pesticides	Endosulfan II	Endosulfan (alpha and beta)	115-29-7	0.0009	d	All	0.9
Soil	Pesticides	Endosulfan sulfate	Endosulfan sulfate	1031-07-8	0.0065	d	All	6.5
Soil	Pesticides	Endrin	Endrin	72-20-8	0.0014	c	All	1.4
Soil	Pesticides	Endrin aldehyde	--	--	--	--	--	--
Soil	Pesticides	Endrin ketone	--	--	--	--	--	--
Soil	Pesticides	gamma-BHC (Lindane)	BHC - gamma (Lindane)	58-89-9	0.0094	c	P, M, A	9.4
Soil	Pesticides	gamma-Chlordane	Chlordane - gamma	12789-03-6	2.2	c	P, M, A	2200
Soil	Pesticides	Heptachlor	Heptachlor	76-44-8	0.059	c	All	59
Soil	Pesticides	Heptachlor epoxide	Heptachlor epoxide	1024-57-3	0.0004	d	All	0.4
Soil	Pesticides	Methoxychlor	Methoxychlor	72-43-5	5	c	M, A	5000
Soil	Pesticides	Toxaphene	Toxaphene	8001-35-2	4.1	d	M, A	4100
Soil	Semi-Volatile Organic Compounds	1,1'-Biphenyl	1,1'-Biphenyl	92-52-4	0.2	d	All	200
Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	2,4,5-Trichlorophenol	95-95-4	0.03	d	All	30
Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	2,4,6-Trichlorophenol	88-06-2	0.09	d	All	90
Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	Dichlorophenols ,3-), (2,4-), (2,5-), (2,6-)	120-83-2	0.05	d	All	50
Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	2,4-Dimethylphenol	105-67-9	0.04	d	SI	40
Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	2,4-Dinitrophenol	51-28-5	0.15	d	All	150

Table A-2
Region 4 Screening Levels for Soil Receptors for the Van Buren Landfill

Media	TestName	Racer Trust, Van Buren Landfill, Analyte	Region 4, Chemical	CAS	Region 4 (2015), Screening Level (mg/Kg-dry)	Ref.	Receptor	Region 4, Screening Level (µg/kg-dry)
Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	2,4-Dinitrotoluene	121-14-2	6	c	SI, M, P	6000
Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	--	--	--	--	--
Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	--	--	--	--	--
Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	--	--	--	--	--
Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	2-Methylnaphthalene	91-57-6	--	--	All, Total	29000
Soil	Semi-Volatile Organic Compounds	2-Methylphenol	2-Methylphenol (Cresol, o-)	95-48-7	0.1	d	All	100
Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	--	--	--	--	--
Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	--	--	--	--	--
Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	--	--	--	--	--
Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	--	--	--	--	--
Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	--	--	--	--	--
Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	--	--	--	--	--
Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	--	--	--	--	--
Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	4-Chloroaniline	106-47-8	1.0	c	P, SI	1000
Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	--	--	--	--	--
Soil	Semi-Volatile Organic Compounds	4-Methylphenol	4-Methylphenol (Cresol, p-)	106-44-5	0.08	d	All	80
Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	--	--	--	--	--
Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	4-Nitrophenol	100-02-7	7	b	SI	7000
Soil	Semi-Volatile Organic Compounds	Acenaphthene	Acenaphthene	83-32-9	--	--	All, total	29000
Soil	Semi-Volatile Organic Compounds	Acenaphthylene	Acenaphthylene	208-96-8	--	--	--	29000
Soil	Semi-Volatile Organic Compounds	Acetophenone	Acetophenone	--	--	--	--	--
Soil	Semi-Volatile Organic Compounds	Anthracene	Anthracene	120-12-7	--	--	--	29000
Soil	Semi-Volatile Organic Compounds	Atrazine	--	--	--	--	--	--
Soil	Semi-Volatile Organic Compounds	Benzaldehyde	Benzaldehyde	--	--	--	--	--
Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	Benzo(a)anthracene	56-55-3	--	--	--	1100
Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	Benzo(a)pyrene	50-32-8	--	--	--	1100
Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	Benzo(b)fluoranthene	205-99-2	--	--	--	1100
Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	Benzo(ghi)perylene	191-24-2	--	--	--	1100
Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	Benzo(k)fluoranthene	207-08-9	--	--	--	1100
Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	--	--	--	--	--
Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	--	--	--	--	--
Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	--	--	--	--	--
Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	Bis(2-ethylhexyl) phthalate	117-81-7	0.02	c	All	20
Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	Butylbenzyl phthalate	85-68-7	0.59	d	All	590
Soil	Semi-Volatile Organic Compounds	Caprolactam	Caprolactam	--	--	--	--	--
Soil	Semi-Volatile Organic Compounds	Carbazole	Carbazole	86-74-8	0.16	d	All	160
Soil	Semi-Volatile Organic Compounds	Chrysene	Chrysene	218-01-9	--	--	--	1100
Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	Dibenzo(a,h)anthracene	53-70-3	--	--	--	1100
Soil	Semi-Volatile Organic Compounds	Dibenzofuran	Dibenzofuran	132-64-9	0.15	d	All	150
Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	Diethylphthalate	84-66-2	0.23	d	All	230
Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	Dimethylphthalate	131-11-3	0.35	d	All	350
Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	Di-n-butyl phthalate	84-74-2	0.011	c	All	11
Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	Di-n-octyl phthalate	117-84-0	0.21	c	All	210
Soil	Semi-Volatile Organic Compounds	Fluoranthene	Fluoranthene	206-44-0	--	--	--	1100
Soil	Semi-Volatile Organic Compounds	Fluorene	Fluorene	86-73-7	--	--	All, Total	29000
Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	Hexachlorobenzene	118-74-1	0.079	c	All	79
Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	Hexachlorobutadiene	87-68-3	0.1	d	SI	100
Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	Hexachlorocyclopentadiene	77-47-4	0.001	d	All	1
Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	--	--	--	--	--
Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	Indeno(1,2,3-cd)pyrene	193-39-5	--	--	--	1100
Soil	Semi-Volatile Organic Compounds	Isophorone	Isophorone	--	--	--	--	--
Soil	Semi-Volatile Organic Compounds	Naphthalene	Naphthalene	91-20-3	--	--	All, Total	29000
Soil	Semi-Volatile Organic Compounds	Nitrobenzene	Nitrobenzene	98-95-3	2.2	c	SI, M	2200
Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	--	--	--	--	--
Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	N-Nitrosodiphenylamine	86-30-6	0.12	d	All	120

Table A-2
Region 4 Screening Levels for Soil Receptors for the Van Buren Landfill

Media	TestName	Racer Trust, Van Buren Landfill, Analyte	Region 4, Chemical	CAS	Region 4 (2015), Screening Level (mg/Kg-dry)	Ref.	Receptor	Region 4, Screening Level (µg/kg-dry)
Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	Pentachlorophenol (PCP)	87-86-5	2.1	a	All	2100
Soil	Semi-Volatile Organic Compounds	Phenanthrene	Phenanthrene	67580	--	--	--	29000
Soil	Semi-Volatile Organic Compounds	Phenol	Phenol	108-95-2	0.79	c	All	790
Soil	Semi-Volatile Organic Compounds	Pyrene	Pyrene	129-00-0	--	--	--	1100
Soil	Volatile Organic Compounds	1,1,1-Trichloroethane	--	--	--	--	--	--
Soil	Volatile Organic Compounds	1,1,2,2-Tetrachloroethane	--	--	--	--	--	--
Soil	Volatile Organic Compounds	1,1,2-Trichloroethane	--	--	--	--	--	--
Soil	Volatile Organic Compounds	1,1,2-Trichlorotrifluoroethane	--	--	--	--	--	--
Soil	Volatile Organic Compounds	1,1-Dichloroethane	--	--	--	--	--	--
Soil	Volatile Organic Compounds	1,1-Dichloroethene	--	--	--	--	--	--
Soil	Volatile Organic Compounds	1,2,4-Trichlorobenzene	--	--	--	--	--	--
Soil	Volatile Organic Compounds	1,2-Dibromo-3-chloropropane	--	--	--	--	--	--
Soil	Volatile Organic Compounds	1,2-Dibromoethane	--	--	--	--	--	--
Soil	Volatile Organic Compounds	1,2-Dichlorobenzene	1,2-Dichlorobenzene	95-50-1	0.09	d	All	90
Soil	Volatile Organic Compounds	1,2-Dichloroethane	--	--	--	--	--	--
Soil	Volatile Organic Compounds	1,2-Dichloropropane	--	--	--	--	--	--
Soil	Volatile Organic Compounds	1,3-Dichlorobenzene	1,3-Dichlorobenzene	99-65-0	0.08	d	All	80
Soil	Volatile Organic Compounds	1,4-Dichlorobenzene	1,4-Dichlorobenzene	106-46-7	0.88	c	SI, M	880
Soil	Volatile Organic Compounds	2-Butanone	2-Butanone (Methyl Ethyl Ketone)	78-93-3	1.0	d	All	1000
Soil	Volatile Organic Compounds	2-Hexanone	--	--	--	--	--	--
Soil	Volatile Organic Compounds	4-Methyl-2-pentanone	--	--	--	--	--	--
Soil	Volatile Organic Compounds	Acetone	Acetone	67-64-1	1.2	c	M, A	1200
Soil	Volatile Organic Compounds	Benzene	Benzene	71-43-2	0.12	d	All	120
Soil	Volatile Organic Compounds	Bromodichloromethane	--	--	--	--	--	--
Soil	Volatile Organic Compounds	Bromoform	--	--	--	--	--	--
Soil	Volatile Organic Compounds	Bromomethane	--	--	--	--	--	--
Soil	Volatile Organic Compounds	Carbon disulfide	Carbon Disulfide	75-15-0	0.005	d	All	5
Soil	Volatile Organic Compounds	Carbon tetrachloride	--	--	--	--	--	--
Soil	Volatile Organic Compounds	Chlorobenzene	Chlorobenzene	108-90-7	2.4	c	All	2400
Soil	Volatile Organic Compounds	Chloroethane	--	--	--	--	--	--
Soil	Volatile Organic Compounds	Chloroform	--	--	--	--	--	--
Soil	Volatile Organic Compounds	Chloromethane	Chloromethane	--	--	--	--	--
Soil	Volatile Organic Compounds	cis-1,2-Dichloroethene	1,2-Dichloroethene (cis and trans)	540-59-0	0.04	d	All	40
Soil	Volatile Organic Compounds	cis-1,3-Dichloropropene	--	--	--	--	--	--
Soil	Volatile Organic Compounds	Cyclohexane	Cyclohexane	--	--	--	--	--
Soil	Volatile Organic Compounds	Dibromochloromethane	--	--	--	--	--	--
Soil	Volatile Organic Compounds	Dichlorodifluoromethane	--	--	--	--	--	--
Soil	Volatile Organic Compounds	Ethylbenzene	Ethylbenzene	100-41-4	0.27	d	All	270
Soil	Volatile Organic Compounds	Isopropylbenzene	Isopropylbenzene (Cumene)	98-82-8	0.04	d	All	40
Soil	Volatile Organic Compounds	Methyl acetate	Methyl Acetate	--	--	--	--	--
Soil	Volatile Organic Compounds	Methyl tert-butyl ether	--	--	--	--	--	--
Soil	Volatile Organic Compounds	Methylcyclohexane	Methylcyclohexane	--	--	--	--	--
Soil	Volatile Organic Compounds	Methylene chloride	Dichloromethane (Methylene chloride)	75-09-2	0.21	d	All	210
Soil	Volatile Organic Compounds	Styrene	--	--	--	--	--	--
Soil	Volatile Organic Compounds	Tetrachloroethene	Tetrachloroethene	127-18-4	0.06	d	All	60
Soil	Volatile Organic Compounds	Toluene	Toluene	108-88-3	0.15	d	All	150

Table A-2
Region 4 Screening Levels for Soil Receptors for the Van Buren Landfill

Media	TestName	Racer Trust, Van Buren Landfill, Analyte	Region 4, Chemical	CAS	Region 4 (2015), Screening Level (mg/Kg-dry)	Ref.	Receptor	Region 4, Screening Level (µg/kg-dry)
Soil	Volatile Organic Compounds	trans-1,2-Dichloroethene	--	--	--	--	--	--
Soil	Volatile Organic Compounds	trans-1,3-Dichloropropene	--	--	--	--	--	--
Soil	Volatile Organic Compounds	Trichloroethene	--	--	--	--	--	--
Soil	Volatile Organic Compounds	Trichlorofluoromethane	--	--	--	--	--	--
Soil	Volatile Organic Compounds	Vinyl chloride	--	--	--	--	--	--
Soil	Volatile Organic Compounds	Xylenes, Total	Xylenes (total)	1330-20-7	0.1	d	All	100

Notes

Derived from Region 4 notes.

Region 4, Receptor

All - ESV for protection of all receptors; A - ESV for protection of avians
M - ESV for protection of mammals; P - ESV for protection of plants
SI - ESV for protection of soil invertebrates
LMWPAHs have less than 4 rings HMWPAHs have 4 or more rings

Region 4, Reference

a - USEPA (2007): Ecological Soil Screening Levels. <http://www.epa.gov/ecotox/ecossl/>
b - Oak Ridge National Laboratory
c - Los Alamos National Laboratory (LANL). 2012. ECORISK Database Release 3.2. Environmental Programs, Engineering and Technology Division. September 2013. <http://www.lanl.gov/community-environment/environmental->
d - ECOSAR & Region 4 soil model. See text Section 6.3 of USEPA 2015

Other

Efroymson, R.A., M.E. Will, and G.W. Suter. 1997a. Toxicological Benchmarks for Screening Contaminants of Potential Concern for Effects on Soil and Litter Invertebrates and Heterotrophic Process: 1997 Revision. Oak Ridge National Laboratory, Oak Ridge, TN. ES/ER/TM-126/R2. <http://www.esd.ornl.gov/programs/ecorisk/documents/tm126r21.pdf>
Efroymson, R.A., M.E. Will, G.W. Suter, and A.C. Wooten. 1997b. Toxicological Benchmarks for Screening Contaminants of Potential Concern for Effects on Terrestrial Plants: 1997 Revision. Oak Ridge National Laboratory, Oak Ridge, TN. ES/ER/TM-95/R4. <http://www.esd.ornl.gov/programs/ecorisk/documents/tm85r3.pdf>
Efroymson, R.A., G.W. Suter, II, B.E. Sample, and D.S. Jones. 1997. Preliminary Remediation Goals for Ecological Endpoints. Oak Ridge National Laboratory, Oak Ridge, TN. 50 pp. ES/ER/TM-162/R2

Acronyms

µg/kg-dry = micrograms/kilogram-dry weight
CAS = Chemical Abstracts Service
CVAA = cold vapor atomic absorption
ESV = ecological screening volume
HMWPAH = high molecular weight polycyclic aromatic hydrocarbon
ICP-MS = Inductively Coupled Plasma-Mass Spectrometry
LMWPAH = low molecular weight polycyclic aromatic hydrocarbon
mg/Kg-dry = milligrams per kilogram-dry weight
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
Ref = references
SL = screening level
SVOC = semi-volatile organic compound

Table A-3
All Compounds Data for Vernal Pool and Seeps

Client Sample ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qualifier	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Monitoring Point	Type
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Cyanide, Amenable	Cyanide, Amenable	--	U	U	0.001	0.0050	mg/L	1	13-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Cyanide, Amenable	Cyanide, Amenable	--	U	U	0.001	0.0050	mg/L	1	13-May-13	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Cyanide, Amenable	Cyanide, Amenable	--	U	U	0.001	0.0050	mg/L	1	30-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Cyanide, Amenable	Cyanide, Amenable	--	U	U	0.001	0.0050	mg/L	1	30-Apr-14	SW-2	Pool
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Cyanide, Amenable	Cyanide, Amenable	0.11	0.11		0.001	0.0050	mg/L	1	30-Apr-14	SW-1	Seep
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Mercury by CVAA	Mercury	--	U	U	0.0001	0.00020	mg/L	1	13-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Mercury by CVAA	Mercury	--	U	U	0.0001	0.00020	mg/L	1	13-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Mercury by CVAA	Mercury	--	U	U	0.0001	0.00020	mg/L	1	30-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Mercury by CVAA	Mercury	--	U	U	0.0001	0.00020	mg/L	1	30-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Mercury by CVAA	Mercury	--	U	U	0.0001	0.00020	mg/L	1	30-Apr-14	SW-2	Pool
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Mercury by CVAA (dissolved)	Mercury	--	U	U	0.0001	0.00020	mg/L	1	30-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Mercury by CVAA (dissolved)	Mercury	--	U	U	0.0001	0.00020	mg/L	1	30-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Mercury by CVAA (dissolved)	Mercury	--	U	U	0.0001	0.00020	mg/L	1	30-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Metals by ICP-MS	Aluminum	0.0034	0.0034	J	0.00078	0.050	mg/L	1	09-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Metals by ICP-MS	Aluminum	0.025	0.025	J	0.00078	0.050	mg/L	1	09-May-13	SW-1	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Metals by ICP-MS	Aluminum	0.035	0.035	J	0.0039	0.25	mg/L	5	30-Apr-14	SW-2	Pool
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Metals by ICP-MS	Aluminum	0.74	0.74		0.0039	0.25	mg/L	5	30-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Metals by ICP-MS	Aluminum	2.4	2.4		0.0039	0.25	mg/L	5	30-Apr-14	SW-1	Seep
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Metals by ICP-MS	Antimony	0.0004	0.00040	J	0.000036	0.0020	mg/L	1	09-May-13	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Metals by ICP-MS	Antimony	0.00099	0.00099	J	0.00018	0.010	mg/L	5	30-Apr-14	SW-3	Seep
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Metals by ICP-MS	Antimony	0.0011	0.0011	J	0.000036	0.0020	mg/L	1	09-May-13	SW-2	Pool
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Metals by ICP-MS	Antimony	0.0013	0.0013	J	0.00018	0.010	mg/L	5	30-Apr-14	SW-2	Pool
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Metals by ICP-MS	Antimony	0.0042	0.0042	J	0.00018	0.010	mg/L	5	30-Apr-14	SW-1	Seep
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Metals by ICP-MS	Arsenic	--	U	U	0.00058	0.0050	mg/L	1	09-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Metals by ICP-MS	Arsenic	--	U	U	0.0029	0.025	mg/L	5	30-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Metals by ICP-MS	Arsenic	--	U	U	0.0029	0.025	mg/L	5	30-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Metals by ICP-MS	Arsenic	--	U	U	0.0029	0.025	mg/L	5	30-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Metals by ICP-MS	Arsenic	0.00093	0.00093	J	0.00058	0.0050	mg/L	1	09-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Metals by ICP-MS	Barium	0.027	0.027	J	0.000063	0.10	mg/L	1	09-May-13	SW-1	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Metals by ICP-MS	Barium	0.079	0.079	J	0.00032	0.50	mg/L	5	30-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Metals by ICP-MS	Barium	0.093	0.093	J	0.000063	0.10	mg/L	1	09-May-13	SW-2	Pool
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Metals by ICP-MS	Barium	0.11	0.11	J	0.00032	0.50	mg/L	5	30-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Metals by ICP-MS	Barium	0.18	0.18	J	0.00032	0.50	mg/L	5	30-Apr-14	SW-3	Seep
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Metals by ICP-MS	Beryllium	--	U	U	0.000082	0.0010	mg/L	1	09-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Metals by ICP-MS	Beryllium	--	U	U	0.000082	0.0010	mg/L	1	09-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Metals by ICP-MS	Beryllium	--	U	U	0.00041	0.0050	mg/L	5	30-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Metals by ICP-MS	Beryllium	--	U	U	0.00041	0.0050	mg/L	5	30-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Metals by ICP-MS	Beryllium	--	U	U	0.00041	0.0050	mg/L	5	30-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Metals by ICP-MS	Cadmium	--	U	U	0.000045	0.0010	mg/L	1	09-May-13	SW-1	Seep
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Metals by ICP-MS	Cadmium	0.000063	0.000063	J	0.000045	0.0010	mg/L	1	09-May-13	SW-2	Pool
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Metals by ICP-MS	Cadmium	0.0003	0.00030	J	0.00022	0.0050	mg/L	5	30-Apr-14	SW-2	Pool
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Metals by ICP-MS	Cadmium	0.00083	0.00083	J	0.00022	0.0050	mg/L	5	30-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Metals by ICP-MS	Cadmium	0.0029	0.0029	J	0.00022	0.0050	mg/L	5	30-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Metals by ICP-MS	Chromium	--	U	U	0.0014	0.050	mg/L	5	30-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Metals by ICP-MS	Chromium	0.00044	0.00044	J	0.00027	0.010	mg/L	1	09-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Metals by ICP-MS	Chromium	0.0011	0.0011	J	0.00027	0.010	mg/L	1	09-May-13	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Metals by ICP-MS	Chromium	0.0064	0.0064	J	0.0014	0.050	mg/L	5	30-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Metals by ICP-MS	Chromium	0.022	0.022	J	0.0014	0.050	mg/L	5	30-Apr-14	SW-1	Seep
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Metals by ICP-MS	Cobalt	0.00055	0.00055	J	0.000041	0.020	mg/L	1	09-May-13	SW-2	Pool
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Metals by ICP-MS	Cobalt	0.0011	0.0011	J	0.0002	0.10	mg/L	5	30-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Metals by ICP-MS	Cobalt	0.0012	0.0012	J	0.0002	0.10	mg/L	5	30-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Metals by ICP-MS	Cobalt	0.0015	0.0015	J	0.000041	0.020	mg/L	1	09-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Metals by ICP-MS	Cobalt	0.003	0.0030	J	0.0002	0.10	mg/L	5	30-Apr-14	SW-1	Seep
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Metals by ICP-MS	Copper	0.004	0.0040		0.00053	0.0040	mg/L	1	09-May-13	SW-1	Seep
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Metals by ICP-MS	Copper	0.0052	0.0052		0.00053	0.0040	mg/L	1	09-May-13	SW-2	Pool
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Metals by ICP-MS	Copper	0.0072	0.0072	J	0.0026	0.020	mg/L	5	30-Apr-14	SW-2	Pool

Table A-3
All Compounds Data for Vernal Pool and Seeps

Client Sample ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qualifier	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Monitoring Point	Type
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Metals by ICP-MS	Copper	0.012	0.012	J	0.0026	0.020	mg/L	5	30-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Metals by ICP-MS	Copper	0.06	0.060		0.0026	0.020	mg/L	5	30-Apr-14	SW-1	Seep
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Metals by ICP-MS	Iron	0.05	0.050	J	0.0053	0.20	mg/L	1	09-May-13	SW-1	Seep
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Metals by ICP-MS	Iron	0.17	0.17	J	0.0053	0.20	mg/L	1	09-May-13	SW-2	Pool
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Metals by ICP-MS	Iron	0.33	0.33	J	0.027	1.0	mg/L	5	30-Apr-14	SW-2	Pool
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Metals by ICP-MS	Iron	1.8	1.8		0.027	1.0	mg/L	5	30-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Metals by ICP-MS	Iron	6.3	6.3		0.027	1.0	mg/L	5	30-Apr-14	SW-1	Seep
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Metals by ICP-MS	Lead	0.000069	0.000069	J	0.000051	0.0030	mg/L	1	09-May-13	SW-1	Seep
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Metals by ICP-MS	Lead	0.00025	0.00025	J	0.000051	0.0030	mg/L	1	09-May-13	SW-2	Pool
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Metals by ICP-MS	Lead	0.0013	0.0013	J	0.00026	0.015	mg/L	5	30-Apr-14	SW-2	Pool
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Metals by ICP-MS	Lead	0.043	0.043		0.00026	0.015	mg/L	5	30-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Metals by ICP-MS	Lead	0.069	0.069		0.00026	0.015	mg/L	5	30-Apr-14	SW-3	Seep
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Metals by ICP-MS	Manganese	0.022	0.022	J	0.000054	0.050	mg/L	1	09-May-13	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Metals by ICP-MS	Manganese	0.053	0.053	J	0.00027	0.25	mg/L	5	30-Apr-14	SW-3	Seep
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Metals by ICP-MS	Manganese	0.069	0.069		0.000054	0.050	mg/L	1	09-May-13	SW-2	Pool
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Metals by ICP-MS	Manganese	0.16	0.16	J	0.00027	0.25	mg/L	5	30-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Metals by ICP-MS	Manganese	0.45	0.45		0.00027	0.25	mg/L	5	30-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Metals by ICP-MS	Nickel	0.0048	0.0048	J	0.00025	0.020	mg/L	1	09-May-13	SW-2	Pool
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Metals by ICP-MS	Nickel	0.005	0.0050	J	0.0013	0.10	mg/L	5	30-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Metals by ICP-MS	Nickel	0.0053	0.0053	J	0.0013	0.10	mg/L	5	30-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Metals by ICP-MS	Nickel	0.0064	0.0064	J	0.00025	0.020	mg/L	1	09-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Metals by ICP-MS	Nickel	0.011	0.011	J	0.0013	0.10	mg/L	5	30-Apr-14	SW-1	Seep
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Metals by ICP-MS	Selenium	--	U	U	0.00064	0.0050	mg/L	1	09-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Metals by ICP-MS	Selenium	--	U	U	0.00064	0.0050	mg/L	1	09-May-13	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Metals by ICP-MS	Selenium	--	U	U	0.0032	0.025	mg/L	5	30-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Metals by ICP-MS	Selenium	--	U	U	0.0032	0.025	mg/L	5	30-Apr-14	SW-2	Pool
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Metals by ICP-MS	Selenium	0.0067	0.0067	J	0.0032	0.025	mg/L	5	30-Apr-14	SW-1	Seep
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Metals by ICP-MS	Silver	--	U	U	0.000042	0.00020	mg/L	1	09-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Metals by ICP-MS	Silver	--	U	U	0.000042	0.00020	mg/L	1	09-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Metals by ICP-MS	Silver	--	U	U	0.00021	0.0010	mg/L	5	30-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Metals by ICP-MS	Silver	--	U	U	0.00021	0.0010	mg/L	5	30-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Metals by ICP-MS	Silver	--	U	U	0.00021	0.0010	mg/L	5	30-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Metals by ICP-MS	Thallium	--	U	U	0.000062	0.0020	mg/L	1	09-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Metals by ICP-MS	Thallium	--	U	U	0.000062	0.0020	mg/L	1	09-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Metals by ICP-MS	Thallium	--	U	U	0.00031	0.010	mg/L	5	30-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Metals by ICP-MS	Thallium	--	U	U	0.00031	0.010	mg/L	5	30-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Metals by ICP-MS	Thallium	--	U	U	0.00031	0.010	mg/L	5	30-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Metals by ICP-MS	Vanadium	--	U	U	0.00016	0.0040	mg/L	1	09-May-13	SW-1	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Metals by ICP-MS	Vanadium	--	U	U	0.00082	0.020	mg/L	5	30-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Metals by ICP-MS	Vanadium	0.00028	0.00028	J	0.00016	0.0040	mg/L	1	09-May-13	SW-2	Pool
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Metals by ICP-MS	Vanadium	0.0024	0.0024	J	0.00082	0.020	mg/L	5	30-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Metals by ICP-MS	Vanadium	0.011	0.011	J	0.00082	0.020	mg/L	5	30-Apr-14	SW-1	Seep
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Metals by ICP-MS	Zinc	0.0019	0.0019	J	0.00048	0.050	mg/L	1	09-May-13	SW-1	Seep
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Metals by ICP-MS	Zinc	0.01	0.010	J	0.00048	0.050	mg/L	1	09-May-13	SW-2	Pool
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Metals by ICP-MS	Zinc	0.063	0.063	J	0.0024	0.25	mg/L	5	30-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Metals by ICP-MS	Zinc	0.085	0.085	J	0.0024	0.25	mg/L	5	30-Apr-14	SW-2	Pool
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Metals by ICP-MS	Zinc	0.33	0.33		0.0024	0.25	mg/L	5	30-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Aluminum	--	U	U	0.0039	0.25	mg/L	5	30-Apr-14	SW-2	Pool
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Aluminum	0.011	0.011	J	0.0039	0.25	mg/L	5	30-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Aluminum	0.016	0.016	J	0.0039	0.25	mg/L	5	29-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Antimony	0.00052	0.00052	J	0.00018	0.010	mg/L	5	30-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Antimony	0.0013	0.0013	J	0.00018	0.010	mg/L	5	29-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Antimony	0.0014	0.0014	J	0.00018	0.010	mg/L	5	30-Apr-14	SW-2	Pool
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Arsenic	--	U	U	0.0029	0.025	mg/L	5	29-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Arsenic	--	U	U	0.0029	0.025	mg/L	5	30-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Arsenic	--	U	U	0.0029	0.025	mg/L	5	30-Apr-14	SW-2	Pool

Table A-3
All Compounds Data for Vernal Pool and Seeps

Client Sample ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qualifier	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Monitoring Point	Type
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Barium	0.034	0.034	J	0.00032	0.50	mg/L	5	29-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Barium	0.078	0.078	J	0.00032	0.50	mg/L	5	30-Apr-14	SW-2	Pool
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Barium	0.15	0.15	J	0.00032	0.50	mg/L	5	30-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Beryllium	--	U	U	0.00041	0.0050	mg/L	5	29-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Beryllium	--	U	U	0.00041	0.0050	mg/L	5	30-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Beryllium	--	U	U	0.00041	0.0050	mg/L	5	30-Apr-14	SW-2	Pool
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Cadmium	--	U	U	0.00022	0.0050	mg/L	5	30-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Cadmium	0.00023	0.00023	J	0.00022	0.0050	mg/L	5	30-Apr-14	SW-2	Pool
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Cadmium	0.0004	0.00040	J	0.00022	0.0050	mg/L	5	29-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Chromium	--	U	U	0.0014	0.050	mg/L	5	30-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Chromium	--	U	U	0.0014	0.050	mg/L	5	30-Apr-14	SW-2	Pool
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Chromium	0.0043	0.0043	J	0.0014	0.050	mg/L	5	29-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Cobalt	0.00093	0.00093	J	0.0002	0.10	mg/L	5	30-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Cobalt	0.0013	0.0013	J	0.0002	0.10	mg/L	5	30-Apr-14	SW-2	Pool
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Cobalt	0.0017	0.0017	J	0.0002	0.10	mg/L	5	29-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Copper	0.0057	0.0057	J	0.0026	0.020	mg/L	5	30-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Copper	0.0059	0.0059	J	0.0026	0.020	mg/L	5	30-Apr-14	SW-2	Pool
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Copper	0.036	0.036		0.0026	0.020	mg/L	5	29-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Iron	--	U	U	0.027	1.0	mg/L	5	30-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Iron	0.033	0.033	J	0.027	1.0	mg/L	5	29-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Iron	0.25	0.25	J	0.027	1.0	mg/L	5	30-Apr-14	SW-2	Pool
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Lead	0.00077	0.00077	J	0.00026	0.015	mg/L	5	30-Apr-14	SW-2	Pool
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Lead	0.0023	0.0023	J	0.00026	0.015	mg/L	5	29-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Lead	0.0026	0.0026	J	0.00026	0.015	mg/L	5	30-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Manganese	0.0062	0.0062	J	0.00027	0.25	mg/L	5	30-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Manganese	0.051	0.051	J	0.00027	0.25	mg/L	5	29-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Manganese	0.46	0.46		0.00027	0.25	mg/L	5	30-Apr-14	SW-2	Pool
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Nickel	0.004	0.0040	J	0.0013	0.10	mg/L	5	29-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Nickel	0.0042	0.0042	J	0.0013	0.10	mg/L	5	30-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Nickel	0.0052	0.0052	J	0.0013	0.10	mg/L	5	30-Apr-14	SW-2	Pool
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Selenium	--	U	U	0.0032	0.025	mg/L	5	29-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Selenium	--	U	U	0.0032	0.025	mg/L	5	30-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Selenium	--	U	U	0.0032	0.025	mg/L	5	30-Apr-14	SW-2	Pool
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Silver	--	U	U	0.00021	0.0010	mg/L	5	29-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Silver	--	U	U	0.00021	0.0010	mg/L	5	30-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Silver	--	U	U	0.00021	0.0010	mg/L	5	30-Apr-14	SW-2	Pool
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Thallium	--	U	U	0.00031	0.010	mg/L	5	29-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Thallium	--	U	U	0.00031	0.010	mg/L	5	30-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Thallium	--	U	U	0.00031	0.010	mg/L	5	30-Apr-14	SW-2	Pool
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Vanadium	--	U	U	0.00082	0.020	mg/L	5	30-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Vanadium	--	U	U	0.00082	0.020	mg/L	5	30-Apr-14	SW-2	Pool
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Vanadium	0.0012	0.0012	J	0.00082	0.020	mg/L	5	29-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Zinc	0.0088	0.0088	J	0.0024	0.25	mg/L	5	30-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Zinc	0.038	0.038	J	0.0024	0.25	mg/L	5	29-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Zinc	0.08	0.080	J	0.0024	0.25	mg/L	5	30-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	1,1'-Biphenyl	--	U	U	0.095	10	µg/L	1	09-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	1,1'-Biphenyl	--	U	U	0.095	10	µg/L	1	09-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	1,1'-Biphenyl	--	U	U, H	0.095	10	µg/L	1	28-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	1,1'-Biphenyl	--	U	U, H	0.095	10	µg/L	1	28-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	1,1'-Biphenyl	--	U	U, H	0.095	10	µg/L	1	28-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	0.12	5.0	µg/L	1	09-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	0.12	5.0	µg/L	1	09-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U, H	0.25	5.0	µg/L	1	28-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U, H	0.25	5.0	µg/L	1	28-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U, H	0.25	5.0	µg/L	1	28-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	0.11	4.0	µg/L	1	09-May-13	SW-2	Pool

Table A-3
All Compounds Data for Vernal Pool and Seeps

Client Sample ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qualifier	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Monitoring	
														Point	Type
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	0.11	4.0	µg/L	1	09-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U, H	0.27	4.0	µg/L	1	28-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U, H	0.27	4.0	µg/L	1	28-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U, H	0.27	4.0	µg/L	1	28-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	0.22	10	µg/L	1	09-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	0.22	10	µg/L	1	09-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U, H	0.22	10	µg/L	1	28-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U, H	0.22	10	µg/L	1	28-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U, H	0.22	10	µg/L	1	28-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	0.24	5.0	µg/L	1	09-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	0.24	5.0	µg/L	1	09-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U, H	1.8	5.0	µg/L	1	28-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U, H	1.8	5.0	µg/L	1	28-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U, H	1.8	5.0	µg/L	1	28-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	0.76	25	µg/L	1	09-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	0.76	25	µg/L	1	09-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U, H	0.67	25	µg/L	1	28-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U, H	0.67	25	µg/L	1	28-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U, H	0.67	25	µg/L	1	28-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	0.78	5.0	µg/L	1	09-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	0.78	5.0	µg/L	1	09-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U, H	0.27	5.0	µg/L	1	28-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U, H	0.27	5.0	µg/L	1	28-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U, H	0.27	5.0	µg/L	1	28-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	0.82	5.0	µg/L	1	09-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	0.82	5.0	µg/L	1	09-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U, H	0.23	5.0	µg/L	1	28-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U, H	0.23	5.0	µg/L	1	28-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U, H	0.23	5.0	µg/L	1	28-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	0.13	5.0	µg/L	1	09-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	0.13	5.0	µg/L	1	09-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U, H	0.13	5.0	µg/L	1	28-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U, H	0.13	5.0	µg/L	1	28-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U, H	0.13	5.0	µg/L	1	28-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	0.73	10	µg/L	1	09-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	0.73	10	µg/L	1	09-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U, H	0.32	10	µg/L	1	28-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U, H	0.32	10	µg/L	1	28-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U, H	0.32	10	µg/L	1	28-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	2-Methylnaphthalene	--	U	U	0.13	5.0	µg/L	1	09-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	2-Methylnaphthalene	--	U	U	0.13	5.0	µg/L	1	09-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	2-Methylnaphthalene	--	U	U, H	0.13	5.0	µg/L	1	28-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	2-Methylnaphthalene	--	U	U, H	0.13	5.0	µg/L	1	28-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	2-Methylnaphthalene	--	U	U, H	0.13	5.0	µg/L	1	28-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	0.6	10	µg/L	1	09-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	0.6	10	µg/L	1	09-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U, H	0.2	10	µg/L	1	28-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U, H	0.2	10	µg/L	1	28-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U, H	0.2	10	µg/L	1	28-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	0.11	25	µg/L	1	09-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	0.11	25	µg/L	1	09-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U, H	0.34	25	µg/L	1	28-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U, H	0.34	25	µg/L	1	28-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U, H	0.34	25	µg/L	1	28-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	0.19	5.0	µg/L	1	09-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	0.19	5.0	µg/L	1	09-May-13	SW-1	Seep

Table A-3
All Compounds Data for Vernal Pool and Seeps

Client Sample ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qualifier	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Monitoring	
														Point	Type
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U, H	0.28	5.0	µg/L	1	28-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U, H	0.28	5.0	µg/L	1	28-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U, H	0.28	5.0	µg/L	1	28-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	0.54	1.0	µg/L	1	09-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	0.54	1.0	µg/L	1	09-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U, H	3.9	1.0	µg/L	1	28-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U, H	3.9	1.0	µg/L	1	28-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U, H	3.9	1.0	µg/L	1	28-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	2.5	25	µg/L	1	09-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	2.5	25	µg/L	1	09-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U, H	0.34	25	µg/L	1	28-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U, H	0.34	25	µg/L	1	28-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U, H	0.34	25	µg/L	1	28-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	0.34	20	µg/L	1	09-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	0.34	20	µg/L	1	09-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U, H	1.2	20	µg/L	1	28-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U, H	1.2	20	µg/L	1	28-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U, H	1.2	20	µg/L	1	28-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	0.11	5.0	µg/L	1	09-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	0.11	5.0	µg/L	1	09-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U, H	0.23	5.0	µg/L	1	28-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U, H	0.23	5.0	µg/L	1	28-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U, H	0.23	5.0	µg/L	1	28-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	0.65	5.0	µg/L	1	09-May-13	SW-2	Pool

Table A-3
All Compounds Data for Vernal Pool and Seeps

Client Sample ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qualifier	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Monitoring Point	Type
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Acenaphthene	--	U	U, H	0.11	5.0	µg/L	1	28-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Acenaphthene	--	U	U, H	0.11	5.0	µg/L	1	28-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Acenaphthylene	--	U	U	0.12	5.0	µg/L	1	09-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Acenaphthylene	--	U	U	0.12	5.0	µg/L	1	09-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Acenaphthylene	--	U	U, H	0.12	5.0	µg/L	1	28-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Acenaphthylene	--	U	U, H	0.12	5.0	µg/L	1	28-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Acenaphthylene	--	U	U, H	0.12	5.0	µg/L	1	28-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	0.09	5.0	µg/L	1	09-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	0.09	5.0	µg/L	1	09-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Acetophenone	--	U	U, H	0.09	5.0	µg/L	1	28-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Acetophenone	--	U	U, H	0.09	5.0	µg/L	1	28-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Acetophenone	--	U	U, H	0.09	5.0	µg/L	1	28-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Anthracene	--	U	U	0.72	5.0	µg/L	1	09-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Anthracene	--	U	U	0.72	5.0	µg/L	1	09-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Anthracene	--	U	U, H	0.72	5.0	µg/L	1	28-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Anthracene	--	U	U, H	0.72	5.0	µg/L	1	28-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Anthracene	--	U	U, H	0.72	5.0	µg/L	1	28-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Atrazine	--	U	U	3.2	5.0	µg/L	1	09-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Atrazine	--	U	U	3.2	5.0	µg/L	1	09-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Atrazine	--	U	U, H	0.13	5.0	µg/L	1	28-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Atrazine	--	U	U, H	0.13	5.0	µg/L	1	28-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Atrazine	--	U	U, H	0.13	5.0	µg/L	1	28-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Benzaldehyde	--	U	U	0.46	10	µg/L	1	09-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Benzaldehyde	--	U	U	0.46	10	µg/L	1	09-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Benzaldehyde	--	U	U, H	0.46	10	µg/L	1	28-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Benzaldehyde	--	U	U, H	0.46	10	µg/L	1	28-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Benzaldehyde	--	U	U, H	0.46	10	µg/L	1	28-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Benzo(a)anthracene	--	U	U	0.57	1.0	µg/L	1	09-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Benzo(a)anthracene	--	U	U	0.57	1.0	µg/L	1	09-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Benzo(a)anthracene	--	U	U, H	0.57	1.0	µg/L	1	28-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Benzo(a)anthracene	--	U	U, H	0.57	1.0	µg/L	1	28-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Benzo(a)anthracene	--	U	U, H	0.57	1.0	µg/L	1	28-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Benzo(a)pyrene	--	U	U	0.1	1.0	µg/L	1	09-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Benzo(a)pyrene	--	U	U	0.1	1.0	µg/L	1	09-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Benzo(a)pyrene	--	U	U, H	0.1	1.0	µg/L	1	28-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Benzo(a)pyrene	--	U	U, H	0.1	1.0	µg/L	1	28-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Benzo(a)pyrene	--	U	U, H	0.1	1.0	µg/L	1	28-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	--	U	U	0.74	1.0	µg/L	1	09-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	--	U	U	0.74	1.0	µg/L	1	09-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	--	U	U, H	0.74	1.0	µg/L	1	28-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	--	U	U, H	0.74	1.0	µg/L	1	28-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	--	U	U, H	0.74	1.0	µg/L	1	28-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	--	U	U	0.7	1.0	µg/L	1	09-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	--	U	U	0.7	1.0	µg/L	1	09-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	--	U	U, H	0.7	1.0	µg/L	1	28-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	--	U	U, H	0.7	1.0	µg/L	1	28-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	--	U	U, H	0.7	1.0	µg/L	1	28-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	--	U	U	0.17	1.0	µg/L	1	09-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	--	U	U	0.17	1.0	µg/L	1	09-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	--	U	U, H	0.17	1.0	µg/L	1	28-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	--	U	U, H	0.17	1.0	µg/L	1	28-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	--	U	U, H	0.17	1.0	µg/L	1	28-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	0.13	5.0	µg/L	1	09-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	0.13	5.0	µg/L	1	09-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U, H	0.33	5.0	µg/L	1	28-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U, H	0.33	5.0	µg/L	1	28-Apr-14	SW-3	Seep

Table A-3
All Compounds Data for Vernal Pool and Seeps

Client Sample ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qualifier	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Monitoring Point	Type
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U, H	0.33	5.0	µg/L	1	28-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	0.11	1.0	µg/L	1	09-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	0.11	1.0	µg/L	1	09-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U, H	0.34	1.0	µg/L	1	28-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U, H	0.34	1.0	µg/L	1	28-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U, H	0.34	1.0	µg/L	1	28-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	0.12	5.0	µg/L	1	09-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	0.12	5.0	µg/L	1	09-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U, H	0.32	5.0	µg/L	1	28-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U, H	0.32	5.0	µg/L	1	28-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U, H	0.32	5.0	µg/L	1	28-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	--	U	U	0.12	5.0	µg/L	1	09-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	--	U	U	0.12	5.0	µg/L	1	09-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	--	U	U, H	0.15	5.0	µg/L	1	28-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	--	U	U, H	0.15	5.0	µg/L	1	28-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	--	U	U, H	0.15	5.0	µg/L	1	28-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	--	U	U	0.11	5.0	µg/L	1	09-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	--	U	U	0.11	5.0	µg/L	1	09-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	--	U	U, H	0.1	5.0	µg/L	1	28-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	--	U	U, H	0.1	5.0	µg/L	1	28-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	--	U	U, H	0.1	5.0	µg/L	1	28-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	4.7	10	µg/L	1	09-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	4.7	10	µg/L	1	09-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Caprolactam	--	U	U, H	4.7	10	µg/L	1	28-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Caprolactam	--	U	U, H	4.7	10	µg/L	1	28-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Caprolactam	--	U	U, H	4.7	10	µg/L	1	28-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Carbazole	--	U	U	0.84	10	µg/L	1	09-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Carbazole	--	U	U	0.84	10	µg/L	1	09-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Carbazole	--	U	U, H	0.16	10	µg/L	1	28-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Carbazole	--	U	U, H	0.16	10	µg/L	1	28-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Carbazole	--	U	U, H	0.16	10	µg/L	1	28-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Chrysene	--	U	U	0.71	1.0	µg/L	1	09-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Chrysene	--	U	U	0.71	1.0	µg/L	1	09-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Chrysene	--	U	U, H	0.71	1.0	µg/L	1	28-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Chrysene	--	U	U, H	0.71	1.0	µg/L	1	28-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Chrysene	--	U	U, H	0.71	1.0	µg/L	1	28-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	--	U	U	0.67	2.0	µg/L	1	09-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	--	U	U	0.67	2.0	µg/L	1	09-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	--	U	U, H	0.67	2.0	µg/L	1	28-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	--	U	U, H	0.67	2.0	µg/L	1	28-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	--	U	U, H	0.67	2.0	µg/L	1	28-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Dibenzofuran	--	U	U	0.11	4.0	µg/L	1	09-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Dibenzofuran	--	U	U	0.11	4.0	µg/L	1	09-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Dibenzofuran	--	U	U, H	0.28	4.0	µg/L	1	28-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Dibenzofuran	--	U	U, H	0.28	4.0	µg/L	1	28-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Dibenzofuran	--	U	U, H	0.28	4.0	µg/L	1	28-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	0.69	5.0	µg/L	1	09-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	0.69	5.0	µg/L	1	09-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U, H	0.24	5.0	µg/L	1	28-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U, H	0.24	5.0	µg/L	1	28-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U, H	0.24	5.0	µg/L	1	28-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	0.14	5.0	µg/L	1	09-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	0.14	5.0	µg/L	1	09-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U, H	0.27	5.0	µg/L	1	28-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U, H	0.27	5.0	µg/L	1	28-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U, H	0.27	5.0	µg/L	1	28-Apr-14	SW-2	Pool

Table A-3
All Compounds Data for Vernal Pool and Seeps

Client Sample ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qualifier	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Monitoring Point	Type
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U	0.71	5.0	µg/L	1	09-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U, H	0.14	5.0	µg/L	1	28-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U, H	0.14	5.0	µg/L	1	28-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U, H	0.14	5.0	µg/L	1	28-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	1.3	1.3	J	0.71	5.0	µg/L	1	09-May-13	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	0.12	5.0	µg/L	1	09-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	0.12	5.0	µg/L	1	09-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U, H	0.12	5.0	µg/L	1	28-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U, H	0.12	5.0	µg/L	1	28-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U, H	0.12	5.0	µg/L	1	28-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Fluoranthene	--	U	U	0.77	1.0	µg/L	1	09-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Fluoranthene	--	U	U	0.77	1.0	µg/L	1	09-May-13	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Fluoranthene	1.3	1.3	H	0.77	1.0	µg/L	1	28-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Fluoranthene	1.3	1.3	H	0.77	1.0	µg/L	1	28-Apr-14	SW-2	Pool
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Fluoranthene	1.6	1.6	H	0.77	1.0	µg/L	1	28-Apr-14	SW-1	Seep
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Fluorene	--	U	U	0.1	5.0	µg/L	1	09-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Fluorene	--	U	U	0.1	5.0	µg/L	1	09-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Fluorene	--	U	U, H	0.1	5.0	µg/L	1	28-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Fluorene	--	U	U, H	0.1	5.0	µg/L	1	28-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Fluorene	--	U	U, H	0.1	5.0	µg/L	1	28-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	0.1	0.50	µg/L	1	09-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	0.1	0.50	µg/L	1	09-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U, H	0.22	0.50	µg/L	1	28-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U, H	0.22	0.50	µg/L	1	28-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U, H	0.22	0.50	µg/L	1	28-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	0.12	0.50	µg/L	1	09-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	0.12	0.50	µg/L	1	09-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U, H	0.24	0.50	µg/L	1	28-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U, H	0.24	0.50	µg/L	1	28-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U, H	0.24	0.50	µg/L	1	28-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	0.18	5.0	µg/L	1	09-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	0.18	5.0	µg/L	1	09-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U, H	0.18	5.0	µg/L	1	28-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U, H	0.18	5.0	µg/L	1	28-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U, H	0.18	5.0	µg/L	1	28-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	0.13	5.0	µg/L	1	09-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	0.13	5.0	µg/L	1	09-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U, H	0.47	5.0	µg/L	1	28-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U, H	0.47	5.0	µg/L	1	28-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U, H	0.47	5.0	µg/L	1	28-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	--	U	U	0.69	2.0	µg/L	1	09-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	--	U	U	0.69	2.0	µg/L	1	09-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	--	U	U, H	0.69	2.0	µg/L	1	28-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	--	U	U, H	0.69	2.0	µg/L	1	28-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	--	U	U, H	0.69	2.0	µg/L	1	28-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Isophorone	--	U	U	0.12	5.0	µg/L	1	09-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Isophorone	--	U	U	0.12	5.0	µg/L	1	09-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Isophorone	--	U	U, H	0.3	5.0	µg/L	1	28-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Isophorone	--	U	U, H	0.3	5.0	µg/L	1	28-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Isophorone	--	U	U, H	0.3	5.0	µg/L	1	28-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Naphthalene	--	U	U	0.12	5.0	µg/L	1	09-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Naphthalene	--	U	U	0.12	5.0	µg/L	1	09-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Naphthalene	--	U	U, H	0.12	5.0	µg/L	1	28-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Naphthalene	--	U	U, H	0.12	5.0	µg/L	1	28-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Naphthalene	--	U	U, H	0.12	5.0	µg/L	1	28-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	0.1	3.0	µg/L	1	09-May-13	SW-2	Pool

Table A-3
All Compounds Data for Vernal Pool and Seeps

Client Sample ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qualifier	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Monitoring Point	Type
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	0.1	3.0	µg/L	1	09-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U, H	0.33	3.0	µg/L	1	28-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U, H	0.33	3.0	µg/L	1	28-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U, H	0.33	3.0	µg/L	1	28-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	0.13	5.0	µg/L	1	09-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	0.13	5.0	µg/L	1	09-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U, H	0.32	5.0	µg/L	1	28-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U, H	0.32	5.0	µg/L	1	28-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U, H	0.32	5.0	µg/L	1	28-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	0.81	5.0	µg/L	1	09-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	0.81	5.0	µg/L	1	09-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U, H	0.81	5.0	µg/L	1	28-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U, H	0.81	5.0	µg/L	1	28-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U, H	0.81	5.0	µg/L	1	28-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	0.11	1.0	µg/L	1	09-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	0.11	1.0	µg/L	1	09-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U, H	0.22	1.0	µg/L	1	28-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U, H	0.22	1.0	µg/L	1	28-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U, H	0.22	1.0	µg/L	1	28-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Phenanthrene	--	U	U	0.86	2.0	µg/L	1	09-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Phenanthrene	--	U	U	0.86	2.0	µg/L	1	09-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Phenanthrene	--	U	U, H	0.86	2.0	µg/L	1	28-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Phenanthrene	--	U	U, H	0.86	2.0	µg/L	1	28-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Phenanthrene	--	U	U, H	0.86	2.0	µg/L	1	28-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Phenol	--	U	U	0.094	5.0	µg/L	1	09-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Phenol	--	U	U	0.094	5.0	µg/L	1	09-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Phenol	--	U	U, H	0.32	5.0	µg/L	1	28-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Phenol	--	U	U, H	0.32	5.0	µg/L	1	28-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Phenol	--	U	U, H	0.32	5.0	µg/L	1	28-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Pyrene	--	U	U	0.65	5.0	µg/L	1	09-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Pyrene	--	U	U	0.65	5.0	µg/L	1	09-May-13	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Pyrene	--	U	U, H	0.65	5.0	µg/L	1	28-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Pyrene	--	U	U, H	0.65	5.0	µg/L	1	28-Apr-14	SW-2	Pool
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Pyrene	0.69	0.69	JH	0.65	5.0	µg/L	1	28-Apr-14	SW-1	Seep
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	1,1,1-Trichloroethane	--	U	U	0.14	1.0	µg/L	1	11-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	1,1,1-Trichloroethane	--	U	U	0.14	1.0	µg/L	1	11-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	1,1,1-Trichloroethane	--	U	U	0.11	1.0	µg/L	1	25-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	1,1,1-Trichloroethane	--	U	U	0.11	1.0	µg/L	1	25-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	1,1,1-Trichloroethane	--	U	U	0.11	1.0	µg/L	1	26-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	1,1,2,2-Tetrachloroethane	--	U	U	0.13	1.0	µg/L	1	11-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	1,1,2,2-Tetrachloroethane	--	U	U	0.13	1.0	µg/L	1	11-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	1,1,2,2-Tetrachloroethane	--	U	U	0.21	1.0	µg/L	1	25-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	1,1,2,2-Tetrachloroethane	--	U	U	0.21	1.0	µg/L	1	25-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	1,1,2,2-Tetrachloroethane	--	U	U	0.21	1.0	µg/L	1	26-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	1,1,2-Trichloroethane	--	U	U	0.084	1.0	µg/L	1	11-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	1,1,2-Trichloroethane	--	U	U	0.084	1.0	µg/L	1	11-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	1,1,2-Trichloroethane	--	U	U	0.11	1.0	µg/L	1	25-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	1,1,2-Trichloroethane	--	U	U	0.11	1.0	µg/L	1	25-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	1,1,2-Trichloroethane	--	U	U	0.11	1.0	µg/L	1	26-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	1,1,2-Trichlorotrifluoroethane	--	U	U	0.18	1.0	µg/L	1	11-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	1,1,2-Trichlorotrifluoroethane	--	U	U	0.18	1.0	µg/L	1	11-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	1,1,2-Trichlorotrifluoroethane	--	U	U	0.4	1.0	µg/L	1	25-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	1,1,2-Trichlorotrifluoroethane	--	U	U	0.4	1.0	µg/L	1	25-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	1,1,2-Trichlorotrifluoroethane	--	U	U	0.4	1.0	µg/L	1	26-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	1,1-Dichloroethane	--	U	U	0.11	1.0	µg/L	1	11-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	1,1-Dichloroethane	--	U	U	0.11	1.0	µg/L	1	11-May-13	SW-1	Seep

Table A-3
All Compounds Data for Vernal Pool and Seeps

Client Sample ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qualifier	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Monitoring	
														Point	Type
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	1,1-Dichloroethane	--	U	U	0.14	1.0	µg/L	1	25-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	1,1-Dichloroethane	--	U	U	0.14	1.0	µg/L	1	25-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	1,1-Dichloroethane	--	U	U	0.14	1.0	µg/L	1	26-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	1,1-Dichloroethene	--	U	U	0.12	1.0	µg/L	1	11-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	1,1-Dichloroethene	--	U	U	0.12	1.0	µg/L	1	11-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	1,1-Dichloroethene	--	U	U	0.12	1.0	µg/L	1	25-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	1,1-Dichloroethene	--	U	U	0.12	1.0	µg/L	1	25-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	1,1-Dichloroethene	--	U	U	0.12	1.0	µg/L	1	26-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	1,2,4-Trichlorobenzene	--	U	U	0.16	5.0	µg/L	1	11-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	1,2,4-Trichlorobenzene	--	U	U	0.16	5.0	µg/L	1	11-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	1,2,4-Trichlorobenzene	--	U	U	0.096	5.0	µg/L	1	25-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	1,2,4-Trichlorobenzene	--	U	U	0.096	5.0	µg/L	1	25-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	1,2,4-Trichlorobenzene	--	U	U	0.096	5.0	µg/L	1	26-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	1,2-Dibromo-3-chloropropane	--	U	U	0.31	1.0	µg/L	1	11-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	1,2-Dibromo-3-chloropropane	--	U	U	0.31	1.0	µg/L	1	11-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	1,2-Dibromo-3-chloropropane	--	U	U	0.35	1.0	µg/L	1	25-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	1,2-Dibromo-3-chloropropane	--	U	U	0.35	1.0	µg/L	1	25-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	1,2-Dibromo-3-chloropropane	--	U	U	0.35	1.0	µg/L	1	26-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	1,2-Dibromoethane	--	U	U	0.16	1.0	µg/L	1	11-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	1,2-Dibromoethane	--	U	U	0.16	1.0	µg/L	1	11-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	1,2-Dibromoethane	--	U	U	0.14	1.0	µg/L	1	25-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	1,2-Dibromoethane	--	U	U	0.14	1.0	µg/L	1	25-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	1,2-Dibromoethane	--	U	U	0.14	1.0	µg/L	1	26-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	1,2-Dichlorobenzene	--	U	U	0.13	1.0	µg/L	1	11-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	1,2-Dichlorobenzene	--	U	U	0.13	1.0	µg/L	1	11-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	1,2-Dichlorobenzene	--	U	U	0.17	1.0	µg/L	1	25-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	1,2-Dichlorobenzene	--	U	U	0.17	1.0	µg/L	1	25-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	1,2-Dichlorobenzene	--	U	U	0.17	1.0	µg/L	1	26-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	1,2-Dichloroethane	--	U	U	0.15	1.0	µg/L	1	11-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	1,2-Dichloroethane	--	U	U	0.15	1.0	µg/L	1	11-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	1,2-Dichloroethane	--	U	U	0.11	1.0	µg/L	1	25-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	1,2-Dichloroethane	--	U	U	0.11	1.0	µg/L	1	25-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	1,2-Dichloroethane	--	U	U	0.11	1.0	µg/L	1	26-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	1,2-Dichloropropane	--	U	U	0.13	1.0	µg/L	1	11-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	1,2-Dichloropropane	--	U	U	0.13	1.0	µg/L	1	11-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	1,2-Dichloropropane	--	U	U	0.12	1.0	µg/L	1	25-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	1,2-Dichloropropane	--	U	U	0.12	1.0	µg/L	1	25-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	1,2-Dichloropropane	--	U	U	0.12	1.0	µg/L	1	26-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	1,3-Dichlorobenzene	--	U	U	0.16	1.0	µg/L	1	11-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	1,3-Dichlorobenzene	--	U	U	0.16	1.0	µg/L	1	11-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	1,3-Dichlorobenzene	--	U	U	0.15	1.0	µg/L	1	25-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	1,3-Dichlorobenzene	--	U	U	0.15	1.0	µg/L	1	25-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	1,3-Dichlorobenzene	--	U	U	0.15	1.0	µg/L	1	26-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	1,4-Dichlorobenzene	--	U	U	0.15	1.0	µg/L	1	11-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	1,4-Dichlorobenzene	--	U	U	0.15	1.0	µg/L	1	11-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	1,4-Dichlorobenzene	--	U	U	0.15	1.0	µg/L	1	25-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	1,4-Dichlorobenzene	--	U	U	0.15	1.0	µg/L	1	25-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	1,4-Dichlorobenzene	--	U	U	0.15	1.0	µg/L	1	26-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	2-Butanone	--	U	U	0.22	25	µg/L	1	11-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	2-Butanone	--	U	U	0.22	25	µg/L	1	11-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	2-Butanone	--	U	U	0.64	25	µg/L	1	25-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	2-Butanone	--	U	U	0.64	25	µg/L	1	25-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	2-Butanone	--	U	U	0.64	25	µg/L	1	26-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	2-Hexanone	--	U	U	0.12	50	µg/L	1	11-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	2-Hexanone	--	U	U	0.12	50	µg/L	1	11-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	2-Hexanone	--	U	U	0.19	50	µg/L	1	25-Apr-14	SW-1	Seep

Table A-3
All Compounds Data for Vernal Pool and Seeps

Client Sample ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qualifier	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Monitoring Point	Type
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	2-Hexanone	--	U	U	0.19	50	µg/L	1	25-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	2-Hexanone	--	U	U	0.19	50	µg/L	1	26-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	4-Methyl-2-pentanone	--	U	U	0.096	50	µg/L	1	11-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	4-Methyl-2-pentanone	--	U	U	0.096	50	µg/L	1	11-May-13	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	4-Methyl-2-pentanone	--	U	U	0.2	50	µg/L	1	25-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	4-Methyl-2-pentanone	--	U	U	0.2	50	µg/L	1	26-Apr-14	SW-2	Pool
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	4-Methyl-2-pentanone	1.4	1.4	J	0.2	50	µg/L	1	25-Apr-14	SW-1	Seep
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	Acetone	--	U	U	0.33	50	µg/L	1	11-May-13	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	Acetone	3.4	3.4	J	3	50	µg/L	1	25-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	Acetone	3.6	3.6	J	3	50	µg/L	1	26-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	Acetone	4	4.0	J	0.33	50	µg/L	1	11-May-13	SW-2	Pool
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	Acetone	7.5	7.5	J	3	50	µg/L	1	25-Apr-14	SW-1	Seep
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	Benzene	--	U	U	0.18	1.0	µg/L	1	11-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	Benzene	--	U	U	0.18	1.0	µg/L	1	11-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	Benzene	--	U	U	0.14	1.0	µg/L	1	25-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	Benzene	--	U	U	0.14	1.0	µg/L	1	25-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	Benzene	--	U	U	0.14	1.0	µg/L	1	26-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	Bromodichloromethane	--	U	U	0.12	1.0	µg/L	1	11-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	Bromodichloromethane	--	U	U	0.12	1.0	µg/L	1	11-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	Bromodichloromethane	--	U	U	0.22	1.0	µg/L	1	25-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	Bromodichloromethane	--	U	U	0.22	1.0	µg/L	1	25-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	Bromodichloromethane	--	U	U	0.22	1.0	µg/L	1	26-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	Bromoform	--	U	U	0.15	1.0	µg/L	1	11-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	Bromoform	--	U	U	0.15	1.0	µg/L	1	11-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	Bromoform	--	U	U	0.18	1.0	µg/L	1	25-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	Bromoform	--	U	U	0.18	1.0	µg/L	1	25-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	Bromoform	--	U	U	0.18	1.0	µg/L	1	26-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	Bromomethane	--	U	U	0.21	5.0	µg/L	1	11-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	Bromomethane	--	U	U	0.21	5.0	µg/L	1	11-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	Bromomethane	--	U	U	0.38	5.0	µg/L	1	25-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	Bromomethane	--	U	U	0.38	5.0	µg/L	1	25-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	Bromomethane	--	U	U	0.38	5.0	µg/L	1	26-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	Carbon disulfide	--	U	U	0.17	5.0	µg/L	1	11-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	Carbon disulfide	--	U	U	0.17	5.0	µg/L	1	11-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	Carbon disulfide	--	U	U	0.26	5.0	µg/L	1	25-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	Carbon disulfide	--	U	U	0.26	5.0	µg/L	1	25-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	Carbon disulfide	--	U	U	0.26	5.0	µg/L	1	26-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	Carbon tetrachloride	--	U	U	0.12	1.0	µg/L	1	11-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	Carbon tetrachloride	--	U	U	0.12	1.0	µg/L	1	11-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	Carbon tetrachloride	--	U	U	0.16	1.0	µg/L	1	25-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	Carbon tetrachloride	--	U	U	0.16	1.0	µg/L	1	25-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	Carbon tetrachloride	--	U	U	0.16	1.0	µg/L	1	26-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	Chlorobenzene	--	U	U	0.13	1.0	µg/L	1	11-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	Chlorobenzene	--	U	U	0.13	1.0	µg/L	1	11-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	Chlorobenzene	--	U	U	0.12	1.0	µg/L	1	25-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	Chlorobenzene	--	U	U	0.12	1.0	µg/L	1	25-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	Chlorobenzene	--	U	U	0.12	1.0	µg/L	1	26-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	Chloroethane	--	U	U	0.46	5.0	µg/L	1	11-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	Chloroethane	--	U	U	0.46	5.0	µg/L	1	11-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	Chloroethane	--	U	U	0.25	5.0	µg/L	1	25-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	Chloroethane	--	U	U	0.25	5.0	µg/L	1	25-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	Chloroethane	--	U	U	0.25	5.0	µg/L	1	26-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	Chloroform	--	U	U	0.15	1.0	µg/L	1	11-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	Chloroform	--	U	U	0.15	1.0	µg/L	1	11-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	Chloroform	--	U	U	0.15	1.0	µg/L	1	25-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	Chloroform	--	U	U	0.15	1.0	µg/L	1	25-Apr-14	SW-3	Seep

Table A-3
All Compounds Data for Vernal Pool and Seeps

Client Sample ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qualifier	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Monitoring Point	Type
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	Chloroform	--	U	U	0.15	1.0	µg/L	1	26-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	Chloromethane	--	U	U	0.16	5.0	µg/L	1	11-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	Chloromethane	--	U	U	0.16	5.0	µg/L	1	11-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	Chloromethane	--	U	U	0.29	5.0	µg/L	1	25-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	Chloromethane	--	U	U	0.29	5.0	µg/L	1	25-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	Chloromethane	--	U	U	0.29	5.0	µg/L	1	26-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	cis-1,2-Dichloroethene	--	U	U	0.11	1.0	µg/L	1	11-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	cis-1,2-Dichloroethene	--	U	U	0.11	1.0	µg/L	1	11-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	cis-1,2-Dichloroethene	--	U	U	0.1	1.0	µg/L	1	25-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	cis-1,2-Dichloroethene	--	U	U	0.1	1.0	µg/L	1	25-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	cis-1,2-Dichloroethene	--	U	U	0.1	1.0	µg/L	1	26-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	cis-1,3-Dichloropropene	--	U	U	0.081	1.0	µg/L	1	11-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	cis-1,3-Dichloropropene	--	U	U	0.081	1.0	µg/L	1	11-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	cis-1,3-Dichloropropene	--	U	U	0.097	1.0	µg/L	1	25-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	cis-1,3-Dichloropropene	--	U	U	0.097	1.0	µg/L	1	25-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	cis-1,3-Dichloropropene	--	U	U	0.097	1.0	µg/L	1	26-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	Cyclohexane	--	U	U	0.22	1.0	µg/L	1	11-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	Cyclohexane	--	U	U	0.22	1.0	µg/L	1	11-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	Cyclohexane	--	U	U	0.2	1.0	µg/L	1	25-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	Cyclohexane	--	U	U	0.2	1.0	µg/L	1	25-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	Cyclohexane	--	U	U	0.2	1.0	µg/L	1	26-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	Dibromochloromethane	--	U	U	0.13	5.0	µg/L	1	11-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	Dibromochloromethane	--	U	U	0.13	5.0	µg/L	1	11-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	Dibromochloromethane	--	U	U	0.12	5.0	µg/L	1	25-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	Dibromochloromethane	--	U	U	0.12	5.0	µg/L	1	25-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	Dibromochloromethane	--	U	U	0.12	5.0	µg/L	1	26-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	Dichlorodifluoromethane	--	U	U	0.2	5.0	µg/L	1	11-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	Dichlorodifluoromethane	--	U	U	0.2	5.0	µg/L	1	11-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	Dichlorodifluoromethane	--	U	U	0.18	5.0	µg/L	1	25-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	Dichlorodifluoromethane	--	U	U	0.18	5.0	µg/L	1	25-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	Dichlorodifluoromethane	--	U	U	0.18	5.0	µg/L	1	26-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	Ethylbenzene	--	U	U	0.13	1.0	µg/L	1	11-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	Ethylbenzene	--	U	U	0.13	1.0	µg/L	1	11-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	Ethylbenzene	--	U	U	0.12	1.0	µg/L	1	25-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	Ethylbenzene	--	U	U	0.12	1.0	µg/L	1	25-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	Ethylbenzene	--	U	U	0.12	1.0	µg/L	1	26-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	Isopropylbenzene	--	U	U	0.14	5.0	µg/L	1	11-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	Isopropylbenzene	--	U	U	0.14	5.0	µg/L	1	11-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	Isopropylbenzene	--	U	U	0.11	5.0	µg/L	1	25-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	Isopropylbenzene	--	U	U	0.11	5.0	µg/L	1	25-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	Isopropylbenzene	--	U	U	0.11	5.0	µg/L	1	26-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	Methyl acetate	--	U	U	0.19	10	µg/L	1	11-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	Methyl acetate	--	U	U	0.19	10	µg/L	1	11-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	Methyl acetate	--	U	U	0.76	10	µg/L	1	25-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	Methyl acetate	--	U	U	0.76	10	µg/L	1	25-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	Methyl acetate	--	U	U	0.76	10	µg/L	1	26-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	Methyl tert-butyl ether	--	U	U	0.07	5.0	µg/L	1	11-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	Methyl tert-butyl ether	--	U	U	0.07	5.0	µg/L	1	11-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	Methyl tert-butyl ether	--	U	U	0.28	5.0	µg/L	1	25-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	Methyl tert-butyl ether	--	U	U	0.28	5.0	µg/L	1	25-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	Methyl tert-butyl ether	--	U	U	0.28	5.0	µg/L	1	26-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	Methylcyclohexane	--	U	U	0.99	1.0	µg/L	1	11-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	Methylcyclohexane	--	U	U	0.99	1.0	µg/L	1	11-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	Methylcyclohexane	--	U	U	0.19	1.0	µg/L	1	25-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	Methylcyclohexane	--	U	U	0.19	1.0	µg/L	1	25-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	Methylcyclohexane	--	U	U	0.19	1.0	µg/L	1	26-Apr-14	SW-2	Pool

Table A-3
All Compounds Data for Vernal Pool and Seeps

Client Sample ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qualifier	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Monitoring Point	Type
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	Methylene chloride	--	U	U	0.19	5.0	µg/L	1	11-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	Methylene chloride	--	U	U	0.19	5.0	µg/L	1	11-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	Methylene chloride	--	U	U	0.75	5.0	µg/L	1	25-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	Methylene chloride	--	U	U	0.75	5.0	µg/L	1	25-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	Methylene chloride	--	U	U	0.75	5.0	µg/L	1	26-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	Styrene	--	U	U	0.11	1.0	µg/L	1	11-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	Styrene	--	U	U	0.11	1.0	µg/L	1	11-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	Styrene	--	U	U	0.12	1.0	µg/L	1	25-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	Styrene	--	U	U	0.12	1.0	µg/L	1	25-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	Styrene	--	U	U	0.12	1.0	µg/L	1	26-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	Tetrachloroethene	--	U	U	0.15	1.0	µg/L	1	11-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	Tetrachloroethene	--	U	U	0.15	1.0	µg/L	1	11-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	Tetrachloroethene	--	U	U	0.098	1.0	µg/L	1	25-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	Tetrachloroethene	--	U	U	0.098	1.0	µg/L	1	25-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	Tetrachloroethene	--	U	U	0.098	1.0	µg/L	1	26-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	Toluene	--	U	U	0.12	1.0	µg/L	1	11-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	Toluene	--	U	U	0.12	1.0	µg/L	1	11-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	Toluene	--	U	U	0.13	1.0	µg/L	1	25-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	Toluene	--	U	U	0.13	1.0	µg/L	1	25-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	Toluene	--	U	U	0.13	1.0	µg/L	1	26-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	trans-1,2-Dichloroethene	--	U	U	0.12	1.0	µg/L	1	11-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	trans-1,2-Dichloroethene	--	U	U	0.12	1.0	µg/L	1	11-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	trans-1,2-Dichloroethene	--	U	U	0.12	1.0	µg/L	1	25-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	trans-1,2-Dichloroethene	--	U	U	0.12	1.0	µg/L	1	25-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	trans-1,2-Dichloroethene	--	U	U	0.12	1.0	µg/L	1	26-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	trans-1,3-Dichloropropene	--	U	U	0.15	1.0	µg/L	1	11-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	trans-1,3-Dichloropropene	--	U	U	0.15	1.0	µg/L	1	11-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	trans-1,3-Dichloropropene	--	U	U	0.093	1.0	µg/L	1	25-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	trans-1,3-Dichloropropene	--	U	U	0.093	1.0	µg/L	1	25-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	trans-1,3-Dichloropropene	--	U	U	0.093	1.0	µg/L	1	26-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	Trichloroethene	--	U	U	0.14	1.0	µg/L	1	11-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	Trichloroethene	--	U	U	0.14	1.0	µg/L	1	11-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	Trichloroethene	--	U	U	0.16	1.0	µg/L	1	25-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	Trichloroethene	--	U	U	0.16	1.0	µg/L	1	25-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	Trichloroethene	--	U	U	0.16	1.0	µg/L	1	26-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	Trichlorofluoromethane	--	U	U	0.18	1.0	µg/L	1	11-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	Trichlorofluoromethane	--	U	U	0.18	1.0	µg/L	1	11-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	Trichlorofluoromethane	--	U	U	0.22	1.0	µg/L	1	25-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	Trichlorofluoromethane	--	U	U	0.22	1.0	µg/L	1	25-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	Trichlorofluoromethane	--	U	U	0.22	1.0	µg/L	1	26-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	Vinyl chloride	--	U	U	0.17	1.0	µg/L	1	11-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	Vinyl chloride	--	U	U	0.17	1.0	µg/L	1	11-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	Vinyl chloride	--	U	U	0.15	1.0	µg/L	1	25-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	Vinyl chloride	--	U	U	0.15	1.0	µg/L	1	25-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	Vinyl chloride	--	U	U	0.15	1.0	µg/L	1	26-Apr-14	SW-2	Pool
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	Xylenes, Total	--	U	U	0.29	3.0	µg/L	1	11-May-13	SW-2	Pool
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	Xylenes, Total	--	U	U	0.29	3.0	µg/L	1	11-May-13	SW-1	Seep
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	Xylenes, Total	--	U	U	0.3	3.0	µg/L	1	25-Apr-14	SW-1	Seep
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	Xylenes, Total	--	U	U	0.3	3.0	µg/L	1	25-Apr-14	SW-3	Seep
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	Xylenes, Total	--	U	U	0.3	3.0	µg/L	1	26-Apr-14	SW-2	Pool
W-R2330012-071816-SW-02	1607976-01	18-Jul-16	Water	Metals by ICP-MS	Cadmium	0.0056	0.0056		0.00005	0.001	mg/L	1	7/21/2016 14:35	SW-2	Pool
W-R2330012-071816-SW-02	1607976-01	18-Jul-16	Water	Metals by ICP-MS	Chromium	0.048	0.048		0.00065	0.01	mg/L	1	7/21/2016 14:35	SW-2	Pool
W-R2330012-071816-SW-02	1607976-01	18-Jul-16	Water	Metals by ICP-MS	Copper	0.25	0.25		0.00028	0.004	mg/L	1	7/21/2016 14:35	SW-2	Pool
W-R2330012-071816-SW-02	1607976-01	18-Jul-16	Water	Metals by ICP-MS	Hardness (Calculation)	2200	2200		0.24	2	mg/L	1	7/21/2016 14:35	SW-2	Pool
W-R2330012-071816-SW-02	1607976-01	18-Jul-16	Water	Metals by ICP-MS	Lead	0.34	0.34		0.00033	0.003	mg/L	1	7/21/2016 14:35	SW-2	Pool
W-R2330012-071816-SW-02	1607976-01	18-Jul-16	Water	Metals by ICP-MS	Nickel	0.1	0.1		0.00041	0.02	mg/L	1	7/21/2016 14:35	SW-2	Pool

Table A-3
All Compounds Data for Vernal Pool and Seeps

Client Sample ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qualifier	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Monitoring Point	Type
W-R2330012-071816-SW-02	1607976-01	18-Jul-16	Water	Metals by ICP-MS	Zinc	1.2	1.2		0.0014	0.05	mg/L	1	7/21/2016 14:35	SW-2	Pool
W-R2330012-071816-SW-02	1607976-01	18-Jul-16	Water	Metals by ICP-MS (dissolved)	Cadmium, dissolved	--	U	U	0.00005	0.001	mg/L	1	7/21/2016 14:42	SW-2	Pool
W-R2330012-071816-SW-02	1607976-01	18-Jul-16	Water	Metals by ICP-MS (dissolved)	Chromium, dissolved	--	U	U	0.00065	0.01	mg/L	1	7/21/2016 14:42	SW-2	Pool
W-R2330012-071816-SW-02	1607976-01	18-Jul-16	Water	Metals by ICP-MS (dissolved)	Copper, dissolved	--	U	U	0.00028	0.004	mg/L	1	7/21/2016 14:42	SW-2	Pool
W-R2330012-071816-SW-02	1607976-01	18-Jul-16	Water	Metals by ICP-MS (dissolved)	Lead, dissolved	0.00039	0.00039	J	0.00033	0.003	mg/L	1	7/21/2016 14:42	SW-2	Pool
W-R2330012-071816-SW-02	1607976-01	18-Jul-16	Water	Metals by ICP-MS (dissolved)	Nickel, dissolved	0.0075	0.0075	J	0.00041	0.02	mg/L	1	7/21/2016 14:42	SW-2	Pool
W-R2330012-071816-SW-02	1607976-01	18-Jul-16	Water	Metals by ICP-MS (dissolved)	Zinc, dissolved	0.0022	0.0022	J	0.0014	0.05	mg/L	1	7/21/2016 14:42	SW-2	Pool

Notes

mg/L = milligrams per liter

µg/L = micrograms per liter

Qualifier Notes

H = Analyzed outside of Holding Time

J = Analyte is present at an estimated concentration between MDL and Report Limit

ND = Not Detected at the Reporting Limit

U = Analyzed but not detected above MDL

Table A-4
Volatile and Semivolatile Organic Compounds Data for Shallow Soils

Client Samp ID	Soil Bore	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Year
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	1,1'-Biphenyl	--	U	U	5.5	370	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	8.9	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	8.9	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	11	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	45	370	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	47	740	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	9.9	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	10	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	10	89	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	10	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	--	U	U	11	89	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	11	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	8.5	740	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	9.7	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	10	740	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	90	740	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	54	370	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	9.7	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	10	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	14	370	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	10	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	4-Methylphenol	--	U	U	11	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	16	740	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	45	740	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Acenaphthene	--	U	U	10	33	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	--	U	U	11	33	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	5.5	370	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Anthracene	--	U	U	11	33	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	11	56	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	--	U	U	14	370	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	--	U	U	14	33	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	--	U	U	17	33	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	--	U	U	18	33	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	--	U	U	26	33	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	--	U	U	15	33	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	9.1	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	9.3	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	8.7	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	27	27	J	11	370	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	--	U	U	15	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	16	370	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Carbazole	--	U	U	13	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Chrysene	--	U	U	13	33	µg/Kg-dry-dry	1	11-Apr-13	2013

Table A-4
Volatile and Semivolatile Organic Compounds Data for Shallow Soils

Client Samp ID	Soil Bore	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Year
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	--	U	U	19	33	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	--	U	U	10	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	9.2	370	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	9.3	370	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U	11	370	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	14	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Fluoranthene	--	U	U	13	33	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Fluorene	--	U	U	9.7	33	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	10	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	9.4	56	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	39	370	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	9.7	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	--	U	U	21	33	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	9.7	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Naphthalene	--	U	U	9.5	33	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	9.6	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	9.7	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	66	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	16	22	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Phenanthrene	--	U	U	33	33	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	9.4	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Pyrene	--	U	U	14	33	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	1,1,1-Trichloroethane	--	U	U	11	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	1,1,2,2-Tetrachloroethane	--	U	U	13	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	1,1,2-Trichloroethane	--	U	U	11	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	1,1,2-Trichlorotrifluoroethane	--	U	U	11	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	1,1-Dichloroethane	--	U	U	11	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	1,1-Dichloroethene	--	U	U	13	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	1,2,4-Trichlorobenzene	--	U	U	16	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	1,2-Dibromo-3-chloropropane	--	U	U	15	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	1,2-Dibromoethane	--	U	U	12	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	1,2-Dichlorobenzene	--	U	U	12	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	1,2-Dichloroethane	--	U	U	14	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	1,2-Dichloropropane	--	U	U	9.9	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	1,3-Dichlorobenzene	--	U	U	12	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	1,4-Dichlorobenzene	--	U	U	11	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	2-Butanone	--	U	U	74	200	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	2-Hexanone	--	U	U	7.4	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	4-Methyl-2-pentanone	--	U	U	10	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	Acetone	--	U	U	64	100	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	Benzene	--	U	U	12	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	Bromodichloromethane	--	U	U	6.7	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	Bromoform	--	U	U	5.9	30	µg/Kg-dry	1	05-Apr-13	2013

Table A-4
Volatile and Semivolatile Organic Compounds Data for Shallow Soils

Client Samp ID	Soil Bore	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Year
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	Bromomethane	--	U	U	11	75	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	Carbon disulfide	--	U	U	15	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	Carbon tetrachloride	--	U	U	8.5	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	Chlorobenzene	--	U	U	12	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	Chloroethane	--	U	U	64	100	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	Chloroform	--	U	U	12	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	Chloromethane	--	U	U	17	100	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	cis-1,2-Dichloroethene	--	U	U	12	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	cis-1,3-Dichloropropene	--	U	U	10	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	Cyclohexane	--	U	U	13	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	Dibromochloromethane	--	U	U	5.6	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	Dichlorodifluoromethane	--	U	U	14	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	Ethylbenzene	--	U	U	11	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	Isopropylbenzene	--	U	U	13	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	Methyl acetate	--	U	U	40	200	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	Methyl tert-butyl ether	--	U	U	13	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	Methylcyclohexane	--	U	U	14	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	Methylene chloride	--	U	U	12	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	Styrene	--	U	U	11	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	Tetrachloroethene	--	U	U	13	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	Toluene	--	U	U	11	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	trans-1,2-Dichloroethene	--	U	U	9.2	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	trans-1,3-Dichloropropene	--	U	U	10	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	Trichloroethene	--	U	U	14	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	Trichlorofluoromethane	--	U	U	8.3	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	Vinyl chloride	--	U	U	14	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	Xylenes, Total	--	U	U	35	90	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	1,1'-Biphenyl	--	U	U	5.5	370	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	8.8	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	8.8	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	11	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	45	370	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	47	730	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	9.9	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	10	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	10	89	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	9.9	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	--	U	U	11	89	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	11	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	8.4	730	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	9.6	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	10	730	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	90	730	µg/Kg-dry-dry	1	11-Apr-13	2013

Table A-4
Volatile and Semivolatile Organic Compounds Data for Shallow Soils

Client Samp ID	Soil Bore	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Year
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	53	370	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	9.6	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	10	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	14	370	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	10	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	4-Methylphenol	--	U	U	11	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	16	730	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	45	730	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Acenaphthene	--	U	U	10	33	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	--	U	U	10	33	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	5.5	370	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Anthracene	--	U	U	11	33	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	11	55	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	--	U	U	14	370	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	30	30	J	13	33	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	25	25	J	17	33	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	42	42	--	18	33	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	--	U	U	26	33	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	27	27	J	15	33	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	9.1	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	9.2	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	8.6	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	--	U	U	11	370	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	--	U	U	15	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	16	370	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Carbazole	--	U	U	13	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Chrysene	42	42	--	13	33	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	--	U	U	19	33	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	--	U	U	10	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	9.2	370	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	9.2	370	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U	11	370	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	14	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Fluoranthene	43	43	--	13	33	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Fluorene	--	U	U	9.7	33	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	10	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	9.3	55	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	39	370	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	9.7	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	--	U	U	21	33	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	9.6	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Naphthalene	--	U	U	9.4	33	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	9.6	180	µg/Kg-dry-dry	1	11-Apr-13	2013

Table A-4
Volatile and Semivolatile Organic Compounds Data for Shallow Soils

Client Samp ID	Soil Bore	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Year
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	9.7	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	66	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	16	22	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Phenanthrene	--	U	U	33	33	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	9.4	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Pyrene	41	41	--	14	33	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	1,1,1-Trichloroethane	--	U	U	11	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	1,1,2,2-Tetrachloroethane	--	U	U	13	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	1,1,2-Trichloroethane	--	U	U	11	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	1,1,2-Trichlorotrifluoroethane	--	U	U	11	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	1,1-Dichloroethane	--	U	U	11	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	1,1-Dichloroethene	--	U	U	13	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	1,2,4-Trichlorobenzene	--	U	U	16	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	1,2-Dibromo-3-chloropropane	--	U	U	15	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	1,2-Dibromoethane	--	U	U	12	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	1,2-Dichlorobenzene	--	U	U	12	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	1,2-Dichloroethane	--	U	U	14	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	1,2-Dichloropropane	--	U	U	9.9	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	1,3-Dichlorobenzene	--	U	U	12	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	1,4-Dichlorobenzene	--	U	U	11	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	2-Butanone	--	U	U	74	200	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	2-Hexanone	--	U	U	7.4	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	4-Methyl-2-pentanone	--	U	U	10	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	Acetone	--	U	U	64	100	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	Benzene	--	U	U	12	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	Bromodichloromethane	--	U	U	6.7	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	Bromoform	--	U	U	5.9	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	Bromomethane	--	U	U	11	75	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	Carbon disulfide	--	U	U	15	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	Carbon tetrachloride	--	U	U	8.5	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	Chlorobenzene	--	U	U	12	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	Chloroethane	--	U	U	64	100	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	Chloroform	--	U	U	12	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	Chloromethane	--	U	U	17	100	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	cis-1,2-Dichloroethene	--	U	U	12	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	cis-1,3-Dichloropropene	--	U	U	10	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	Cyclohexane	--	U	U	13	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	Dibromochloromethane	--	U	U	5.6	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	Dichlorodifluoromethane	--	U	U	14	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	Ethylbenzene	--	U	U	11	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	Isopropylbenzene	--	U	U	13	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	Methyl acetate	--	U	U	40	200	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	Methyl tert-butyl ether	--	U	U	13	30	µg/Kg-dry	1	05-Apr-13	2013

Table A-4
Volatile and Semivolatile Organic Compounds Data for Shallow Soils

Client Samp ID	Soil Bore	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Year
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	Methylcyclohexane	--	U	U	14	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	Methylene chloride	--	U	U	12	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	Styrene	--	U	U	11	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	Tetrachloroethene	--	U	U	13	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	Toluene	--	U	U	11	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	trans-1,2-Dichloroethene	--	U	U	9.2	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	trans-1,3-Dichloropropene	--	U	U	10	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	Trichloroethene	--	U	U	14	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	Trichlorofluoromethane	--	U	U	8.3	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	Vinyl chloride	--	U	U	14	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	Xylenes, Total	--	U	U	35	90	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	1,1'-Biphenyl	--	U	U	5.7	380	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	9.1	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	9.1	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	11	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	46	380	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	48	750	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	10	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	11	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	10	91	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	10	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	--	U	U	11	91	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	11	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	8.7	750	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	9.9	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	11	750	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	93	750	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	55	380	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	9.9	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	10	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	15	380	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	10	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Methylphenol	--	U	U	11	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	17	750	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	46	750	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Acenaphthene	--	U	U	10	34	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	--	U	U	11	34	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	5.7	380	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Anthracene	--	U	U	12	34	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	12	57	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	--	U	U	14	380	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	40	40	--	14	34	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	40	40	--	18	34	µg/Kg-dry-dry	1	11-Apr-13	2013

Table A-4
Volatile and Semivolatile Organic Compounds Data for Shallow Soils

Client Samp ID	Soil Bore	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Year
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	67	67	--	18	34	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	--	U	U	27	34	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	29	29	J	16	34	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	9.4	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	9.5	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	8.9	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	--	U	U	11	380	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	29	29	J	16	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	17	380	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Carbazole	--	U	U	13	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Chrysene	51	51	--	13	34	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	--	U	U	19	34	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	--	U	U	10	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	9.5	380	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	9.5	380	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U	11	380	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	14	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Fluoranthene	86	86	--	14	34	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Fluorene	--	U	U	10	34	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	10	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	9.6	57	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	40	380	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	10	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	--	U	U	22	34	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	9.9	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Naphthalene	--	U	U	9.7	34	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	9.9	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	10	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	68	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	17	23	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Phenanthrene	43	43	--	34	34	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	9.7	180	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Pyrene	73	73	--	14	34	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	1,1,1-Trichloroethane	--	U	U	13	34	µg/Kg-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	1,1,2,2-Tetrachloroethane	--	U	U	15	34	µg/Kg-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	1,1,2-Trichloroethane	--	U	U	12	34	µg/Kg-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	1,1,2-Trichlorotrifluoroethane	--	U	U	13	34	µg/Kg-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	1,1-Dichloroethane	--	U	U	12	34	µg/Kg-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	1,1-Dichloroethene	--	U	U	14	34	µg/Kg-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	1,2,4-Trichlorobenzene	--	U	U	17	34	µg/Kg-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	1,2-Dibromo-3-chloropropane	--	U	U	16	34	µg/Kg-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	1,2-Dibromoethane	--	U	U	13	34	µg/Kg-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	1,2-Dichlorobenzene	--	U	U	14	34	µg/Kg-dry	1	11-Apr-13	2013

Table A-4
Volatile and Semivolatile Organic Compounds Data for Shallow Soils

Client Samp ID	Soil Bore	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Year
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	1,2-Dichloroethane	--	U	U	16	34	µg/Kg-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	1,2-Dichloropropane	--	U	U	11	34	µg/Kg-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	1,3-Dichlorobenzene	--	U	U	14	34	µg/Kg-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	1,4-Dichlorobenzene	--	U	U	13	34	µg/Kg-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	2-Butanone	--	U	U	84	230	µg/Kg-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	2-Hexanone	--	U	U	8.3	34	µg/Kg-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	4-Methyl-2-pentanone	--	U	U	11	34	µg/Kg-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	Acetone	--	U	U	72	110	µg/Kg-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	Benzene	--	U	U	14	34	µg/Kg-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	Bromodichloromethane	--	U	U	7.6	34	µg/Kg-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	Bromoform	--	U	U	6.7	34	µg/Kg-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	Bromomethane	--	U	U	13	85	µg/Kg-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	Carbon disulfide	--	U	U	17	34	µg/Kg-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	Carbon tetrachloride	--	U	U	9.6	34	µg/Kg-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	Chlorobenzene	--	U	U	14	34	µg/Kg-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	Chloroethane	--	U	U	72	110	µg/Kg-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	Chloroform	--	U	U	14	34	µg/Kg-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	Chloromethane	--	U	U	19	110	µg/Kg-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	cis-1,2-Dichloroethene	--	U	U	14	34	µg/Kg-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	cis-1,3-Dichloropropene	--	U	U	12	34	µg/Kg-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	Cyclohexane	--	U	U	15	34	µg/Kg-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	Dibromochloromethane	--	U	U	6.3	34	µg/Kg-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	Dichlorodifluoromethane	--	U	U	15	34	µg/Kg-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	Ethylbenzene	--	U	U	13	34	µg/Kg-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	Isopropylbenzene	--	U	U	15	34	µg/Kg-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	Methyl acetate	510	510	--	45	230	µg/Kg-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	Methyl tert-butyl ether	--	U	U	14	34	µg/Kg-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	Methylcyclohexane	--	U	U	16	34	µg/Kg-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	Methylene chloride	--	U	U	13	34	µg/Kg-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	Styrene	--	U	U	13	34	µg/Kg-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	Tetrachloroethene	--	U	U	15	34	µg/Kg-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	Toluene	--	U	U	13	34	µg/Kg-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	trans-1,2-Dichloroethene	--	U	U	10	34	µg/Kg-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	trans-1,3-Dichloropropene	--	U	U	11	34	µg/Kg-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	Trichloroethene	--	U	U	16	34	µg/Kg-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	Trichlorofluoromethane	--	U	U	9.3	34	µg/Kg-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	Vinyl chloride	--	U	U	15	34	µg/Kg-dry	1	11-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	Xylenes, Total	--	U	U	40	100	µg/Kg-dry	1	11-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	1,1'-Biphenyl	--	U	U	5.5	360	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	8.8	180	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	8.8	180	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	11	180	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	45	360	µg/Kg-dry-dry	1	09-Apr-13	2013

Table A-4
Volatile and Semivolatile Organic Compounds Data for Shallow Soils

Client Samp ID	Soil Bore	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Year
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	47	730	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	9.8	180	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	10	180	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	10	88	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	9.9	180	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	--	U	U	11	88	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	11	180	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	8.4	730	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	9.6	180	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	10	730	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	89	730	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	53	360	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	9.6	180	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	10	180	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	14	360	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	10	180	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Methylphenol	--	U	U	11	180	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	16	730	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	45	730	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Acenaphthene	--	U	U	10	33	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	--	U	U	10	33	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	5.5	360	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Anthracene	--	U	U	11	33	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	11	55	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	--	U	U	14	360	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	--	U	U	13	33	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	--	U	U	17	33	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	--	U	U	18	33	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	--	U	U	26	33	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	--	U	U	15	33	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	9	180	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	9.2	180	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	8.6	180	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	--	U	U	11	360	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	--	U	U	15	180	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	16	360	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Carbazole	--	U	U	13	180	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Chrysene	--	U	U	12	33	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	--	U	U	19	33	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	--	U	U	10	180	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	9.1	360	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	9.2	360	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U	11	360	µg/Kg-dry-dry	1	09-Apr-13	2013

Table A-4
Volatile and Semivolatile Organic Compounds Data for Shallow Soils

Client Samp ID	Soil Bore	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Year
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	14	180	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Fluoranthene	--	U	U	13	33	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Fluorene	--	U	U	9.6	33	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	10	180	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	9.3	55	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	38	360	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	9.6	180	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	--	U	U	21	33	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	9.6	180	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Naphthalene	--	U	U	9.4	33	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	9.5	180	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	9.6	180	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	65	180	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	16	22	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Phenanthrene	--	U	U	33	33	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Phenol	44	44	J	9.3	180	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Pyrene	--	U	U	14	33	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	1,1,1-Trichloroethane	--	U	U	12	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	1,1,2,2-Tetrachloroethane	--	U	U	14	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	1,1,2-Trichloroethane	--	U	U	11	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	1,1,2-Trichlorotrifluoroethane	--	U	U	12	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	1,1-Dichloroethane	--	U	U	12	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	1,1-Dichloroethene	--	U	U	14	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	1,2,4-Trichlorobenzene	--	U	U	17	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	1,2-Dibromo-3-chloropropane	--	U	U	16	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	1,2-Dibromoethane	--	U	U	13	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	1,2-Dichlorobenzene	--	U	U	13	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	1,2-Dichloroethane	--	U	U	15	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	1,2-Dichloropropane	--	U	U	11	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	1,3-Dichlorobenzene	--	U	U	13	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	1,4-Dichlorobenzene	--	U	U	12	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	2-Butanone	--	U	U	80	220	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	2-Hexanone	--	U	U	7.9	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	4-Methyl-2-pentanone	--	U	U	11	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	Acetone	--	U	U	69	110	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	Benzene	--	U	U	13	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	Bromodichloromethane	--	U	U	7.3	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	Bromoform	--	U	U	6.4	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	Bromomethane	--	U	U	12	81	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	Carbon disulfide	--	U	U	16	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	Carbon tetrachloride	--	U	U	9.2	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	Chlorobenzene	--	U	U	13	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	Chloroethane	--	U	U	69	110	µg/Kg-dry	1	06-Apr-13	2013

Table A-4
Volatile and Semivolatile Organic Compounds Data for Shallow Soils

Client Samp ID	Soil Bore	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Year
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	Chloroform	--	U	U	13	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	Chloromethane	--	U	U	18	110	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	cis-1,2-Dichloroethene	--	U	U	13	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	cis-1,3-Dichloropropene	--	U	U	11	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	Cyclohexane	--	U	U	15	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	Dibromochloromethane	--	U	U	6	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	Dichlorodifluoromethane	--	U	U	15	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	Ethylbenzene	--	U	U	12	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	Isopropylbenzene	--	U	U	14	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	Methyl acetate	--	U	U	43	220	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	Methyl tert-butyl ether	--	U	U	14	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	Methylcyclohexane	130	130	--	15	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	Methylene chloride	--	U	U	13	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	Styrene	--	U	U	12	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	Tetrachloroethene	--	U	U	14	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	Toluene	--	U	U	12	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	trans-1,2-Dichloroethene	--	U	U	10	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	trans-1,3-Dichloropropene	--	U	U	11	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	Trichloroethene	--	U	U	15	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	Trichlorofluoromethane	--	U	U	8.9	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	Vinyl chloride	--	U	U	15	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	Xylenes, Total	90	90	J	38	97	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	1,1'-Biphenyl	--	U	U	5.4	360	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	8.7	170	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	8.7	170	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	11	170	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	44	360	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	46	720	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	9.7	170	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	10	170	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	9.9	87	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	9.7	170	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	--	U	U	11	87	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	10	170	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	8.3	720	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	9.5	170	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	10	720	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	88	720	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	52	360	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	9.4	170	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	9.8	170	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	14	360	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	9.9	170	µg/Kg-dry-dry	1	11-Apr-13	2013

Table A-4
Volatile and Semivolatile Organic Compounds Data for Shallow Soils

Client Samp ID	Soil Bore	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Year
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Methylphenol	--	U	U	11	170	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	16	720	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	44	720	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Acenaphthene	--	U	U	9.9	33	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	24	24	J	10	33	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	5.4	360	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Anthracene	41	41	--	11	33	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	11	54	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	--	U	U	14	360	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	250	250	--	13	33	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	280	280	--	17	33	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	440	440	--	18	33	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	120	120	--	26	33	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	190	190	--	15	33	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	8.9	170	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	9.1	170	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	8.5	170	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	--	U	U	11	360	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	--	U	U	15	170	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	16	360	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Carbazole	--	U	U	12	170	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Chrysene	280	280	--	12	33	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	32	32	--	19	33	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	--	U	U	9.9	170	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	9	360	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	33	33	J	9.1	360	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U	11	360	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	13	170	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Fluoranthene	530	530	--	13	33	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Fluorene	--	U	U	9.5	33	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	9.9	170	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	9.2	54	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	38	360	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	9.5	170	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	110	110	--	21	33	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	9.4	170	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Naphthalene	--	U	U	9.3	33	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	9.4	170	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	9.5	170	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	65	170	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	16	22	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Phenanthrene	170	170	--	33	33	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	9.2	170	µg/Kg-dry-dry	1	11-Apr-13	2013

Table A-4
Volatile and Semivolatile Organic Compounds Data for Shallow Soils

Client Samp ID	Soil Bore	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Year
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Pyrene	450	450	--	14	33	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	1,1,1-Trichloroethane	--	U	U	11	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	1,1,2,2-Tetrachloroethane	--	U	U	13	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	1,1,2-Trichloroethane	--	U	U	11	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	1,1,2-Trichlorotrifluoroethane	--	U	U	11	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	1,1-Dichloroethane	--	U	U	11	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	1,1-Dichloroethene	--	U	U	13	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	1,2,4-Trichlorobenzene	--	U	U	16	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	1,2-Dibromo-3-chloropropane	--	U	U	15	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	1,2-Dibromoethane	--	U	U	12	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	1,2-Dichlorobenzene	--	U	U	12	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	1,2-Dichloroethane	--	U	U	14	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	1,2-Dichloropropane	--	U	U	9.9	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	1,3-Dichlorobenzene	--	U	U	12	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	1,4-Dichlorobenzene	--	U	U	11	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	2-Butanone	--	U	U	74	200	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	2-Hexanone	--	U	U	7.4	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	4-Methyl-2-pentanone	--	U	U	10	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	Acetone	--	U	U	64	100	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	Benzene	--	U	U	12	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	Bromodichloromethane	--	U	U	6.7	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	Bromoform	--	U	U	5.9	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	Bromomethane	--	U	U	11	75	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	Carbon disulfide	--	U	U	15	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	Carbon tetrachloride	--	U	U	8.5	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	Chlorobenzene	--	U	U	12	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	Chloroethane	--	U	U	64	100	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	Chloroform	--	U	U	12	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	Chloromethane	--	U	U	17	100	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	cis-1,2-Dichloroethene	--	U	U	12	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	cis-1,3-Dichloropropene	--	U	U	10	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	Cyclohexane	--	U	U	13	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	Dibromochloromethane	--	U	U	5.6	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	Dichlorodifluoromethane	--	U	U	14	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	Ethylbenzene	--	U	U	11	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	Isopropylbenzene	--	U	U	13	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	Methyl acetate	--	U	U	40	200	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	Methyl tert-butyl ether	--	U	U	13	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	Methylcyclohexane	--	U	U	14	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	Methylene chloride	--	U	U	12	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	Styrene	--	U	U	11	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	Tetrachloroethene	--	U	U	13	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	Toluene	--	U	U	11	30	µg/Kg-dry	1	05-Apr-13	2013

Table A-4
Volatile and Semivolatile Organic Compounds Data for Shallow Soils

Client Samp ID	Soil Bore	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Year
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	trans-1,2-Dichloroethene	--	U	U	9.2	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	trans-1,3-Dichloropropene	--	U	U	10	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	Trichloroethene	--	U	U	14	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	Trichlorofluoromethane	--	U	U	8.3	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	Vinyl chloride	--	U	U	14	30	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	Xylenes, Total	--	U	U	35	90	µg/Kg-dry	1	05-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	1,1'-Biphenyl	--	U	U	59	3,900	µg/Kg-dry-dry	10	08-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	95	1,900	µg/Kg-dry-dry	10	08-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	95	1,900	µg/Kg-dry-dry	10	08-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	120	1,900	µg/Kg-dry-dry	10	08-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	480	3,900	µg/Kg-dry-dry	10	08-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	500	7,900	µg/Kg-dry-dry	10	08-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	110	1,900	µg/Kg-dry-dry	10	08-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	110	1,900	µg/Kg-dry-dry	10	08-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	110	950	µg/Kg-dry-dry	10	08-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	110	1,900	µg/Kg-dry-dry	10	08-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	--	U	U	120	950	µg/Kg-dry-dry	10	08-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	110	1,900	µg/Kg-dry-dry	10	08-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	91	7,900	µg/Kg-dry-dry	10	08-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	100	1,900	µg/Kg-dry-dry	10	08-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	110	7,900	µg/Kg-dry-dry	10	08-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	970	7,900	µg/Kg-dry-dry	10	08-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	570	3,900	µg/Kg-dry-dry	10	08-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	100	1,900	µg/Kg-dry-dry	10	08-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	110	1,900	µg/Kg-dry-dry	10	08-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	150	3,900	µg/Kg-dry-dry	10	08-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	110	1,900	µg/Kg-dry-dry	10	08-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Methylphenol	--	U	U	120	1,900	µg/Kg-dry-dry	10	08-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	180	7,900	µg/Kg-dry-dry	10	08-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	480	7,900	µg/Kg-dry-dry	10	08-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Acenaphthene	--	U	U	110	360	µg/Kg-dry-dry	10	08-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	--	U	U	110	360	µg/Kg-dry-dry	10	08-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	59	3,900	µg/Kg-dry-dry	10	08-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Anthracene	280	280	J	120	360	µg/Kg-dry-dry	10	08-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	120	590	µg/Kg-dry-dry	10	08-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	--	U	U	150	3,900	µg/Kg-dry-dry	10	08-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	1,100	1,100	--	140	360	µg/Kg-dry-dry	10	08-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	800	800	--	180	360	µg/Kg-dry-dry	10	08-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	1,200	1,200	--	190	360	µg/Kg-dry-dry	10	08-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	560	560	--	280	360	µg/Kg-dry-dry	10	08-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	620	620	--	160	360	µg/Kg-dry-dry	10	08-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	98	1,900	µg/Kg-dry-dry	10	08-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	99	1,900	µg/Kg-dry-dry	10	08-Apr-13	2013

Table A-4
Volatile and Semivolatile Organic Compounds Data for Shallow Soils

Client Samp ID	Soil Bore	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Year
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	93	1,900	µg/Kg-dry-dry	10	08-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	1,800	1,800	J	120	3,900	µg/Kg-dry-dry	10	08-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	--	U	U	160	1,900	µg/Kg-dry-dry	10	08-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Caprolactam	520	520	J	170	3,900	µg/Kg-dry-dry	10	08-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Carbazole	--	U	U	140	1,900	µg/Kg-dry-dry	10	08-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Chrysene	1,200	1,200	--	130	360	µg/Kg-dry-dry	10	08-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	--	U	U	200	360	µg/Kg-dry-dry	10	08-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	--	U	U	110	1,900	µg/Kg-dry-dry	10	08-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	99	3,900	µg/Kg-dry-dry	10	08-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	99	3,900	µg/Kg-dry-dry	10	08-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U	120	3,900	µg/Kg-dry-dry	10	08-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	730	730	J	150	1,900	µg/Kg-dry-dry	10	08-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Fluoranthene	1,400	1,400	--	140	360	µg/Kg-dry-dry	10	08-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Fluorene	--	U	U	100	360	µg/Kg-dry-dry	10	08-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	110	1,900	µg/Kg-dry-dry	10	08-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	100	590	µg/Kg-dry-dry	10	08-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	420	3,900	µg/Kg-dry-dry	10	08-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	100	1,900	µg/Kg-dry-dry	10	08-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	420	420	--	230	360	µg/Kg-dry-dry	10	08-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	100	1,900	µg/Kg-dry-dry	10	08-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Naphthalene	270	270	J	100	360	µg/Kg-dry-dry	10	08-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	100	1,900	µg/Kg-dry-dry	10	08-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	100	1,900	µg/Kg-dry-dry	10	08-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	710	1,900	µg/Kg-dry-dry	10	08-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	180	240	µg/Kg-dry-dry	10	08-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Phenanthrene	690	690	--	360	360	µg/Kg-dry-dry	10	08-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	100	1,900	µg/Kg-dry-dry	10	08-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Pyrene	1,200	1,200	--	150	360	µg/Kg-dry-dry	10	08-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	1,1,1-Trichloroethane	--	U	U	12	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	1,1,2,2-Tetrachloroethane	--	U	U	14	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	1,1,2-Trichloroethane	--	U	U	11	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	1,1,2-Trichlorotrifluoroethane	--	U	U	12	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	1,1-Dichloroethane	--	U	U	12	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	1,1-Dichloroethene	--	U	U	13	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	1,2,4-Trichlorobenzene	--	U	U	16	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	1,2-Dibromo-3-chloropropane	--	U	U	15	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	1,2-Dibromoethane	--	U	U	13	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	1,2-Dichlorobenzene	--	U	U	13	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	1,2-Dichloroethane	--	U	U	15	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	1,2-Dichloropropane	--	U	U	11	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	1,3-Dichlorobenzene	--	U	U	13	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	1,4-Dichlorobenzene	--	U	U	12	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	2-Butanone	--	U	U	78	210	µg/Kg-dry	1	06-Apr-13	2013

Table A-4
Volatile and Semivolatile Organic Compounds Data for Shallow Soils

Client Samp ID	Soil Bore	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Year
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	2-Hexanone	--	U	U	7.8	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	4-Methyl-2-pentanone	--	U	U	11	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	Acetone	--	U	U	67	110	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	Benzene	65	65	--	13	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	Bromodichloromethane	--	U	U	7.1	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	Bromoform	--	U	U	6.2	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	Bromomethane	--	U	U	12	79	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	Carbon disulfide	--	U	U	16	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	Carbon tetrachloride	--	U	U	9	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	Chlorobenzene	--	U	U	13	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	Chloroethane	--	U	U	67	110	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	Chloroform	--	U	U	13	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	Chloromethane	--	U	U	18	110	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	cis-1,2-Dichloroethene	--	U	U	13	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	cis-1,3-Dichloropropene	--	U	U	11	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	Cyclohexane	--	U	U	14	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	Dibromochloromethane	--	U	U	5.9	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	Dichlorodifluoromethane	--	U	U	14	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	Ethylbenzene	60	60	--	12	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	Isopropylbenzene	--	U	U	14	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	Methyl acetate	110	110	J	43	210	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	Methyl tert-butyl ether	--	U	U	13	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	Methylcyclohexane	--	U	U	15	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	Methylene chloride	--	U	U	12	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	Styrene	--	U	U	12	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	Tetrachloroethene	--	U	U	14	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	Toluene	270	270	--	12	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	trans-1,2-Dichloroethene	--	U	U	9.8	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	trans-1,3-Dichloropropene	--	U	U	11	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	Trichloroethene	--	U	U	15	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	Trichlorofluoromethane	--	U	U	8.7	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	Vinyl chloride	--	U	U	14	32	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	Xylenes, Total	300	300	--	37	95	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	1,1'-Biphenyl	--	U	U	5.4	360	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	8.6	170	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	8.6	170	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	10	170	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	44	360	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	46	710	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	9.6	170	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	10	170	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	9.9	86	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	9.7	170	µg/Kg-dry-dry	1	08-Apr-13	2013

Table A-4
Volatile and Semivolatile Organic Compounds Data for Shallow Soils

Client Samp ID	Soil Bore	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Year
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	--	U	U	11	86	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	10	170	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	8.2	710	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	9.4	170	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	10	710	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	88	710	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	52	360	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	9.4	170	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	9.7	170	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	14	360	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	9.9	170	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Methylphenol	--	U	U	11	170	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	16	710	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	44	710	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Acenaphthene	--	U	U	9.8	32	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	--	U	U	10	32	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	5.4	360	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Anthracene	--	U	U	11	32	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	11	54	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	--	U	U	14	360	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	--	U	U	13	32	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	--	U	U	17	32	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	24	24	J	17	32	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	--	U	U	25	32	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	--	U	U	15	32	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	8.9	170	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	9	170	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	8.4	170	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	--	U	U	11	360	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	--	U	U	15	170	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Caprolactam	72	72	J	16	360	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Carbazole	--	U	U	12	170	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Chrysene	--	U	U	12	32	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	--	U	U	18	32	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	--	U	U	9.9	170	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	9	360	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	9	360	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U	11	360	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	13	170	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Fluoranthene	--	U	U	13	32	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Fluorene	--	U	U	9.4	32	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	9.8	170	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	9.1	54	µg/Kg-dry-dry	1	08-Apr-13	2013

Table A-4
Volatile and Semivolatile Organic Compounds Data for Shallow Soils

Client Samp ID	Soil Bore	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Year
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	38	360	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	9.4	170	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	--	U	U	20	32	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	9.4	170	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Naphthalene	--	U	U	9.2	32	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	9.3	170	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	9.4	170	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	64	170	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	16	22	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Phenanthrene	--	U	U	32	32	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	9.1	170	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Pyrene	--	U	U	13	32	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	1,1,1-Trichloroethane	--	U	U	16	41	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	1,1,2,2-Tetrachloroethane	--	U	U	18	41	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	1,1,2-Trichloroethane	--	U	U	15	41	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	1,1,2-Trichlorotrifluoroethane	--	U	U	15	41	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	1,1-Dichloroethane	--	U	U	15	41	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	1,1-Dichloroethene	--	U	U	17	41	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	1,2,4-Trichlorobenzene	--	U	U	21	41	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	1,2-Dibromo-3-chloropropane	--	U	U	20	41	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	1,2-Dibromoethane	--	U	U	16	41	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	1,2-Dichlorobenzene	--	U	U	17	41	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	1,2-Dichloroethane	--	U	U	20	41	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	1,2-Dichloropropane	--	U	U	14	41	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	1,3-Dichlorobenzene	--	U	U	17	41	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	1,4-Dichlorobenzene	--	U	U	16	41	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	2-Butanone	--	U	U	100	280	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	2-Hexanone	--	U	U	10	41	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	4-Methyl-2-pentanone	--	U	U	14	41	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	Acetone	--	U	U	87	140	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	Benzene	--	U	U	17	41	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	Bromodichloromethane	--	U	U	9.3	41	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	Bromoform	--	U	U	8.1	41	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	Bromomethane	--	U	U	16	100	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	Carbon disulfide	--	U	U	20	41	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	Carbon tetrachloride	--	U	U	12	41	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	Chlorobenzene	--	U	U	17	41	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	Chloroethane	--	U	U	88	140	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	Chloroform	--	U	U	17	41	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	Chloromethane	--	U	U	23	140	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	cis-1,2-Dichloroethene	--	U	U	17	41	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	cis-1,3-Dichloropropene	--	U	U	14	41	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	Cyclohexane	--	U	U	19	41	µg/Kg-dry	1	06-Apr-13	2013

Table A-4
Volatile and Semivolatile Organic Compounds Data for Shallow Soils

Client Samp ID	Soil Bore	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Year
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	Dibromochloromethane	--	U	U	7.6	41	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	Dichlorodifluoromethane	--	U	U	19	41	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	Ethylbenzene	--	U	U	15	41	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	Isopropylbenzene	--	U	U	18	41	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	Methyl acetate	130	130	J	55	280	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	Methyl tert-butyl ether	--	U	U	17	41	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	Methylcyclohexane	--	U	U	19	41	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	Methylene chloride	--	U	U	16	41	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	Styrene	--	U	U	15	41	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	Tetrachloroethene	--	U	U	18	41	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	Toluene	--	U	U	15	41	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	trans-1,2-Dichloroethene	--	U	U	13	41	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	trans-1,3-Dichloropropene	--	U	U	14	41	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	Trichloroethene	--	U	U	19	41	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	Trichlorofluoromethane	--	U	U	11	41	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	Vinyl chloride	--	U	U	19	41	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	Xylenes, Total	--	U	U	49	120	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	1,1'-Biphenyl	--	U	U	5.3	350	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	8.6	170	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	8.6	170	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	10	170	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	44	350	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	46	710	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	9.6	170	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	10	170	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	9.8	86	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	9.6	170	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	60	60	J	11	86	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	10	170	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	8.2	710	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	9.4	170	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	10	710	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	87	710	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	52	350	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	9.3	170	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	9.7	170	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	14	350	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	9.8	170	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Methylphenol	--	U	U	11	170	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	16	710	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	43	710	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Acenaphthene	--	U	U	9.8	32	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	--	U	U	10	32	µg/Kg-dry-dry	1	08-Apr-13	2013

Table A-4
Volatile and Semivolatile Organic Compounds Data for Shallow Soils

Client Samp ID	Soil Bore	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Year
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	5.4	350	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Anthracene	--	U	U	11	32	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	11	54	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	--	U	U	14	350	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	26	26	J	13	32	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	21	21	J	17	32	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	43	43	--	17	32	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	--	U	U	25	32	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	--	U	U	15	32	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	8.8	170	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	9	170	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	8.4	170	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	78	78	J	11	350	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	--	U	U	15	170	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Caprolactam	87	87	J	16	350	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Carbazole	--	U	U	12	170	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Chrysene	44	44	--	12	32	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	--	U	U	18	32	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	20	20	J	9.8	170	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	8.9	350	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	9	350	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	29	29	J	11	350	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	33	33	J	13	170	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Fluoranthene	51	51	--	13	32	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Fluorene	--	U	U	9.4	32	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	9.8	170	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	9.1	54	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	37	350	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	9.4	170	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	--	U	U	20	32	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	9.3	170	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Naphthalene	43	43	--	9.2	32	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	9.3	170	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	9.4	170	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	64	170	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	16	21	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Phenanthrene	77	77	--	32	32	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	9.1	170	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Pyrene	48	48	--	13	32	µg/Kg-dry-dry	1	08-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	1,1,1-Trichloroethane	--	U	U	11	30	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	1,1,2,2-Tetrachloroethane	--	U	U	13	30	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	1,1,2-Trichloroethane	--	U	U	11	30	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	1,1,2-Trichlorotrifluoroethane	--	U	U	11	30	µg/Kg-dry	1	06-Apr-13	2013

Table A-4
Volatile and Semivolatile Organic Compounds Data for Shallow Soils

Client Samp ID	Soil Bore	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Year
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	1,1-Dichloroethane	--	U	U	11	30	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	1,1-Dichloroethene	--	U	U	13	30	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	1,2,4-Trichlorobenzene	--	U	U	16	30	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	1,2-Dibromo-3-chloropropane	--	U	U	15	30	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	1,2-Dibromoethane	--	U	U	12	30	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	1,2-Dichlorobenzene	--	U	U	12	30	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	1,2-Dichloroethane	--	U	U	14	30	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	1,2-Dichloropropane	--	U	U	9.9	30	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	1,3-Dichlorobenzene	--	U	U	12	30	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	1,4-Dichlorobenzene	--	U	U	11	30	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	2-Butanone	--	U	U	74	200	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	2-Hexanone	--	U	U	7.4	30	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	4-Methyl-2-pentanone	--	U	U	10	30	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	Acetone	--	U	U	64	100	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	Benzene	--	U	U	12	30	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	Bromodichloromethane	--	U	U	6.7	30	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	Bromoform	--	U	U	5.9	30	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	Bromomethane	--	U	U	11	75	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	Carbon disulfide	--	U	U	15	30	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	Carbon tetrachloride	--	U	U	8.5	30	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	Chlorobenzene	--	U	U	12	30	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	Chloroethane	--	U	U	64	100	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	Chloroform	--	U	U	12	30	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	Chloromethane	--	U	U	17	100	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	cis-1,2-Dichloroethene	--	U	U	12	30	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	cis-1,3-Dichloropropene	--	U	U	10	30	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	Cyclohexane	--	U	U	13	30	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	Dibromochloromethane	--	U	U	5.6	30	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	Dichlorodifluoromethane	--	U	U	14	30	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	Ethylbenzene	--	U	U	11	30	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	Isopropylbenzene	--	U	U	13	30	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	Methyl acetate	--	U	U	40	200	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	Methyl tert-butyl ether	--	U	U	13	30	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	Methylcyclohexane	--	U	U	14	30	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	Methylene chloride	--	U	U	12	30	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	Styrene	--	U	U	11	30	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	Tetrachloroethene	--	U	U	13	30	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	Toluene	--	U	U	11	30	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	trans-1,2-Dichloroethene	--	U	U	9.2	30	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	trans-1,3-Dichloropropene	--	U	U	10	30	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	Trichloroethene	--	U	U	14	30	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	Trichlorofluoromethane	--	U	U	8.3	30	µg/Kg-dry	1	06-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	Vinyl chloride	--	U	U	14	30	µg/Kg-dry	1	06-Apr-13	2013

Table A-4
Volatile and Semivolatile Organic Compounds Data for Shallow Soils

Client Samp ID	Soil Bore	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Year
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	Xylenes, Total	--	U	U	35	90	µg/Kg-dry	1	06-Apr-13	2013
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	1,1'-Biphenyl	--	U	U	52	3,500	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	83	1,700	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	83	1,700	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	100	1,700	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	430	3,500	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	440	6,900	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	93	1,700	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	98	1,700	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	95	840	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	94	1,700	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	--	U	U	100	840	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	100	1,700	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	80	6,900	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	91	1,700	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	98	6,900	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	850	6,900	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	500	3,500	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	91	1,700	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	94	1,700	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	130	3,500	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	96	1,700	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	4-Methylphenol	--	U	U	100	1,700	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	150	6,900	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	420	6,900	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Acenaphthene	--	U	U	95	310	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	--	U	U	99	310	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	52	3,500	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Anthracene	--	U	U	110	310	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	110	520	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	--	U	U	130	3,500	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	--	U	U	130	310	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	--	U	U	160	310	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	--	U	U	170	310	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	--	U	U	250	310	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	--	U	U	140	310	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	86	1,700	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	87	1,700	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	81	1,700	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	270	270	J	100	3,500	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	350	350	J	140	1,700	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	150	3,500	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Carbazole	--	U	U	120	1,700	µg/Kg-dry-dry	10	26-Jul-12	2012

Table A-4
Volatile and Semivolatile Organic Compounds Data for Shallow Soils

Client Samp ID	Soil Bore	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Year
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Chrysene	--	U	U	120	310	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	--	U	U	180	310	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	--	U	U	95	1,700	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	87	3,500	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	87	3,500	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U	110	3,500	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	130	1,700	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Fluoranthene	180	180	J	120	310	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Fluorene	--	U	U	91	310	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	95	1,700	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	88	520	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	360	3,500	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	91	1,700	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	--	U	U	200	310	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	91	1,700	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Naphthalene	--	U	U	89	310	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	90	1,700	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	91	1,700	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	620	1,700	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	150	210	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Phenanthrene	--	U	U	310	310	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	88	1,700	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Pyrene	--	U	U	130	310	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	1,1,1-Trichloroethane	--	U	U	29	75	µg/Kg-dry	1	24-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	1,1,2,2-Tetrachloroethane	--	U	U	33	75	µg/Kg-dry	1	24-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	1,1,2-Trichloroethane	--	U	U	27	75	µg/Kg-dry	1	24-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	1,1,2-Trichlorotrifluoroethane	--	U	U	28	75	µg/Kg-dry	1	24-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	1,1-Dichloroethane	--	U	U	27	75	µg/Kg-dry	1	24-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	1,1-Dichloroethene	--	U	U	32	75	µg/Kg-dry	1	24-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	1,2,4-Trichlorobenzene	--	U	U	39	75	µg/Kg-dry	1	24-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	1,2-Dibromo-3-chloropropane	--	U	U	37	75	µg/Kg-dry	1	24-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	1,2-Dibromoethane	--	U	U	30	75	µg/Kg-dry	1	24-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	1,2-Dichlorobenzene	--	U	U	30	75	µg/Kg-dry	1	24-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	1,2-Dichloroethane	--	U	U	36	75	µg/Kg-dry	1	24-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	1,2-Dichloropropane	--	U	U	25	75	µg/Kg-dry	1	24-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	1,3-Dichlorobenzene	--	U	U	30	75	µg/Kg-dry	1	24-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	1,4-Dichlorobenzene	--	U	U	29	75	µg/Kg-dry	1	24-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	2-Butanone	--	U	U	190	500	µg/Kg-dry	1	24-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	2-Hexanone	--	U	U	18	75	µg/Kg-dry	1	24-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	4-Methyl-2-pentanone	--	U	U	25	75	µg/Kg-dry	1	24-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	Acetone	--	U	U	160	250	µg/Kg-dry	1	24-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	Benzene	--	U	U	30	75	µg/Kg-dry	1	24-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	Bromodichloromethane	--	U	U	17	75	µg/Kg-dry	1	24-Jul-12	2012

Table A-4
Volatile and Semivolatile Organic Compounds Data for Shallow Soils

Client Samp ID	Soil Bore	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Year
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	Bromoform	--	U	U	15	75	µg/Kg-dry	1	24-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	Bromomethane	--	U	U	29	190	µg/Kg-dry	1	24-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	Carbon disulfide	--	U	U	37	75	µg/Kg-dry	1	24-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	Carbon tetrachloride	--	U	U	21	75	µg/Kg-dry	1	24-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	Chlorobenzene	--	U	U	31	75	µg/Kg-dry	1	24-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	Chloroethane	--	U	U	160	250	µg/Kg-dry	1	24-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	Chloroform	--	U	U	31	75	µg/Kg-dry	1	24-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	Chloromethane	--	U	U	42	250	µg/Kg-dry	1	24-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	cis-1,2-Dichloroethene	--	U	U	30	75	µg/Kg-dry	1	24-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	cis-1,3-Dichloropropene	--	U	U	26	75	µg/Kg-dry	1	24-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	Cyclohexane	--	U	U	34	75	µg/Kg-dry	1	24-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	Dibromochloromethane	--	U	U	14	75	µg/Kg-dry	1	24-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	Dichlorodifluoromethane	--	U	U	34	75	µg/Kg-dry	1	24-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	Ethylbenzene	61	61	J	28	75	µg/Kg-dry	1	24-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	Isopropylbenzene	--	U	U	32	75	µg/Kg-dry	1	24-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	Methyl acetate	--	U	U	100	500	µg/Kg-dry	1	24-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	Methyl tert-butyl ether	--	U	U	32	75	µg/Kg-dry	1	24-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	Methylcyclohexane	--	U	U	35	75	µg/Kg-dry	1	24-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	Methylene chloride	--	U	U	29	75	µg/Kg-dry	1	24-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	Styrene	--	U	U	28	75	µg/Kg-dry	1	24-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	Tetrachloroethene	--	U	U	33	75	µg/Kg-dry	1	24-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	Toluene	390	390	--	28	75	µg/Kg-dry	1	24-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	trans-1,2-Dichloroethene	--	U	U	23	75	µg/Kg-dry	1	24-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	trans-1,3-Dichloropropene	--	U	U	25	75	µg/Kg-dry	1	24-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	Trichloroethene	--	U	U	35	75	µg/Kg-dry	1	24-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	Trichlorofluoromethane	--	U	U	21	75	µg/Kg-dry	1	24-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	Vinyl chloride	--	U	U	34	75	µg/Kg-dry	1	24-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	Xylenes, Total	340	340	--	89	220	µg/Kg-dry	1	24-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	1,1'-Biphenyl	--	U	U	5	330	µg/Kg-dry-dry	1	26-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	8	160	µg/Kg-dry-dry	1	26-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	8	160	µg/Kg-dry-dry	1	26-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	9.7	160	µg/Kg-dry-dry	1	26-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	41	330	µg/Kg-dry-dry	1	26-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	43	660	µg/Kg-dry-dry	1	26-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	8.9	160	µg/Kg-dry-dry	1	26-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	9.4	160	µg/Kg-dry-dry	1	26-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	9.1	80	µg/Kg-dry-dry	1	26-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	9	160	µg/Kg-dry-dry	1	26-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	--	U	U	9.8	80	µg/Kg-dry-dry	1	26-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	9.6	160	µg/Kg-dry-dry	1	26-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	7.6	660	µg/Kg-dry-dry	1	26-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	8.7	160	µg/Kg-dry-dry	1	26-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	9.3	660	µg/Kg-dry-dry	1	26-Jul-12	2012

Table A-4
Volatile and Semivolatile Organic Compounds Data for Shallow Soils

Client Samp ID	Soil Bore	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Year
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	81	660	µg/Kg-dry-dry	1	26-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	48	330	µg/Kg-dry-dry	1	26-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	8.7	160	µg/Kg-dry-dry	1	26-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	9	160	µg/Kg-dry-dry	1	26-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	13	330	µg/Kg-dry-dry	1	26-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	9.2	160	µg/Kg-dry-dry	1	26-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	4-Methylphenol	--	U	U	9.8	160	µg/Kg-dry-dry	1	26-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	15	660	µg/Kg-dry-dry	1	26-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	41	660	µg/Kg-dry-dry	1	26-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Acenaphthene	--	U	U	9.1	30	µg/Kg-dry-dry	1	26-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	--	U	U	9.5	30	µg/Kg-dry-dry	1	26-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	5	330	µg/Kg-dry-dry	1	26-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Anthracene	--	U	U	10	30	µg/Kg-dry-dry	1	26-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	10	50	µg/Kg-dry-dry	1	26-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	16	16	J	13	330	µg/Kg-dry-dry	1	26-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	35	35	--	12	30	µg/Kg-dry-dry	1	26-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	32	32	--	15	30	µg/Kg-dry-dry	1	26-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	49	49	--	16	30	µg/Kg-dry-dry	1	26-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	--	U	--	24	30	µg/Kg-dry-dry	1	26-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	34	34	--	14	30	µg/Kg-dry-dry	1	26-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	--	8.2	160	µg/Kg-dry-dry	1	26-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	--	8.3	160	µg/Kg-dry-dry	1	26-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	--	7.8	160	µg/Kg-dry-dry	1	26-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	400	400	--	9.9	330	µg/Kg-dry-dry	1	26-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	--	U	--	14	160	µg/Kg-dry-dry	1	26-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Caprolactam	35	35	J	15	330	µg/Kg-dry-dry	1	26-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Carbazole	--	U	U	11	160	µg/Kg-dry-dry	1	26-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Chrysene	46	46	--	11	30	µg/Kg-dry-dry	1	26-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	--	U	U	17	30	µg/Kg-dry-dry	1	26-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	--	U	U	9.1	160	µg/Kg-dry-dry	1	26-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	8.3	330	µg/Kg-dry-dry	1	26-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	8.3	330	µg/Kg-dry-dry	1	26-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U	10	330	µg/Kg-dry-dry	1	26-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	12	160	µg/Kg-dry-dry	1	26-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Fluoranthene	67	67	--	12	30	µg/Kg-dry-dry	1	26-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Fluorene	--	U	U	8.8	30	µg/Kg-dry-dry	1	26-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	9.1	160	µg/Kg-dry-dry	1	26-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	8.5	50	µg/Kg-dry-dry	1	26-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	35	330	µg/Kg-dry-dry	1	26-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	8.8	160	µg/Kg-dry-dry	1	26-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	--	U	U	19	30	µg/Kg-dry-dry	1	26-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Isophorone	20	20	J	8.7	160	µg/Kg-dry-dry	1	26-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Naphthalene	--	U	U	8.5	30	µg/Kg-dry-dry	1	26-Jul-12	2012

Table A-4
Volatile and Semivolatile Organic Compounds Data for Shallow Soils

Client Samp ID	Soil Bore	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Year
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	8.7	160	µg/Kg-dry-dry	1	26-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	8.8	160	µg/Kg-dry-dry	1	26-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	59	160	µg/Kg-dry-dry	1	26-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	15	20	µg/Kg-dry-dry	1	26-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Phenanthrene	44	44	--	30	30	µg/Kg-dry-dry	1	26-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	8.5	160	µg/Kg-dry-dry	1	26-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Pyrene	52	52	--	12	30	µg/Kg-dry-dry	1	26-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	1,1,1-Trichloroethane	--	U	U	15	40	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	1,1,2,2-Tetrachloroethane	--	U	U	18	40	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	1,1,2-Trichloroethane	--	U	U	14	40	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	1,1,2-Trichlorotrifluoroethane	--	U	U	15	40	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	1,1-Dichloroethane	--	U	U	15	40	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	1,1-Dichloroethene	--	U	U	17	40	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	1,2,4-Trichlorobenzene	--	U	U	21	40	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	1,2-Dibromo-3-chloropropane	--	U	U	19	40	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	1,2-Dibromoethane	--	U	U	16	40	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	1,2-Dichlorobenzene	--	U	U	16	40	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	1,2-Dichloroethane	--	U	U	19	40	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	1,2-Dichloropropane	--	U	U	13	40	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	1,3-Dichlorobenzene	--	U	U	16	40	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	1,4-Dichlorobenzene	--	U	U	15	40	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	2-Butanone	--	U	U	99	270	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	2-Hexanone	--	U	U	9.8	40	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	4-Methyl-2-pentanone	--	U	U	14	40	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	Acetone	--	U	U	85	130	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	Benzene	--	U	U	16	40	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	Bromodichloromethane	--	U	U	9	40	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	Bromoform	--	U	U	7.9	40	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	Bromomethane	--	U	U	15	100	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	Carbon disulfide	--	U	U	20	40	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	Carbon tetrachloride	--	U	U	11	40	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	Chlorobenzene	--	U	U	16	40	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	Chloroethane	--	U	U	85	130	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	Chloroform	--	U	U	16	40	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	Chloromethane	--	U	U	22	130	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	cis-1,2-Dichloroethene	--	U	U	16	40	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	cis-1,3-Dichloropropene	--	U	U	14	40	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	Cyclohexane	--	U	U	18	40	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	Dibromochloromethane	--	U	U	7.4	40	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	Dichlorodifluoromethane	--	U	U	18	40	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	Ethylbenzene	--	U	U	15	40	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	Isopropylbenzene	--	U	U	17	40	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	Methyl acetate	--	U	U	54	270	µg/Kg-dry	1	23-Jul-12	2012

Table A-4
Volatile and Semivolatile Organic Compounds Data for Shallow Soils

Client Samp ID	Soil Bore	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Year
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	Methyl tert-butyl ether	--	U	U	17	40	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	Methylcyclohexane	--	U	U	19	40	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	Methylene chloride	--	U	U	16	40	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	Styrene	--	U	U	15	40	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	Tetrachloroethene	--	U	U	18	40	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	Toluene	--	U	U	15	40	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	trans-1,2-Dichloroethene	--	U	U	12	40	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	trans-1,3-Dichloropropene	--	U	U	13	40	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	Trichloroethene	--	U	U	19	40	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	Trichlorofluoromethane	--	U	U	11	40	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	Vinyl chloride	--	U	U	18	40	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	Xylenes, Total	--	U	U	47	120	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	1,1'-Biphenyl	--	U	U	52	3,500	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	84	1,700	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	84	1,700	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	100	1,700	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	430	3,500	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	450	6,900	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	94	1,700	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	98	1,700	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	96	840	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	94	1,700	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	--	U	U	100	840	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	100	1,700	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	80	6,900	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	92	1,700	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	98	6,900	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	850	6,900	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	510	3,500	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	91	1,700	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	95	1,700	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	130	3,500	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	96	1,700	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	4-Methylphenol	--	U	U	100	1,700	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	160	6,900	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	430	6,900	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Acenaphthene	--	U	U	96	320	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	--	U	U	100	320	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	52	3,500	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Anthracene	--	U	U	110	320	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	110	530	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	--	U	U	130	3,500	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	210	210	J	130	320	µg/Kg-dry-dry	10	26-Jul-12	2012

Table A-4
Volatile and Semivolatile Organic Compounds Data for Shallow Soils

Client Samp ID	Soil Bore	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Year
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	210	210	J	160	320	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	350	350	--	170	320	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	--	U	U	250	320	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	280	280	J	140	320	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	86	1,700	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	88	1,700	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	82	1,700	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	740	740	J	100	3,500	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	--	U	U	150	1,700	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	150	3,500	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Carbazole	--	U	U	120	1,700	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Chrysene	270	270	J	120	320	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	--	U	U	180	320	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	--	U	U	96	1,700	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	87	3,500	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	88	3,500	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	200	200	J	110	3,500	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	130	1,700	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Fluoranthene	410	410	--	130	320	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Fluorene	--	U	U	92	320	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	96	1,700	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	89	530	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	370	3,500	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	92	1,700	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	--	U	U	200	320	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	91	1,700	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Naphthalene	--	U	U	90	320	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	91	1,700	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	92	1,700	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	620	1,700	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	160	210	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Phenanthrene	--	U	U	320	320	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	89	1,700	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Pyrene	420	420	--	130	320	µg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	1,1,1-Trichloroethane	--	U	U	18	48	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	1,1,2,2-Tetrachloroethane	--	U	U	21	48	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	1,1,2-Trichloroethane	--	U	U	17	48	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	1,1,2-Trichlorotrifluoroethane	--	U	U	18	48	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	1,1-Dichloroethane	--	U	U	17	48	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	1,1-Dichloroethene	--	U	U	20	48	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	1,2,4-Trichlorobenzene	--	U	U	25	48	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	1,2-Dibromo-3-chloropropane	--	U	U	23	48	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	1,2-Dibromoethane	--	U	U	19	48	µg/Kg-dry	1	23-Jul-12	2012

Table A-4
Volatile and Semivolatile Organic Compounds Data for Shallow Soils

Client Samp ID	Soil Bore	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Year
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	1,2-Dichlorobenzene	--	U	U	19	48	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	1,2-Dichloroethane	--	U	U	23	48	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	1,2-Dichloropropane	--	U	U	16	48	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	1,3-Dichlorobenzene	--	U	U	19	48	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	1,4-Dichlorobenzene	--	U	U	18	48	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	2-Butanone	--	U	U	120	320	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	2-Hexanone	--	U	U	12	48	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	4-Methyl-2-pentanone	--	U	U	16	48	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	Acetone	--	U	U	100	160	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	Benzene	--	U	U	19	48	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	Bromodichloromethane	--	U	U	11	48	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	Bromoform	--	U	U	9.4	48	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	Bromomethane	--	U	U	18	120	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	Carbon disulfide	--	U	U	24	48	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	Carbon tetrachloride	--	U	U	14	48	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	Chlorobenzene	--	U	U	19	48	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	Chloroethane	--	U	U	100	160	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	Chloroform	--	U	U	20	48	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	Chloromethane	--	U	U	27	160	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	cis-1,2-Dichloroethene	--	U	U	19	48	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	cis-1,3-Dichloropropene	--	U	U	16	48	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	Cyclohexane	39	39	J	21	48	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	Dibromochloromethane	--	U	U	8.8	48	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	Dichlorodifluoromethane	--	U	U	22	48	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	Ethylbenzene	63	63	--	18	48	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	Isopropylbenzene	--	U	U	21	48	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	Methyl acetate	--	U	U	64	320	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	Methyl tert-butyl ether	--	U	U	20	48	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	Methylcyclohexane	120	120	--	22	48	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	Methylene chloride	--	U	U	19	48	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	Styrene	--	U	U	18	48	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	Tetrachloroethene	--	U	U	21	48	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	Toluene	73	73	--	18	48	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	trans-1,2-Dichloroethene	--	U	U	15	48	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	trans-1,3-Dichloropropene	--	U	U	16	48	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	Trichloroethene	--	U	U	22	48	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	Trichlorofluoromethane	--	U	U	13	48	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	Vinyl chloride	--	U	U	21	48	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	Xylenes, Total	250	250	--	56	140	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	1,1'-Biphenyl	--	U	U	52	3,500	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	84	1,700	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	84	1,700	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	100	1,700	µg/Kg-dry-dry	10	25-Jul-12	2012

Table A-4
Volatile and Semivolatile Organic Compounds Data for Shallow Soils

Client Samp ID	Soil Bore	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Year
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	430	3,500	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	450	6,900	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	94	1,700	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	98	1,700	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	96	840	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	94	1,700	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	--	U	U	100	840	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	100	1,700	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	80	6,900	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	91	1,700	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	98	6,900	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	850	6,900	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	510	3,500	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	91	1,700	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	95	1,700	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	130	3,500	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	96	1,700	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	4-Methylphenol	--	U	U	100	1,700	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	160	6,900	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	430	6,900	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Acenaphthene	--	U	U	96	320	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	--	U	U	99	320	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	52	3,500	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Anthracene	180	180	J	110	320	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	110	530	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	--	U	U	130	3,500	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	620	620	--	130	320	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	750	750	--	160	320	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	940	940	--	170	320	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	290	290	J	250	320	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	520	520	--	140	320	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	86	1,700	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	88	1,700	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	82	1,700	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	7,400	7,400	--	100	3,500	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	590	590	J	150	1,700	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	150	3,500	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Carbazole	--	U	U	120	1,700	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Chrysene	610	610	--	120	320	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	--	U	U	180	320	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	--	U	U	96	1,700	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	87	3,500	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	88	3,500	µg/Kg-dry-dry	10	25-Jul-12	2012

Table A-4
Volatile and Semivolatile Organic Compounds Data for Shallow Soils

Client Samp ID	Soil Bore	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Year
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U	110	3,500	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	440	440	J	130	1,700	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Fluoranthene	1,100	1,100	--	120	320	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Fluorene	--	U	U	92	320	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	96	1,700	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	89	530	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	370	3,500	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	92	1,700	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	220	220	J	200	320	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	91	1,700	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Naphthalene	--	U	U	90	320	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	91	1,700	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	92	1,700	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	620	1,700	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	160	210	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Phenanthrene	700	700	--	320	320	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	89	1,700	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Pyrene	880	880	--	130	320	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	1,1,1-Trichloroethane	--	U	U	14	38	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	1,1,2,2-Tetrachloroethane	--	U	U	17	38	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	1,1,2-Trichloroethane	--	U	U	13	38	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	1,1,2-Trichlorotrifluoroethane	--	U	U	14	38	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	1,1-Dichloroethane	--	U	U	14	38	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	1,1-Dichloroethene	--	U	U	16	38	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	1,2,4-Trichlorobenzene	--	U	U	19	38	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	1,2-Dibromo-3-chloropropane	--	U	U	18	38	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	1,2-Dibromoethane	--	U	U	15	38	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	1,2-Dichlorobenzene	--	U	U	15	38	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	1,2-Dichloroethane	--	U	U	18	38	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	1,2-Dichloropropane	--	U	U	12	38	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	1,3-Dichlorobenzene	--	U	U	15	38	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	1,4-Dichlorobenzene	--	U	U	14	38	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	2-Butanone	--	U	U	93	250	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	2-Hexanone	--	U	U	9.2	38	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	4-Methyl-2-pentanone	--	U	U	13	38	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	Acetone	--	U	U	80	130	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	Benzene	--	U	U	15	38	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	Bromodichloromethane	--	U	U	8.5	38	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	Bromoform	--	U	U	7.4	38	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	Bromomethane	--	U	U	14	94	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	Carbon disulfide	--	U	U	19	38	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	Carbon tetrachloride	--	U	U	11	38	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	Chlorobenzene	--	U	U	15	38	µg/Kg-dry	1	23-Jul-12	2012

Table A-4
Volatile and Semivolatile Organic Compounds Data for Shallow Soils

Client Samp ID	Soil Bore	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Year
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	Chloroethane	--	U	U	80	130	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	Chloroform	--	U	U	16	38	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	Chloromethane	--	U	U	21	130	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	cis-1,2-Dichloroethene	--	U	U	15	38	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	cis-1,3-Dichloropropene	--	U	U	13	38	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	Cyclohexane	--	U	U	17	38	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	Dibromochloromethane	--	U	U	7	38	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	Dichlorodifluoromethane	--	U	U	17	38	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	Ethylbenzene	17	17	J	14	38	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	Isopropylbenzene	--	U	U	16	38	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	Methyl acetate	--	U	U	51	250	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	Methyl tert-butyl ether	--	U	U	16	38	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	Methylcyclohexane	--	U	U	17	38	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	Methylene chloride	--	U	U	15	38	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	Styrene	--	U	U	14	38	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	Tetrachloroethene	--	U	U	17	38	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	Toluene	22	22	J	14	38	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	trans-1,2-Dichloroethene	--	U	U	12	38	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	trans-1,3-Dichloropropene	--	U	U	13	38	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	Trichloroethene	--	U	U	18	38	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	Trichlorofluoromethane	--	U	U	10	38	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	Vinyl chloride	--	U	U	17	38	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	Xylenes, Total	130	130		45	110	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	1,1'-Biphenyl	--	U	U	51	3,400	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	83	1,700	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	83	1,700	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	100	1,700	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	420	3,400	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	440	6,800	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	93	1,700	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	97	1,700	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	95	830	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	93	1,700	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	--	U	U	100	830	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	100	1,700	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	79	6,800	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	90	1,700	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	97	6,800	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	840	6,800	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	500	3,400	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	90	1,700	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	94	1,700	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	130	3,400	µg/Kg-dry-dry	10	25-Jul-12	2012

Table A-4
Volatile and Semivolatile Organic Compounds Data for Shallow Soils

Client Samp ID	Soil Bore	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Year
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	95	1,700	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	4-Methylphenol	--	U	U	100	1,700	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	150	6,800	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	420	6,800	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Acenaphthene	--	U	U	95	310	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	--	U	U	98	310	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	52	3,400	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Anthracene	--	U	U	110	310	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	100	520	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	--	U	U	130	3,400	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	230	230	J	130	310	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	500	500	--	160	310	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	700	700	--	170	310	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	--	U	U	240	310	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	280	280	J	140	310	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	85	1,700	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	86	1,700	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	81	1,700	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	420	420	J	100	3,400	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	540	540	J	140	1,700	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	150	3,400	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Carbazole	--	U	U	120	1,700	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Chrysene	390	390	--	120	310	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	--	U	U	180	310	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	--	U	U	95	1,700	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	86	3,400	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	86	3,400	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U	100	3,400	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	130	1,700	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Fluoranthene	230	230	J	120	310	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Fluorene	--	U	U	91	310	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	94	1,700	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	88	520	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	360	3,400	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	91	1,700	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	--	U	U	200	310	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	90	1,700	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Naphthalene	--	U	U	88	310	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	90	1,700	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	91	1,700	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	620	1,700	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	150	210	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Phenanthrene	--	U	U	310	310	µg/Kg-dry-dry	10	25-Jul-12	2012

Table A-4
Volatile and Semivolatile Organic Compounds Data for Shallow Soils

Client Samp ID	Soil Bore	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Year
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	88	1,700	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Pyrene	170	170	J	130	310	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	1,1,1-Trichloroethane	--	U	U	13	35	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	1,1,2,2-Tetrachloroethane	--	U	U	15	35	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	1,1,2-Trichloroethane	--	U	U	12	35	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	1,1,2-Trichlorotrifluoroethane	--	U	U	13	35	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	1,1-Dichloroethane	--	U	U	13	35	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	1,1-Dichloroethene	--	U	U	15	35	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	1,2,4-Trichlorobenzene	--	U	U	18	35	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	1,2-Dibromo-3-chloropropane	--	U	U	17	35	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	1,2-Dibromoethane	--	U	U	14	35	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	1,2-Dichlorobenzene	--	U	U	14	35	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	1,2-Dichloroethane	--	U	U	17	35	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	1,2-Dichloropropane	--	U	U	12	35	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	1,3-Dichlorobenzene	--	U	U	14	35	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	1,4-Dichlorobenzene	--	U	U	13	35	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	2-Butanone	--	U	U	86	230	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	2-Hexanone	--	U	U	8.5	35	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	4-Methyl-2-pentanone	--	U	U	12	35	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	Acetone	--	U	U	74	120	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	Benzene	--	U	U	14	35	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	Bromodichloromethane	--	U	U	7.8	35	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	Bromoform	--	U	U	6.9	35	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	Bromomethane	--	U	U	13	87	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	Carbon disulfide	--	U	U	17	35	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	Carbon tetrachloride	--	U	U	9.9	35	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	Chlorobenzene	--	U	U	14	35	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	Chloroethane	--	U	U	74	120	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	Chloroform	--	U	U	14	35	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	Chloromethane	--	U	U	19	120	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	cis-1,2-Dichloroethene	--	U	U	14	35	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	cis-1,3-Dichloropropene	--	U	U	12	35	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	Cyclohexane	--	U	U	16	35	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	Dibromochloromethane	--	U	U	6.4	35	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	Dichlorodifluoromethane	--	U	U	16	35	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	Ethylbenzene	--	U	U	13	35	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	Isopropylbenzene	--	U	U	15	35	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	Methyl acetate	--	U	U	47	230	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	Methyl tert-butyl ether	--	U	U	15	35	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	Methylcyclohexane	260	260	--	16	35	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	Methylene chloride	--	U	U	14	35	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	Styrene	--	U	U	13	35	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	Tetrachloroethene	--	U	U	15	35	µg/Kg-dry	1	23-Jul-12	2012

Table A-4
Volatile and Semivolatile Organic Compounds Data for Shallow Soils

Client Samp ID	Soil Bore	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Year
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	Toluene	32	32	J	13	35	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	trans-1,2-Dichloroethene	--	U	U	11	35	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	trans-1,3-Dichloropropene	--	U	U	12	35	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	Trichloroethene	--	U	U	16	35	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	Trichlorofluoromethane	--	U	U	9.6	35	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	Vinyl chloride	--	U	U	16	35	µg/Kg-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	Xylenes, Total	210	210	--	41	100	µg/Kg-dry	1	23-Jul-12	2012

Notes
µg/Kg-dry = micrograms per kilogram-dry weight
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
RMDL = Recommended Method Detection Limit
SL = screening level
SVOC = semi-volatile organic compound

Table A-5
Pesticides, Herbicides, Metals and PCB Data for Shallow Soil in the Van Buren Landfill

Client Samp ID	Soil Bore	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Year
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Herbicides	2,4,5-T	--	U	U	0.1	5.2	µg/Kg-dry-dry	1	24-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Herbicides	2,4,5-TP (Silvex)	--	U	U	0.07	10	µg/Kg-dry-dry	1	24-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Herbicides	2,4-D	--	U	U	0.075	5.2	µg/Kg-dry-dry	1	24-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Mercury by CVAA	Mercury	0.21	0.21	--	0.001	0.02	mg/Kg-dry-dry	1	23-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Metals by ICP-MS	Aluminum	6,900	6,900	--	0.054	0.75	mg/Kg-dry-dry	1	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Metals by ICP-MS	Antimony	2.9	2.9	--	0.0091	0.38	mg/Kg-dry-dry	1	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Metals by ICP-MS	Arsenic	5.6	5.6	--	0.045	0.15	mg/Kg-dry-dry	1	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Metals by ICP-MS	Barium	92	92	--	0.014	0.38	mg/Kg-dry-dry	1	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Metals by ICP-MS	Beryllium	0.35	0.35	J	0.045	1.5	mg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Metals by ICP-MS	Cadmium	1.6	1.6	--	0.0015	0.15	mg/Kg-dry-dry	1	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Metals by ICP-MS	Chromium	17	17	--	0.011	0.38	mg/Kg-dry-dry	1	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Metals by ICP-MS	Cobalt	5.5	5.5	--	0.0015	0.38	mg/Kg-dry-dry	1	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Metals by ICP-MS	Copper	120	120	--	0.011	0.38	mg/Kg-dry-dry	1	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Metals by ICP-MS	Iron	20,000	20,000	--	13	60	mg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Metals by ICP-MS	Lead	99	99	--	0.015	3.8	mg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Metals by ICP-MS	Manganese	470	470	--	0.11	3.8	mg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Metals by ICP-MS	Nickel	18	18	--	0.0045	0.38	mg/Kg-dry-dry	1	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Metals by ICP-MS	Selenium	0.83	0.83	--	0.027	0.3	mg/Kg-dry-dry	1	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Metals by ICP-MS	Silver	0.8	0.80	J	0.015	1.5	mg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Metals by ICP-MS	Thallium	0.21	0.21	J	0.006	0.38	mg/Kg-dry-dry	1	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Metals by ICP-MS	Vanadium	17	17	--	0.02	0.38	mg/Kg-dry-dry	1	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Metals by ICP-MS	Zinc	510	510	--	0.39	7.5	mg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Moisture	Moisture	5.7	5.7	H	0.025	0.05	% of sample	1	19-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	PCBs	Aroclor 1016	--	U	U	36	40	µg/Kg-dry-dry	1	24-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	PCBs	Aroclor 1221	--	U	U	36	40	µg/Kg-dry-dry	1	24-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	PCBs	Aroclor 1232	--	U	U	36	40	µg/Kg-dry-dry	1	24-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	PCBs	Aroclor 1242	--	U	U	36	40	µg/Kg-dry-dry	1	24-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	PCBs	Aroclor 1248	250	250	--	36	40	µg/Kg-dry-dry	1	24-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	PCBs	Aroclor 1254	110	110	--	11	40	µg/Kg-dry-dry	1	24-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	PCBs	Aroclor 1260	--	U	U	11	40	µg/Kg-dry-dry	1	24-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Pesticides	4,4'-DDD	--	U	U	32	100	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Pesticides	4,4'-DDE	--	U	U	20	100	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Pesticides	4,4'-DDT	--	U	U	23	100	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Pesticides	Aldrin	--	U	U	9.1	100	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Pesticides	alpha-BHC	--	U	U	32	100	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Pesticides	alpha-Chlordane	--	U	U	28	100	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Pesticides	beta-BHC	--	U	U	38	100	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Pesticides	Chlordane, Technical	--	U	U	100	250	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Pesticides	delta-BHC	--	U	U	37	100	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Pesticides	Dieldrin	--	U	U	8.6	100	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Pesticides	Endosulfan I	--	U	U	13	100	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Pesticides	Endosulfan II	--	U	U	11	100	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Pesticides	Endosulfan sulfate	--	U	U	12	100	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Pesticides	Endrin	--	U	U	29	100	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Pesticides	Endrin aldehyde	--	U	U	25	100	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Pesticides	Endrin ketone	--	U	U	39	100	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Pesticides	gamma-BHC (Lindane)	--	U	U	47	100	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Pesticides	gamma-Chlordane	--	U	U	17	100	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Pesticides	Heptachlor	--	U	U	52	100	µg/Kg-dry-dry	10	25-Jul-12	2012

Table A-5
Pesticides, Herbicides, Metals and PCB Data for Shallow Soil in the Van Buren Landfill

Client Samp ID	Soil Bore	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Year
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Pesticides	Heptachlor epoxide	--	U	U	16	100	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Pesticides	Methoxychlor	--	U	U	25	100	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-001	SB-5	1207530-01	11-Jul-12	Soil	Pesticides	Toxaphene	--	U	U	120	610	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Herbicides	2,4,5-T	--	U	U	0.1	5.3	µg/Kg-dry-dry	1	24-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Herbicides	2,4,5-TP (Silvex)	--	U	U	0.071	11	µg/Kg-dry-dry	1	24-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Herbicides	2,4-D	--	U	U	0.076	5.3	µg/Kg-dry-dry	1	24-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Mercury by CVAA	Mercury	0.45	0.45	--	0.0021	0.042	mg/Kg-dry-dry	2	23-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Metals by ICP-MS	Aluminum	12,000	12,000	--	2.8	38	mg/Kg-dry-dry	50	26-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Metals by ICP-MS	Antimony	18	18	--	0.0092	0.38	mg/Kg-dry-dry	1	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Metals by ICP-MS	Arsenic	12	12	--	0.046	0.15	mg/Kg-dry-dry	1	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Metals by ICP-MS	Barium	540	540	--	0.69	19	mg/Kg-dry-dry	50	26-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Metals by ICP-MS	Beryllium	0.22	0.22	--	0.0046	0.15	mg/Kg-dry-dry	1	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Metals by ICP-MS	Cadmium	9.3	9.3	--	0.0015	0.15	mg/Kg-dry-dry	1	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Metals by ICP-MS	Chromium	53	53	--	0.011	0.38	mg/Kg-dry-dry	1	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Metals by ICP-MS	Cobalt	7.8	7.8	--	0.0015	0.38	mg/Kg-dry-dry	1	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Metals by ICP-MS	Copper	1,500	1,500	--	0.54	19	mg/Kg-dry-dry	50	26-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Metals by ICP-MS	Iron	74,000	74,000	--	65	310	mg/Kg-dry-dry	50	26-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Metals by ICP-MS	Lead	770	770	--	0.077	19	mg/Kg-dry-dry	50	26-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Metals by ICP-MS	Manganese	600	600	--	0.54	19	mg/Kg-dry-dry	50	26-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Metals by ICP-MS	Nickel	60	60	--	0.0046	0.38	mg/Kg-dry-dry	1	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Metals by ICP-MS	Selenium	0.69	0.69	--	0.028	0.31	mg/Kg-dry-dry	1	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Metals by ICP-MS	Silver	4.2	4.2	J	0.077	7.7	mg/Kg-dry-dry	50	26-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Metals by ICP-MS	Thallium	0.065	0.065	J	0.0061	0.38	mg/Kg-dry-dry	1	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Metals by ICP-MS	Vanadium	18	18	--	0.02	0.38	mg/Kg-dry-dry	1	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Metals by ICP-MS	Zinc	2,400	2,400	--	2	38	mg/Kg-dry-dry	50	26-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Moisture	Moisture	6	6.0	H	0.025	0.05	% of sample	1	19-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	PCBs	Aroclor 1016	--	U	U	38	42	µg/Kg-dry-dry	1	24-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	PCBs	Aroclor 1221	--	U	U	38	42	µg/Kg-dry-dry	1	24-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	PCBs	Aroclor 1232	--	U	U	38	42	µg/Kg-dry-dry	1	24-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	PCBs	Aroclor 1242	--	U	U	38	42	µg/Kg-dry-dry	1	24-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	PCBs	Aroclor 1248	240	240	--	38	42	µg/Kg-dry-dry	1	24-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	PCBs	Aroclor 1254	270	270	--	12	42	µg/Kg-dry-dry	1	24-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	PCBs	Aroclor 1260	--	U	U	12	42	µg/Kg-dry-dry	1	24-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Pesticides	4,4'-DDD	--	U	U	68	210	µg/Kg-dry-dry	20	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Pesticides	4,4'-DDE	--	U	U	41	210	µg/Kg-dry-dry	20	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Pesticides	4,4'-DDT	--	U	U	49	210	µg/Kg-dry-dry	20	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Pesticides	Aldrin	--	U	U	19	210	µg/Kg-dry-dry	20	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Pesticides	alpha-BHC	--	U	U	68	210	µg/Kg-dry-dry	20	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Pesticides	alpha-Chlordane	--	U	U	58	210	µg/Kg-dry-dry	20	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Pesticides	beta-BHC	--	U	U	80	210	µg/Kg-dry-dry	20	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Pesticides	Chlordane, Technical	--	U	U	210	530	µg/Kg-dry-dry	20	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Pesticides	delta-BHC	--	U	U	78	210	µg/Kg-dry-dry	20	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Pesticides	Dieldrin	--	U	U	18	210	µg/Kg-dry-dry	20	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Pesticides	Endosulfan I	--	U	U	27	210	µg/Kg-dry-dry	20	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Pesticides	Endosulfan II	--	U	U	23	210	µg/Kg-dry-dry	20	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Pesticides	Endosulfan sulfate	--	U	U	26	210	µg/Kg-dry-dry	20	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Pesticides	Endrin	--	U	U	61	210	µg/Kg-dry-dry	20	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Pesticides	Endrin aldehyde	--	U	U	51	210	µg/Kg-dry-dry	20	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Pesticides	Endrin ketone	--	U	U	81	210	µg/Kg-dry-dry	20	25-Jul-12	2012

Table A-5
Pesticides, Herbicides, Metals and PCB Data for Shallow Soil in the Van Buren Landfill

Client Samp ID	Soil Bore	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Year
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Pesticides	gamma-BHC (Lindane)	--	U	U	98	210	µg/Kg-dry-dry	20	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Pesticides	gamma-Chlordane	--	U	U	35	210	µg/Kg-dry-dry	20	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Pesticides	Heptachlor	--	U	U	110	210	µg/Kg-dry-dry	20	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Pesticides	Heptachlor epoxide	--	U	U	33	210	µg/Kg-dry-dry	20	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Pesticides	Methoxychlor	--	U	U	52	210	µg/Kg-dry-dry	20	25-Jul-12	2012
S-R2330004-071112-MF-003	SB-7	1207530-03	11-Jul-12	Soil	Pesticides	Toxaphene	--	U	U	250	1,300	µg/Kg-dry-dry	20	25-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Herbicides	2,4,5-T	--	U	U	0.1	5.1	µg/Kg-dry-dry	1	24-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Herbicides	2,4,5-TP (Silvex)	--	U	U	0.068	10	µg/Kg-dry-dry	1	24-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Herbicides	2,4-D	--	U	U	0.073	5.1	µg/Kg-dry-dry	1	24-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Mercury by CVAA	Mercury	0.072	0.072	--	0.00092	0.018	mg/Kg-dry-dry	1	23-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Metals by ICP-MS	Aluminum	9,500	9,500	--	0.6	8.3	mg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Metals by ICP-MS	Antimony	5.8	5.8	--	0.01	0.42	mg/Kg-dry-dry	1	25-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Metals by ICP-MS	Arsenic	6.1	6.1	--	0.05	0.17	mg/Kg-dry-dry	1	25-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Metals by ICP-MS	Barium	140	140	--	0.015	0.42	mg/Kg-dry-dry	1	25-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Metals by ICP-MS	Beryllium	0.5	0.50	J	0.05	1.7	mg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Metals by ICP-MS	Cadmium	1.5	1.5	--	0.0017	0.17	mg/Kg-dry-dry	1	25-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Metals by ICP-MS	Chromium	24	24	--	0.012	0.42	mg/Kg-dry-dry	1	25-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Metals by ICP-MS	Cobalt	8.2	8.2	--	0.0017	0.42	mg/Kg-dry-dry	1	25-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Metals by ICP-MS	Copper	130	130	--	0.012	0.42	mg/Kg-dry-dry	1	25-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Metals by ICP-MS	Iron	20,000	20,000	--	14	67	mg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Metals by ICP-MS	Lead	190	190	--	0.017	4.2	mg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Metals by ICP-MS	Manganese	220	220	--	0.12	4.2	mg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Metals by ICP-MS	Nickel	19	19	--	0.005	0.42	mg/Kg-dry-dry	1	25-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Metals by ICP-MS	Selenium	0.58	0.58	--	0.03	0.33	mg/Kg-dry-dry	1	25-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Metals by ICP-MS	Silver	0.5	0.50	J	0.017	1.7	mg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Metals by ICP-MS	Thallium	0.16	0.16	J	0.0067	0.42	mg/Kg-dry-dry	1	25-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Metals by ICP-MS	Vanadium	18	18	--	0.022	0.42	mg/Kg-dry-dry	1	25-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Metals by ICP-MS	Zinc	280	280	--	0.43	8.3	mg/Kg-dry-dry	10	26-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Moisture	Moisture	5.9	5.9	--	0.025	0.05	% of sample	1	19-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	PCBs	Aroclor 1016	--	U	U	37	41	µg/Kg-dry-dry	1	24-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	PCBs	Aroclor 1221	--	U	U	37	41	µg/Kg-dry-dry	1	24-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	PCBs	Aroclor 1232	--	U	U	37	41	µg/Kg-dry-dry	1	24-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	PCBs	Aroclor 1242	--	U	U	37	41	µg/Kg-dry-dry	1	24-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	PCBs	Aroclor 1248	340	340	--	37	41	µg/Kg-dry-dry	1	24-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	PCBs	Aroclor 1254	840	840	--	12	41	µg/Kg-dry-dry	1	24-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	PCBs	Aroclor 1260	--	U	U	12	41	µg/Kg-dry-dry	1	24-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Pesticides	4,4'-DDD	--	U	U	66	210	µg/Kg-dry-dry	20	25-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Pesticides	4,4'-DDE	--	U	U	41	210	µg/Kg-dry-dry	20	25-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Pesticides	4,4'-DDT	--	U	U	48	210	µg/Kg-dry-dry	20	25-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Pesticides	Aldrin	--	U	U	19	210	µg/Kg-dry-dry	20	25-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Pesticides	alpha-BHC	--	U	U	67	210	µg/Kg-dry-dry	20	25-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Pesticides	alpha-Chlordane	--	U	U	57	210	µg/Kg-dry-dry	20	25-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Pesticides	beta-BHC	--	U	U	78	210	µg/Kg-dry-dry	20	25-Jul-12	2012

Table A-5
Pesticides, Herbicides, Metals and PCB Data for Shallow Soil in the Van Buren Landfill

Client Samp ID	Soil Bore	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Year
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Pesticides	Chlordane, Technical	--	U	U	210	520	µg/Kg-dry-dry	20	25-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Pesticides	delta-BHC	--	U	U	77	210	µg/Kg-dry-dry	20	25-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Pesticides	Dieldrin	--	U	U	18	210	µg/Kg-dry-dry	20	25-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Pesticides	Endosulfan I	--	U	U	27	210	µg/Kg-dry-dry	20	25-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Pesticides	Endosulfan II	--	U	U	23	210	µg/Kg-dry-dry	20	25-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Pesticides	Endosulfan sulfate	--	U	U	25	210	µg/Kg-dry-dry	20	25-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Pesticides	Endrin	--	U	U	60	210	µg/Kg-dry-dry	20	25-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Pesticides	Endrin aldehyde	--	U	U	50	210	µg/Kg-dry-dry	20	25-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Pesticides	Endrin ketone	--	U	U	80	210	µg/Kg-dry-dry	20	25-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Pesticides	gamma-BHC (Lindane)	--	U	U	96	210	µg/Kg-dry-dry	20	25-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Pesticides	gamma-Chlordane	--	U	U	35	210	µg/Kg-dry-dry	20	25-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Pesticides	Heptachlor	--	U	U	110	210	µg/Kg-dry-dry	20	25-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Pesticides	Heptachlor epoxide	--	U	U	33	210	µg/Kg-dry-dry	20	25-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Pesticides	Methoxychlor	--	U	U	51	210	µg/Kg-dry-dry	20	25-Jul-12	2012
S-R2330004-071212-MF-006	SB-1	1207530-06	12-Jul-12	Soil	Pesticides	Toxaphene	--	U	U	240	1,200	µg/Kg-dry-dry	20	25-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Herbicides	2,4,5-T	--	U	U	0.1	5.1	µg/Kg-dry-dry	1	25-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Herbicides	2,4,5-TP (Silvex)	--	U	U	0.068	10	µg/Kg-dry-dry	1	25-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Herbicides	2,4-D	--	U	U	0.073	5.1	µg/Kg-dry-dry	1	25-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Mercury by CVAA	Mercury	0.62	0.62	--	0.0089	0.18	mg/Kg-dry-dry	10	23-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Metals by ICP-MS	Aluminum	4,500	4,500	--	0.26	3.6	mg/Kg-dry-dry	5	26-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Metals by ICP-MS	Antimony	1.6	1.6	--	0.0085	0.36	mg/Kg-dry-dry	1	25-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Metals by ICP-MS	Arsenic	2.8	2.8	--	0.043	0.14	mg/Kg-dry-dry	1	25-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Metals by ICP-MS	Barium	45	45	--	0.013	0.36	mg/Kg-dry-dry	1	25-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Metals by ICP-MS	Beryllium	0.12	0.12	J	0.0043	0.14	mg/Kg-dry-dry	1	25-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Metals by ICP-MS	Cadmium	0.86	0.86	--	0.0014	0.14	mg/Kg-dry-dry	1	25-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Metals by ICP-MS	Chromium	8.5	8.5	--	0.01	0.36	mg/Kg-dry-dry	1	25-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Metals by ICP-MS	Cobalt	2.7	2.7	--	0.0014	0.36	mg/Kg-dry-dry	1	25-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Metals by ICP-MS	Copper	31	31	--	0.01	0.36	mg/Kg-dry-dry	1	25-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Metals by ICP-MS	Iron	15,000	15,000	--	6	28	mg/Kg-dry-dry	5	26-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Metals by ICP-MS	Lead	64	64	--	0.0014	0.36	mg/Kg-dry-dry	1	25-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Metals by ICP-MS	Manganese	360	360	--	0.05	1.8	mg/Kg-dry-dry	5	26-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Metals by ICP-MS	Nickel	9.8	9.8	--	0.0043	0.36	mg/Kg-dry-dry	1	25-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Metals by ICP-MS	Selenium	0.32	0.32	--	0.026	0.28	mg/Kg-dry-dry	1	25-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Metals by ICP-MS	Silver	0.39	0.39	J	0.0071	0.71	mg/Kg-dry-dry	5	26-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Metals by ICP-MS	Thallium	0.086	0.086	J	0.0057	0.36	mg/Kg-dry-dry	1	25-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Metals by ICP-MS	Vanadium	9.1	9.1	--	0.019	0.36	mg/Kg-dry-dry	1	25-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Metals by ICP-MS	Zinc	98	98	--	0.037	0.71	mg/Kg-dry-dry	1	25-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Moisture	Moisture	2.5	2.5	--	0.025	0.05	% of sample	1	19-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	PCBs	Aroclor 1016	--	U	U	35	40	µg/Kg-dry-dry	1	24-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	PCBs	Aroclor 1221	--	U	U	35	40	µg/Kg-dry-dry	1	24-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	PCBs	Aroclor 1232	--	U	U	35	40	µg/Kg-dry-dry	1	24-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	PCBs	Aroclor 1242	--	U	U	35	40	µg/Kg-dry-dry	1	24-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	PCBs	Aroclor 1248	--	U	U	35	40	µg/Kg-dry-dry	1	24-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	PCBs	Aroclor 1254	140	140	--	11	40	µg/Kg-dry-dry	1	24-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	PCBs	Aroclor 1260	--	U	U	11	40	µg/Kg-dry-dry	1	24-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Pesticides	4,4'-DDD	--	U	U	63	200	µg/Kg-dry-dry	20	25-Jul-12	2012

Table A-5
Pesticides, Herbicides, Metals and PCB Data for Shallow Soil in the Van Buren Landfill

Client Samp ID	Soil Bore	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Year
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Pesticides	4,4'-DDE	--	U	U	39	200	µg/Kg-dry-dry	20	25-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Pesticides	4,4'-DDT	--	U	U	46	200	µg/Kg-dry-dry	20	25-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Pesticides	Aldrin	--	U	U	18	200	µg/Kg-dry-dry	20	25-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Pesticides	alpha-BHC	--	U	U	64	200	µg/Kg-dry-dry	20	25-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Pesticides	alpha-Chlordane	--	U	U	55	200	µg/Kg-dry-dry	20	25-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Pesticides	beta-BHC	--	U	U	75	200	µg/Kg-dry-dry	20	25-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Pesticides	Chlordane, Technical	--	U	U	200	490	µg/Kg-dry-dry	20	25-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Pesticides	delta-BHC	--	U	U	73	200	µg/Kg-dry-dry	20	25-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Pesticides	Dieldrin	--	U	U	17	200	µg/Kg-dry-dry	20	25-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Pesticides	Endosulfan I	--	U	U	26	200	µg/Kg-dry-dry	20	25-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Pesticides	Endosulfan II	--	U	U	22	200	µg/Kg-dry-dry	20	25-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Pesticides	Endosulfan sulfate	--	U	U	24	200	µg/Kg-dry-dry	20	25-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Pesticides	Endrin	--	U	U	58	200	µg/Kg-dry-dry	20	25-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Pesticides	Endrin aldehyde	--	U	U	48	200	µg/Kg-dry-dry	20	25-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Pesticides	Endrin ketone	--	U	U	76	200	µg/Kg-dry-dry	20	25-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Pesticides	gamma-BHC (Lindane)	--	U	U	92	200	µg/Kg-dry-dry	20	25-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Pesticides	gamma-Chlordane	--	U	U	33	200	µg/Kg-dry-dry	20	25-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Pesticides	Heptachlor	--	U	U	100	200	µg/Kg-dry-dry	20	25-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Pesticides	Heptachlor epoxide	--	U	U	31	200	µg/Kg-dry-dry	20	25-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Pesticides	Methoxychlor	--	U	U	48	200	µg/Kg-dry-dry	20	25-Jul-12	2012
S-R2330004-071212-MF-010	SB-2	1207530-10	12-Jul-12	Soil	Pesticides	Toxaphene	--	U	U	230	1,200	µg/Kg-dry-dry	20	25-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Herbicides	2,4,5-T	--	U	U	0.1	5.2	µg/Kg-dry-dry	1	25-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Herbicides	2,4,5-TP (Silvex)	--	U	U	0.069	10	µg/Kg-dry-dry	1	25-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Herbicides	2,4-D	--	U	U	0.074	5.2	µg/Kg-dry-dry	1	25-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Mercury by CVAA	Mercury	0.1	0.10	--	0.001	0.02	mg/Kg-dry-dry	1	24-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Metals by ICP-MS	Aluminum	7,600	7,600	--	0.3	4.2	mg/Kg-dry-dry	5	26-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Metals by ICP-MS	Antimony	1.5	1.5	--	0.01	0.42	mg/Kg-dry-dry	1	25-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Metals by ICP-MS	Arsenic	4.3	4.3	--	0.05	0.17	mg/Kg-dry-dry	1	25-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Metals by ICP-MS	Barium	89	89	--	0.015	0.42	mg/Kg-dry-dry	1	25-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Metals by ICP-MS	Beryllium	0.16	0.16	J	0.005	0.17	mg/Kg-dry-dry	1	25-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Metals by ICP-MS	Cadmium	2.1	2.1	--	0.0017	0.17	mg/Kg-dry-dry	1	25-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Metals by ICP-MS	Chromium	22	22	--	0.012	0.42	mg/Kg-dry-dry	1	25-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Metals by ICP-MS	Cobalt	3.5	3.5	--	0.0017	0.42	mg/Kg-dry-dry	1	25-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Metals by ICP-MS	Copper	110	110	--	0.012	0.42	mg/Kg-dry-dry	1	25-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Metals by ICP-MS	Iron	17,000	17,000	--	7.1	33	mg/Kg-dry-dry	5	26-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Metals by ICP-MS	Lead	130	130	--	0.0084	2.1	mg/Kg-dry-dry	5	26-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Metals by ICP-MS	Manganese	240	240	--	0.059	2.1	mg/Kg-dry-dry	5	26-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Metals by ICP-MS	Nickel	62	62	--	0.005	0.42	mg/Kg-dry-dry	1	25-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Metals by ICP-MS	Selenium	0.24	0.24	J	0.03	0.33	mg/Kg-dry-dry	1	25-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Metals by ICP-MS	Silver	0.3	0.30	J	0.0084	0.84	mg/Kg-dry-dry	5	26-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Metals by ICP-MS	Thallium	0.075	0.075	J	0.0067	0.42	mg/Kg-dry-dry	1	25-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Metals by ICP-MS	Vanadium	12	12	--	0.022	0.42	mg/Kg-dry-dry	1	25-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Metals by ICP-MS	Zinc	320	320	--	0.22	4.2	mg/Kg-dry-dry	5	26-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Moisture	Moisture	5.6	5.6	--	0.025	0.05	% of sample	1	19-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	PCBs	Aroclor 1016	--	U	U	37	41	µg/Kg-dry-dry	1	24-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	PCBs	Aroclor 1221	--	U	U	37	41	µg/Kg-dry-dry	1	24-Jul-12	2012

Table A-5
Pesticides, Herbicides, Metals and PCB Data for Shallow Soil in the Van Buren Landfill

Client Samp ID	Soil Bore	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Year
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	PCBs	Aroclor 1232	--	U	U	37	41	µg/Kg-dry-dry	1	24-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	PCBs	Aroclor 1242	--	U	U	37	41	µg/Kg-dry-dry	1	24-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	PCBs	Aroclor 1248	280	280	--	37	41	µg/Kg-dry-dry	1	24-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	PCBs	Aroclor 1254	410	410	--	11	41	µg/Kg-dry-dry	1	24-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	PCBs	Aroclor 1260	--	U	U	11	41	µg/Kg-dry-dry	1	24-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Pesticides	4,4'-DDD	--	U	U	33	100	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Pesticides	4,4'-DDE	--	U	U	20	100	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Pesticides	4,4'-DDT	--	U	U	24	100	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Pesticides	Aldrin	--	U	U	9.3	100	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Pesticides	alpha-BHC	--	U	U	33	100	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Pesticides	alpha-Chlordane	--	U	U	28	100	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Pesticides	beta-BHC	--	U	U	39	100	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Pesticides	Chlordane, Technical	--	U	U	100	260	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Pesticides	delta-BHC	--	U	U	38	100	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Pesticides	Dieldrin	--	U	U	8.7	100	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Pesticides	Endosulfan I	--	U	U	13	100	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Pesticides	Endosulfan II	--	U	U	11	100	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Pesticides	Endosulfan sulfate	--	U	U	13	100	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Pesticides	Endrin	--	U	U	30	100	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Pesticides	Endrin aldehyde	--	U	U	25	100	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Pesticides	Endrin ketone	--	U	U	40	100	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Pesticides	gamma-BHC (Lindane)	--	U	U	48	100	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Pesticides	gamma-Chlordane	--	U	U	17	100	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Pesticides	Heptachlor	--	U	U	53	100	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Pesticides	Heptachlor epoxide	--	U	U	16	100	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Pesticides	Methoxychlor	--	U	U	25	100	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330004-071612-MF-015	SB-6A	1207530-15	16-Jul-12	Soil	Pesticides	Toxaphene	--	U	U	120	620	µg/Kg-dry-dry	10	25-Jul-12	2012
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Cyanide, Total	Cyanide, Total	0.096	0.096	J	0.029	0.55	mg/Kg-dry-dry	1	10-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Mercury by CVAA	Mercury	0.022	0.022	--	0.00077	0.015	mg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Metals by ICP-MS	Aluminum	3,800	3,800	--	0.51	4	mg/Kg-dry-dry	5	15-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Metals by ICP-MS	Antimony	0.13	0.13	J	0.0016	0.4	mg/Kg-dry-dry	1	13-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Metals by ICP-MS	Arsenic	3.2	3.2	--	0.055	0.16	mg/Kg-dry-dry	1	12-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Metals by ICP-MS	Barium	25	25	--	0.011	0.4	mg/Kg-dry-dry	1	12-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Metals by ICP-MS	Beryllium	0.28	0.28	J	0.016	0.81	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Metals by ICP-MS	Cadmium	0.15	0.15	J	0.0016	0.16	mg/Kg-dry-dry	1	12-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Metals by ICP-MS	Chromium	6.4	6.4	--	0.066	0.4	mg/Kg-dry-dry	1	13-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Metals by ICP-MS	Cobalt	2.5	2.5	--	0.0016	0.4	mg/Kg-dry-dry	1	13-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Metals by ICP-MS	Copper	6.3	6.3	--	0.079	0.4	mg/Kg-dry-dry	1	13-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Metals by ICP-MS	Iron	6,900	6,900	--	1.3	6.5	mg/Kg-dry-dry	1	13-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Metals by ICP-MS	Lead	7.8	7.8	--	0.0016	0.4	mg/Kg-dry-dry	1	12-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Metals by ICP-MS	Manganese	270	270	--	0.18	2	mg/Kg-dry-dry	5	14-Apr-13	2013

Table A-5
Pesticides, Herbicides, Metals and PCB Data for Shallow Soil in the Van Buren Landfill

Client Samp ID	Soil Bore	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Year
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Metals by ICP-MS	Nickel	7	7.0	--	0.04	0.4	mg/Kg-dry-dry	1	13-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Metals by ICP-MS	Selenium	0.29	0.29	J	0.052	0.32	mg/Kg-dry-dry	1	13-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Metals by ICP-MS	Silver	0.011	0.011	J	0.0016	0.16	mg/Kg-dry-dry	1	13-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Metals by ICP-MS	Thallium	0.091	0.091	J	0.0097	0.4	mg/Kg-dry-dry	1	12-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Metals by ICP-MS	Vanadium	9.6	9.6	--	0.024	0.4	mg/Kg-dry-dry	1	13-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Metals by ICP-MS	Zinc	19	19	--	0.034	0.81	mg/Kg-dry-dry	1	13-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	Moisture	Moisture	9.4	9.4	H	0.025	0.05	% of sample	1	05-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	PCBs	Aroclor 1016	--	U	U	38	43	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	PCBs	Aroclor 1221	--	U	U	38	43	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	PCBs	Aroclor 1232	--	U	U	38	43	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	PCBs	Aroclor 1242	--	U	U	38	43	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	PCBs	Aroclor 1248	--	U	U	38	43	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	PCBs	Aroclor 1254	--	U	U	12	43	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032513-MJF-001	SB-1A	1304246-01	25-Mar-13	Soil	PCBs	Aroclor 1260	--	U	U	12	43	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Cyanide, Total	Cyanide, Total	0.072	0.072	J	0.028	0.54	mg/Kg-dry-dry	1	10-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Mercury by CVAA	Mercury	0.025	0.025	--	0.0008	0.016	mg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Metals by ICP-MS	Aluminum	5,000	5,000	--	0.44	3.5	mg/Kg-dry-dry	5	15-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Metals by ICP-MS	Antimony	0.24	0.24	J	0.007	1.7	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Metals by ICP-MS	Arsenic	4.2	4.2	--	0.24	0.7	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Metals by ICP-MS	Barium	19	19	--	0.049	1.7	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Metals by ICP-MS	Beryllium	0.21	0.21	J	0.014	0.7	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Metals by ICP-MS	Cadmium	0.51	0.51	J	0.007	0.7	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Metals by ICP-MS	Chromium	9.4	9.4	--	0.29	1.7	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Metals by ICP-MS	Cobalt	2.9	2.9	--	0.007	1.7	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Metals by ICP-MS	Copper	11	11	--	0.34	1.7	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Metals by ICP-MS	Iron	11,000	11,000	--	5.8	28	mg/Kg-dry-dry	5	15-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Metals by ICP-MS	Lead	20	20	--	0.007	1.7	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Metals by ICP-MS	Manganese	310	310	--	0.15	1.7	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Metals by ICP-MS	Nickel	9.9	9.9	--	0.17	1.7	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Metals by ICP-MS	Selenium	--	U	U	0.22	1.4	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Metals by ICP-MS	Silver	0.11	0.11	J	0.007	0.7	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Metals by ICP-MS	Thallium	0.12	0.12	J	0.042	1.7	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Metals by ICP-MS	Vanadium	12	12	--	0.1	1.7	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Metals by ICP-MS	Zinc	59	59	--	0.15	3.5	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	Moisture	Moisture	8.3	8.3	H	0.025	0.05	% of sample	1	05-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	PCBs	Aroclor 1016	--	U	U	37	41	µg/Kg-dry-dry	1	09-Apr-13	2013

Table A-5
Pesticides, Herbicides, Metals and PCB Data for Shallow Soil in the Van Buren Landfill

Client Samp ID	Soil Bore	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Year
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	PCBs	Aroclor 1221	--	U	U	37	41	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	PCBs	Aroclor 1232	--	U	U	37	41	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	PCBs	Aroclor 1242	--	U	U	37	41	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	PCBs	Aroclor 1248	--	U	U	37	41	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	PCBs	Aroclor 1254	--	U	U	11	41	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032513-MJF-014	SB-10	1304246-14	25-Mar-13	Soil	PCBs	Aroclor 1260	--	U	U	11	41	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Cyanide, Total	Cyanide, Total	0.31	0.31	J	0.031	0.6	mg/Kg-dry-dry	1	10-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Mercury by CVAA	Mercury	0.12	0.12	--	0.00088	0.018	mg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Metals by ICP-MS	Aluminum	14,000	14,000	--	0.55	4.4	mg/Kg-dry-dry	5	15-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Metals by ICP-MS	Antimony	4.5	4.5	--	0.0087	2.2	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Metals by ICP-MS	Arsenic	8	8.0	--	0.3	0.87	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Metals by ICP-MS	Barium	460	460	--	0.061	2.2	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Metals by ICP-MS	Beryllium	0.24	0.24	J	0.017	0.87	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Metals by ICP-MS	Cadmium	9.9	9.9	--	0.0087	0.87	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Metals by ICP-MS	Chromium	34	34	--	0.36	2.2	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Metals by ICP-MS	Cobalt	6.7	6.7	--	0.0087	2.2	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Metals by ICP-MS	Copper	240	240	--	0.43	2.2	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Metals by ICP-MS	Iron	44,000	44,000	--	7.2	35	mg/Kg-dry-dry	5	15-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Metals by ICP-MS	Lead	860	860	--	0.087	22	mg/Kg-dry-dry	50	16-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Metals by ICP-MS	Manganese	460	460	--	0.19	2.2	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Metals by ICP-MS	Nickel	41	41	--	0.22	2.2	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Metals by ICP-MS	Selenium	--	U	U	0.28	1.7	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Metals by ICP-MS	Silver	1.2	1.2	--	0.0087	0.87	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Metals by ICP-MS	Thallium	0.065	0.065	J	0.052	2.2	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Metals by ICP-MS	Vanadium	13	13	--	0.13	2.2	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Metals by ICP-MS	Zinc	1,100	1,100	--	1.8	44	mg/Kg-dry-dry	50	16-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	Moisture	Moisture	17	17	H	0.025	0.05	% of sample	1	05-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	PCBs	Aroclor 1016	--	U	U	43	48	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	PCBs	Aroclor 1221	--	U	U	43	48	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	PCBs	Aroclor 1232	--	U	U	43	48	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	PCBs	Aroclor 1242	--	U	U	43	48	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	PCBs	Aroclor 1248	--	U	U	43	48	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	PCBs	Aroclor 1254	310	310	--	13	48	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032513-MJF-018	SB-12	1304246-18	25-Mar-13	Soil	PCBs	Aroclor 1260	--	U	U	13	48	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Cyanide, Total	Cyanide, Total	0.11	0.11	J	0.028	0.55	mg/Kg-dry-dry	1	10-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Mercury by CVAA	Mercury	0.025	0.025	--	0.00085	0.017	mg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Metals by ICP-MS	Aluminum	3,800	3,800	--	0.53	4.2	mg/Kg-dry-dry	5	15-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Metals by ICP-MS	Antimony	0.15	0.15	J	0.0085	2.1	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Metals by ICP-MS	Arsenic	4.1	4.1	--	0.29	0.85	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Metals by ICP-MS	Barium	21	21	--	0.059	2.1	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Metals by ICP-MS	Beryllium	0.21	0.21	J	0.017	0.85	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Metals by ICP-MS	Cadmium	0.18	0.18	J	0.0085	0.85	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Metals by ICP-MS	Chromium	8.2	8.2	--	0.35	2.1	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Metals by ICP-MS	Cobalt	2.6	2.6	--	0.0085	2.1	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Metals by ICP-MS	Copper	9.8	9.8	--	0.42	2.1	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Metals by ICP-MS	Iron	9,200	9,200	--	7.1	34	mg/Kg-dry-dry	5	15-Apr-13	2013

Table A-5
Pesticides, Herbicides, Metals and PCB Data for Shallow Soil in the Van Buren Landfill

Client Samp ID	Soil Bore	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Year
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Metals by ICP-MS	Lead	21	21	--	0.0085	2.1	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Metals by ICP-MS	Manganese	200	200	--	0.19	2.1	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Metals by ICP-MS	Nickel	7.3	7.3	--	0.21	2.1	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Metals by ICP-MS	Selenium	--	U	U	0.27	1.7	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Metals by ICP-MS	Silver	0.012	0.012	J	0.0085	0.85	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Metals by ICP-MS	Thallium	0.09	0.090	J	0.051	2.1	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Metals by ICP-MS	Vanadium	11	11	--	0.13	2.1	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Metals by ICP-MS	Zinc	34	34	--	0.18	4.2	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	Moisture	Moisture	9.7	9.7	H	0.025	0.05	% of sample	1	05-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	PCBs	Aroclor 1016	--	U	U	38	43	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	PCBs	Aroclor 1221	--	U	U	38	43	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	PCBs	Aroclor 1232	--	U	U	38	43	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	PCBs	Aroclor 1242	--	U	U	38	43	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	PCBs	Aroclor 1248	--	U	U	38	43	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	PCBs	Aroclor 1254	--	U	U	12	43	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-012	SB-9	1304246-12	26-Mar-13	Soil	PCBs	Aroclor 1260	--	U	U	12	43	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Cyanide, Total	Cyanide, Total	0.072	0.072	J	0.029	0.55	mg/Kg-dry-dry	1	10-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Mercury by CVAA	Mercury	0.025	0.025	--	0.00089	0.018	mg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Metals by ICP-MS	Aluminum	4,800	4,800	--	0.44	3.5	mg/Kg-dry-dry	5	15-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Metals by ICP-MS	Antimony	0.028	0.028	J	0.007	1.8	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Metals by ICP-MS	Arsenic	1.8	1.8	--	0.24	0.7	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Metals by ICP-MS	Barium	24	24	--	0.049	1.8	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Metals by ICP-MS	Beryllium	0.22	0.22	J	0.014	0.7	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Metals by ICP-MS	Cadmium	0.095	0.095	J	0.007	0.7	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Metals by ICP-MS	Chromium	7.1	7.1	--	0.29	1.8	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Metals by ICP-MS	Cobalt	1.7	1.7	J	0.007	1.8	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Metals by ICP-MS	Copper	2.9	2.9	--	0.34	1.8	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Metals by ICP-MS	Iron	8,200	8,200	--	5.9	28	mg/Kg-dry-dry	5	15-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Metals by ICP-MS	Lead	5	5.0	--	0.007	1.8	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Metals by ICP-MS	Manganese	86	86	--	0.15	1.8	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Metals by ICP-MS	Nickel	4.9	4.9	--	0.18	1.8	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Metals by ICP-MS	Selenium	--	U	U	0.23	1.4	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Metals by ICP-MS	Silver	0.008	0.0080	J	0.007	0.7	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Metals by ICP-MS	Thallium	--	U	U	0.042	1.8	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Metals by ICP-MS	Vanadium	11	11	--	0.11	1.8	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Metals by ICP-MS	Zinc	18	18	--	0.15	3.5	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	Moisture	Moisture	11	11	H	0.025	0.05	% of sample	1	05-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	PCBs	Aroclor 1016	--	U	U	38	42	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	PCBs	Aroclor 1221	--	U	U	38	42	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	PCBs	Aroclor 1232	--	U	U	38	42	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	PCBs	Aroclor 1242	--	U	U	38	42	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	PCBs	Aroclor 1248	--	U	U	38	42	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	PCBs	Aroclor 1254	--	U	U	12	42	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032613-MJF-016	SB-11	1304246-16	26-Mar-13	Soil	PCBs	Aroclor 1260	--	U	U	12	42	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Cyanide, Total	Cyanide, Total	0.075	0.075	J	0.03	0.58	mg/Kg-dry-dry	1	10-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Mercury by CVAA	Mercury	0.037	0.037	--	0.00081	0.016	mg/Kg-dry-dry	1	11-Apr-13	2013

Table A-5
Pesticides, Herbicides, Metals and PCB Data for Shallow Soil in the Van Buren Landfill

Client Samp ID	Soil Bore	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Year
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Metals by ICP-MS	Aluminum	5,600	5,600	--	0.53	4.2	mg/Kg-dry-dry	5	15-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Metals by ICP-MS	Antimony	0.19	0.19	J	0.0085	2.1	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Metals by ICP-MS	Arsenic	4.9	4.9	--	0.29	0.85	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Metals by ICP-MS	Barium	37	37	--	0.059	2.1	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Metals by ICP-MS	Beryllium	0.23	0.23	J	0.017	0.85	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Metals by ICP-MS	Cadmium	0.29	0.29	J	0.0085	0.85	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Metals by ICP-MS	Chromium	12	12	--	0.35	2.1	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Metals by ICP-MS	Cobalt	3.3	3.3	--	0.0085	2.1	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Metals by ICP-MS	Copper	8.4	8.4	--	0.41	2.1	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Metals by ICP-MS	Iron	12,000	12,000	--	7	34	mg/Kg-dry-dry	5	15-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Metals by ICP-MS	Lead	21	21	--	0.0085	2.1	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Metals by ICP-MS	Manganese	250	250	--	0.19	2.1	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Metals by ICP-MS	Nickel	8.9	8.9	--	0.21	2.1	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Metals by ICP-MS	Selenium	--	U	U	0.27	1.7	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Metals by ICP-MS	Silver	0.029	0.029	J	0.0085	0.85	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Metals by ICP-MS	Thallium	0.068	0.068	J	0.051	2.1	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Metals by ICP-MS	Vanadium	14	14	--	0.13	2.1	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Metals by ICP-MS	Zinc	43	43	--	0.18	4.2	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	Moisture	Moisture	14	14	H	0.025	0.05	% of sample	1	05-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	PCBs	Aroclor 1016	--	U	U	39	44	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	PCBs	Aroclor 1221	--	U	U	39	44	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	PCBs	Aroclor 1232	--	U	U	39	44	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	PCBs	Aroclor 1242	--	U	U	39	44	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	PCBs	Aroclor 1248	--	U	U	39	44	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	PCBs	Aroclor 1254	--	U	U	12	44	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-032813-MJF-011	SB-8	1304246-11	28-Mar-13	Soil	PCBs	Aroclor 1260	--	U	U	12	44	µg/Kg-dry-dry	1	09-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Cyanide, Total	Cyanide, Total	0.07	0.070	J	0.03	0.57	mg/Kg-dry-dry	1	10-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Mercury by CVAA	Mercury	0.027	0.027	--	0.00078	0.016	mg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Metals by ICP-MS	Aluminum	5,000	5,000	--	0.47	3.7	mg/Kg-dry-dry	5	15-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Metals by ICP-MS	Antimony	0.19	0.19	J	0.0074	1.9	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Metals by ICP-MS	Arsenic	11	11	--	0.25	0.74	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Metals by ICP-MS	Barium	27	27	--	0.052	1.9	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Metals by ICP-MS	Beryllium	0.32	0.32	J	0.015	0.74	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Metals by ICP-MS	Cadmium	0.23	0.23	J	0.0074	0.74	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Metals by ICP-MS	Chromium	8.8	8.8	--	0.3	1.9	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Metals by ICP-MS	Cobalt	3.6	3.6	--	0.0074	1.9	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Metals by ICP-MS	Copper	11	11	--	0.36	1.9	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Metals by ICP-MS	Iron	15,000	15,000	--	6.2	30	mg/Kg-dry-dry	5	15-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Metals by ICP-MS	Lead	16	16	--	0.0074	1.9	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Metals by ICP-MS	Manganese	380	380	--	0.16	1.9	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Metals by ICP-MS	Nickel	11	11	--	0.19	1.9	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Metals by ICP-MS	Selenium	0.32	0.32	J	0.24	1.5	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Metals by ICP-MS	Silver	0.021	0.021	J	0.0074	0.74	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Metals by ICP-MS	Thallium	0.13	0.13	J	0.044	1.9	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Metals by ICP-MS	Vanadium	16	16	--	0.11	1.9	mg/Kg-dry-dry	5	14-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Metals by ICP-MS	Zinc	34	34	--	0.16	3.7	mg/Kg-dry-dry	5	14-Apr-13	2013

Table A-5
Pesticides, Herbicides, Metals and PCB Data for Shallow Soil in the Van Buren Landfill

Client Samp ID	Soil Bore	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Year
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	Moisture	Moisture	12	12	--	0.025	0.05	% of sample	1	05-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	PCBs	Aroclor 1016	--	U	U	40	44	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	PCBs	Aroclor 1221	--	U	U	40	44	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	PCBs	Aroclor 1232	--	U	U	40	44	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	PCBs	Aroclor 1242	--	U	U	40	44	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	PCBs	Aroclor 1248	--	U	U	40	44	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	PCBs	Aroclor 1254	--	U	U	12	44	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-005	SB-5C	1304246-05	02-Apr-13	Soil	PCBs	Aroclor 1260	--	U	U	12	44	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Cyanide, Total	Cyanide, Total	0.065	0.065	J	0.029	0.56	mg/Kg-dry-dry	1	10-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Mercury by CVAA	Mercury	0.018	0.018	--	0.00082	0.016	mg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Metals by ICP-MS	Aluminum	5,100	5,100	--	0.48	3.8	mg/Kg-dry-dry	5	16-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Metals by ICP-MS	Antimony	0.16	0.16	J	0.0077	1.9	mg/Kg-dry-dry	5	16-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Metals by ICP-MS	Arsenic	5.3	5.3	--	0.26	0.77	mg/Kg-dry-dry	5	16-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Metals by ICP-MS	Barium	34	34	--	0.054	1.9	mg/Kg-dry-dry	5	16-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Metals by ICP-MS	Beryllium	0.26	0.26	J	0.015	0.77	mg/Kg-dry-dry	5	16-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Metals by ICP-MS	Cadmium	0.37	0.37	J	0.0077	0.77	mg/Kg-dry-dry	5	16-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Metals by ICP-MS	Chromium	9	9.0	--	0.32	1.9	mg/Kg-dry-dry	5	16-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Metals by ICP-MS	Cobalt	4.4	4.4	--	0.0077	1.9	mg/Kg-dry-dry	5	16-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Metals by ICP-MS	Copper	10	10	--	0.38	1.9	mg/Kg-dry-dry	5	16-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Metals by ICP-MS	Iron	11,000	11,000	--	6.4	31	mg/Kg-dry-dry	5	16-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Metals by ICP-MS	Lead	9.5	9.5	--	0.0077	1.9	mg/Kg-dry-dry	5	16-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Metals by ICP-MS	Manganese	260	260	--	0.17	1.9	mg/Kg-dry-dry	5	16-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Metals by ICP-MS	Nickel	12	12	--	0.19	1.9	mg/Kg-dry-dry	5	16-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Metals by ICP-MS	Selenium	--	U	U	0.25	1.5	mg/Kg-dry-dry	5	16-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Metals by ICP-MS	Silver	0.038	0.038	J	0.0077	0.77	mg/Kg-dry-dry	5	16-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Metals by ICP-MS	Thallium	0.17	0.17	J	0.046	1.9	mg/Kg-dry-dry	5	16-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Metals by ICP-MS	Vanadium	18	18	--	0.12	1.9	mg/Kg-dry-dry	5	16-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Metals by ICP-MS	Zinc	32	32	--	0.16	3.8	mg/Kg-dry-dry	5	16-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	Moisture	Moisture	12	12	--	0.025	0.05	% of sample	1	05-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	PCBs	Aroclor 1016	--	U	U	39	43	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	PCBs	Aroclor 1221	--	U	U	39	43	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	PCBs	Aroclor 1232	--	U	U	39	43	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	PCBs	Aroclor 1242	--	U	U	39	43	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	PCBs	Aroclor 1248	--	U	U	39	43	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	PCBs	Aroclor 1254	--	U	U	12	43	µg/Kg-dry-dry	1	11-Apr-13	2013
S-R2330009-040213-MJF-009	SB-7E	1304246-09	02-Apr-13	Soil	PCBs	Aroclor 1260	--	U	U	12	43	µg/Kg-dry-dry	1	11-Apr-13	2013

Notes

µg/Kg-dry = micrograms per kilogram-dry weight
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
RMDL = Recommended Method Detection Limit
SL = screening level
SVOC = Semi-Volatile Organic Compound

Qualifier Notes

H = Analyzed outside of Holding Time
J = Analyte is present at an estimated concentration between MDL and Report Limit
ND = Not Detected at the Reporting Limit
U = Analyzed but not detected above MDL

Table A-6
Volatile and Semivolatile Organic Compound Data for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	Rlimit	Runits	Dilution Factor	Anal Date	Cell	Zone	Year
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	1,1`-Biphenyl	520	520	J	50	3,300	µg/Kg-dry	10	12-Jan-15	5	Z5	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	1,1`-Biphenyl	25	25	J	4.8	320	µg/Kg-dry	1	06-Feb-15	23	Z1	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	1,1`-Biphenyl	23	23	J	5.3	32	µg/Kg-dry	1	04-Feb-15	18	Z9	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	1,1`-Biphenyl	22	22	J	4.9	320	µg/Kg-dry	1	06-Feb-15	24	Z1	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	1,1`-Biphenyl	16	16	J	4.8	320	µg/Kg-dry	1	06-Feb-15	17	Z9	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	1,1`-Biphenyl	--	U	U	49	3,300	µg/Kg-dry	10	12-Jan-15	10	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	1,1`-Biphenyl	--	U	U	49	3,200	µg/Kg-dry	10	13-Jan-15	11	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	1,1`-Biphenyl	--	U	U	50	3,300	µg/Kg-dry	10	12-Jan-15	12	Z7	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	1,1`-Biphenyl	--	U	U	24	1,600	µg/Kg-dry	5	06-Feb-15	13	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	1,1`-Biphenyl	--	U	U	4.9	330	µg/Kg-dry	1	05-Feb-15	14	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	1,1`-Biphenyl	--	U	U	4.9	330	µg/Kg-dry	1	06-Feb-15	15	Z8	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	1,1`-Biphenyl	--	U	U	25	1,600	µg/Kg-dry	5	06-Feb-15	16	Z9	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	1,1`-Biphenyl	--	U	U	4.9	330	µg/Kg-dry	1	05-Feb-15	19	Z2	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	1,1`-Biphenyl	--	U	U	5.4	33	µg/Kg-dry	1	13-Jan-15	1	Z3	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	1,1`-Biphenyl	--	U	U	4.9	330	µg/Kg-dry	1	06-Feb-15	20	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	1,1`-Biphenyl	--	U	U	5	330	µg/Kg-dry	1	05-Feb-15	21	Z2	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	1,1`-Biphenyl	--	U	U	4.9	320	µg/Kg-dry	1	06-Feb-15	22	Z1	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	1,1`-Biphenyl	--	U	U	4.9	320	µg/Kg-dry	1	06-Feb-15	25	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	1,1`-Biphenyl	--	U	U	4.8	320	µg/Kg-dry	1	06-Feb-15	26	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	1,1`-Biphenyl	--	U	U	4.9	330	µg/Kg-dry	1	05-Feb-15	27	Z10	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	1,1`-Biphenyl	--	U	U	4.8	320	µg/Kg-dry	1	06-Feb-15	28	Z4	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	1,1`-Biphenyl	--	U	U	54	330	µg/Kg-dry	10	09-Feb-15	29	Z4	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	1,1`-Biphenyl	--	U	U	4.9	330	µg/Kg-dry	1	13-Jan-15	2	Z3	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	1,1`-Biphenyl	--	U	U	54	330	µg/Kg-dry	10	09-Feb-15	30	Z4	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	1,1`-Biphenyl	--	U	U	5	330	µg/Kg-dry	1	13-Jan-15	3	Z3	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	1,1`-Biphenyl	--	U	U	49	3,200	µg/Kg-dry	10	12-Jan-15	4	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	1,1`-Biphenyl	--	U	U	49	3,300	µg/Kg-dry	10	12-Jan-15	6	Z5	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	1,1`-Biphenyl	--	U	U	49	3,300	µg/Kg-dry	10	12-Jan-15	7	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	1,1`-Biphenyl	--	U	U	48	3,200	µg/Kg-dry	10	12-Jan-15	8	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	1,1`-Biphenyl	--	U	U	48	3,200	µg/Kg-dry	10	12-Jan-15	9	Z6	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	82	1,600	µg/Kg-dry	10	12-Jan-15	10	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	81	1,600	µg/Kg-dry	10	13-Jan-15	11	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	83	1,600	µg/Kg-dry	10	12-Jan-15	12	Z7	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	41	780	µg/Kg-dry	5	06-Feb-15	13	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	8.2	160	µg/Kg-dry	1	05-Feb-15	14	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	8.2	160	µg/Kg-dry	1	06-Feb-15	15	Z8	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	41	790	µg/Kg-dry	5	06-Feb-15	16	Z9	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	8.1	160	µg/Kg-dry	1	06-Feb-15	17	Z9	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	8.9	32	µg/Kg-dry	1	04-Feb-15	18	Z9	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	8.3	160	µg/Kg-dry	1	05-Feb-15	19	Z2	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	9	33	µg/Kg-dry	1	13-Jan-15	1	Z3	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	8.2	160	µg/Kg-dry	1	06-Feb-15	20	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	8.3	160	µg/Kg-dry	1	05-Feb-15	21	Z2	2015

Table A-6
Volatile and Semivolatile Organic Compound Data for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	Rlimit	Runits	Dilution Factor	Anal Date	Cell	Zone	Year
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	8.1	160	µg/Kg-dry	1	06-Feb-15	22	Z1	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	8.1	160	µg/Kg-dry	1	06-Feb-15	23	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	8.2	160	µg/Kg-dry	1	06-Feb-15	24	Z1	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	8.2	160	µg/Kg-dry	1	06-Feb-15	25	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	8.1	160	µg/Kg-dry	1	06-Feb-15	26	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	8.2	160	µg/Kg-dry	1	05-Feb-15	27	Z10	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	8.1	160	µg/Kg-dry	1	06-Feb-15	28	Z4	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	90	330	µg/Kg-dry	10	09-Feb-15	29	Z4	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	8.2	160	µg/Kg-dry	1	13-Jan-15	2	Z3	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	90	330	µg/Kg-dry	10	09-Feb-15	30	Z4	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	8.3	160	µg/Kg-dry	1	13-Jan-15	3	Z3	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	81	1,600	µg/Kg-dry	10	12-Jan-15	4	Z5	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	83	1,600	µg/Kg-dry	10	12-Jan-15	5	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	82	1,600	µg/Kg-dry	10	12-Jan-15	6	Z5	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	82	1,600	µg/Kg-dry	10	12-Jan-15	7	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	81	1,600	µg/Kg-dry	10	12-Jan-15	8	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	81	1,600	µg/Kg-dry	10	12-Jan-15	9	Z6	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	55	1,600	µg/Kg-dry	10	12-Jan-15	10	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	55	1,600	µg/Kg-dry	10	13-Jan-15	11	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	56	1,600	µg/Kg-dry	10	12-Jan-15	12	Z7	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	27	780	µg/Kg-dry	5	06-Feb-15	13	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	5.5	160	µg/Kg-dry	1	05-Feb-15	14	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	5.6	160	µg/Kg-dry	1	06-Feb-15	15	Z8	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	28	790	µg/Kg-dry	5	06-Feb-15	16	Z9	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	5.5	160	µg/Kg-dry	1	06-Feb-15	17	Z9	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	8.6	32	µg/Kg-dry	1	04-Feb-15	18	Z9	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	5.6	160	µg/Kg-dry	1	05-Feb-15	19	Z2	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	8.8	33	µg/Kg-dry	1	13-Jan-15	1	Z3	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	5.6	160	µg/Kg-dry	1	06-Feb-15	20	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	5.6	160	µg/Kg-dry	1	05-Feb-15	21	Z2	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	5.5	160	µg/Kg-dry	1	06-Feb-15	22	Z1	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	5.4	160	µg/Kg-dry	1	06-Feb-15	23	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	5.5	160	µg/Kg-dry	1	06-Feb-15	24	Z1	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	5.5	160	µg/Kg-dry	1	06-Feb-15	25	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	5.5	160	µg/Kg-dry	1	06-Feb-15	26	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	5.5	160	µg/Kg-dry	1	05-Feb-15	27	Z10	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	5.5	160	µg/Kg-dry	1	06-Feb-15	28	Z4	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	88	330	µg/Kg-dry	10	09-Feb-15	29	Z4	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	5.6	160	µg/Kg-dry	1	13-Jan-15	2	Z3	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	88	330	µg/Kg-dry	10	09-Feb-15	30	Z4	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	5.6	160	µg/Kg-dry	1	13-Jan-15	3	Z3	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	55	1,600	µg/Kg-dry	10	12-Jan-15	4	Z5	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	56	1,600	µg/Kg-dry	10	12-Jan-15	5	Z5	2015

Table A-6
Volatile and Semivolatile Organic Compound Data for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	Rlimit	Runits	Dilution Factor	Anal Date	Cell	Zone	Year
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	55	1,600	µg/Kg-dry	10	12-Jan-15	6	Z5	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	55	1,600	µg/Kg-dry	10	12-Jan-15	7	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	55	1,600	µg/Kg-dry	10	12-Jan-15	8	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	55	1,600	µg/Kg-dry	10	12-Jan-15	9	Z6	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	96	1,600	µg/Kg-dry	10	12-Jan-15	10	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	95	1,600	µg/Kg-dry	10	13-Jan-15	11	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	97	1,600	µg/Kg-dry	10	12-Jan-15	12	Z7	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	48	780	µg/Kg-dry	5	06-Feb-15	13	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	9.6	160	µg/Kg-dry	1	05-Feb-15	14	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	9.6	160	µg/Kg-dry	1	06-Feb-15	15	Z8	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	48	790	µg/Kg-dry	5	06-Feb-15	16	Z9	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	9.5	160	µg/Kg-dry	1	06-Feb-15	17	Z9	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	6.8	32	µg/Kg-dry	1	04-Feb-15	18	Z9	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	9.7	160	µg/Kg-dry	1	05-Feb-15	19	Z2	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	7	33	µg/Kg-dry	1	13-Jan-15	1	Z3	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	9.6	160	µg/Kg-dry	1	06-Feb-15	20	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	9.7	160	µg/Kg-dry	1	05-Feb-15	21	Z2	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	9.5	160	µg/Kg-dry	1	06-Feb-15	22	Z1	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	9.4	160	µg/Kg-dry	1	06-Feb-15	23	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	9.5	160	µg/Kg-dry	1	06-Feb-15	24	Z1	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	9.5	160	µg/Kg-dry	1	06-Feb-15	25	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	9.4	160	µg/Kg-dry	1	06-Feb-15	26	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	9.6	160	µg/Kg-dry	1	05-Feb-15	27	Z10	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	9.4	160	µg/Kg-dry	1	06-Feb-15	28	Z4	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	69	330	µg/Kg-dry	10	09-Feb-15	29	Z4	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	9.6	160	µg/Kg-dry	1	13-Jan-15	2	Z3	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	70	330	µg/Kg-dry	10	09-Feb-15	30	Z4	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	9.7	160	µg/Kg-dry	1	13-Jan-15	3	Z3	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	95	1,600	µg/Kg-dry	10	12-Jan-15	4	Z5	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	97	1,600	µg/Kg-dry	10	12-Jan-15	5	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	96	1,600	µg/Kg-dry	10	12-Jan-15	6	Z5	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	96	1,600	µg/Kg-dry	10	12-Jan-15	7	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	95	1,600	µg/Kg-dry	10	12-Jan-15	8	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	95	1,600	µg/Kg-dry	10	12-Jan-15	9	Z6	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	530	3,300	µg/Kg-dry	10	12-Jan-15	10	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	520	3,200	µg/Kg-dry	10	13-Jan-15	11	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	530	3,300	µg/Kg-dry	10	12-Jan-15	12	Z7	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	260	1,600	µg/Kg-dry	5	06-Feb-15	13	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	53	330	µg/Kg-dry	1	05-Feb-15	14	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	53	330	µg/Kg-dry	1	06-Feb-15	15	Z8	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	260	1,600	µg/Kg-dry	5	06-Feb-15	16	Z9	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	52	320	µg/Kg-dry	1	06-Feb-15	17	Z9	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	6.6	32	µg/Kg-dry	1	04-Feb-15	18	Z9	2015

Table A-6
Volatile and Semivolatile Organic Compound Data for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	Rlimit	Runits	Dilution Factor	Anal Date	Cell	Zone	Year
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	53	330	µg/Kg-dry	1	05-Feb-15	19	Z2	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	6.8	33	µg/Kg-dry	1	13-Jan-15	1	Z3	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	53	330	µg/Kg-dry	1	06-Feb-15	20	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	54	330	µg/Kg-dry	1	05-Feb-15	21	Z2	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	52	320	µg/Kg-dry	1	06-Feb-15	22	Z1	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	52	320	µg/Kg-dry	1	06-Feb-15	23	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	53	320	µg/Kg-dry	1	06-Feb-15	24	Z1	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	52	320	µg/Kg-dry	1	06-Feb-15	25	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	52	320	µg/Kg-dry	1	06-Feb-15	26	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	53	330	µg/Kg-dry	1	05-Feb-15	27	Z10	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	52	320	µg/Kg-dry	1	06-Feb-15	28	Z4	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	67	330	µg/Kg-dry	10	09-Feb-15	29	Z4	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	53	330	µg/Kg-dry	1	13-Jan-15	2	Z3	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	68	330	µg/Kg-dry	10	09-Feb-15	30	Z4	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	53	330	µg/Kg-dry	1	13-Jan-15	3	Z3	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	520	3,200	µg/Kg-dry	10	12-Jan-15	4	Z5	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	530	3,300	µg/Kg-dry	10	12-Jan-15	5	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	530	3,300	µg/Kg-dry	10	12-Jan-15	6	Z5	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	530	3,300	µg/Kg-dry	10	12-Jan-15	7	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	520	3,200	µg/Kg-dry	10	12-Jan-15	8	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	520	3,200	µg/Kg-dry	10	12-Jan-15	9	Z6	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	300	6,500	µg/Kg-dry	10	12-Jan-15	10	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	290	6,500	µg/Kg-dry	10	13-Jan-15	11	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	300	6,600	µg/Kg-dry	10	12-Jan-15	12	Z7	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	150	3,200	µg/Kg-dry	5	06-Feb-15	13	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	30	650	µg/Kg-dry	1	05-Feb-15	14	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	30	650	µg/Kg-dry	1	06-Feb-15	15	Z8	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	150	3,300	µg/Kg-dry	5	06-Feb-15	16	Z9	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	29	640	µg/Kg-dry	1	06-Feb-15	17	Z9	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	18	32	µg/Kg-dry	1	04-Feb-15	18	Z9	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	30	660	µg/Kg-dry	1	05-Feb-15	19	Z2	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	18	33	µg/Kg-dry	1	13-Jan-15	1	Z3	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	30	650	µg/Kg-dry	1	06-Feb-15	20	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	30	660	µg/Kg-dry	1	05-Feb-15	21	Z2	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	29	650	µg/Kg-dry	1	06-Feb-15	22	Z1	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	29	640	µg/Kg-dry	1	06-Feb-15	23	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	30	650	µg/Kg-dry	1	06-Feb-15	24	Z1	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	29	650	µg/Kg-dry	1	06-Feb-15	25	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	29	640	µg/Kg-dry	1	06-Feb-15	26	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	30	650	µg/Kg-dry	1	05-Feb-15	27	Z10	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	29	640	µg/Kg-dry	1	06-Feb-15	28	Z4	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	180	330	µg/Kg-dry	10	09-Feb-15	29	Z4	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	30	650	µg/Kg-dry	1	13-Jan-15	2	Z3	2015

Table A-6
Volatile and Semivolatile Organic Compound Data for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	Rlimit	Runits	Dilution Factor	Anal Date	Cell	Zone	Year
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	180	330	µg/Kg-dry	10	09-Feb-15	30	Z4	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	30	660	µg/Kg-dry	1	13-Jan-15	3	Z3	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	290	6,500	µg/Kg-dry	10	12-Jan-15	4	Z5	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	300	6,600	µg/Kg-dry	10	12-Jan-15	5	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	300	6,500	µg/Kg-dry	10	12-Jan-15	6	Z5	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	300	6,500	µg/Kg-dry	10	12-Jan-15	7	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	290	6,400	µg/Kg-dry	10	12-Jan-15	8	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	290	6,400	µg/Kg-dry	10	12-Jan-15	9	Z6	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	110	1,600	µg/Kg-dry	10	12-Jan-15	10	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	100	1,600	µg/Kg-dry	10	13-Jan-15	11	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	110	1,600	µg/Kg-dry	10	12-Jan-15	12	Z7	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	52	780	µg/Kg-dry	5	06-Feb-15	13	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	10	160	µg/Kg-dry	1	05-Feb-15	14	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	11	160	µg/Kg-dry	1	06-Feb-15	15	Z8	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	53	790	µg/Kg-dry	5	06-Feb-15	16	Z9	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	10	160	µg/Kg-dry	1	06-Feb-15	17	Z9	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	8.5	32	µg/Kg-dry	1	04-Feb-15	18	Z9	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	11	160	µg/Kg-dry	1	05-Feb-15	19	Z2	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	8.6	33	µg/Kg-dry	1	13-Jan-15	1	Z3	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	11	160	µg/Kg-dry	1	06-Feb-15	20	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	11	160	µg/Kg-dry	1	05-Feb-15	21	Z2	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	10	160	µg/Kg-dry	1	06-Feb-15	22	Z1	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	10	160	µg/Kg-dry	1	06-Feb-15	23	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	10	160	µg/Kg-dry	1	06-Feb-15	24	Z1	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	10	160	µg/Kg-dry	1	06-Feb-15	25	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	10	160	µg/Kg-dry	1	06-Feb-15	26	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	11	160	µg/Kg-dry	1	05-Feb-15	27	Z10	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	10	160	µg/Kg-dry	1	06-Feb-15	28	Z4	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	86	330	µg/Kg-dry	10	09-Feb-15	29	Z4	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	11	160	µg/Kg-dry	1	13-Jan-15	2	Z3	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	86	330	µg/Kg-dry	10	09-Feb-15	30	Z4	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	11	160	µg/Kg-dry	1	13-Jan-15	3	Z3	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	100	1,600	µg/Kg-dry	10	12-Jan-15	4	Z5	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	110	1,600	µg/Kg-dry	10	12-Jan-15	5	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	110	1,600	µg/Kg-dry	10	12-Jan-15	6	Z5	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	110	1,600	µg/Kg-dry	10	12-Jan-15	7	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	100	1,600	µg/Kg-dry	10	12-Jan-15	8	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	100	1,600	µg/Kg-dry	10	12-Jan-15	9	Z6	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	170	1,600	µg/Kg-dry	10	12-Jan-15	10	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	170	1,600	µg/Kg-dry	10	13-Jan-15	11	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	170	1,600	µg/Kg-dry	10	12-Jan-15	12	Z7	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	85	780	µg/Kg-dry	5	06-Feb-15	13	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	17	160	µg/Kg-dry	1	05-Feb-15	14	Z8	2015

Table A-6
Volatile and Semivolatile Organic Compound Data for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	Rlimit	Runits	Dilution Factor	Anal Date	Cell	Zone	Year
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	17	160	µg/Kg-dry	1	06-Feb-15	15	Z8	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	85	790	µg/Kg-dry	5	06-Feb-15	16	Z9	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	17	160	µg/Kg-dry	1	06-Feb-15	17	Z9	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	5.4	32	µg/Kg-dry	1	04-Feb-15	18	Z9	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	17	160	µg/Kg-dry	1	05-Feb-15	19	Z2	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	5.5	33	µg/Kg-dry	1	13-Jan-15	1	Z3	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	17	160	µg/Kg-dry	1	06-Feb-15	20	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	17	160	µg/Kg-dry	1	05-Feb-15	21	Z2	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	17	160	µg/Kg-dry	1	06-Feb-15	22	Z1	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	17	160	µg/Kg-dry	1	06-Feb-15	23	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	17	160	µg/Kg-dry	1	06-Feb-15	24	Z1	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	17	160	µg/Kg-dry	1	06-Feb-15	25	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	17	160	µg/Kg-dry	1	06-Feb-15	26	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	17	160	µg/Kg-dry	1	05-Feb-15	27	Z10	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	17	160	µg/Kg-dry	1	06-Feb-15	28	Z4	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	54	330	µg/Kg-dry	10	09-Feb-15	29	Z4	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	17	160	µg/Kg-dry	1	13-Jan-15	2	Z3	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	55	330	µg/Kg-dry	10	09-Feb-15	30	Z4	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	17	160	µg/Kg-dry	1	13-Jan-15	3	Z3	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	170	1,600	µg/Kg-dry	10	12-Jan-15	4	Z5	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	170	1,600	µg/Kg-dry	10	12-Jan-15	5	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	170	1,600	µg/Kg-dry	10	12-Jan-15	6	Z5	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	170	1,600	µg/Kg-dry	10	12-Jan-15	7	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	170	1,600	µg/Kg-dry	10	12-Jan-15	8	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	170	1,600	µg/Kg-dry	10	12-Jan-15	9	Z6	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	15	790	µg/Kg-dry	10	12-Jan-15	10	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	15	780	µg/Kg-dry	10	13-Jan-15	11	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	16	800	µg/Kg-dry	10	12-Jan-15	12	Z7	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	7.7	33	µg/Kg-dry	5	06-Feb-15	13	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	1.5	6.6	µg/Kg-dry	1	05-Feb-15	14	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	1.6	6.6	µg/Kg-dry	1	06-Feb-15	15	Z8	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	7.8	33	µg/Kg-dry	5	06-Feb-15	16	Z9	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	1.5	6.5	µg/Kg-dry	1	06-Feb-15	17	Z9	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	4.5	6.5	µg/Kg-dry	1	04-Feb-15	18	Z9	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	1.6	6.6	µg/Kg-dry	1	05-Feb-15	19	Z2	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	4.6	6.6	µg/Kg-dry	1	13-Jan-15	1	Z3	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	1.6	6.6	µg/Kg-dry	1	06-Feb-15	20	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	1.6	6.7	µg/Kg-dry	1	05-Feb-15	21	Z2	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	1.5	6.5	µg/Kg-dry	1	06-Feb-15	22	Z1	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	1.5	6.5	µg/Kg-dry	1	06-Feb-15	23	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	1.5	6.6	µg/Kg-dry	1	06-Feb-15	24	Z1	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	1.5	6.5	µg/Kg-dry	1	06-Feb-15	25	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	1.5	6.5	µg/Kg-dry	1	06-Feb-15	26	Z10	2015

Table A-6
Volatile and Semivolatile Organic Compound Data for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	Rlimit	Runits	Dilution Factor	Anal Date	Cell	Zone	Year
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	1.6	6.6	µg/Kg-dry	1	05-Feb-15	27	Z10	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	1.5	6.5	µg/Kg-dry	1	06-Feb-15	28	Z4	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	46	66	µg/Kg-dry	10	09-Feb-15	29	Z4	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	1.6	79	µg/Kg-dry	1	13-Jan-15	2	Z3	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	46	66	µg/Kg-dry	10	09-Feb-15	30	Z4	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	1.6	80	µg/Kg-dry	1	13-Jan-15	3	Z3	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	15	780	µg/Kg-dry	10	12-Jan-15	4	Z5	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	16	800	µg/Kg-dry	10	12-Jan-15	5	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	15	790	µg/Kg-dry	10	12-Jan-15	6	Z5	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	15	790	µg/Kg-dry	10	12-Jan-15	7	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	15	780	µg/Kg-dry	10	12-Jan-15	8	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	15	780	µg/Kg-dry	10	12-Jan-15	9	Z6	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	99	1,600	µg/Kg-dry	10	12-Jan-15	10	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	98	1,600	µg/Kg-dry	10	13-Jan-15	11	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	100	1,600	µg/Kg-dry	10	12-Jan-15	12	Z7	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	49	780	µg/Kg-dry	5	06-Feb-15	13	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	9.9	160	µg/Kg-dry	1	05-Feb-15	14	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	9.9	160	µg/Kg-dry	1	06-Feb-15	15	Z8	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	50	790	µg/Kg-dry	5	06-Feb-15	16	Z9	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	9.8	160	µg/Kg-dry	1	06-Feb-15	17	Z9	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	10	32	µg/Kg-dry	1	04-Feb-15	18	Z9	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	10	160	µg/Kg-dry	1	05-Feb-15	19	Z2	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	10	33	µg/Kg-dry	1	13-Jan-15	1	Z3	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	9.9	160	µg/Kg-dry	1	06-Feb-15	20	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	10	160	µg/Kg-dry	1	05-Feb-15	21	Z2	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	9.8	160	µg/Kg-dry	1	06-Feb-15	22	Z1	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	9.7	160	µg/Kg-dry	1	06-Feb-15	23	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	9.9	160	µg/Kg-dry	1	06-Feb-15	24	Z1	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	9.8	160	µg/Kg-dry	1	06-Feb-15	25	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	9.8	160	µg/Kg-dry	1	06-Feb-15	26	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	9.9	160	µg/Kg-dry	1	05-Feb-15	27	Z10	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	9.8	160	µg/Kg-dry	1	06-Feb-15	28	Z4	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	100	330	µg/Kg-dry	10	09-Feb-15	29	Z4	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	9.9	160	µg/Kg-dry	1	13-Jan-15	2	Z3	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	100	330	µg/Kg-dry	10	09-Feb-15	30	Z4	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	10	160	µg/Kg-dry	1	13-Jan-15	3	Z3	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	98	1,600	µg/Kg-dry	10	12-Jan-15	4	Z5	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	100	1,600	µg/Kg-dry	10	12-Jan-15	5	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	99	1,600	µg/Kg-dry	10	12-Jan-15	6	Z5	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	99	1,600	µg/Kg-dry	10	12-Jan-15	7	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	98	1,600	µg/Kg-dry	10	12-Jan-15	8	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	98	1,600	µg/Kg-dry	10	12-Jan-15	9	Z6	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	850	850	--	28	800	µg/Kg-dry	10	12-Jan-15	5	Z5	2015

Table A-6
Volatile and Semivolatile Organic Compound Data for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	Rlimit	Runits	Dilution Factor	Anal Date	Cell	Zone	Year
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	590	590	J	28	800	µg/Kg-dry	10	12-Jan-15	12	Z7	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	380	380	J	27	790	µg/Kg-dry	10	12-Jan-15	6	Z5	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	330	330	J	27	790	µg/Kg-dry	10	12-Jan-15	10	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	200	200	J	27	780	µg/Kg-dry	10	13-Jan-15	11	Z7	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	130	130	J	27	780	µg/Kg-dry	10	12-Jan-15	4	Z5	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	100	100	J	27	790	µg/Kg-dry	10	12-Jan-15	7	Z6	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	87	87	--	2.7	6.5	µg/Kg-dry	1	06-Feb-15	23	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	80	80	--	2.7	6.6	µg/Kg-dry	1	06-Feb-15	24	Z1	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	75	75	J	27	780	µg/Kg-dry	10	12-Jan-15	9	Z6	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	60	60	J	34	66	µg/Kg-dry	10	09-Feb-15	30	Z4	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	53	53	--	2.7	6.6	µg/Kg-dry	1	06-Feb-15	15	Z8	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	49	49	J	34	66	µg/Kg-dry	10	09-Feb-15	29	Z4	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	45	45	--	2.7	6.5	µg/Kg-dry	1	06-Feb-15	17	Z9	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	41	41	--	14	33	µg/Kg-dry	5	06-Feb-15	16	Z9	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	39	39	--	2.7	6.5	µg/Kg-dry	1	06-Feb-15	28	Z4	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	38	38	--	2.7	6.5	µg/Kg-dry	1	06-Feb-15	22	Z1	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	36	36	--	14	33	µg/Kg-dry	5	06-Feb-15	13	Z8	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	35	35	--	3.3	6.5	µg/Kg-dry	1	04-Feb-15	18	Z9	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	34	34	J	2.8	80	µg/Kg-dry	1	13-Jan-15	3	Z3	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	18	18	--	2.7	6.6	µg/Kg-dry	1	05-Feb-15	14	Z8	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	13	13	--	3.4	6.6	µg/Kg-dry	1	13-Jan-15	1	Z3	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	12	12	--	2.8	6.7	µg/Kg-dry	1	05-Feb-15	21	Z2	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	8.2	8.2	--	2.7	6.6	µg/Kg-dry	1	05-Feb-15	27	Z10	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	7.6	7.6	--	2.8	6.6	µg/Kg-dry	1	05-Feb-15	19	Z2	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	7.2	7.2	--	2.7	6.5	µg/Kg-dry	1	06-Feb-15	25	Z10	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	6.9	6.9	--	2.7	6.6	µg/Kg-dry	1	06-Feb-15	20	Z2	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	6.8	6.8	--	2.7	6.5	µg/Kg-dry	1	06-Feb-15	26	Z10	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	5.9	5.9	J	2.7	79	µg/Kg-dry	1	13-Jan-15	2	Z3	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	--	U	U	27	780	µg/Kg-dry	10	12-Jan-15	8	Z6	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	130	1,600	µg/Kg-dry	10	12-Jan-15	10	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	130	1,600	µg/Kg-dry	10	13-Jan-15	11	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	140	1,600	µg/Kg-dry	10	12-Jan-15	12	Z7	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	66	780	µg/Kg-dry	5	06-Feb-15	13	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	13	160	µg/Kg-dry	1	05-Feb-15	14	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	13	160	µg/Kg-dry	1	06-Feb-15	15	Z8	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	67	790	µg/Kg-dry	5	06-Feb-15	16	Z9	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	13	160	µg/Kg-dry	1	06-Feb-15	17	Z9	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	8.8	32	µg/Kg-dry	1	04-Feb-15	18	Z9	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	14	160	µg/Kg-dry	1	05-Feb-15	19	Z2	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	9	33	µg/Kg-dry	1	13-Jan-15	1	Z3	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	13	160	µg/Kg-dry	1	06-Feb-15	20	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	14	160	µg/Kg-dry	1	05-Feb-15	21	Z2	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	13	160	µg/Kg-dry	1	06-Feb-15	22	Z1	2015

Table A-6
Volatile and Semivolatile Organic Compound Data for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	Rlimit	Runits	Dilution Factor	Anal Date	Cell	Zone	Year
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	13	160	µg/Kg-dry	1	06-Feb-15	23	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	13	160	µg/Kg-dry	1	06-Feb-15	24	Z1	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	13	160	µg/Kg-dry	1	06-Feb-15	25	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	13	160	µg/Kg-dry	1	06-Feb-15	26	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	13	160	µg/Kg-dry	1	05-Feb-15	27	Z10	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	13	160	µg/Kg-dry	1	06-Feb-15	28	Z4	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	89	330	µg/Kg-dry	10	09-Feb-15	29	Z4	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	13	160	µg/Kg-dry	1	13-Jan-15	2	Z3	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	90	330	µg/Kg-dry	10	09-Feb-15	30	Z4	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	14	160	µg/Kg-dry	1	13-Jan-15	3	Z3	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	130	1,600	µg/Kg-dry	10	12-Jan-15	4	Z5	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	140	1,600	µg/Kg-dry	10	12-Jan-15	5	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	130	1,600	µg/Kg-dry	10	12-Jan-15	6	Z5	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	130	1,600	µg/Kg-dry	10	12-Jan-15	7	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	130	1,600	µg/Kg-dry	10	12-Jan-15	8	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	130	1,600	µg/Kg-dry	10	12-Jan-15	9	Z6	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	130	6,500	µg/Kg-dry	10	12-Jan-15	10	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	130	6,500	µg/Kg-dry	10	13-Jan-15	11	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	130	6,600	µg/Kg-dry	10	12-Jan-15	12	Z7	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	63	3,200	µg/Kg-dry	5	06-Feb-15	13	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	13	650	µg/Kg-dry	1	05-Feb-15	14	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	13	650	µg/Kg-dry	1	06-Feb-15	15	Z8	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	64	3,300	µg/Kg-dry	5	06-Feb-15	16	Z9	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	13	640	µg/Kg-dry	1	06-Feb-15	17	Z9	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	7.4	32	µg/Kg-dry	1	04-Feb-15	18	Z9	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	13	660	µg/Kg-dry	1	05-Feb-15	19	Z2	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	7.6	33	µg/Kg-dry	1	13-Jan-15	1	Z3	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	13	650	µg/Kg-dry	1	06-Feb-15	20	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	13	660	µg/Kg-dry	1	05-Feb-15	21	Z2	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	13	650	µg/Kg-dry	1	06-Feb-15	22	Z1	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	13	640	µg/Kg-dry	1	06-Feb-15	23	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	13	650	µg/Kg-dry	1	06-Feb-15	24	Z1	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	13	650	µg/Kg-dry	1	06-Feb-15	25	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	13	640	µg/Kg-dry	1	06-Feb-15	26	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	13	650	µg/Kg-dry	1	05-Feb-15	27	Z10	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	13	640	µg/Kg-dry	1	06-Feb-15	28	Z4	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	76	330	µg/Kg-dry	10	09-Feb-15	29	Z4	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	13	650	µg/Kg-dry	1	13-Jan-15	2	Z3	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	76	330	µg/Kg-dry	10	09-Feb-15	30	Z4	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	13	660	µg/Kg-dry	1	13-Jan-15	3	Z3	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	130	6,500	µg/Kg-dry	10	12-Jan-15	4	Z5	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	130	6,600	µg/Kg-dry	10	12-Jan-15	5	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	130	6,500	µg/Kg-dry	10	12-Jan-15	6	Z5	2015

Table A-6
Volatile and Semivolatile Organic Compound Data for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	Rlimit	Runits	Dilution Factor	Anal Date	Cell	Zone	Year
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	130	6,500	µg/Kg-dry	10	12-Jan-15	7	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	130	6,400	µg/Kg-dry	10	12-Jan-15	8	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	130	6,400	µg/Kg-dry	10	12-Jan-15	9	Z6	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	110	1,600	µg/Kg-dry	10	12-Jan-15	10	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	110	1,600	µg/Kg-dry	10	13-Jan-15	11	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	110	1,600	µg/Kg-dry	10	12-Jan-15	12	Z7	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	55	780	µg/Kg-dry	5	06-Feb-15	13	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	11	160	µg/Kg-dry	1	05-Feb-15	14	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	11	160	µg/Kg-dry	1	06-Feb-15	15	Z8	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	56	790	µg/Kg-dry	5	06-Feb-15	16	Z9	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	11	160	µg/Kg-dry	1	06-Feb-15	17	Z9	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	9.3	32	µg/Kg-dry	1	04-Feb-15	18	Z9	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	11	160	µg/Kg-dry	1	05-Feb-15	19	Z2	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	9.4	33	µg/Kg-dry	1	13-Jan-15	1	Z3	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	11	160	µg/Kg-dry	1	06-Feb-15	20	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	11	160	µg/Kg-dry	1	05-Feb-15	21	Z2	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	11	160	µg/Kg-dry	1	06-Feb-15	22	Z1	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	11	160	µg/Kg-dry	1	06-Feb-15	23	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	11	160	µg/Kg-dry	1	06-Feb-15	24	Z1	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	11	160	µg/Kg-dry	1	06-Feb-15	25	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	11	160	µg/Kg-dry	1	06-Feb-15	26	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	11	160	µg/Kg-dry	1	05-Feb-15	27	Z10	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	11	160	µg/Kg-dry	1	06-Feb-15	28	Z4	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	94	330	µg/Kg-dry	10	09-Feb-15	29	Z4	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	11	160	µg/Kg-dry	1	13-Jan-15	2	Z3	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	94	330	µg/Kg-dry	10	09-Feb-15	30	Z4	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	11	160	µg/Kg-dry	1	13-Jan-15	3	Z3	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	110	1,600	µg/Kg-dry	10	12-Jan-15	4	Z5	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	110	1,600	µg/Kg-dry	10	12-Jan-15	5	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	110	1,600	µg/Kg-dry	10	12-Jan-15	6	Z5	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	110	1,600	µg/Kg-dry	10	12-Jan-15	7	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	110	1,600	µg/Kg-dry	10	12-Jan-15	8	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	110	1,600	µg/Kg-dry	10	12-Jan-15	9	Z6	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	3&4-Methylphenol	61	61	J	16	160	µg/Kg-dry	1	06-Feb-15	17	Z9	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	3&4-Methylphenol	52	52	--	6.5	32	µg/Kg-dry	1	04-Feb-15	18	Z9	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	3&4-Methylphenol	28	28	J	16	160	µg/Kg-dry	1	05-Feb-15	27	Z10	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	3&4-Methylphenol	25	25	J	16	160	µg/Kg-dry	1	06-Feb-15	22	Z1	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	3&4-Methylphenol	18	18	J	16	160	µg/Kg-dry	1	06-Feb-15	26	Z10	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	3&4-Methylphenol	17	17	J	16	160	µg/Kg-dry	1	05-Feb-15	14	Z8	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	3&4-Methylphenol	17	17	J	16	160	µg/Kg-dry	1	06-Feb-15	25	Z10	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	3&4-Methylphenol	--	U	U	160	--	µg/Kg-dry	10	12-Jan-15	10	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	3&4-Methylphenol	--	U	U	160	--	µg/Kg-dry	10	13-Jan-15	11	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	3&4-Methylphenol	--	U	U	160	--	µg/Kg-dry	10	12-Jan-15	12	Z7	2015

Table A-6
Volatile and Semivolatile Organic Compound Data for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	Rlimit	Runits	Dilution Factor	Anal Date	Cell	Zone	Year
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	3&4-Methylphenol	--	U	U	78	780	µg/Kg-dry	5	06-Feb-15	13	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	3&4-Methylphenol	--	U	U	16	160	µg/Kg-dry	1	06-Feb-15	15	Z8	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	3&4-Methylphenol	--	U	U	79	790	µg/Kg-dry	5	06-Feb-15	16	Z9	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	3&4-Methylphenol	--	U	U	16	160	µg/Kg-dry	1	05-Feb-15	19	Z2	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	3&4-Methylphenol	--	U	U	6.7	33	µg/Kg-dry	1	13-Jan-15	1	Z3	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	3&4-Methylphenol	--	U	U	16	160	µg/Kg-dry	1	06-Feb-15	20	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	3&4-Methylphenol	--	U	U	16	160	µg/Kg-dry	1	05-Feb-15	21	Z2	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	3&4-Methylphenol	--	U	U	15	160	µg/Kg-dry	1	06-Feb-15	23	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	3&4-Methylphenol	--	U	U	16	160	µg/Kg-dry	1	06-Feb-15	24	Z1	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	3&4-Methylphenol	--	U	U	16	160	µg/Kg-dry	1	06-Feb-15	28	Z4	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	3&4-Methylphenol	--	U	U	66	330	µg/Kg-dry	10	09-Feb-15	29	Z4	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	3&4-Methylphenol	--	U	U	16	--	µg/Kg-dry	1	13-Jan-15	2	Z3	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	3&4-Methylphenol	--	U	U	67	330	µg/Kg-dry	10	09-Feb-15	30	Z4	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	3&4-Methylphenol	--	U	U	16	--	µg/Kg-dry	1	13-Jan-15	3	Z3	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	3&4-Methylphenol	--	U	U	160	--	µg/Kg-dry	10	12-Jan-15	4	Z5	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	3&4-Methylphenol	--	U	U	160	--	µg/Kg-dry	10	12-Jan-15	5	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	3&4-Methylphenol	--	U	U	160	--	µg/Kg-dry	10	12-Jan-15	6	Z5	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	3&4-Methylphenol	--	U	U	160	--	µg/Kg-dry	10	12-Jan-15	7	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	3&4-Methylphenol	--	U	U	160	--	µg/Kg-dry	10	12-Jan-15	8	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	3&4-Methylphenol	--	U	U	160	--	µg/Kg-dry	10	12-Jan-15	9	Z6	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	4,100	6,500	µg/Kg-dry	10	12-Jan-15	10	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	4,000	6,500	µg/Kg-dry	10	13-Jan-15	11	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	4,100	6,600	µg/Kg-dry	10	12-Jan-15	12	Z7	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	2,000	3,200	µg/Kg-dry	5	06-Feb-15	13	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	410	650	µg/Kg-dry	1	05-Feb-15	14	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	410	650	µg/Kg-dry	1	06-Feb-15	15	Z8	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	2,000	3,300	µg/Kg-dry	5	06-Feb-15	16	Z9	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	400	640	µg/Kg-dry	1	06-Feb-15	17	Z9	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	4.8	160	µg/Kg-dry	1	04-Feb-15	18	Z9	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	410	660	µg/Kg-dry	1	05-Feb-15	19	Z2	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	4.9	170	µg/Kg-dry	1	13-Jan-15	1	Z3	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	410	650	µg/Kg-dry	1	06-Feb-15	20	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	410	660	µg/Kg-dry	1	05-Feb-15	21	Z2	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	400	650	µg/Kg-dry	1	06-Feb-15	22	Z1	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	400	640	µg/Kg-dry	1	06-Feb-15	23	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	410	650	µg/Kg-dry	1	06-Feb-15	24	Z1	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	400	650	µg/Kg-dry	1	06-Feb-15	25	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	400	640	µg/Kg-dry	1	06-Feb-15	26	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	410	650	µg/Kg-dry	1	05-Feb-15	27	Z10	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	400	640	µg/Kg-dry	1	06-Feb-15	28	Z4	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	49	1,700	µg/Kg-dry	10	09-Feb-15	29	Z4	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	410	650	µg/Kg-dry	1	13-Jan-15	2	Z3	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	49	1,700	µg/Kg-dry	10	09-Feb-15	30	Z4	2015

Table A-6
Volatile and Semivolatile Organic Compound Data for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	Rlimit	Runits	Dilution Factor	Anal Date	Cell	Zone	Year
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	410	660	µg/Kg-dry	1	13-Jan-15	3	Z3	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	4,000	6,500	µg/Kg-dry	10	12-Jan-15	4	Z5	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	4,100	6,600	µg/Kg-dry	10	12-Jan-15	5	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	4,100	6,500	µg/Kg-dry	10	12-Jan-15	6	Z5	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	4,100	6,500	µg/Kg-dry	10	12-Jan-15	7	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	4,000	6,400	µg/Kg-dry	10	12-Jan-15	8	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	4,000	6,400	µg/Kg-dry	10	12-Jan-15	9	Z6	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	110	6,500	µg/Kg-dry	10	12-Jan-15	10	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	110	6,500	µg/Kg-dry	10	13-Jan-15	11	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	110	6,600	µg/Kg-dry	10	12-Jan-15	12	Z7	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	55	3,200	µg/Kg-dry	5	06-Feb-15	13	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	11	650	µg/Kg-dry	1	05-Feb-15	14	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	11	650	µg/Kg-dry	1	06-Feb-15	15	Z8	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	56	3,300	µg/Kg-dry	5	06-Feb-15	16	Z9	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	11	640	µg/Kg-dry	1	06-Feb-15	17	Z9	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	7.4	32	µg/Kg-dry	1	04-Feb-15	18	Z9	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	11	660	µg/Kg-dry	1	05-Feb-15	19	Z2	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	7.6	33	µg/Kg-dry	1	13-Jan-15	1	Z3	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	11	650	µg/Kg-dry	1	06-Feb-15	20	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	11	660	µg/Kg-dry	1	05-Feb-15	21	Z2	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	11	650	µg/Kg-dry	1	06-Feb-15	22	Z1	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	11	640	µg/Kg-dry	1	06-Feb-15	23	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	11	650	µg/Kg-dry	1	06-Feb-15	24	Z1	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	11	650	µg/Kg-dry	1	06-Feb-15	25	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	11	640	µg/Kg-dry	1	06-Feb-15	26	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	11	650	µg/Kg-dry	1	05-Feb-15	27	Z10	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	11	640	µg/Kg-dry	1	06-Feb-15	28	Z4	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	76	330	µg/Kg-dry	10	09-Feb-15	29	Z4	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	11	650	µg/Kg-dry	1	13-Jan-15	2	Z3	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	76	330	µg/Kg-dry	10	09-Feb-15	30	Z4	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	11	660	µg/Kg-dry	1	13-Jan-15	3	Z3	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	110	6,500	µg/Kg-dry	10	12-Jan-15	4	Z5	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	110	6,600	µg/Kg-dry	10	12-Jan-15	5	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	110	6,500	µg/Kg-dry	10	12-Jan-15	6	Z5	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	110	6,500	µg/Kg-dry	10	12-Jan-15	7	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	110	6,400	µg/Kg-dry	10	12-Jan-15	8	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	110	6,400	µg/Kg-dry	10	12-Jan-15	9	Z6	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	270	3,300	µg/Kg-dry	10	12-Jan-15	10	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	270	3,200	µg/Kg-dry	10	13-Jan-15	11	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	280	3,300	µg/Kg-dry	10	12-Jan-15	12	Z7	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	140	1,600	µg/Kg-dry	5	06-Feb-15	13	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	27	330	µg/Kg-dry	1	05-Feb-15	14	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	27	330	µg/Kg-dry	1	06-Feb-15	15	Z8	2015

Table A-6
Volatile and Semivolatile Organic Compound Data for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	Rlimit	Runits	Dilution Factor	Anal Date	Cell	Zone	Year
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	140	1,600	µg/Kg-dry	5	06-Feb-15	16	Z9	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	27	320	µg/Kg-dry	1	06-Feb-15	17	Z9	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	8.2	32	µg/Kg-dry	1	04-Feb-15	18	Z9	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	28	330	µg/Kg-dry	1	05-Feb-15	19	Z2	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	8.3	33	µg/Kg-dry	1	13-Jan-15	1	Z3	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	27	330	µg/Kg-dry	1	06-Feb-15	20	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	28	330	µg/Kg-dry	1	05-Feb-15	21	Z2	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	27	320	µg/Kg-dry	1	06-Feb-15	22	Z1	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	27	320	µg/Kg-dry	1	06-Feb-15	23	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	27	320	µg/Kg-dry	1	06-Feb-15	24	Z1	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	27	320	µg/Kg-dry	1	06-Feb-15	25	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	27	320	µg/Kg-dry	1	06-Feb-15	26	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	27	330	µg/Kg-dry	1	05-Feb-15	27	Z10	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	27	320	µg/Kg-dry	1	06-Feb-15	28	Z4	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	83	330	µg/Kg-dry	10	09-Feb-15	29	Z4	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	27	330	µg/Kg-dry	1	13-Jan-15	2	Z3	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	83	330	µg/Kg-dry	10	09-Feb-15	30	Z4	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	28	330	µg/Kg-dry	1	13-Jan-15	3	Z3	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	270	3,200	µg/Kg-dry	10	12-Jan-15	4	Z5	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	280	3,300	µg/Kg-dry	10	12-Jan-15	5	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	270	3,300	µg/Kg-dry	10	12-Jan-15	6	Z5	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	270	3,300	µg/Kg-dry	10	12-Jan-15	7	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	270	3,200	µg/Kg-dry	10	12-Jan-15	8	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	270	3,200	µg/Kg-dry	10	12-Jan-15	9	Z6	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	89	1,600	µg/Kg-dry	10	12-Jan-15	10	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	88	1,600	µg/Kg-dry	10	13-Jan-15	11	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	90	1,600	µg/Kg-dry	10	12-Jan-15	12	Z7	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	44	780	µg/Kg-dry	5	06-Feb-15	13	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	8.9	160	µg/Kg-dry	1	05-Feb-15	14	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	8.9	160	µg/Kg-dry	1	06-Feb-15	15	Z8	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	45	790	µg/Kg-dry	5	06-Feb-15	16	Z9	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	8.8	160	µg/Kg-dry	1	06-Feb-15	17	Z9	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	8.7	32	µg/Kg-dry	1	04-Feb-15	18	Z9	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	9	160	µg/Kg-dry	1	05-Feb-15	19	Z2	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	8.9	33	µg/Kg-dry	1	13-Jan-15	1	Z3	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	8.9	160	µg/Kg-dry	1	06-Feb-15	20	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	9	160	µg/Kg-dry	1	05-Feb-15	21	Z2	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	8.8	160	µg/Kg-dry	1	06-Feb-15	22	Z1	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	8.8	160	µg/Kg-dry	1	06-Feb-15	23	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	8.9	160	µg/Kg-dry	1	06-Feb-15	24	Z1	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	8.8	160	µg/Kg-dry	1	06-Feb-15	25	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	8.8	160	µg/Kg-dry	1	06-Feb-15	26	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	8.9	160	µg/Kg-dry	1	05-Feb-15	27	Z10	2015

Table A-6
Volatile and Semivolatile Organic Compound Data for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	Rlimit	Runits	Dilution Factor	Anal Date	Cell	Zone	Year
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	8.8	160	µg/Kg-dry	1	06-Feb-15	28	Z4	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	89	330	µg/Kg-dry	10	09-Feb-15	29	Z4	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	8.9	160	µg/Kg-dry	1	13-Jan-15	2	Z3	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	89	330	µg/Kg-dry	10	09-Feb-15	30	Z4	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	9	160	µg/Kg-dry	1	13-Jan-15	3	Z3	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	88	1,600	µg/Kg-dry	10	12-Jan-15	4	Z5	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	90	1,600	µg/Kg-dry	10	12-Jan-15	5	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	89	1,600	µg/Kg-dry	10	12-Jan-15	6	Z5	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	89	1,600	µg/Kg-dry	10	12-Jan-15	7	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	88	1,600	µg/Kg-dry	10	12-Jan-15	8	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	88	1,600	µg/Kg-dry	10	12-Jan-15	9	Z6	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	76	1,600	µg/Kg-dry	10	12-Jan-15	10	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	75	1,600	µg/Kg-dry	10	13-Jan-15	11	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	77	1,600	µg/Kg-dry	10	12-Jan-15	12	Z7	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	38	780	µg/Kg-dry	5	06-Feb-15	13	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	7.6	160	µg/Kg-dry	1	05-Feb-15	14	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	7.6	160	µg/Kg-dry	1	06-Feb-15	15	Z8	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	38	790	µg/Kg-dry	5	06-Feb-15	16	Z9	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	7.5	160	µg/Kg-dry	1	06-Feb-15	17	Z9	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	9.3	32	µg/Kg-dry	1	04-Feb-15	18	Z9	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	7.7	160	µg/Kg-dry	1	05-Feb-15	19	Z2	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	9.4	33	µg/Kg-dry	1	13-Jan-15	1	Z3	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	7.6	160	µg/Kg-dry	1	06-Feb-15	20	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	7.7	160	µg/Kg-dry	1	05-Feb-15	21	Z2	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	7.6	160	µg/Kg-dry	1	06-Feb-15	22	Z1	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	7.5	160	µg/Kg-dry	1	06-Feb-15	23	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	7.6	160	µg/Kg-dry	1	06-Feb-15	24	Z1	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	7.6	160	µg/Kg-dry	1	06-Feb-15	25	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	7.5	160	µg/Kg-dry	1	06-Feb-15	26	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	7.6	160	µg/Kg-dry	1	05-Feb-15	27	Z10	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	7.5	160	µg/Kg-dry	1	06-Feb-15	28	Z4	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	94	330	µg/Kg-dry	10	09-Feb-15	29	Z4	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	7.6	160	µg/Kg-dry	1	13-Jan-15	2	Z3	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	94	330	µg/Kg-dry	10	09-Feb-15	30	Z4	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	7.7	160	µg/Kg-dry	1	13-Jan-15	3	Z3	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	75	1,600	µg/Kg-dry	10	12-Jan-15	4	Z5	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	77	1,600	µg/Kg-dry	10	12-Jan-15	5	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	76	1,600	µg/Kg-dry	10	12-Jan-15	6	Z5	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	76	1,600	µg/Kg-dry	10	12-Jan-15	7	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	75	1,600	µg/Kg-dry	10	12-Jan-15	8	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	75	1,600	µg/Kg-dry	10	12-Jan-15	9	Z6	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	370	370	J	52	660	µg/Kg-dry	10	09-Feb-15	29	Z4	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	360	360	J	52	670	µg/Kg-dry	10	09-Feb-15	30	Z4	2015

Table A-6
Volatile and Semivolatile Organic Compound Data for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	Rlimit	Runits	Dilution Factor	Anal Date	Cell	Zone	Year
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	98	3,300	µg/Kg-dry	10	12-Jan-15	10	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	97	3,200	µg/Kg-dry	10	13-Jan-15	11	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	99	3,300	µg/Kg-dry	10	12-Jan-15	12	Z7	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	49	3,200	µg/Kg-dry	5	06-Feb-15	13	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	9.8	650	µg/Kg-dry	1	05-Feb-15	14	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	9.8	650	µg/Kg-dry	1	06-Feb-15	15	Z8	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	49	3,300	µg/Kg-dry	5	06-Feb-15	16	Z9	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	9.7	640	µg/Kg-dry	1	06-Feb-15	17	Z9	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	5.1	65	µg/Kg-dry	1	04-Feb-15	18	Z9	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	9.9	660	µg/Kg-dry	1	05-Feb-15	19	Z2	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	5.2	67	µg/Kg-dry	1	13-Jan-15	1	Z3	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	9.8	650	µg/Kg-dry	1	06-Feb-15	20	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	10	660	µg/Kg-dry	1	05-Feb-15	21	Z2	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	9.7	650	µg/Kg-dry	1	06-Feb-15	22	Z1	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	9.6	640	µg/Kg-dry	1	06-Feb-15	23	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	9.8	650	µg/Kg-dry	1	06-Feb-15	24	Z1	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	9.7	650	µg/Kg-dry	1	06-Feb-15	25	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	9.7	640	µg/Kg-dry	1	06-Feb-15	26	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	9.8	650	µg/Kg-dry	1	05-Feb-15	27	Z10	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	9.7	640	µg/Kg-dry	1	06-Feb-15	28	Z4	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	9.8	330	µg/Kg-dry	1	13-Jan-15	2	Z3	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	9.9	330	µg/Kg-dry	1	13-Jan-15	3	Z3	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	97	3,200	µg/Kg-dry	10	12-Jan-15	4	Z5	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	99	3,300	µg/Kg-dry	10	12-Jan-15	5	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	98	3,300	µg/Kg-dry	10	12-Jan-15	6	Z5	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	98	3,300	µg/Kg-dry	10	12-Jan-15	7	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	97	3,200	µg/Kg-dry	10	12-Jan-15	8	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	97	3,200	µg/Kg-dry	10	12-Jan-15	9	Z6	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	96	1,600	µg/Kg-dry	10	12-Jan-15	10	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	96	1,600	µg/Kg-dry	10	13-Jan-15	11	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	98	1,600	µg/Kg-dry	10	12-Jan-15	12	Z7	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	48	780	µg/Kg-dry	5	06-Feb-15	13	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	9.6	160	µg/Kg-dry	1	05-Feb-15	14	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	9.7	160	µg/Kg-dry	1	06-Feb-15	15	Z8	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	48	790	µg/Kg-dry	5	06-Feb-15	16	Z9	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	9.5	160	µg/Kg-dry	1	06-Feb-15	17	Z9	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	9	32	µg/Kg-dry	1	04-Feb-15	18	Z9	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	9.7	160	µg/Kg-dry	1	05-Feb-15	19	Z2	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	9.2	33	µg/Kg-dry	1	13-Jan-15	1	Z3	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	9.7	160	µg/Kg-dry	1	06-Feb-15	20	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	9.8	160	µg/Kg-dry	1	05-Feb-15	21	Z2	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	9.6	160	µg/Kg-dry	1	06-Feb-15	22	Z1	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	9.5	160	µg/Kg-dry	1	06-Feb-15	23	Z1	2015

Table A-6
Volatile and Semivolatile Organic Compound Data for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	Rlimit	Runits	Dilution Factor	Anal Date	Cell	Zone	Year
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	9.6	160	µg/Kg-dry	1	06-Feb-15	24	Z1	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	9.6	160	µg/Kg-dry	1	06-Feb-15	25	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	9.5	160	µg/Kg-dry	1	06-Feb-15	26	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	9.7	160	µg/Kg-dry	1	05-Feb-15	27	Z10	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	9.5	160	µg/Kg-dry	1	06-Feb-15	28	Z4	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	91	330	µg/Kg-dry	10	09-Feb-15	29	Z4	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	9.7	160	µg/Kg-dry	1	13-Jan-15	2	Z3	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	92	330	µg/Kg-dry	10	09-Feb-15	30	Z4	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	9.8	160	µg/Kg-dry	1	13-Jan-15	3	Z3	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	96	1,600	µg/Kg-dry	10	12-Jan-15	4	Z5	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	97	1,600	µg/Kg-dry	10	12-Jan-15	5	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	96	1,600	µg/Kg-dry	10	12-Jan-15	6	Z5	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	96	1,600	µg/Kg-dry	10	12-Jan-15	7	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	95	1,600	µg/Kg-dry	10	12-Jan-15	8	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	95	1,600	µg/Kg-dry	10	12-Jan-15	9	Z6	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	91	6,500	µg/Kg-dry	10	12-Jan-15	10	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	90	6,500	µg/Kg-dry	10	13-Jan-15	11	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	92	6,600	µg/Kg-dry	10	12-Jan-15	12	Z7	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	45	3,200	µg/Kg-dry	5	06-Feb-15	13	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	9.1	650	µg/Kg-dry	1	05-Feb-15	14	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	9.1	650	µg/Kg-dry	1	06-Feb-15	15	Z8	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	46	3,300	µg/Kg-dry	5	06-Feb-15	16	Z9	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	9	640	µg/Kg-dry	1	06-Feb-15	17	Z9	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	50	160	µg/Kg-dry	1	04-Feb-15	18	Z9	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	9.2	660	µg/Kg-dry	1	05-Feb-15	19	Z2	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	51	170	µg/Kg-dry	1	13-Jan-15	1	Z3	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	9.1	650	µg/Kg-dry	1	06-Feb-15	20	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	9.2	660	µg/Kg-dry	1	05-Feb-15	21	Z2	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	9	650	µg/Kg-dry	1	06-Feb-15	22	Z1	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	8.9	640	µg/Kg-dry	1	06-Feb-15	23	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	9.1	650	µg/Kg-dry	1	06-Feb-15	24	Z1	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	9	650	µg/Kg-dry	1	06-Feb-15	25	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	9	640	µg/Kg-dry	1	06-Feb-15	26	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	9.1	650	µg/Kg-dry	1	05-Feb-15	27	Z10	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	9	640	µg/Kg-dry	1	06-Feb-15	28	Z4	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	510	1,700	µg/Kg-dry	10	09-Feb-15	29	Z4	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	9.1	650	µg/Kg-dry	1	13-Jan-15	2	Z3	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	510	1,700	µg/Kg-dry	10	09-Feb-15	30	Z4	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	9.2	660	µg/Kg-dry	1	13-Jan-15	3	Z3	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	90	6,500	µg/Kg-dry	10	12-Jan-15	4	Z5	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	92	6,600	µg/Kg-dry	10	12-Jan-15	5	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	91	6,500	µg/Kg-dry	10	12-Jan-15	6	Z5	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	91	6,500	µg/Kg-dry	10	12-Jan-15	7	Z6	2015

Table A-6
Volatile and Semivolatile Organic Compound Data for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	Rlimit	Runits	Dilution Factor	Anal Date	Cell	Zone	Year
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	90	6,400	µg/Kg-dry	10	12-Jan-15	8	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	90	6,400	µg/Kg-dry	10	12-Jan-15	9	Z6	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	560	560	--	290	330	µg/Kg-dry	10	09-Feb-15	29	Z4	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	550	550	--	300	330	µg/Kg-dry	10	09-Feb-15	30	Z4	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	65	6,500	µg/Kg-dry	10	12-Jan-15	10	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	65	6,500	µg/Kg-dry	10	13-Jan-15	11	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	66	6,600	µg/Kg-dry	10	12-Jan-15	12	Z7	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	32	3,200	µg/Kg-dry	5	06-Feb-15	13	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	6.5	650	µg/Kg-dry	1	05-Feb-15	14	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	6.5	650	µg/Kg-dry	1	06-Feb-15	15	Z8	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	33	3,300	µg/Kg-dry	5	06-Feb-15	16	Z9	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	6.4	640	µg/Kg-dry	1	06-Feb-15	17	Z9	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	29	32	µg/Kg-dry	1	04-Feb-15	18	Z9	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	6.6	660	µg/Kg-dry	1	05-Feb-15	19	Z2	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	30	33	µg/Kg-dry	1	13-Jan-15	1	Z3	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	6.5	650	µg/Kg-dry	1	06-Feb-15	20	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	6.6	660	µg/Kg-dry	1	05-Feb-15	21	Z2	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	6.5	650	µg/Kg-dry	1	06-Feb-15	22	Z1	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	6.4	640	µg/Kg-dry	1	06-Feb-15	23	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	6.5	650	µg/Kg-dry	1	06-Feb-15	24	Z1	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	6.5	650	µg/Kg-dry	1	06-Feb-15	25	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	6.4	640	µg/Kg-dry	1	06-Feb-15	26	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	6.5	650	µg/Kg-dry	1	05-Feb-15	27	Z10	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	6.4	640	µg/Kg-dry	1	06-Feb-15	28	Z4	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	6.5	650	µg/Kg-dry	1	13-Jan-15	2	Z3	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	6.6	660	µg/Kg-dry	1	13-Jan-15	3	Z3	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	65	6,500	µg/Kg-dry	10	12-Jan-15	4	Z5	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	66	6,600	µg/Kg-dry	10	12-Jan-15	5	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	65	6,500	µg/Kg-dry	10	12-Jan-15	6	Z5	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	65	6,500	µg/Kg-dry	10	12-Jan-15	7	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	64	6,400	µg/Kg-dry	10	12-Jan-15	8	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	64	6,400	µg/Kg-dry	10	12-Jan-15	9	Z6	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthene	940	940	--	10	300	µg/Kg-dry	10	12-Jan-15	12	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthene	720	720	--	9.8	290	µg/Kg-dry	10	13-Jan-15	11	Z7	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthene	700	700	--	10	300	µg/Kg-dry	10	12-Jan-15	5	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthene	680	680	--	9.8	300	µg/Kg-dry	10	12-Jan-15	6	Z5	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthene	440	440	--	9.7	290	µg/Kg-dry	10	12-Jan-15	9	Z6	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthene	370	370	--	9.8	300	µg/Kg-dry	10	12-Jan-15	10	Z7	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthene	230	230	J	9.8	300	µg/Kg-dry	10	12-Jan-15	7	Z6	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthene	200	200	J	9.8	290	µg/Kg-dry	10	12-Jan-15	4	Z5	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthene	46	46	J	9.7	290	µg/Kg-dry	10	12-Jan-15	8	Z6	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthene	39	39	--	0.97	6.5	µg/Kg-dry	1	06-Feb-15	23	Z1	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthene	35	35	--	0.97	6.5	µg/Kg-dry	1	06-Feb-15	17	Z9	2015

Table A-6
Volatile and Semivolatile Organic Compound Data for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	Rlimit	Runits	Dilution Factor	Anal Date	Cell	Zone	Year
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthene	33	33	--	4.7	6.5	µg/Kg-dry	1	04-Feb-15	18	Z9	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthene	32	32	--	0.98	6.5	µg/Kg-dry	1	06-Feb-15	22	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthene	31	31	--	0.98	6.6	µg/Kg-dry	1	06-Feb-15	24	Z1	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthene	13	13	J	0.99	30	µg/Kg-dry	1	13-Jan-15	2	Z3	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthene	12	12	--	0.97	6.5	µg/Kg-dry	1	06-Feb-15	28	Z4	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthene	11	11	--	4.8	6.6	µg/Kg-dry	1	13-Jan-15	1	Z3	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthene	10	10	J	1	30	µg/Kg-dry	1	13-Jan-15	3	Z3	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthene	4.6	4.6	J	0.99	6.6	µg/Kg-dry	1	06-Feb-15	15	Z8	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthene	4.3	4.3	J	0.99	6.6	µg/Kg-dry	1	05-Feb-15	19	Z2	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthene	--	U	U	4.9	33	µg/Kg-dry	5	06-Feb-15	13	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthene	--	U	U	0.98	6.6	µg/Kg-dry	1	05-Feb-15	14	Z8	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthene	--	U	U	4.9	33	µg/Kg-dry	5	06-Feb-15	16	Z9	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthene	--	U	U	0.99	6.6	µg/Kg-dry	1	06-Feb-15	20	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthene	--	U	U	1	6.7	µg/Kg-dry	1	05-Feb-15	21	Z2	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthene	--	U	U	0.98	6.5	µg/Kg-dry	1	06-Feb-15	25	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthene	--	U	U	0.97	6.5	µg/Kg-dry	1	06-Feb-15	26	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthene	--	U	U	0.99	6.6	µg/Kg-dry	1	05-Feb-15	27	Z10	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthene	--	U	U	48	66	µg/Kg-dry	10	09-Feb-15	29	Z4	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthene	--	U	U	48	66	µg/Kg-dry	10	09-Feb-15	30	Z4	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	270	270	J	12	300	µg/Kg-dry	10	12-Jan-15	12	Z7	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	210	210	J	12	300	µg/Kg-dry	10	12-Jan-15	5	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	210	210	J	12	300	µg/Kg-dry	10	12-Jan-15	6	Z5	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	190	190	J	12	290	µg/Kg-dry	10	13-Jan-15	11	Z7	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	180	180	J	12	300	µg/Kg-dry	10	12-Jan-15	10	Z7	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	140	140	J	12	290	µg/Kg-dry	10	12-Jan-15	9	Z6	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	86	86	--	1.2	6.5	µg/Kg-dry	1	06-Feb-15	28	Z4	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	82	82	J	12	290	µg/Kg-dry	10	12-Jan-15	4	Z5	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	61	61	--	1.2	6.6	µg/Kg-dry	1	06-Feb-15	24	Z1	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	59	59	--	1.2	6.5	µg/Kg-dry	1	06-Feb-15	23	Z1	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	59	59	J	12	300	µg/Kg-dry	10	12-Jan-15	7	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	46	46	J	12	290	µg/Kg-dry	10	12-Jan-15	8	Z6	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	45	45	--	1.2	6.7	µg/Kg-dry	1	05-Feb-15	21	Z2	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	27	27	--	1.2	6.5	µg/Kg-dry	1	06-Feb-15	22	Z1	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	15	15	--	1.2	6.5	µg/Kg-dry	1	06-Feb-15	17	Z9	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	15	15	--	5.6	6.5	µg/Kg-dry	1	04-Feb-15	18	Z9	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	10	10	J	1.2	30	µg/Kg-dry	1	13-Jan-15	3	Z3	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	9.2	9.2	--	1.2	6.6	µg/Kg-dry	1	06-Feb-15	15	Z8	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	6.9	6.9	J	1.2	30	µg/Kg-dry	1	13-Jan-15	2	Z3	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	6.3	6.3	J	1.2	6.6	µg/Kg-dry	1	06-Feb-15	20	Z2	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	6.2	6.2	J	1.2	6.5	µg/Kg-dry	1	06-Feb-15	25	Z10	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	5	5.0	J	1.2	6.6	µg/Kg-dry	1	05-Feb-15	19	Z2	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	--	U	U	5.9	33	µg/Kg-dry	5	06-Feb-15	13	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	--	U	U	1.2	6.6	µg/Kg-dry	1	05-Feb-15	14	Z8	2015

Table A-6
Volatile and Semivolatile Organic Compound Data for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	Rlimit	Runits	Dilution Factor	Anal Date	Cell	Zone	Year
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	--	U	U	6	33	µg/Kg-dry	5	06-Feb-15	16	Z9	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	--	U	U	5.7	6.6	µg/Kg-dry	1	13-Jan-15	1	Z3	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	--	U	U	1.2	6.5	µg/Kg-dry	1	06-Feb-15	26	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	--	U	U	1.2	6.6	µg/Kg-dry	1	05-Feb-15	27	Z10	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	--	U	U	57	66	µg/Kg-dry	10	09-Feb-15	29	Z4	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	--	U	U	57	66	µg/Kg-dry	10	09-Feb-15	30	Z4	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Acetophenone	230	230	J	49	3,300	µg/Kg-dry	10	12-Jan-15	6	Z5	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Acetophenone	86	86	--	5.1	32	µg/Kg-dry	1	04-Feb-15	18	Z9	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Acetophenone	47	47	J	4.9	330	µg/Kg-dry	1	05-Feb-15	14	Z8	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Acetophenone	44	44	J	5	330	µg/Kg-dry	1	05-Feb-15	19	Z2	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	49	3,300	µg/Kg-dry	10	12-Jan-15	10	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	49	3,200	µg/Kg-dry	10	13-Jan-15	11	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	50	3,300	µg/Kg-dry	10	12-Jan-15	12	Z7	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	24	1,600	µg/Kg-dry	5	06-Feb-15	13	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	4.9	330	µg/Kg-dry	1	06-Feb-15	15	Z8	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	25	1,600	µg/Kg-dry	5	06-Feb-15	16	Z9	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	4.9	320	µg/Kg-dry	1	06-Feb-15	17	Z9	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	5.2	33	µg/Kg-dry	1	13-Jan-15	1	Z3	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	4.9	330	µg/Kg-dry	1	06-Feb-15	20	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	5	330	µg/Kg-dry	1	05-Feb-15	21	Z2	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	4.9	320	µg/Kg-dry	1	06-Feb-15	22	Z1	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	4.8	320	µg/Kg-dry	1	06-Feb-15	23	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	4.9	320	µg/Kg-dry	1	06-Feb-15	24	Z1	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	4.9	320	µg/Kg-dry	1	06-Feb-15	25	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	4.9	320	µg/Kg-dry	1	06-Feb-15	26	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	4.9	330	µg/Kg-dry	1	05-Feb-15	27	Z10	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	4.9	320	µg/Kg-dry	1	06-Feb-15	28	Z4	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	52	330	µg/Kg-dry	10	09-Feb-15	29	Z4	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	4.9	330	µg/Kg-dry	1	13-Jan-15	2	Z3	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	52	330	µg/Kg-dry	10	09-Feb-15	30	Z4	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	5	330	µg/Kg-dry	1	13-Jan-15	3	Z3	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	49	3,200	µg/Kg-dry	10	12-Jan-15	4	Z5	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	50	3,300	µg/Kg-dry	10	12-Jan-15	5	Z5	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	49	3,300	µg/Kg-dry	10	12-Jan-15	7	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	49	3,200	µg/Kg-dry	10	12-Jan-15	8	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	49	3,200	µg/Kg-dry	10	12-Jan-15	9	Z6	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Anthracene	4,400	4,400	--	13	300	µg/Kg-dry	10	12-Jan-15	5	Z5	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Anthracene	2,500	2,500	--	13	290	µg/Kg-dry	10	13-Jan-15	11	Z7	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Anthracene	2,400	2,400	--	13	300	µg/Kg-dry	10	12-Jan-15	6	Z5	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Anthracene	2,200	2,200	--	13	300	µg/Kg-dry	10	12-Jan-15	12	Z7	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Anthracene	2,100	2,100	--	13	300	µg/Kg-dry	10	12-Jan-15	10	Z7	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Anthracene	2,000	2,000	--	13	290	µg/Kg-dry	10	12-Jan-15	4	Z5	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Anthracene	1,500	1,500	--	13	290	µg/Kg-dry	10	12-Jan-15	9	Z6	2015

Table A-6
Volatile and Semivolatile Organic Compound Data for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	Rlimit	Runits	Dilution Factor	Anal Date	Cell	Zone	Year
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Anthracene	990	990	--	13	300	µg/Kg-dry	10	12-Jan-15	7	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Anthracene	500	500	--	13	290	µg/Kg-dry	10	12-Jan-15	8	Z6	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Anthracene	400	400	--	4.6	6.5	µg/Kg-dry	1	04-Feb-15	18	Z9	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Anthracene	300	300	--	1.3	6.5	µg/Kg-dry	1	06-Feb-15	17	Z9	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Anthracene	220	220	--	1.3	6.5	µg/Kg-dry	1	06-Feb-15	23	Z1	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Anthracene	160	160	--	1.3	6.5	µg/Kg-dry	1	06-Feb-15	22	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Anthracene	150	150	--	1.3	6.6	µg/Kg-dry	1	06-Feb-15	24	Z1	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Anthracene	130	130	--	1.3	6.5	µg/Kg-dry	1	06-Feb-15	28	Z4	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Anthracene	120	120	--	6.5	33	µg/Kg-dry	5	06-Feb-15	16	Z9	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Anthracene	110	110	--	47	66	µg/Kg-dry	10	09-Feb-15	30	Z4	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Anthracene	100	100	--	1.3	30	µg/Kg-dry	1	13-Jan-15	2	Z3	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Anthracene	99	99	--	46	66	µg/Kg-dry	10	09-Feb-15	29	Z4	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Anthracene	83	83	--	1.3	30	µg/Kg-dry	1	13-Jan-15	3	Z3	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Anthracene	71	71	--	4.7	6.6	µg/Kg-dry	1	13-Jan-15	1	Z3	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Anthracene	32	32	--	1.3	6.7	µg/Kg-dry	1	05-Feb-15	21	Z2	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Anthracene	28	28	J	6.4	33	µg/Kg-dry	5	06-Feb-15	13	Z8	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Anthracene	27	27	--	1.3	6.6	µg/Kg-dry	1	05-Feb-15	19	Z2	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Anthracene	16	16	--	1.3	6.6	µg/Kg-dry	1	05-Feb-15	14	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Anthracene	16	16	--	1.3	6.6	µg/Kg-dry	1	06-Feb-15	15	Z8	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Anthracene	13	13	--	1.3	6.6	µg/Kg-dry	1	06-Feb-15	20	Z2	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Anthracene	8.5	8.5	--	1.3	6.5	µg/Kg-dry	1	06-Feb-15	25	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Anthracene	6.5	6.5	J	1.3	6.5	µg/Kg-dry	1	06-Feb-15	26	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Anthracene	5.6	5.6	J	1.3	6.6	µg/Kg-dry	1	05-Feb-15	27	Z10	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	100	490	µg/Kg-dry	10	12-Jan-15	10	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	99	490	µg/Kg-dry	10	13-Jan-15	11	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	100	500	µg/Kg-dry	10	12-Jan-15	12	Z7	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	49	1,600	µg/Kg-dry	5	06-Feb-15	13	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	10	330	µg/Kg-dry	1	05-Feb-15	14	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	10	330	µg/Kg-dry	1	06-Feb-15	15	Z8	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	50	1,600	µg/Kg-dry	5	06-Feb-15	16	Z9	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	9.9	320	µg/Kg-dry	1	06-Feb-15	17	Z9	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	5.1	32	µg/Kg-dry	1	04-Feb-15	18	Z9	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	10	330	µg/Kg-dry	1	05-Feb-15	19	Z2	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	5.2	33	µg/Kg-dry	1	13-Jan-15	1	Z3	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	10	330	µg/Kg-dry	1	06-Feb-15	20	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	10	330	µg/Kg-dry	1	05-Feb-15	21	Z2	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	9.9	320	µg/Kg-dry	1	06-Feb-15	22	Z1	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	9.8	320	µg/Kg-dry	1	06-Feb-15	23	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	9.9	320	µg/Kg-dry	1	06-Feb-15	24	Z1	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	9.9	320	µg/Kg-dry	1	06-Feb-15	25	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	9.8	320	µg/Kg-dry	1	06-Feb-15	26	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	10	330	µg/Kg-dry	1	05-Feb-15	27	Z10	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	9.8	320	µg/Kg-dry	1	06-Feb-15	28	Z4	2015

Table A-6
Volatile and Semivolatile Organic Compound Data for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	Rlimit	Runits	Dilution Factor	Anal Date	Cell	Zone	Year
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	52	330	µg/Kg-dry	10	09-Feb-15	29	Z4	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	10	50	µg/Kg-dry	1	13-Jan-15	2	Z3	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	52	330	µg/Kg-dry	10	09-Feb-15	30	Z4	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	10	50	µg/Kg-dry	1	13-Jan-15	3	Z3	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	99	490	µg/Kg-dry	10	12-Jan-15	4	Z5	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	100	500	µg/Kg-dry	10	12-Jan-15	5	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	100	490	µg/Kg-dry	10	12-Jan-15	6	Z5	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	100	490	µg/Kg-dry	10	12-Jan-15	7	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	99	490	µg/Kg-dry	10	12-Jan-15	8	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	99	490	µg/Kg-dry	10	12-Jan-15	9	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	570	570	J	120	3,200	µg/Kg-dry	10	12-Jan-15	8	Z6	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	490	490	J	120	3,200	µg/Kg-dry	10	12-Jan-15	4	Z5	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	450	450	J	130	3,300	µg/Kg-dry	10	12-Jan-15	5	Z5	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	420	420	J	130	3,300	µg/Kg-dry	10	12-Jan-15	10	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	410	410	J	130	3,300	µg/Kg-dry	10	12-Jan-15	12	Z7	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	400	400	J	130	3,300	µg/Kg-dry	10	12-Jan-15	7	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	340	340	J	120	3,200	µg/Kg-dry	10	12-Jan-15	9	Z6	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	280	280	--	50	65	µg/Kg-dry	1	04-Feb-15	18	Z9	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	270	270	J	13	330	µg/Kg-dry	1	05-Feb-15	14	Z8	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	240	240	J	12	320	µg/Kg-dry	1	06-Feb-15	17	Z9	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	170	170	J	62	1,600	µg/Kg-dry	5	06-Feb-15	13	Z8	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	160	160	J	12	320	µg/Kg-dry	1	06-Feb-15	22	Z1	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	150	150	J	12	320	µg/Kg-dry	1	06-Feb-15	23	Z1	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	140	140	J	13	330	µg/Kg-dry	1	06-Feb-15	15	Z8	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	120	120	J	12	320	µg/Kg-dry	1	06-Feb-15	24	Z1	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	110	110	J	12	320	µg/Kg-dry	1	06-Feb-15	26	Z10	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	99	99	J	13	330	µg/Kg-dry	1	05-Feb-15	19	Z2	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	89	89	J	12	320	µg/Kg-dry	1	06-Feb-15	25	Z10	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	85	85	J	13	330	µg/Kg-dry	1	05-Feb-15	21	Z2	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	--	U	U	120	3,200	µg/Kg-dry	10	13-Jan-15	11	Z7	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	--	U	U	63	1,600	µg/Kg-dry	5	06-Feb-15	16	Z9	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	--	U	U	51	67	µg/Kg-dry	1	13-Jan-15	1	Z3	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	--	U	U	13	330	µg/Kg-dry	1	06-Feb-15	20	Z2	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	--	U	U	13	330	µg/Kg-dry	1	05-Feb-15	27	Z10	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	--	U	U	12	320	µg/Kg-dry	1	06-Feb-15	28	Z4	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	--	U	U	510	660	µg/Kg-dry	10	09-Feb-15	29	Z4	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	--	U	U	13	330	µg/Kg-dry	1	13-Jan-15	2	Z3	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	--	U	U	510	670	µg/Kg-dry	10	09-Feb-15	30	Z4	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	--	U	U	13	330	µg/Kg-dry	1	13-Jan-15	3	Z3	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	--	U	U	130	3,300	µg/Kg-dry	10	12-Jan-15	6	Z5	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	15,000	15,000	--	13	300	µg/Kg-dry	10	12-Jan-15	5	Z5	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	7,400	7,400	--	13	290	µg/Kg-dry	10	13-Jan-15	11	Z7	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	6,700	6,700	--	13	300	µg/Kg-dry	10	12-Jan-15	6	Z5	2015

Table A-6
Volatile and Semivolatile Organic Compound Data for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	Rlimit	Runits	Dilution Factor	Anal Date	Cell	Zone	Year
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	5,900	5,900	--	13	290	µg/Kg-dry	10	12-Jan-15	4	Z5	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	5,000	5,000	--	13	300	µg/Kg-dry	10	12-Jan-15	10	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	4,800	4,800	--	13	300	µg/Kg-dry	10	12-Jan-15	12	Z7	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	3,500	3,500	--	13	290	µg/Kg-dry	10	12-Jan-15	9	Z6	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	1,900	1,900	--	13	300	µg/Kg-dry	10	12-Jan-15	7	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	1,800	1,800	--	13	290	µg/Kg-dry	10	12-Jan-15	8	Z6	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	1,600	1,600	--	5.6	6.5	µg/Kg-dry	1	04-Feb-15	18	Z9	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	1,300	1,300	--	1.3	6.5	µg/Kg-dry	1	06-Feb-15	23	Z1	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	1,100	1,100	--	1.3	6.5	µg/Kg-dry	1	06-Feb-15	17	Z9	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	600	600	--	6.5	33	µg/Kg-dry	5	06-Feb-15	16	Z9	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	580	580	--	1.3	6.5	µg/Kg-dry	1	06-Feb-15	28	Z4	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	530	530	--	57	66	µg/Kg-dry	10	09-Feb-15	29	Z4	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	490	490	--	1.3	6.5	µg/Kg-dry	1	06-Feb-15	22	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	480	480	--	1.3	6.6	µg/Kg-dry	1	06-Feb-15	24	Z1	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	450	450	--	57	66	µg/Kg-dry	10	09-Feb-15	30	Z4	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	380	380	--	1.3	30	µg/Kg-dry	1	13-Jan-15	3	Z3	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	340	340	--	1.3	6.6	µg/Kg-dry	1	05-Feb-15	19	Z2	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	320	320	--	6.4	33	µg/Kg-dry	5	06-Feb-15	13	Z8	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	300	300	--	1.3	30	µg/Kg-dry	1	13-Jan-15	2	Z3	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	160	160	--	5.7	6.6	µg/Kg-dry	1	13-Jan-15	1	Z3	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	160	160	--	1.3	6.7	µg/Kg-dry	1	05-Feb-15	21	Z2	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	99	99	--	1.3	6.6	µg/Kg-dry	1	06-Feb-15	20	Z2	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	98	98	--	1.3	6.6	µg/Kg-dry	1	05-Feb-15	14	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	66	66	--	1.3	6.6	µg/Kg-dry	1	06-Feb-15	15	Z8	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	48	48	--	1.3	6.6	µg/Kg-dry	1	05-Feb-15	27	Z10	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	43	43	--	1.3	6.5	µg/Kg-dry	1	06-Feb-15	25	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	31	31	--	1.3	6.5	µg/Kg-dry	1	06-Feb-15	26	Z10	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	12,000	12,000	--	22	300	µg/Kg-dry	10	12-Jan-15	5	Z5	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	5,800	5,800	--	21	290	µg/Kg-dry	10	13-Jan-15	11	Z7	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	5,400	5,400	--	21	300	µg/Kg-dry	10	12-Jan-15	6	Z5	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	4,500	4,500	--	21	290	µg/Kg-dry	10	12-Jan-15	4	Z5	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	4,000	4,000	--	22	300	µg/Kg-dry	10	12-Jan-15	12	Z7	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	3,600	3,600	--	21	300	µg/Kg-dry	10	12-Jan-15	10	Z7	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	3,000	3,000	--	21	290	µg/Kg-dry	10	12-Jan-15	9	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	1,700	1,700	--	21	290	µg/Kg-dry	10	12-Jan-15	8	Z6	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	1,600	1,600	--	21	300	µg/Kg-dry	10	12-Jan-15	7	Z6	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	1,300	1,300	--	4	6.5	µg/Kg-dry	1	04-Feb-15	18	Z9	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	1,100	1,100	--	2.1	6.5	µg/Kg-dry	1	06-Feb-15	23	Z1	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	940	940	--	2.1	6.5	µg/Kg-dry	1	06-Feb-15	17	Z9	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	710	710	--	40	66	µg/Kg-dry	10	09-Feb-15	29	Z4	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	650	650	--	41	66	µg/Kg-dry	10	09-Feb-15	30	Z4	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	610	610	--	2.1	6.5	µg/Kg-dry	1	06-Feb-15	28	Z4	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	570	570	--	11	33	µg/Kg-dry	5	06-Feb-15	16	Z9	2015

Table A-6
Volatile and Semivolatile Organic Compound Data for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	Rlimit	Runits	Dilution Factor	Anal Date	Cell	Zone	Year
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	440	440	--	2.1	6.5	µg/Kg-dry	1	06-Feb-15	22	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	410	410	--	2.1	6.6	µg/Kg-dry	1	06-Feb-15	24	Z1	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	390	390	--	2.2	30	µg/Kg-dry	1	13-Jan-15	3	Z3	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	380	380	--	11	33	µg/Kg-dry	5	06-Feb-15	13	Z8	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	300	300	--	2.2	6.6	µg/Kg-dry	1	05-Feb-15	19	Z2	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	220	220	--	2.1	30	µg/Kg-dry	1	13-Jan-15	2	Z3	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	170	170	--	2.2	6.7	µg/Kg-dry	1	05-Feb-15	21	Z2	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	150	150	--	4.1	6.6	µg/Kg-dry	1	13-Jan-15	1	Z3	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	120	120	--	2.2	6.6	µg/Kg-dry	1	06-Feb-15	20	Z2	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	110	110	--	2.1	6.6	µg/Kg-dry	1	05-Feb-15	14	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	85	85	--	2.1	6.6	µg/Kg-dry	1	06-Feb-15	15	Z8	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	72	72	--	2.1	6.5	µg/Kg-dry	1	06-Feb-15	25	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	64	64	--	2.1	6.6	µg/Kg-dry	1	05-Feb-15	27	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	58	58	--	2.1	6.5	µg/Kg-dry	1	06-Feb-15	26	Z10	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	16,000	16,000	--	20	300	µg/Kg-dry	10	12-Jan-15	5	Z5	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	7,600	7,600	--	19	290	µg/Kg-dry	10	13-Jan-15	11	Z7	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	7,400	7,400	--	19	300	µg/Kg-dry	10	12-Jan-15	6	Z5	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	6,800	6,800	--	19	290	µg/Kg-dry	10	12-Jan-15	4	Z5	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	5,400	5,400	--	19	300	µg/Kg-dry	10	12-Jan-15	10	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	5,300	5,300	--	20	300	µg/Kg-dry	10	12-Jan-15	12	Z7	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	4,000	4,000	--	19	290	µg/Kg-dry	10	12-Jan-15	9	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	2,500	2,500	--	19	290	µg/Kg-dry	10	12-Jan-15	8	Z6	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	2,300	2,300	--	19	300	µg/Kg-dry	10	12-Jan-15	7	Z6	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	1,900	1,900	--	4.8	6.5	µg/Kg-dry	1	04-Feb-15	18	Z9	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	1,800	1,800	--	1.9	6.5	µg/Kg-dry	1	06-Feb-15	23	Z1	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	1,400	1,400	--	1.9	6.5	µg/Kg-dry	1	06-Feb-15	17	Z9	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	1,000	1,000	--	49	66	µg/Kg-dry	10	09-Feb-15	30	Z4	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	940	940	--	49	66	µg/Kg-dry	10	09-Feb-15	29	Z4	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	910	910	--	1.9	6.5	µg/Kg-dry	1	06-Feb-15	28	Z4	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	880	880	--	9.7	33	µg/Kg-dry	5	06-Feb-15	16	Z9	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	670	670	--	1.9	6.5	µg/Kg-dry	1	06-Feb-15	22	Z1	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	660	660	--	2	30	µg/Kg-dry	1	13-Jan-15	3	Z3	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	650	650	--	1.9	6.6	µg/Kg-dry	1	06-Feb-15	24	Z1	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	540	540	--	9.6	33	µg/Kg-dry	5	06-Feb-15	13	Z8	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	510	510	--	1.9	6.6	µg/Kg-dry	1	05-Feb-15	19	Z2	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	360	360	--	1.9	30	µg/Kg-dry	1	13-Jan-15	2	Z3	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	270	270	--	2	6.7	µg/Kg-dry	1	05-Feb-15	21	Z2	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	230	230	--	4.9	6.6	µg/Kg-dry	1	13-Jan-15	1	Z3	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	170	170	--	1.9	6.6	µg/Kg-dry	1	06-Feb-15	20	Z2	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	160	160	--	1.9	6.6	µg/Kg-dry	1	05-Feb-15	14	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	120	120	--	1.9	6.6	µg/Kg-dry	1	06-Feb-15	15	Z8	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	97	97	--	1.9	6.5	µg/Kg-dry	1	06-Feb-15	25	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	86	86	--	1.9	6.5	µg/Kg-dry	1	06-Feb-15	26	Z10	2015

Table A-6
Volatile and Semivolatile Organic Compound Data for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	Rlimit	Runits	Dilution Factor	Anal Date	Cell	Zone	Year
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	83	83	--	1.9	6.6	µg/Kg-dry	1	05-Feb-15	27	Z10	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	8,400	8,400	--	26	300	µg/Kg-dry	10	12-Jan-15	5	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	4,200	4,200	--	26	300	µg/Kg-dry	10	12-Jan-15	6	Z5	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	4,100	4,100	--	26	290	µg/Kg-dry	10	13-Jan-15	11	Z7	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	3,600	3,600	--	26	290	µg/Kg-dry	10	12-Jan-15	4	Z5	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	3,000	3,000	--	26	300	µg/Kg-dry	10	12-Jan-15	12	Z7	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	2,900	2,900	--	26	300	µg/Kg-dry	10	12-Jan-15	10	Z7	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	2,300	2,300	--	26	290	µg/Kg-dry	10	12-Jan-15	9	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	1,400	1,400	--	26	290	µg/Kg-dry	10	12-Jan-15	8	Z6	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	1,300	1,300	--	26	300	µg/Kg-dry	10	12-Jan-15	7	Z6	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	1,000	1,000	--	5	6.5	µg/Kg-dry	1	04-Feb-15	18	Z9	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	860	860	--	2.5	6.5	µg/Kg-dry	1	06-Feb-15	23	Z1	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	710	710	--	2.6	6.5	µg/Kg-dry	1	06-Feb-15	17	Z9	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	670	670	--	51	66	µg/Kg-dry	10	09-Feb-15	29	Z4	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	600	600	--	51	66	µg/Kg-dry	10	09-Feb-15	30	Z4	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	560	560	--	2.6	6.5	µg/Kg-dry	1	06-Feb-15	28	Z4	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	530	530	--	13	33	µg/Kg-dry	5	06-Feb-15	16	Z9	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	450	450	--	2.6	30	µg/Kg-dry	1	13-Jan-15	3	Z3	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	350	350	--	2.6	6.5	µg/Kg-dry	1	06-Feb-15	22	Z1	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	340	340	--	13	33	µg/Kg-dry	5	06-Feb-15	13	Z8	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	300	300	--	2.6	6.6	µg/Kg-dry	1	06-Feb-15	24	Z1	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	250	250	--	2.6	6.6	µg/Kg-dry	1	05-Feb-15	19	Z2	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	210	210	--	2.6	30	µg/Kg-dry	1	13-Jan-15	2	Z3	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	160	160	--	2.6	6.7	µg/Kg-dry	1	05-Feb-15	21	Z2	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	150	150	--	5.1	6.6	µg/Kg-dry	1	13-Jan-15	1	Z3	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	110	110	--	2.6	6.6	µg/Kg-dry	1	05-Feb-15	14	Z8	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	110	110	--	2.6	6.6	µg/Kg-dry	1	06-Feb-15	20	Z2	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	82	82	--	2.6	6.6	µg/Kg-dry	1	06-Feb-15	15	Z8	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	71	71	--	2.5	6.5	µg/Kg-dry	1	06-Feb-15	26	Z10	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	62	62	--	2.6	6.5	µg/Kg-dry	1	06-Feb-15	25	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	56	56	--	2.6	6.6	µg/Kg-dry	1	05-Feb-15	27	Z10	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	6,900	6,900	--	14	300	µg/Kg-dry	10	12-Jan-15	5	Z5	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	3,200	3,200	--	14	290	µg/Kg-dry	10	13-Jan-15	11	Z7	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	3,100	3,100	--	14	290	µg/Kg-dry	10	12-Jan-15	4	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	3,100	3,100	--	14	300	µg/Kg-dry	10	12-Jan-15	6	Z5	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	2,200	2,200	--	14	300	µg/Kg-dry	10	12-Jan-15	10	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	2,100	2,100	--	14	300	µg/Kg-dry	10	12-Jan-15	12	Z7	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	1,700	1,700	--	14	290	µg/Kg-dry	10	12-Jan-15	9	Z6	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	1,000	1,000	--	50	66	µg/Kg-dry	10	09-Feb-15	30	Z4	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	1,000	1,000	--	14	290	µg/Kg-dry	10	12-Jan-15	8	Z6	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	950	950	--	14	300	µg/Kg-dry	10	12-Jan-15	7	Z6	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	860	860	--	50	66	µg/Kg-dry	10	09-Feb-15	29	Z4	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	730	730	--	4.9	6.5	µg/Kg-dry	1	04-Feb-15	18	Z9	2015

Table A-6
Volatile and Semivolatile Organic Compound Data for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	Rlimit	Runits	Dilution Factor	Anal Date	Cell	Zone	Year
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	580	580	--	1.4	6.5	µg/Kg-dry	1	06-Feb-15	23	Z1	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	480	480	--	1.4	6.5	µg/Kg-dry	1	06-Feb-15	17	Z9	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	380	380	--	7	33	µg/Kg-dry	5	06-Feb-15	16	Z9	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	330	330	--	1.4	6.5	µg/Kg-dry	1	06-Feb-15	28	Z4	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	250	250	--	6.9	33	µg/Kg-dry	5	06-Feb-15	13	Z8	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	230	230	--	1.4	6.5	µg/Kg-dry	1	06-Feb-15	22	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	230	230	--	1.4	6.6	µg/Kg-dry	1	06-Feb-15	24	Z1	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	230	230	--	1.4	30	µg/Kg-dry	1	13-Jan-15	3	Z3	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	190	190	--	1.4	6.6	µg/Kg-dry	1	05-Feb-15	19	Z2	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	140	140	--	1.4	30	µg/Kg-dry	1	13-Jan-15	2	Z3	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	100	100	--	1.4	6.7	µg/Kg-dry	1	05-Feb-15	21	Z2	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	90	90	--	5	6.6	µg/Kg-dry	1	13-Jan-15	1	Z3	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	70	70	--	1.4	6.6	µg/Kg-dry	1	05-Feb-15	14	Z8	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	69	69	--	1.4	6.6	µg/Kg-dry	1	06-Feb-15	20	Z2	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	53	53	--	1.4	6.6	µg/Kg-dry	1	06-Feb-15	15	Z8	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	53	53	--	1.4	6.5	µg/Kg-dry	1	06-Feb-15	25	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	44	44	--	1.4	6.6	µg/Kg-dry	1	05-Feb-15	27	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	43	43	--	1.4	6.5	µg/Kg-dry	1	06-Feb-15	26	Z10	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	100	1,600	µg/Kg-dry	10	12-Jan-15	10	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	100	1,600	µg/Kg-dry	10	13-Jan-15	11	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	100	1,600	µg/Kg-dry	10	12-Jan-15	12	Z7	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	51	780	µg/Kg-dry	5	06-Feb-15	13	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	10	160	µg/Kg-dry	1	05-Feb-15	14	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	10	160	µg/Kg-dry	1	06-Feb-15	15	Z8	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	52	790	µg/Kg-dry	5	06-Feb-15	16	Z9	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	10	160	µg/Kg-dry	1	06-Feb-15	17	Z9	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	3.1	32	µg/Kg-dry	1	04-Feb-15	18	Z9	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	10	160	µg/Kg-dry	1	05-Feb-15	19	Z2	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	3.2	33	µg/Kg-dry	1	13-Jan-15	1	Z3	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	10	160	µg/Kg-dry	1	06-Feb-15	20	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	11	160	µg/Kg-dry	1	05-Feb-15	21	Z2	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	10	160	µg/Kg-dry	1	06-Feb-15	22	Z1	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	10	160	µg/Kg-dry	1	06-Feb-15	23	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	10	160	µg/Kg-dry	1	06-Feb-15	24	Z1	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	10	160	µg/Kg-dry	1	06-Feb-15	25	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	10	160	µg/Kg-dry	1	06-Feb-15	26	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	10	160	µg/Kg-dry	1	05-Feb-15	27	Z10	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	10	160	µg/Kg-dry	1	06-Feb-15	28	Z4	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	32	330	µg/Kg-dry	10	09-Feb-15	29	Z4	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	10	160	µg/Kg-dry	1	13-Jan-15	2	Z3	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	32	330	µg/Kg-dry	10	09-Feb-15	30	Z4	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	10	160	µg/Kg-dry	1	13-Jan-15	3	Z3	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	100	1,600	µg/Kg-dry	10	12-Jan-15	4	Z5	2015

Table A-6
Volatile and Semivolatile Organic Compound Data for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	Rlimit	Runits	Dilution Factor	Anal Date	Cell	Zone	Year
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	100	1,600	µg/Kg-dry	10	12-Jan-15	5	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	100	1,600	µg/Kg-dry	10	12-Jan-15	6	Z5	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	100	1,600	µg/Kg-dry	10	12-Jan-15	7	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	100	1,600	µg/Kg-dry	10	12-Jan-15	8	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	100	1,600	µg/Kg-dry	10	12-Jan-15	9	Z6	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	100	1,600	µg/Kg-dry	10	12-Jan-15	10	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	100	1,600	µg/Kg-dry	10	13-Jan-15	11	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	100	1,600	µg/Kg-dry	10	12-Jan-15	12	Z7	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	51	780	µg/Kg-dry	5	06-Feb-15	13	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	10	160	µg/Kg-dry	1	05-Feb-15	14	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	10	160	µg/Kg-dry	1	06-Feb-15	15	Z8	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	52	790	µg/Kg-dry	5	06-Feb-15	16	Z9	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	10	160	µg/Kg-dry	1	06-Feb-15	17	Z9	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	9.2	32	µg/Kg-dry	1	04-Feb-15	18	Z9	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	10	160	µg/Kg-dry	1	05-Feb-15	19	Z2	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	9.4	33	µg/Kg-dry	1	13-Jan-15	1	Z3	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	10	160	µg/Kg-dry	1	06-Feb-15	20	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	10	160	µg/Kg-dry	1	05-Feb-15	21	Z2	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	10	160	µg/Kg-dry	1	06-Feb-15	22	Z1	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	10	160	µg/Kg-dry	1	06-Feb-15	23	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	10	160	µg/Kg-dry	1	06-Feb-15	24	Z1	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	10	160	µg/Kg-dry	1	06-Feb-15	25	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	10	160	µg/Kg-dry	1	06-Feb-15	26	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	10	160	µg/Kg-dry	1	05-Feb-15	27	Z10	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	10	160	µg/Kg-dry	1	06-Feb-15	28	Z4	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	93	330	µg/Kg-dry	10	09-Feb-15	29	Z4	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	10	160	µg/Kg-dry	1	13-Jan-15	2	Z3	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	94	330	µg/Kg-dry	10	09-Feb-15	30	Z4	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	10	160	µg/Kg-dry	1	13-Jan-15	3	Z3	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	100	1,600	µg/Kg-dry	10	12-Jan-15	4	Z5	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	100	1,600	µg/Kg-dry	10	12-Jan-15	5	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	100	1,600	µg/Kg-dry	10	12-Jan-15	6	Z5	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	100	1,600	µg/Kg-dry	10	12-Jan-15	7	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	100	1,600	µg/Kg-dry	10	12-Jan-15	8	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	100	1,600	µg/Kg-dry	10	12-Jan-15	9	Z6	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	140	1,600	µg/Kg-dry	10	12-Jan-15	10	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	140	1,600	µg/Kg-dry	10	13-Jan-15	11	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	140	1,600	µg/Kg-dry	10	12-Jan-15	12	Z7	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	68	780	µg/Kg-dry	5	06-Feb-15	13	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	14	160	µg/Kg-dry	1	05-Feb-15	14	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	14	160	µg/Kg-dry	1	06-Feb-15	15	Z8	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	69	790	µg/Kg-dry	5	06-Feb-15	16	Z9	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	14	160	µg/Kg-dry	1	06-Feb-15	17	Z9	2015

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Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	Rlimit	Runits	Dilution Factor	Anal Date	Cell	Zone	Year
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	7.6	32	µg/Kg-dry	1	04-Feb-15	18	Z9	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	14	160	µg/Kg-dry	1	05-Feb-15	19	Z2	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	7.8	33	µg/Kg-dry	1	13-Jan-15	1	Z3	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	14	160	µg/Kg-dry	1	06-Feb-15	20	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	14	160	µg/Kg-dry	1	05-Feb-15	21	Z2	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	14	160	µg/Kg-dry	1	06-Feb-15	22	Z1	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	14	160	µg/Kg-dry	1	06-Feb-15	23	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	14	160	µg/Kg-dry	1	06-Feb-15	24	Z1	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	14	160	µg/Kg-dry	1	06-Feb-15	25	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	14	160	µg/Kg-dry	1	06-Feb-15	26	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	14	160	µg/Kg-dry	1	05-Feb-15	27	Z10	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	14	160	µg/Kg-dry	1	06-Feb-15	28	Z4	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	77	330	µg/Kg-dry	10	09-Feb-15	29	Z4	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	14	160	µg/Kg-dry	1	13-Jan-15	2	Z3	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	78	330	µg/Kg-dry	10	09-Feb-15	30	Z4	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	14	160	µg/Kg-dry	1	13-Jan-15	3	Z3	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	140	1,600	µg/Kg-dry	10	12-Jan-15	4	Z5	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	140	1,600	µg/Kg-dry	10	12-Jan-15	5	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	140	1,600	µg/Kg-dry	10	12-Jan-15	6	Z5	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	140	1,600	µg/Kg-dry	10	12-Jan-15	7	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	140	1,600	µg/Kg-dry	10	12-Jan-15	8	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	140	1,600	µg/Kg-dry	10	12-Jan-15	9	Z6	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	14,000	14,000	--	110	3,300	µg/Kg-dry	10	12-Jan-15	5	Z5	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	6,100	6,100	--	110	3,300	µg/Kg-dry	10	12-Jan-15	10	Z7	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	5,200	5,200	--	57	330	µg/Kg-dry	10	09-Feb-15	29	Z4	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	4,400	4,400	--	110	3,200	µg/Kg-dry	10	12-Jan-15	4	Z5	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	4,000	4,000	--	110	3,300	µg/Kg-dry	10	06-Feb-15	21	Z2	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	3,600	3,600	--	57	330	µg/Kg-dry	10	09-Feb-15	30	Z4	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	2,600	2,600	--	54	1,600	µg/Kg-dry	5	06-Feb-15	16	Z9	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	1,900	1,900	--	53	1,600	µg/Kg-dry	5	06-Feb-15	13	Z8	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	1,900	1,900	--	11	320	µg/Kg-dry	1	06-Feb-15	22	Z1	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	1,500	1,500	--	11	330	µg/Kg-dry	1	06-Feb-15	15	Z8	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	1,500	1,500	J	110	3,200	µg/Kg-dry	10	12-Jan-15	8	Z6	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	1,300	1,300	J	110	3,200	µg/Kg-dry	10	13-Jan-15	11	Z7	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	760	760	--	11	320	µg/Kg-dry	1	06-Feb-15	23	Z1	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	730	730	J	110	3,200	µg/Kg-dry	10	12-Jan-15	9	Z6	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	680	680	--	5.6	32	µg/Kg-dry	1	04-Feb-15	18	Z9	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	620	620	--	11	320	µg/Kg-dry	1	06-Feb-15	24	Z1	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	590	590	--	11	320	µg/Kg-dry	1	06-Feb-15	28	Z4	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	450	450	--	11	320	µg/Kg-dry	1	06-Feb-15	17	Z9	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	420	420	--	11	330	µg/Kg-dry	1	05-Feb-15	14	Z8	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	360	360	--	11	330	µg/Kg-dry	1	06-Feb-15	20	Z2	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	300	300	J	11	330	µg/Kg-dry	1	05-Feb-15	19	Z2	2015

Table A-6
Volatile and Semivolatile Organic Compound Data for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	Rlimit	Runits	Dilution Factor	Anal Date	Cell	Zone	Year
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	240	240	J	11	330	µg/Kg-dry	1	13-Jan-15	3	Z3	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	140	140	J	11	320	µg/Kg-dry	1	06-Feb-15	25	Z10	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	96	96	J	11	330	µg/Kg-dry	1	13-Jan-15	2	Z3	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	95	95	--	5.7	33	µg/Kg-dry	1	13-Jan-15	1	Z3	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	87	87	J	11	320	µg/Kg-dry	1	06-Feb-15	26	Z10	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	--	U	U	110	3,300	µg/Kg-dry	10	12-Jan-15	12	Z7	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	--	U	U	11	330	µg/Kg-dry	1	05-Feb-15	27	Z10	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	--	U	U	110	3,300	µg/Kg-dry	10	12-Jan-15	6	Z5	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	--	U	U	110	3,300	µg/Kg-dry	10	12-Jan-15	7	Z6	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	2,800	2,800	--	120	1,600	µg/Kg-dry	10	12-Jan-15	10	Z7	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	1,500	1,500	J	120	1,600	µg/Kg-dry	10	12-Jan-15	6	Z5	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	1,000	1,000	--	56	330	µg/Kg-dry	10	09-Feb-15	29	Z4	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	850	850	--	12	160	µg/Kg-dry	1	06-Feb-15	28	Z4	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	750	750	--	56	330	µg/Kg-dry	10	09-Feb-15	30	Z4	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	320	320	--	12	160	µg/Kg-dry	1	06-Feb-15	22	Z1	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	310	310	--	12	160	µg/Kg-dry	1	06-Feb-15	15	Z8	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	270	270	--	12	160	µg/Kg-dry	1	06-Feb-15	23	Z1	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	240	240	--	12	160	µg/Kg-dry	1	13-Jan-15	3	Z3	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	140	140	--	5.5	32	µg/Kg-dry	1	04-Feb-15	18	Z9	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	110	110	J	12	160	µg/Kg-dry	1	05-Feb-15	19	Z2	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	97	97	J	12	160	µg/Kg-dry	1	05-Feb-15	14	Z8	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	87	87	J	12	160	µg/Kg-dry	1	06-Feb-15	24	Z1	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	70	70	J	12	160	µg/Kg-dry	1	06-Feb-15	20	Z2	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	--	U	U	120	1,600	µg/Kg-dry	10	13-Jan-15	11	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	--	U	U	120	1,600	µg/Kg-dry	10	12-Jan-15	12	Z7	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	--	U	U	61	780	µg/Kg-dry	5	06-Feb-15	13	Z8	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	--	U	U	62	790	µg/Kg-dry	5	06-Feb-15	16	Z9	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	--	U	U	12	160	µg/Kg-dry	1	06-Feb-15	17	Z9	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	--	U	U	5.6	33	µg/Kg-dry	1	13-Jan-15	1	Z3	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	--	U	U	13	160	µg/Kg-dry	1	05-Feb-15	21	Z2	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	--	U	U	12	160	µg/Kg-dry	1	06-Feb-15	25	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	--	U	U	12	160	µg/Kg-dry	1	06-Feb-15	26	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	--	U	U	12	160	µg/Kg-dry	1	05-Feb-15	27	Z10	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	--	U	U	12	160	µg/Kg-dry	1	13-Jan-15	2	Z3	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	--	U	U	120	1,600	µg/Kg-dry	10	12-Jan-15	4	Z5	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	--	U	U	120	1,600	µg/Kg-dry	10	12-Jan-15	5	Z5	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	--	U	U	120	1,600	µg/Kg-dry	10	12-Jan-15	7	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	--	U	U	120	1,600	µg/Kg-dry	10	12-Jan-15	8	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	--	U	U	120	1,600	µg/Kg-dry	10	12-Jan-15	9	Z6	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Caprolactam	270	270	J	110	330	µg/Kg-dry	10	09-Feb-15	29	Z4	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Caprolactam	260	260	J	110	330	µg/Kg-dry	10	09-Feb-15	30	Z4	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	140	3,300	µg/Kg-dry	10	12-Jan-15	10	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	140	3,200	µg/Kg-dry	10	13-Jan-15	11	Z7	2015

Table A-6
Volatile and Semivolatile Organic Compound Data for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	Rlimit	Runits	Dilution Factor	Anal Date	Cell	Zone	Year
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	150	3,300	µg/Kg-dry	10	12-Jan-15	12	Z7	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	71	1,600	µg/Kg-dry	5	06-Feb-15	13	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	14	330	µg/Kg-dry	1	05-Feb-15	14	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	14	330	µg/Kg-dry	1	06-Feb-15	15	Z8	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	72	1,600	µg/Kg-dry	5	06-Feb-15	16	Z9	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	14	320	µg/Kg-dry	1	06-Feb-15	17	Z9	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	11	32	µg/Kg-dry	1	04-Feb-15	18	Z9	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	14	330	µg/Kg-dry	1	05-Feb-15	19	Z2	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	11	33	µg/Kg-dry	1	13-Jan-15	1	Z3	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	14	330	µg/Kg-dry	1	06-Feb-15	20	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	15	330	µg/Kg-dry	1	05-Feb-15	21	Z2	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	14	320	µg/Kg-dry	1	06-Feb-15	22	Z1	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	14	320	µg/Kg-dry	1	06-Feb-15	23	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	14	320	µg/Kg-dry	1	06-Feb-15	24	Z1	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	14	320	µg/Kg-dry	1	06-Feb-15	25	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	14	320	µg/Kg-dry	1	06-Feb-15	26	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	14	330	µg/Kg-dry	1	05-Feb-15	27	Z10	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	14	320	µg/Kg-dry	1	06-Feb-15	28	Z4	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	14	330	µg/Kg-dry	1	13-Jan-15	2	Z3	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	15	330	µg/Kg-dry	1	13-Jan-15	3	Z3	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	140	3,200	µg/Kg-dry	10	12-Jan-15	4	Z5	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	150	3,300	µg/Kg-dry	10	12-Jan-15	5	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	140	3,300	µg/Kg-dry	10	12-Jan-15	6	Z5	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	140	3,300	µg/Kg-dry	10	12-Jan-15	7	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	140	3,200	µg/Kg-dry	10	12-Jan-15	8	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	140	3,200	µg/Kg-dry	10	12-Jan-15	9	Z6	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Carbazole	4,900	4,900	--	99	1,600	µg/Kg-dry	10	12-Jan-15	5	Z5	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Carbazole	1,900	1,900	--	97	1,600	µg/Kg-dry	10	13-Jan-15	11	Z7	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Carbazole	1,800	1,800	--	97	1,600	µg/Kg-dry	10	12-Jan-15	4	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Carbazole	1,500	1,500	J	98	1,600	µg/Kg-dry	10	12-Jan-15	6	Z5	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Carbazole	1,300	1,300	J	98	1,600	µg/Kg-dry	10	12-Jan-15	10	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Carbazole	1,200	1,200	J	99	1,600	µg/Kg-dry	10	12-Jan-15	12	Z7	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Carbazole	850	850	J	97	1,600	µg/Kg-dry	10	12-Jan-15	9	Z6	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Carbazole	580	580	J	98	1,600	µg/Kg-dry	10	12-Jan-15	7	Z6	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Carbazole	340	340	--	3.5	32	µg/Kg-dry	1	04-Feb-15	18	Z9	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Carbazole	180	180	J	97	1,600	µg/Kg-dry	10	12-Jan-15	8	Z6	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Carbazole	160	160	J	9.7	160	µg/Kg-dry	1	06-Feb-15	17	Z9	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Carbazole	140	140	J	9.6	160	µg/Kg-dry	1	06-Feb-15	23	Z1	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Carbazole	89	89	J	9.7	160	µg/Kg-dry	1	06-Feb-15	22	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Carbazole	72	72	J	9.8	160	µg/Kg-dry	1	06-Feb-15	24	Z1	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Carbazole	58	58	J	9.8	160	µg/Kg-dry	1	13-Jan-15	2	Z3	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Carbazole	48	48	J	9.7	160	µg/Kg-dry	1	06-Feb-15	28	Z4	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Carbazole	45	45	J	9.9	160	µg/Kg-dry	1	13-Jan-15	3	Z3	2015

Table A-6
Volatile and Semivolatile Organic Compound Data for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	Rlimit	Runits	Dilution Factor	Anal Date	Cell	Zone	Year
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Carbazole	27	27	J	9.9	160	µg/Kg-dry	1	05-Feb-15	19	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Carbazole	25	25	J	9.9	160	µg/Kg-dry	1	05-Feb-15	21	Z2	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Carbazole	19	19	J	9.8	160	µg/Kg-dry	1	05-Feb-15	14	Z8	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Carbazole	--	U	U	49	780	µg/Kg-dry	5	06-Feb-15	13	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Carbazole	--	U	U	9.8	160	µg/Kg-dry	1	06-Feb-15	15	Z8	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Carbazole	--	U	U	49	790	µg/Kg-dry	5	06-Feb-15	16	Z9	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Carbazole	--	U	U	3.6	33	µg/Kg-dry	1	13-Jan-15	1	Z3	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Carbazole	--	U	U	9.8	160	µg/Kg-dry	1	06-Feb-15	20	Z2	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Carbazole	--	U	U	9.7	160	µg/Kg-dry	1	06-Feb-15	25	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Carbazole	--	U	U	9.7	160	µg/Kg-dry	1	06-Feb-15	26	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Carbazole	--	U	U	9.8	160	µg/Kg-dry	1	05-Feb-15	27	Z10	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Carbazole	--	U	U	36	330	µg/Kg-dry	10	09-Feb-15	29	Z4	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Carbazole	--	U	U	36	330	µg/Kg-dry	10	09-Feb-15	30	Z4	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Chrysene	17,000	17,000	--	16	300	µg/Kg-dry	10	12-Jan-15	5	Z5	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Chrysene	7,300	7,300	--	16	290	µg/Kg-dry	10	13-Jan-15	11	Z7	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Chrysene	7,100	7,100	--	16	300	µg/Kg-dry	10	12-Jan-15	6	Z5	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Chrysene	6,400	6,400	--	16	290	µg/Kg-dry	10	12-Jan-15	4	Z5	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Chrysene	5,900	5,900	--	16	300	µg/Kg-dry	10	12-Jan-15	10	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Chrysene	4,800	4,800	--	16	300	µg/Kg-dry	10	12-Jan-15	12	Z7	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Chrysene	3,700	3,700	--	15	290	µg/Kg-dry	10	12-Jan-15	9	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Chrysene	2,200	2,200	--	15	290	µg/Kg-dry	10	12-Jan-15	8	Z6	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Chrysene	2,000	2,000	--	16	300	µg/Kg-dry	10	12-Jan-15	7	Z6	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Chrysene	1,600	1,600	--	5.3	6.5	µg/Kg-dry	1	04-Feb-15	18	Z9	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Chrysene	1,500	1,500	--	1.5	6.5	µg/Kg-dry	1	06-Feb-15	23	Z1	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Chrysene	1,100	1,100	--	1.5	6.5	µg/Kg-dry	1	06-Feb-15	17	Z9	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Chrysene	730	730	--	7.8	33	µg/Kg-dry	5	06-Feb-15	16	Z9	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Chrysene	690	690	--	1.5	6.5	µg/Kg-dry	1	06-Feb-15	28	Z4	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Chrysene	650	650	--	1.6	6.6	µg/Kg-dry	1	06-Feb-15	24	Z1	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Chrysene	600	600	--	1.6	6.5	µg/Kg-dry	1	06-Feb-15	22	Z1	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Chrysene	590	590	--	1.6	30	µg/Kg-dry	1	13-Jan-15	3	Z3	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Chrysene	530	530	--	53	66	µg/Kg-dry	10	09-Feb-15	29	Z4	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Chrysene	490	490	--	54	66	µg/Kg-dry	10	09-Feb-15	30	Z4	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Chrysene	390	390	--	1.6	6.6	µg/Kg-dry	1	05-Feb-15	19	Z2	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Chrysene	360	360	--	7.8	33	µg/Kg-dry	5	06-Feb-15	13	Z8	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Chrysene	360	360	--	1.6	30	µg/Kg-dry	1	13-Jan-15	2	Z3	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Chrysene	250	250	--	1.6	6.7	µg/Kg-dry	1	05-Feb-15	21	Z2	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Chrysene	200	200	--	5.4	6.6	µg/Kg-dry	1	13-Jan-15	1	Z3	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Chrysene	120	120	--	1.6	6.6	µg/Kg-dry	1	05-Feb-15	14	Z8	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Chrysene	120	120	--	1.6	6.6	µg/Kg-dry	1	06-Feb-15	20	Z2	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Chrysene	87	87	--	1.6	6.6	µg/Kg-dry	1	06-Feb-15	15	Z8	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Chrysene	61	61	--	1.6	6.5	µg/Kg-dry	1	06-Feb-15	25	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Chrysene	46	46	--	1.6	6.6	µg/Kg-dry	1	05-Feb-15	27	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Chrysene	44	44	--	1.5	6.5	µg/Kg-dry	1	06-Feb-15	26	Z10	2015

Table A-6
Volatile and Semivolatile Organic Compound Data for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	Rlimit	Runits	Dilution Factor	Anal Date	Cell	Zone	Year
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	2,200	2,200	--	25	300	µg/Kg-dry	10	12-Jan-15	5	Z5	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	1,300	1,300	--	24	290	µg/Kg-dry	10	13-Jan-15	11	Z7	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	1,100	1,100	--	24	290	µg/Kg-dry	10	12-Jan-15	4	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	1,100	1,100	--	24	300	µg/Kg-dry	10	12-Jan-15	6	Z5	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	890	890	--	25	300	µg/Kg-dry	10	12-Jan-15	12	Z7	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	880	880	--	25	300	µg/Kg-dry	10	12-Jan-15	10	Z7	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	700	700	--	24	290	µg/Kg-dry	10	12-Jan-15	9	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	530	530	--	24	290	µg/Kg-dry	10	12-Jan-15	8	Z6	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	270	270	--	3.5	6.5	µg/Kg-dry	1	04-Feb-15	18	Z9	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	220	220	--	2.4	6.5	µg/Kg-dry	1	06-Feb-15	23	Z1	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	180	180	--	2.4	6.5	µg/Kg-dry	1	06-Feb-15	28	Z4	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	170	170	--	2.4	6.5	µg/Kg-dry	1	06-Feb-15	17	Z9	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	150	150	--	36	66	µg/Kg-dry	10	09-Feb-15	29	Z4	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	140	140	--	12	33	µg/Kg-dry	5	06-Feb-15	16	Z9	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	130	130	--	2.5	30	µg/Kg-dry	1	13-Jan-15	3	Z3	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	120	120	--	36	66	µg/Kg-dry	10	09-Feb-15	30	Z4	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	84	84	--	2.4	6.6	µg/Kg-dry	1	06-Feb-15	24	Z1	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	79	79	--	2.4	6.5	µg/Kg-dry	1	06-Feb-15	22	Z1	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	78	78	--	12	33	µg/Kg-dry	5	06-Feb-15	13	Z8	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	73	73	--	2.5	6.6	µg/Kg-dry	1	05-Feb-15	19	Z2	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	69	69	--	2.5	30	µg/Kg-dry	1	13-Jan-15	2	Z3	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	52	52	--	3.6	6.6	µg/Kg-dry	1	13-Jan-15	1	Z3	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	33	33	--	2.5	6.7	µg/Kg-dry	1	05-Feb-15	21	Z2	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	28	28	--	2.5	6.6	µg/Kg-dry	1	06-Feb-15	20	Z2	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	26	26	--	2.4	6.6	µg/Kg-dry	1	05-Feb-15	14	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	25	25	--	2.5	6.6	µg/Kg-dry	1	06-Feb-15	15	Z8	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	23	23	--	2.4	6.5	µg/Kg-dry	1	06-Feb-15	25	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	19	19	--	2.4	6.5	µg/Kg-dry	1	06-Feb-15	26	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	11	11	--	2.5	6.6	µg/Kg-dry	1	05-Feb-15	27	Z10	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	--	U	U	25	300	µg/Kg-dry	10	12-Jan-15	7	Z6	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	4,700	4,700	--	100	1,600	µg/Kg-dry	10	12-Jan-15	5	Z5	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	1,800	1,800	--	100	1,600	µg/Kg-dry	10	12-Jan-15	10	Z7	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	1,600	1,600	J	100	1,600	µg/Kg-dry	10	12-Jan-15	6	Z5	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	1,500	1,500	J	100	1,600	µg/Kg-dry	10	12-Jan-15	12	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	1,200	1,200	J	100	1,600	µg/Kg-dry	10	13-Jan-15	11	Z7	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	1,200	1,200	J	100	1,600	µg/Kg-dry	10	12-Jan-15	4	Z5	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	650	650	J	100	1,600	µg/Kg-dry	10	12-Jan-15	9	Z6	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	620	620	J	100	1,600	µg/Kg-dry	10	12-Jan-15	7	Z6	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	180	180	--	4.8	32	µg/Kg-dry	1	04-Feb-15	18	Z9	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	92	92	J	10	160	µg/Kg-dry	1	06-Feb-15	23	Z1	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	76	76	J	10	160	µg/Kg-dry	1	13-Jan-15	3	Z3	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	72	72	J	10	160	µg/Kg-dry	1	13-Jan-15	2	Z3	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	58	58	J	10	160	µg/Kg-dry	1	06-Feb-15	24	Z1	2015

Table A-6
Volatile and Semivolatile Organic Compound Data for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	Rlimit	Runits	Dilution Factor	Anal Date	Cell	Zone	Year
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	49	49	J	10	160	µg/Kg-dry	1	06-Feb-15	22	Z1	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	45	45	J	10	160	µg/Kg-dry	1	06-Feb-15	28	Z4	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	26	26	J	4.9	33	µg/Kg-dry	1	13-Jan-15	1	Z3	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	17	17	J	10	160	µg/Kg-dry	1	05-Feb-15	19	Z2	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	--	U	U	51	780	µg/Kg-dry	5	06-Feb-15	13	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	--	U	U	10	160	µg/Kg-dry	1	05-Feb-15	14	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	--	U	U	10	160	µg/Kg-dry	1	06-Feb-15	15	Z8	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	--	U	U	51	790	µg/Kg-dry	5	06-Feb-15	16	Z9	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	--	U	U	10	160	µg/Kg-dry	1	06-Feb-15	17	Z9	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	--	U	U	10	160	µg/Kg-dry	1	06-Feb-15	20	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	--	U	U	10	160	µg/Kg-dry	1	05-Feb-15	21	Z2	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	--	U	U	10	160	µg/Kg-dry	1	06-Feb-15	25	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	--	U	U	10	160	µg/Kg-dry	1	06-Feb-15	26	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	--	U	U	10	160	µg/Kg-dry	1	05-Feb-15	27	Z10	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	--	U	U	48	330	µg/Kg-dry	10	09-Feb-15	29	Z4	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	--	U	U	49	330	µg/Kg-dry	10	09-Feb-15	30	Z4	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	--	U	U	100	1,600	µg/Kg-dry	10	12-Jan-15	8	Z6	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	95	95	J	10	320	µg/Kg-dry	1	06-Feb-15	24	Z1	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	100	3,300	µg/Kg-dry	10	12-Jan-15	10	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	100	3,200	µg/Kg-dry	10	13-Jan-15	11	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	110	3,300	µg/Kg-dry	10	12-Jan-15	12	Z7	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	52	1,600	µg/Kg-dry	5	06-Feb-15	13	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	10	330	µg/Kg-dry	1	05-Feb-15	14	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	10	330	µg/Kg-dry	1	06-Feb-15	15	Z8	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	52	1,600	µg/Kg-dry	5	06-Feb-15	16	Z9	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	10	320	µg/Kg-dry	1	06-Feb-15	17	Z9	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	5	32	µg/Kg-dry	1	04-Feb-15	18	Z9	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	11	330	µg/Kg-dry	1	05-Feb-15	19	Z2	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	5.1	33	µg/Kg-dry	1	13-Jan-15	1	Z3	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	10	330	µg/Kg-dry	1	06-Feb-15	20	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	11	330	µg/Kg-dry	1	05-Feb-15	21	Z2	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	10	320	µg/Kg-dry	1	06-Feb-15	22	Z1	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	10	320	µg/Kg-dry	1	06-Feb-15	23	Z1	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	10	320	µg/Kg-dry	1	06-Feb-15	25	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	10	320	µg/Kg-dry	1	06-Feb-15	26	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	10	330	µg/Kg-dry	1	05-Feb-15	27	Z10	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	10	320	µg/Kg-dry	1	06-Feb-15	28	Z4	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	50	330	µg/Kg-dry	10	09-Feb-15	29	Z4	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	10	330	µg/Kg-dry	1	13-Jan-15	2	Z3	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	51	330	µg/Kg-dry	10	09-Feb-15	30	Z4	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	11	330	µg/Kg-dry	1	13-Jan-15	3	Z3	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	100	3,200	µg/Kg-dry	10	12-Jan-15	4	Z5	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	110	3,300	µg/Kg-dry	10	12-Jan-15	5	Z5	2015

Table A-6
Volatile and Semivolatile Organic Compound Data for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	Rlimit	Runits	Dilution Factor	Anal Date	Cell	Zone	Year
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	100	3,300	µg/Kg-dry	10	12-Jan-15	6	Z5	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	100	3,300	µg/Kg-dry	10	12-Jan-15	7	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	100	3,200	µg/Kg-dry	10	12-Jan-15	8	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	100	3,200	µg/Kg-dry	10	12-Jan-15	9	Z6	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	110	3,300	µg/Kg-dry	10	12-Jan-15	10	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	110	3,200	µg/Kg-dry	10	13-Jan-15	11	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	110	3,300	µg/Kg-dry	10	12-Jan-15	12	Z7	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	55	1,600	µg/Kg-dry	5	06-Feb-15	13	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	11	330	µg/Kg-dry	1	05-Feb-15	14	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	11	330	µg/Kg-dry	1	06-Feb-15	15	Z8	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	55	1,600	µg/Kg-dry	5	06-Feb-15	16	Z9	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	11	320	µg/Kg-dry	1	06-Feb-15	17	Z9	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	6.3	32	µg/Kg-dry	1	04-Feb-15	18	Z9	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	11	330	µg/Kg-dry	1	05-Feb-15	19	Z2	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	6.5	33	µg/Kg-dry	1	13-Jan-15	1	Z3	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	11	330	µg/Kg-dry	1	06-Feb-15	20	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	11	330	µg/Kg-dry	1	05-Feb-15	21	Z2	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	11	320	µg/Kg-dry	1	06-Feb-15	22	Z1	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	11	320	µg/Kg-dry	1	06-Feb-15	23	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	11	320	µg/Kg-dry	1	06-Feb-15	24	Z1	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	11	320	µg/Kg-dry	1	06-Feb-15	25	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	11	320	µg/Kg-dry	1	06-Feb-15	26	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	11	330	µg/Kg-dry	1	05-Feb-15	27	Z10	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	11	320	µg/Kg-dry	1	06-Feb-15	28	Z4	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	64	330	µg/Kg-dry	10	09-Feb-15	29	Z4	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	11	330	µg/Kg-dry	1	13-Jan-15	2	Z3	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	65	330	µg/Kg-dry	10	09-Feb-15	30	Z4	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	11	330	µg/Kg-dry	1	13-Jan-15	3	Z3	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	110	3,200	µg/Kg-dry	10	12-Jan-15	4	Z5	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	110	3,300	µg/Kg-dry	10	12-Jan-15	5	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	110	3,300	µg/Kg-dry	10	12-Jan-15	6	Z5	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	110	3,300	µg/Kg-dry	10	12-Jan-15	7	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	110	3,200	µg/Kg-dry	10	12-Jan-15	8	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	110	3,200	µg/Kg-dry	10	12-Jan-15	9	Z6	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	1,500	1,500	J	24	1,600	µg/Kg-dry	5	06-Feb-15	13	Z8	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	900	900	J	24	1,600	µg/Kg-dry	5	06-Feb-15	16	Z9	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	850	850	--	4.8	330	µg/Kg-dry	1	06-Feb-15	15	Z8	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	220	220	J	4.7	320	µg/Kg-dry	1	06-Feb-15	22	Z1	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	210	210	J	4.7	330	µg/Kg-dry	1	05-Feb-15	14	Z8	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	160	160	--	5.9	32	µg/Kg-dry	1	04-Feb-15	18	Z9	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	66	66	J	4.7	320	µg/Kg-dry	1	06-Feb-15	28	Z4	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U	48	3,300	µg/Kg-dry	10	12-Jan-15	10	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U	47	3,200	µg/Kg-dry	10	13-Jan-15	11	Z7	2015

Table A-6
Volatile and Semivolatile Organic Compound Data for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	Rlimit	Runits	Dilution Factor	Anal Date	Cell	Zone	Year
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U	48	3,300	µg/Kg-dry	10	12-Jan-15	12	Z7	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U	4.7	320	µg/Kg-dry	1	06-Feb-15	17	Z9	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U	4.8	330	µg/Kg-dry	1	05-Feb-15	19	Z2	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U	6.1	33	µg/Kg-dry	1	13-Jan-15	1	Z3	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U	4.8	330	µg/Kg-dry	1	06-Feb-15	20	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U	4.8	330	µg/Kg-dry	1	05-Feb-15	21	Z2	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U	4.7	320	µg/Kg-dry	1	06-Feb-15	23	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U	4.7	320	µg/Kg-dry	1	06-Feb-15	24	Z1	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U	4.7	320	µg/Kg-dry	1	06-Feb-15	25	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U	4.7	320	µg/Kg-dry	1	06-Feb-15	26	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U	4.8	330	µg/Kg-dry	1	05-Feb-15	27	Z10	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U	60	330	µg/Kg-dry	10	09-Feb-15	29	Z4	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U	4.8	330	µg/Kg-dry	1	13-Jan-15	2	Z3	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U	61	330	µg/Kg-dry	10	09-Feb-15	30	Z4	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U	4.8	330	µg/Kg-dry	1	13-Jan-15	3	Z3	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U	47	3,200	µg/Kg-dry	10	12-Jan-15	4	Z5	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U	48	3,300	µg/Kg-dry	10	12-Jan-15	5	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U	48	3,300	µg/Kg-dry	10	12-Jan-15	6	Z5	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U	48	3,300	µg/Kg-dry	10	12-Jan-15	7	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U	47	3,200	µg/Kg-dry	10	12-Jan-15	8	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U	47	3,200	µg/Kg-dry	10	12-Jan-15	9	Z6	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	730	730	J	110	1,600	µg/Kg-dry	10	12-Jan-15	5	Z5	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	110	1,600	µg/Kg-dry	10	12-Jan-15	10	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	110	1,600	µg/Kg-dry	10	13-Jan-15	11	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	110	1,600	µg/Kg-dry	10	12-Jan-15	12	Z7	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	53	780	µg/Kg-dry	5	06-Feb-15	13	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	11	160	µg/Kg-dry	1	05-Feb-15	14	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	11	160	µg/Kg-dry	1	06-Feb-15	15	Z8	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	53	790	µg/Kg-dry	5	06-Feb-15	16	Z9	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	11	160	µg/Kg-dry	1	06-Feb-15	17	Z9	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	6.2	32	µg/Kg-dry	1	04-Feb-15	18	Z9	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	11	160	µg/Kg-dry	1	05-Feb-15	19	Z2	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	6.4	33	µg/Kg-dry	1	13-Jan-15	1	Z3	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	11	160	µg/Kg-dry	1	06-Feb-15	20	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	11	160	µg/Kg-dry	1	05-Feb-15	21	Z2	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	11	160	µg/Kg-dry	1	06-Feb-15	22	Z1	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	10	160	µg/Kg-dry	1	06-Feb-15	23	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	11	160	µg/Kg-dry	1	06-Feb-15	24	Z1	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	11	160	µg/Kg-dry	1	06-Feb-15	25	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	11	160	µg/Kg-dry	1	06-Feb-15	26	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	11	160	µg/Kg-dry	1	05-Feb-15	27	Z10	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	11	160	µg/Kg-dry	1	06-Feb-15	28	Z4	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	63	330	µg/Kg-dry	10	09-Feb-15	29	Z4	2015

Table A-6
Volatile and Semivolatile Organic Compound Data for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	Rlimit	Runits	Dilution Factor	Anal Date	Cell	Zone	Year
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	11	160	µg/Kg-dry	1	13-Jan-15	2	Z3	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	64	330	µg/Kg-dry	10	09-Feb-15	30	Z4	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	11	160	µg/Kg-dry	1	13-Jan-15	3	Z3	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	110	1,600	µg/Kg-dry	10	12-Jan-15	4	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	110	1,600	µg/Kg-dry	10	12-Jan-15	6	Z5	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	110	1,600	µg/Kg-dry	10	12-Jan-15	7	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	110	1,600	µg/Kg-dry	10	12-Jan-15	8	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	110	1,600	µg/Kg-dry	10	12-Jan-15	9	Z6	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluoranthene	66,000	66,000	E	23	300	µg/Kg-dry	10	12-Jan-15	5	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluoranthene	21,000	21,000	E	23	300	µg/Kg-dry	10	12-Jan-15	6	Z5	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluoranthene	20,000	20,000	E	23	290	µg/Kg-dry	10	12-Jan-15	4	Z5	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluoranthene	19,000	19,000	--	23	290	µg/Kg-dry	10	13-Jan-15	11	Z7	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluoranthene	15,000	15,000	--	23	300	µg/Kg-dry	10	12-Jan-15	10	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluoranthene	13,000	13,000	--	23	300	µg/Kg-dry	10	12-Jan-15	12	Z7	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluoranthene	8,700	8,700	--	23	290	µg/Kg-dry	10	12-Jan-15	9	Z6	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluoranthene	5,200	5,200	--	23	300	µg/Kg-dry	10	12-Jan-15	7	Z6	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluoranthene	5,100	5,100	E	3.1	6.5	µg/Kg-dry	1	04-Feb-15	18	Z9	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluoranthene	4,300	4,300	E	2.3	6.5	µg/Kg-dry	1	06-Feb-15	23	Z1	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluoranthene	3,900	3,900	--	23	290	µg/Kg-dry	10	12-Jan-15	8	Z6	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluoranthene	2,600	2,600	E	2.3	6.5	µg/Kg-dry	1	06-Feb-15	17	Z9	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluoranthene	1,500	1,500	--	12	33	µg/Kg-dry	5	06-Feb-15	16	Z9	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluoranthene	1,400	1,400	--	2.3	6.5	µg/Kg-dry	1	06-Feb-15	22	Z1	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluoranthene	870	870	--	2.3	30	µg/Kg-dry	1	13-Jan-15	3	Z3	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluoranthene	860	860	--	2.3	6.6	µg/Kg-dry	1	06-Feb-15	24	Z1	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluoranthene	800	800	--	2.3	30	µg/Kg-dry	1	13-Jan-15	2	Z3	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluoranthene	780	780	--	2.3	6.5	µg/Kg-dry	1	06-Feb-15	28	Z4	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluoranthene	780	780	--	32	66	µg/Kg-dry	10	09-Feb-15	30	Z4	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluoranthene	750	750	--	11	33	µg/Kg-dry	5	06-Feb-15	13	Z8	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluoranthene	670	670	--	2.3	6.6	µg/Kg-dry	1	05-Feb-15	19	Z2	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluoranthene	670	670	--	32	66	µg/Kg-dry	10	09-Feb-15	29	Z4	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluoranthene	430	430	--	2.3	6.7	µg/Kg-dry	1	05-Feb-15	21	Z2	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluoranthene	310	310	--	3.2	6.6	µg/Kg-dry	1	13-Jan-15	1	Z3	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluoranthene	200	200	--	2.3	6.6	µg/Kg-dry	1	06-Feb-15	20	Z2	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluoranthene	180	180	--	2.3	6.6	µg/Kg-dry	1	05-Feb-15	14	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluoranthene	140	140	--	2.3	6.6	µg/Kg-dry	1	06-Feb-15	15	Z8	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluoranthene	110	110	--	2.3	6.5	µg/Kg-dry	1	06-Feb-15	25	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluoranthene	81	81	--	2.3	6.6	µg/Kg-dry	1	05-Feb-15	27	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluoranthene	76	76	--	2.3	6.5	µg/Kg-dry	1	06-Feb-15	26	Z10	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluorene	720	720	--	22	300	µg/Kg-dry	10	12-Jan-15	5	Z5	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluorene	670	670	--	22	300	µg/Kg-dry	10	12-Jan-15	12	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluorene	570	570	--	22	290	µg/Kg-dry	10	13-Jan-15	11	Z7	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluorene	530	530	--	22	300	µg/Kg-dry	10	12-Jan-15	6	Z5	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluorene	360	360	--	22	290	µg/Kg-dry	10	12-Jan-15	9	Z6	2015

Table A-6
Volatile and Semivolatile Organic Compound Data for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	Rlimit	Runits	Dilution Factor	Anal Date	Cell	Zone	Year
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluorene	330	330	--	22	300	µg/Kg-dry	10	12-Jan-15	10	Z7	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluorene	330	330	--	22	300	µg/Kg-dry	10	12-Jan-15	7	Z6	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluorene	260	260	J	22	290	µg/Kg-dry	10	12-Jan-15	4	Z5	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluorene	58	58	--	4.7	6.5	µg/Kg-dry	1	04-Feb-15	18	Z9	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluorene	52	52	J	22	290	µg/Kg-dry	10	12-Jan-15	8	Z6	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluorene	49	49	--	2.2	6.5	µg/Kg-dry	1	06-Feb-15	17	Z9	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluorene	43	43	--	2.2	6.5	µg/Kg-dry	1	06-Feb-15	23	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluorene	34	34	--	2.2	6.6	µg/Kg-dry	1	06-Feb-15	24	Z1	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluorene	27	27	--	2.2	6.5	µg/Kg-dry	1	06-Feb-15	22	Z1	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluorene	27	27	--	2.2	6.5	µg/Kg-dry	1	06-Feb-15	28	Z4	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluorene	26	26	J	11	33	µg/Kg-dry	5	06-Feb-15	16	Z9	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluorene	21	21	J	2.2	30	µg/Kg-dry	1	13-Jan-15	2	Z3	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluorene	17	17	J	2.2	30	µg/Kg-dry	1	13-Jan-15	3	Z3	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluorene	16	16	--	4.8	6.6	µg/Kg-dry	1	13-Jan-15	1	Z3	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluorene	8.4	8.4	--	2.2	6.7	µg/Kg-dry	1	05-Feb-15	21	Z2	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluorene	4.9	4.9	J	2.2	6.6	µg/Kg-dry	1	06-Feb-15	15	Z8	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluorene	4	4.0	J	2.2	6.6	µg/Kg-dry	1	05-Feb-15	19	Z2	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluorene	3.9	3.9	J	2.2	6.5	µg/Kg-dry	1	06-Feb-15	25	Z10	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluorene	--	U	U	11	33	µg/Kg-dry	5	06-Feb-15	13	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluorene	--	U	U	2.2	6.6	µg/Kg-dry	1	05-Feb-15	14	Z8	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluorene	--	U	U	2.2	6.6	µg/Kg-dry	1	06-Feb-15	20	Z2	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluorene	--	U	U	2.2	6.5	µg/Kg-dry	1	06-Feb-15	26	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluorene	--	U	U	2.2	6.6	µg/Kg-dry	1	05-Feb-15	27	Z10	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluorene	--	U	U	48	66	µg/Kg-dry	10	09-Feb-15	29	Z4	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluorene	--	U	U	48	66	µg/Kg-dry	10	09-Feb-15	30	Z4	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	92	1,600	µg/Kg-dry	10	12-Jan-15	10	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	91	1,600	µg/Kg-dry	10	13-Jan-15	11	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	93	1,600	µg/Kg-dry	10	12-Jan-15	12	Z7	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	46	780	µg/Kg-dry	5	06-Feb-15	13	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	9.2	160	µg/Kg-dry	1	05-Feb-15	14	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	9.2	160	µg/Kg-dry	1	06-Feb-15	15	Z8	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	46	790	µg/Kg-dry	5	06-Feb-15	16	Z9	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	9.1	160	µg/Kg-dry	1	06-Feb-15	17	Z9	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	9.5	32	µg/Kg-dry	1	04-Feb-15	18	Z9	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	9.3	160	µg/Kg-dry	1	05-Feb-15	19	Z2	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	9.6	33	µg/Kg-dry	1	13-Jan-15	1	Z3	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	9.2	160	µg/Kg-dry	1	06-Feb-15	20	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	9.4	160	µg/Kg-dry	1	05-Feb-15	21	Z2	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	9.1	160	µg/Kg-dry	1	06-Feb-15	22	Z1	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	9.1	160	µg/Kg-dry	1	06-Feb-15	23	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	9.2	160	µg/Kg-dry	1	06-Feb-15	24	Z1	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	9.1	160	µg/Kg-dry	1	06-Feb-15	25	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	9.1	160	µg/Kg-dry	1	06-Feb-15	26	Z10	2015

Table A-6
Volatile and Semivolatile Organic Compound Data for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	Rlimit	Runits	Dilution Factor	Anal Date	Cell	Zone	Year
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	9.2	160	µg/Kg-dry	1	05-Feb-15	27	Z10	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	9.1	160	µg/Kg-dry	1	06-Feb-15	28	Z4	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	96	330	µg/Kg-dry	10	09-Feb-15	29	Z4	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	9.2	160	µg/Kg-dry	1	13-Jan-15	2	Z3	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	96	330	µg/Kg-dry	10	09-Feb-15	30	Z4	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	9.3	160	µg/Kg-dry	1	13-Jan-15	3	Z3	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	91	1,600	µg/Kg-dry	10	12-Jan-15	4	Z5	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	93	1,600	µg/Kg-dry	10	12-Jan-15	5	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	92	1,600	µg/Kg-dry	10	12-Jan-15	6	Z5	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	92	1,600	µg/Kg-dry	10	12-Jan-15	7	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	91	1,600	µg/Kg-dry	10	12-Jan-15	8	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	91	1,600	µg/Kg-dry	10	12-Jan-15	9	Z6	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	110	490	µg/Kg-dry	10	12-Jan-15	10	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	110	490	µg/Kg-dry	10	13-Jan-15	11	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	110	500	µg/Kg-dry	10	12-Jan-15	12	Z7	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	55	780	µg/Kg-dry	5	06-Feb-15	13	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	11	160	µg/Kg-dry	1	05-Feb-15	14	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	11	160	µg/Kg-dry	1	06-Feb-15	15	Z8	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	55	790	µg/Kg-dry	5	06-Feb-15	16	Z9	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	11	160	µg/Kg-dry	1	06-Feb-15	17	Z9	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	18	32	µg/Kg-dry	1	04-Feb-15	18	Z9	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	11	160	µg/Kg-dry	1	05-Feb-15	19	Z2	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	18	33	µg/Kg-dry	1	13-Jan-15	1	Z3	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	11	160	µg/Kg-dry	1	06-Feb-15	20	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	11	160	µg/Kg-dry	1	05-Feb-15	21	Z2	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	11	160	µg/Kg-dry	1	06-Feb-15	22	Z1	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	11	160	µg/Kg-dry	1	06-Feb-15	23	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	11	160	µg/Kg-dry	1	06-Feb-15	24	Z1	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	11	160	µg/Kg-dry	1	06-Feb-15	25	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	11	160	µg/Kg-dry	1	06-Feb-15	26	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	11	160	µg/Kg-dry	1	05-Feb-15	27	Z10	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	11	160	µg/Kg-dry	1	06-Feb-15	28	Z4	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	180	330	µg/Kg-dry	10	09-Feb-15	29	Z4	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	11	50	µg/Kg-dry	1	13-Jan-15	2	Z3	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	180	330	µg/Kg-dry	10	09-Feb-15	30	Z4	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	11	50	µg/Kg-dry	1	13-Jan-15	3	Z3	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	110	490	µg/Kg-dry	10	12-Jan-15	4	Z5	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	110	500	µg/Kg-dry	10	12-Jan-15	5	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	110	490	µg/Kg-dry	10	12-Jan-15	6	Z5	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	110	490	µg/Kg-dry	10	12-Jan-15	7	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	110	490	µg/Kg-dry	10	12-Jan-15	8	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	110	490	µg/Kg-dry	10	12-Jan-15	9	Z6	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	100	3,300	µg/Kg-dry	10	12-Jan-15	10	Z7	2015

Table A-6
Volatile and Semivolatile Organic Compound Data for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	Rlimit	Runits	Dilution Factor	Anal Date	Cell	Zone	Year
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	100	3,200	µg/Kg-dry	10	13-Jan-15	11	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	100	3,300	µg/Kg-dry	10	12-Jan-15	12	Z7	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	51	1,600	µg/Kg-dry	5	06-Feb-15	13	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	10	330	µg/Kg-dry	1	05-Feb-15	14	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	10	330	µg/Kg-dry	1	06-Feb-15	15	Z8	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	52	1,600	µg/Kg-dry	5	06-Feb-15	16	Z9	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	10	320	µg/Kg-dry	1	06-Feb-15	17	Z9	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	11	32	µg/Kg-dry	1	04-Feb-15	18	Z9	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	10	330	µg/Kg-dry	1	05-Feb-15	19	Z2	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	11	33	µg/Kg-dry	1	13-Jan-15	1	Z3	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	10	330	µg/Kg-dry	1	06-Feb-15	20	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	11	330	µg/Kg-dry	1	05-Feb-15	21	Z2	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	10	320	µg/Kg-dry	1	06-Feb-15	22	Z1	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	10	320	µg/Kg-dry	1	06-Feb-15	23	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	10	320	µg/Kg-dry	1	06-Feb-15	24	Z1	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	10	320	µg/Kg-dry	1	06-Feb-15	25	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	10	320	µg/Kg-dry	1	06-Feb-15	26	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	10	330	µg/Kg-dry	1	05-Feb-15	27	Z10	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	10	320	µg/Kg-dry	1	06-Feb-15	28	Z4	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	110	330	µg/Kg-dry	10	09-Feb-15	29	Z4	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	10	330	µg/Kg-dry	1	13-Jan-15	2	Z3	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	110	330	µg/Kg-dry	10	09-Feb-15	30	Z4	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	10	330	µg/Kg-dry	1	13-Jan-15	3	Z3	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	100	3,200	µg/Kg-dry	10	12-Jan-15	4	Z5	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	100	3,300	µg/Kg-dry	10	12-Jan-15	5	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	100	3,300	µg/Kg-dry	10	12-Jan-15	6	Z5	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	100	3,300	µg/Kg-dry	10	12-Jan-15	7	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	100	3,200	µg/Kg-dry	10	12-Jan-15	8	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	100	3,200	µg/Kg-dry	10	12-Jan-15	9	Z6	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	150	1,600	µg/Kg-dry	10	12-Jan-15	10	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	150	1,600	µg/Kg-dry	10	13-Jan-15	11	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	160	1,600	µg/Kg-dry	10	12-Jan-15	12	Z7	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	76	780	µg/Kg-dry	5	06-Feb-15	13	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	15	160	µg/Kg-dry	1	05-Feb-15	14	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	15	160	µg/Kg-dry	1	06-Feb-15	15	Z8	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	77	790	µg/Kg-dry	5	06-Feb-15	16	Z9	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	15	160	µg/Kg-dry	1	06-Feb-15	17	Z9	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	13	32	µg/Kg-dry	1	04-Feb-15	18	Z9	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	15	160	µg/Kg-dry	1	05-Feb-15	19	Z2	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	14	33	µg/Kg-dry	1	13-Jan-15	1	Z3	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	15	160	µg/Kg-dry	1	06-Feb-15	20	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	16	160	µg/Kg-dry	1	05-Feb-15	21	Z2	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	15	160	µg/Kg-dry	1	06-Feb-15	22	Z1	2015

Table A-6
Volatile and Semivolatile Organic Compound Data for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	Rlimit	Runits	Dilution Factor	Anal Date	Cell	Zone	Year
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	15	160	µg/Kg-dry	1	06-Feb-15	23	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	15	160	µg/Kg-dry	1	06-Feb-15	24	Z1	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	15	160	µg/Kg-dry	1	06-Feb-15	25	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	15	160	µg/Kg-dry	1	06-Feb-15	26	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	15	160	µg/Kg-dry	1	05-Feb-15	27	Z10	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	15	160	µg/Kg-dry	1	06-Feb-15	28	Z4	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	140	330	µg/Kg-dry	10	09-Feb-15	29	Z4	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	15	160	µg/Kg-dry	1	13-Jan-15	2	Z3	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	140	330	µg/Kg-dry	10	09-Feb-15	30	Z4	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	16	160	µg/Kg-dry	1	13-Jan-15	3	Z3	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	150	1,600	µg/Kg-dry	10	12-Jan-15	4	Z5	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	150	1,600	µg/Kg-dry	10	12-Jan-15	5	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	150	1,600	µg/Kg-dry	10	12-Jan-15	6	Z5	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	150	1,600	µg/Kg-dry	10	12-Jan-15	7	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	150	1,600	µg/Kg-dry	10	12-Jan-15	8	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	150	1,600	µg/Kg-dry	10	12-Jan-15	9	Z6	2015
ISM-5-Z5	1501301-05	7-Jan-15	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	198100	--	--	--	--	µg/Kg-dry	--	12-Jan-15	5	Z5	2015
ISM-6-Z5	1501301-06	7-Jan-15	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	76700	--	--	--	--	µg/Kg-dry	--	12-Jan-15	6	Z5	2015
ISM-11-Z7	1501301-11	8-Jan-15	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	73300	--	--	--	--	µg/Kg-dry	--	13-Jan-15	11	Z7	2015
ISM-4-Z5	1501301-04	6-Jan-15	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	67500	--	--	--	--	µg/Kg-dry	--	12-Jan-15	4	Z5	2015
ISM-10-Z7	1501301-10	8-Jan-15	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	56280	--	--	--	--	µg/Kg-dry	--	12-Jan-15	10	Z7	2015
ISM-12-Z7	1501301-12	8-Jan-15	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	50790	--	--	--	--	µg/Kg-dry	--	12-Jan-15	12	Z7	2015
ISM-9-Z6	1501301-09	7-Jan-15	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	37100	--	--	--	--	µg/Kg-dry	--	12-Jan-15	9	Z6	2015
ISM-7-Z6	1501301-07	7-Jan-15	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	20275	--	--	--	--	µg/Kg-dry	--	12-Jan-15	7	Z6	2015
ISM-8-Z6	1501301-08	7-Jan-15	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	19830	--	--	--	--	µg/Kg-dry	--	12-Jan-15	8	Z6	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	17200	--	--	--	--	µg/Kg-dry	--	4-Feb-15	18	Z9	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	14810	--	--	--	--	µg/Kg-dry	--	6-Feb-15	23	Z1	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	11000	--	--	--	--	µg/Kg-dry	--	6-Feb-15	17	Z9	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	6810	--	--	--	--	µg/Kg-dry	--	6-Feb-15	16	Z9	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	6620	--	--	--	--	µg/Kg-dry	--	9-Feb-15	29	Z4	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	6560	--	--	--	--	µg/Kg-dry	--	9-Feb-15	30	Z4	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	5830	--	--	--	--	µg/Kg-dry	--	6-Feb-15	28	Z4	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	5449	--	--	--	--	µg/Kg-dry	--	6-Feb-15	22	Z1	2015
ISM-3-Z3	1501301-03	6-Jan-15	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	4700	--	--	--	--	µg/Kg-dry	--	13-Jan-15	3	Z3	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	4604	--	--	--	--	µg/Kg-dry	--	6-Feb-15	24	Z1	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	3898	--	--	--	--	µg/Kg-dry	--	6-Feb-15	13	Z8	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	3503	--	--	--	--	µg/Kg-dry	--	5-Feb-15	19	Z2	2015
ISM-2-Z3	1501301-02	6-Jan-15	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	3199	--	--	--	--	µg/Kg-dry	--	13-Jan-15	2	Z3	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	2053	--	--	--	--	µg/Kg-dry	--	5-Feb-15	21	Z2	2015
ISM-1-Z3	1501301-01	6-Jan-15	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	1782	--	--	--	--	µg/Kg-dry	--	13-Jan-15	1	Z3	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	1206	--	--	--	--	µg/Kg-dry	--	6-Feb-15	20	Z2	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	1164	--	--	--	--	µg/Kg-dry	--	5-Feb-15	14	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	859	--	--	--	--	µg/Kg-dry	--	6-Feb-15	15	Z8	2015

Table A-6
Volatile and Semivolatile Organic Compound Data for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	Rlimit	Runits	Dilution Factor	Anal Date	Cell	Zone	Year
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	666	--	--	--	--	µg/Kg-dry	--	6-Feb-15	25	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	583	--	--	--	--	µg/Kg-dry	--	5-Feb-15	27	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	550	--	--	--	--	µg/Kg-dry	--	6-Feb-15	26	Z10	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	9,600	9,600	--	22	300	µg/Kg-dry	10	12-Jan-15	5	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	4,700	4,700	--	22	300	µg/Kg-dry	10	12-Jan-15	6	Z5	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	4,600	4,600	--	22	290	µg/Kg-dry	10	13-Jan-15	11	Z7	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	4,100	4,100	--	22	290	µg/Kg-dry	10	12-Jan-15	4	Z5	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	3,400	3,400	--	22	300	µg/Kg-dry	10	12-Jan-15	10	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	3,300	3,300	--	22	300	µg/Kg-dry	10	12-Jan-15	12	Z7	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	2,600	2,600	--	22	290	µg/Kg-dry	10	12-Jan-15	9	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	1,700	1,700	--	22	290	µg/Kg-dry	10	12-Jan-15	8	Z6	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	1,500	1,500	--	22	300	µg/Kg-dry	10	12-Jan-15	7	Z6	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	1,100	1,100	--	4.5	6.5	µg/Kg-dry	1	04-Feb-15	18	Z9	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	950	950	--	2.2	6.5	µg/Kg-dry	1	06-Feb-15	23	Z1	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	800	800	--	2.2	6.5	µg/Kg-dry	1	06-Feb-15	17	Z9	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	780	780	--	46	66	µg/Kg-dry	10	09-Feb-15	29	Z4	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	700	700	--	46	66	µg/Kg-dry	10	09-Feb-15	30	Z4	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	620	620	--	11	33	µg/Kg-dry	5	06-Feb-15	16	Z9	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	590	590	--	2.2	6.5	µg/Kg-dry	1	06-Feb-15	28	Z4	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	470	470	--	2.2	30	µg/Kg-dry	1	13-Jan-15	3	Z3	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	410	410	--	11	33	µg/Kg-dry	5	06-Feb-15	13	Z8	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	390	390	--	2.2	6.5	µg/Kg-dry	1	06-Feb-15	22	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	340	340	--	2.2	6.6	µg/Kg-dry	1	06-Feb-15	24	Z1	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	270	270	--	2.2	6.6	µg/Kg-dry	1	05-Feb-15	19	Z2	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	220	220	--	2.2	30	µg/Kg-dry	1	13-Jan-15	2	Z3	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	170	170	--	2.2	6.7	µg/Kg-dry	1	05-Feb-15	21	Z2	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	150	150	--	4.6	6.6	µg/Kg-dry	1	13-Jan-15	1	Z3	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	120	120	--	2.2	6.6	µg/Kg-dry	1	05-Feb-15	14	Z8	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	120	120	--	2.2	6.6	µg/Kg-dry	1	06-Feb-15	20	Z2	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	91	91	--	2.2	6.6	µg/Kg-dry	1	06-Feb-15	15	Z8	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	78	78	--	2.2	6.5	µg/Kg-dry	1	06-Feb-15	25	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	75	75	--	2.2	6.5	µg/Kg-dry	1	06-Feb-15	26	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	68	68	--	2.2	6.6	µg/Kg-dry	1	05-Feb-15	27	Z10	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	110	1,600	µg/Kg-dry	10	12-Jan-15	10	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	110	1,600	µg/Kg-dry	10	13-Jan-15	11	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	110	1,600	µg/Kg-dry	10	12-Jan-15	12	Z7	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	55	780	µg/Kg-dry	5	06-Feb-15	13	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	11	160	µg/Kg-dry	1	05-Feb-15	14	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	11	160	µg/Kg-dry	1	06-Feb-15	15	Z8	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	55	790	µg/Kg-dry	5	06-Feb-15	16	Z9	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	11	160	µg/Kg-dry	1	06-Feb-15	17	Z9	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	6.3	160	µg/Kg-dry	1	04-Feb-15	18	Z9	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	11	160	µg/Kg-dry	1	05-Feb-15	19	Z2	2015

Table A-6
Volatile and Semivolatile Organic Compound Data for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	Rlimit	Runits	Dilution Factor	Anal Date	Cell	Zone	Year
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	6.5	170	µg/Kg-dry	1	13-Jan-15	1	Z3	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	11	160	µg/Kg-dry	1	06-Feb-15	20	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	11	160	µg/Kg-dry	1	05-Feb-15	21	Z2	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	11	160	µg/Kg-dry	1	06-Feb-15	22	Z1	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	11	160	µg/Kg-dry	1	06-Feb-15	23	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	11	160	µg/Kg-dry	1	06-Feb-15	24	Z1	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	11	160	µg/Kg-dry	1	06-Feb-15	25	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	11	160	µg/Kg-dry	1	06-Feb-15	26	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	11	160	µg/Kg-dry	1	05-Feb-15	27	Z10	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	11	160	µg/Kg-dry	1	06-Feb-15	28	Z4	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	64	1,700	µg/Kg-dry	10	09-Feb-15	29	Z4	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	11	160	µg/Kg-dry	1	13-Jan-15	2	Z3	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	65	1,700	µg/Kg-dry	10	09-Feb-15	30	Z4	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	11	160	µg/Kg-dry	1	13-Jan-15	3	Z3	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	110	1,600	µg/Kg-dry	10	12-Jan-15	4	Z5	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	110	1,600	µg/Kg-dry	10	12-Jan-15	5	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	110	1,600	µg/Kg-dry	10	12-Jan-15	6	Z5	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	110	1,600	µg/Kg-dry	10	12-Jan-15	7	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	110	1,600	µg/Kg-dry	10	12-Jan-15	8	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	110	1,600	µg/Kg-dry	10	12-Jan-15	9	Z6	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Naphthalene	3,200	3,200	--	24	300	µg/Kg-dry	10	12-Jan-15	5	Z5	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Naphthalene	1,800	1,800	--	25	300	µg/Kg-dry	10	12-Jan-15	12	Z7	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Naphthalene	1,300	1,300	--	24	300	µg/Kg-dry	10	12-Jan-15	6	Z5	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Naphthalene	1,100	1,100	--	24	300	µg/Kg-dry	10	12-Jan-15	10	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Naphthalene	780	780	--	24	290	µg/Kg-dry	10	13-Jan-15	11	Z7	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Naphthalene	750	750	--	24	300	µg/Kg-dry	10	12-Jan-15	7	Z6	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Naphthalene	700	700	--	24	290	µg/Kg-dry	10	12-Jan-15	4	Z5	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Naphthalene	470	470	--	24	290	µg/Kg-dry	10	12-Jan-15	9	Z6	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Naphthalene	240	240	--	2.4	6.5	µg/Kg-dry	1	06-Feb-15	23	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Naphthalene	240	240	--	2.4	6.6	µg/Kg-dry	1	06-Feb-15	24	Z1	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Naphthalene	170	170	--	42	66	µg/Kg-dry	10	09-Feb-15	30	Z4	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Naphthalene	140	140	--	42	66	µg/Kg-dry	10	09-Feb-15	29	Z4	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Naphthalene	140	140	J	24	290	µg/Kg-dry	10	12-Jan-15	8	Z6	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Naphthalene	130	130	--	12	33	µg/Kg-dry	5	06-Feb-15	16	Z9	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Naphthalene	110	110	--	2.4	6.5	µg/Kg-dry	1	06-Feb-15	28	Z4	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Naphthalene	110	110	--	2.5	30	µg/Kg-dry	1	13-Jan-15	3	Z3	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Naphthalene	88	88	--	4.2	6.5	µg/Kg-dry	1	04-Feb-15	18	Z9	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Naphthalene	69	69	--	2.4	6.5	µg/Kg-dry	1	06-Feb-15	22	Z1	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Naphthalene	64	64	--	2.4	6.5	µg/Kg-dry	1	06-Feb-15	17	Z9	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Naphthalene	42	42	--	12	33	µg/Kg-dry	5	06-Feb-15	13	Z8	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Naphthalene	42	42	--	2.4	30	µg/Kg-dry	1	13-Jan-15	2	Z3	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Naphthalene	31	31	--	4.2	6.6	µg/Kg-dry	1	13-Jan-15	1	Z3	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Naphthalene	22	22	--	2.4	6.6	µg/Kg-dry	1	05-Feb-15	14	Z8	2015

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Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	Rlimit	Runits	Dilution Factor	Anal Date	Cell	Zone	Year
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Naphthalene	20	20	--	2.4	6.6	µg/Kg-dry	1	06-Feb-15	15	Z8	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Naphthalene	15	15	--	2.5	6.7	µg/Kg-dry	1	05-Feb-15	21	Z2	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Naphthalene	12	12	--	2.4	6.6	µg/Kg-dry	1	06-Feb-15	20	Z2	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Naphthalene	11	11	--	2.4	6.6	µg/Kg-dry	1	05-Feb-15	19	Z2	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Naphthalene	11	11	--	2.4	6.6	µg/Kg-dry	1	05-Feb-15	27	Z10	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Naphthalene	8.2	8.2	--	2.4	6.5	µg/Kg-dry	1	06-Feb-15	25	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Naphthalene	7.5	7.5	--	2.4	6.5	µg/Kg-dry	1	06-Feb-15	26	Z10	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	130	1,600	µg/Kg-dry	10	12-Jan-15	10	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	130	1,600	µg/Kg-dry	10	13-Jan-15	11	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	130	1,600	µg/Kg-dry	10	12-Jan-15	12	Z7	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	63	780	µg/Kg-dry	5	06-Feb-15	13	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	13	160	µg/Kg-dry	1	05-Feb-15	14	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	13	160	µg/Kg-dry	1	06-Feb-15	15	Z8	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	64	790	µg/Kg-dry	5	06-Feb-15	16	Z9	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	13	160	µg/Kg-dry	1	06-Feb-15	17	Z9	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	11	160	µg/Kg-dry	1	04-Feb-15	18	Z9	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	13	160	µg/Kg-dry	1	05-Feb-15	19	Z2	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	11	170	µg/Kg-dry	1	13-Jan-15	1	Z3	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	13	160	µg/Kg-dry	1	06-Feb-15	20	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	13	160	µg/Kg-dry	1	05-Feb-15	21	Z2	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	13	160	µg/Kg-dry	1	06-Feb-15	22	Z1	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	13	160	µg/Kg-dry	1	06-Feb-15	23	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	13	160	µg/Kg-dry	1	06-Feb-15	24	Z1	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	13	160	µg/Kg-dry	1	06-Feb-15	25	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	13	160	µg/Kg-dry	1	06-Feb-15	26	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	13	160	µg/Kg-dry	1	05-Feb-15	27	Z10	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	13	160	µg/Kg-dry	1	06-Feb-15	28	Z4	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	110	1,700	µg/Kg-dry	10	09-Feb-15	29	Z4	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	13	160	µg/Kg-dry	1	13-Jan-15	2	Z3	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	110	1,700	µg/Kg-dry	10	09-Feb-15	30	Z4	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	13	160	µg/Kg-dry	1	13-Jan-15	3	Z3	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	130	1,600	µg/Kg-dry	10	12-Jan-15	4	Z5	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	130	1,600	µg/Kg-dry	10	12-Jan-15	5	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	130	1,600	µg/Kg-dry	10	12-Jan-15	6	Z5	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	130	1,600	µg/Kg-dry	10	12-Jan-15	7	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	130	1,600	µg/Kg-dry	10	12-Jan-15	8	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	130	1,600	µg/Kg-dry	10	12-Jan-15	9	Z6	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	130	1,600	µg/Kg-dry	10	12-Jan-15	10	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	120	1,600	µg/Kg-dry	10	13-Jan-15	11	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	130	1,600	µg/Kg-dry	10	12-Jan-15	12	Z7	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	62	780	µg/Kg-dry	5	06-Feb-15	13	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	13	160	µg/Kg-dry	1	05-Feb-15	14	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	13	160	µg/Kg-dry	1	06-Feb-15	15	Z8	2015

Table A-6
Volatile and Semivolatile Organic Compound Data for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	Rlimit	Runits	Dilution Factor	Anal Date	Cell	Zone	Year
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	63	790	µg/Kg-dry	5	06-Feb-15	16	Z9	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	12	160	µg/Kg-dry	1	06-Feb-15	17	Z9	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	5.4	32	µg/Kg-dry	1	04-Feb-15	18	Z9	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	13	160	µg/Kg-dry	1	05-Feb-15	19	Z2	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	5.5	33	µg/Kg-dry	1	13-Jan-15	1	Z3	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	13	160	µg/Kg-dry	1	06-Feb-15	20	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	13	160	µg/Kg-dry	1	05-Feb-15	21	Z2	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	12	160	µg/Kg-dry	1	06-Feb-15	22	Z1	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	12	160	µg/Kg-dry	1	06-Feb-15	23	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	13	160	µg/Kg-dry	1	06-Feb-15	24	Z1	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	13	160	µg/Kg-dry	1	06-Feb-15	25	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	12	160	µg/Kg-dry	1	06-Feb-15	26	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	13	160	µg/Kg-dry	1	05-Feb-15	27	Z10	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	12	160	µg/Kg-dry	1	06-Feb-15	28	Z4	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	54	330	µg/Kg-dry	10	09-Feb-15	29	Z4	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	13	160	µg/Kg-dry	1	13-Jan-15	2	Z3	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	55	330	µg/Kg-dry	10	09-Feb-15	30	Z4	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	13	160	µg/Kg-dry	1	13-Jan-15	3	Z3	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	120	1,600	µg/Kg-dry	10	12-Jan-15	4	Z5	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	130	1,600	µg/Kg-dry	10	12-Jan-15	5	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	130	1,600	µg/Kg-dry	10	12-Jan-15	6	Z5	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	130	1,600	µg/Kg-dry	10	12-Jan-15	7	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	120	1,600	µg/Kg-dry	10	12-Jan-15	8	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	120	1,600	µg/Kg-dry	10	12-Jan-15	9	Z6	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	590	1,600	µg/Kg-dry	10	12-Jan-15	10	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	580	1,600	µg/Kg-dry	10	13-Jan-15	11	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	590	1,600	µg/Kg-dry	10	12-Jan-15	12	Z7	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	290	780	µg/Kg-dry	5	06-Feb-15	13	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	58	160	µg/Kg-dry	1	05-Feb-15	14	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	59	160	µg/Kg-dry	1	06-Feb-15	15	Z8	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	290	790	µg/Kg-dry	5	06-Feb-15	16	Z9	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	58	160	µg/Kg-dry	1	06-Feb-15	17	Z9	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	3.1	32	µg/Kg-dry	1	04-Feb-15	18	Z9	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	59	160	µg/Kg-dry	1	05-Feb-15	19	Z2	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	3.2	33	µg/Kg-dry	1	13-Jan-15	1	Z3	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	59	160	µg/Kg-dry	1	06-Feb-15	20	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	60	160	µg/Kg-dry	1	05-Feb-15	21	Z2	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	58	160	µg/Kg-dry	1	06-Feb-15	22	Z1	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	58	160	µg/Kg-dry	1	06-Feb-15	23	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	58	160	µg/Kg-dry	1	06-Feb-15	24	Z1	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	58	160	µg/Kg-dry	1	06-Feb-15	25	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	58	160	µg/Kg-dry	1	06-Feb-15	26	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	59	160	µg/Kg-dry	1	05-Feb-15	27	Z10	2015

Table A-6
Volatile and Semivolatile Organic Compound Data for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	Rlimit	Runits	Dilution Factor	Anal Date	Cell	Zone	Year
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	58	160	µg/Kg-dry	1	06-Feb-15	28	Z4	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	32	330	µg/Kg-dry	10	09-Feb-15	29	Z4	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	59	160	µg/Kg-dry	1	13-Jan-15	2	Z3	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	32	330	µg/Kg-dry	10	09-Feb-15	30	Z4	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	59	160	µg/Kg-dry	1	13-Jan-15	3	Z3	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	580	1,600	µg/Kg-dry	10	12-Jan-15	4	Z5	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	590	1,600	µg/Kg-dry	10	12-Jan-15	5	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	590	1,600	µg/Kg-dry	10	12-Jan-15	6	Z5	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	590	1,600	µg/Kg-dry	10	12-Jan-15	7	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	580	1,600	µg/Kg-dry	10	12-Jan-15	8	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	580	1,600	µg/Kg-dry	10	12-Jan-15	9	Z6	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	63	200	µg/Kg-dry	10	12-Jan-15	10	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	63	200	µg/Kg-dry	10	13-Jan-15	11	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	64	200	µg/Kg-dry	10	12-Jan-15	12	Z7	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	31	1,600	µg/Kg-dry	5	06-Feb-15	13	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	6.3	330	µg/Kg-dry	1	05-Feb-15	14	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	6.4	330	µg/Kg-dry	1	06-Feb-15	15	Z8	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	32	1,600	µg/Kg-dry	5	06-Feb-15	16	Z9	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	6.3	320	µg/Kg-dry	1	06-Feb-15	17	Z9	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	12	19	µg/Kg-dry	1	04-Feb-15	18	Z9	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	6.4	330	µg/Kg-dry	1	05-Feb-15	19	Z2	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	12	20	µg/Kg-dry	1	13-Jan-15	1	Z3	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	6.4	330	µg/Kg-dry	1	06-Feb-15	20	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	6.4	330	µg/Kg-dry	1	05-Feb-15	21	Z2	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	6.3	320	µg/Kg-dry	1	06-Feb-15	22	Z1	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	6.2	320	µg/Kg-dry	1	06-Feb-15	23	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	6.3	320	µg/Kg-dry	1	06-Feb-15	24	Z1	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	6.3	320	µg/Kg-dry	1	06-Feb-15	25	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	6.3	320	µg/Kg-dry	1	06-Feb-15	26	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	6.4	330	µg/Kg-dry	1	05-Feb-15	27	Z10	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	6.3	320	µg/Kg-dry	1	06-Feb-15	28	Z4	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	120	200	µg/Kg-dry	10	09-Feb-15	29	Z4	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	6.4	20	µg/Kg-dry	1	13-Jan-15	2	Z3	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	120	200	µg/Kg-dry	10	09-Feb-15	30	Z4	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	6.4	20	µg/Kg-dry	1	13-Jan-15	3	Z3	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	63	200	µg/Kg-dry	10	12-Jan-15	4	Z5	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	64	200	µg/Kg-dry	10	12-Jan-15	5	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	63	200	µg/Kg-dry	10	12-Jan-15	6	Z5	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	63	200	µg/Kg-dry	10	12-Jan-15	7	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	63	200	µg/Kg-dry	10	12-Jan-15	8	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	63	200	µg/Kg-dry	10	12-Jan-15	9	Z6	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenanthrene	79,000	79,000	E	13	300	µg/Kg-dry	10	12-Jan-15	5	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenanthrene	19,000	19,000	--	13	300	µg/Kg-dry	10	12-Jan-15	6	Z5	2015

Table A-6
Volatile and Semivolatile Organic Compound Data for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	Rlimit	Runits	Dilution Factor	Anal Date	Cell	Zone	Year
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenanthrene	18,000	18,000	--	13	300	µg/Kg-dry	10	12-Jan-15	10	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenanthrene	18,000	18,000	--	13	290	µg/Kg-dry	10	13-Jan-15	11	Z7	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenanthrene	15,000	15,000	--	13	290	µg/Kg-dry	10	12-Jan-15	4	Z5	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenanthrene	12,000	12,000	--	13	300	µg/Kg-dry	10	12-Jan-15	12	Z7	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenanthrene	7,100	7,100	--	13	290	µg/Kg-dry	10	12-Jan-15	9	Z6	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenanthrene	4,300	4,300	E	3	6.5	µg/Kg-dry	1	04-Feb-15	18	Z9	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenanthrene	4,200	4,200	--	13	300	µg/Kg-dry	10	12-Jan-15	7	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenanthrene	2,200	2,200	--	13	290	µg/Kg-dry	10	12-Jan-15	8	Z6	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenanthrene	2,100	2,100	E	1.3	6.5	µg/Kg-dry	1	06-Feb-15	23	Z1	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenanthrene	1,600	1,600	--	1.3	6.5	µg/Kg-dry	1	06-Feb-15	17	Z9	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenanthrene	1,200	1,200	--	6.6	33	µg/Kg-dry	5	06-Feb-15	16	Z9	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenanthrene	830	830	--	1.3	6.5	µg/Kg-dry	1	06-Feb-15	22	Z1	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenanthrene	800	800	--	1.3	30	µg/Kg-dry	1	13-Jan-15	2	Z3	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenanthrene	680	680	--	1.3	30	µg/Kg-dry	1	13-Jan-15	3	Z3	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenanthrene	620	620	--	31	66	µg/Kg-dry	10	09-Feb-15	30	Z4	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenanthrene	530	530	--	1.3	6.6	µg/Kg-dry	1	06-Feb-15	24	Z1	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenanthrene	450	450	--	1.3	6.5	µg/Kg-dry	1	06-Feb-15	28	Z4	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenanthrene	420	420	--	31	66	µg/Kg-dry	10	09-Feb-15	29	Z4	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenanthrene	390	390	--	6.5	33	µg/Kg-dry	5	06-Feb-15	13	Z8	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenanthrene	370	370	--	1.3	6.6	µg/Kg-dry	1	05-Feb-15	19	Z2	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenanthrene	300	300	--	3.1	6.6	µg/Kg-dry	1	13-Jan-15	1	Z3	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenanthrene	300	300	--	1.3	6.7	µg/Kg-dry	1	05-Feb-15	21	Z2	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenanthrene	130	130	--	1.3	6.6	µg/Kg-dry	1	06-Feb-15	20	Z2	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenanthrene	110	110	--	1.3	6.6	µg/Kg-dry	1	05-Feb-15	14	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenanthrene	92	92	--	1.3	6.6	µg/Kg-dry	1	06-Feb-15	15	Z8	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenanthrene	67	67	--	1.3	6.6	µg/Kg-dry	1	05-Feb-15	27	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenanthrene	53	53	--	1.3	6.5	µg/Kg-dry	1	06-Feb-15	26	Z10	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenanthrene	52	52	--	1.3	6.5	µg/Kg-dry	1	06-Feb-15	25	Z10	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	110	1,600	µg/Kg-dry	10	12-Jan-15	10	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	110	1,600	µg/Kg-dry	10	13-Jan-15	11	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	110	1,600	µg/Kg-dry	10	12-Jan-15	12	Z7	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	56	780	µg/Kg-dry	5	06-Feb-15	13	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	11	160	µg/Kg-dry	1	05-Feb-15	14	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	11	160	µg/Kg-dry	1	06-Feb-15	15	Z8	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	56	790	µg/Kg-dry	5	06-Feb-15	16	Z9	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	11	160	µg/Kg-dry	1	06-Feb-15	17	Z9	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	8.1	32	µg/Kg-dry	1	04-Feb-15	18	Z9	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	11	160	µg/Kg-dry	1	05-Feb-15	19	Z2	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	8.2	33	µg/Kg-dry	1	13-Jan-15	1	Z3	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	11	160	µg/Kg-dry	1	06-Feb-15	20	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	11	160	µg/Kg-dry	1	05-Feb-15	21	Z2	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	11	160	µg/Kg-dry	1	06-Feb-15	22	Z1	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	11	160	µg/Kg-dry	1	06-Feb-15	23	Z1	2015

Table A-6
Volatile and Semivolatile Organic Compound Data for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	Rlimit	Runits	Dilution Factor	Anal Date	Cell	Zone	Year
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	11	160	µg/Kg-dry	1	06-Feb-15	24	Z1	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	11	160	µg/Kg-dry	1	06-Feb-15	25	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	11	160	µg/Kg-dry	1	06-Feb-15	26	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	11	160	µg/Kg-dry	1	05-Feb-15	27	Z10	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	11	160	µg/Kg-dry	1	06-Feb-15	28	Z4	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	82	330	µg/Kg-dry	10	09-Feb-15	29	Z4	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	11	160	µg/Kg-dry	1	13-Jan-15	2	Z3	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	82	330	µg/Kg-dry	10	09-Feb-15	30	Z4	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	11	160	µg/Kg-dry	1	13-Jan-15	3	Z3	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	110	1,600	µg/Kg-dry	10	12-Jan-15	4	Z5	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	110	1,600	µg/Kg-dry	10	12-Jan-15	5	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	110	1,600	µg/Kg-dry	10	12-Jan-15	6	Z5	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	110	1,600	µg/Kg-dry	10	12-Jan-15	7	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	110	1,600	µg/Kg-dry	10	12-Jan-15	8	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	110	1,600	µg/Kg-dry	10	12-Jan-15	9	Z6	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Pyrene	45,000	45,000	E	22	300	µg/Kg-dry	10	12-Jan-15	5	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Pyrene	16,000	16,000	--	22	300	µg/Kg-dry	10	12-Jan-15	6	Z5	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Pyrene	13,000	13,000	--	22	290	µg/Kg-dry	10	13-Jan-15	11	Z7	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Pyrene	12,000	12,000	--	22	300	µg/Kg-dry	10	12-Jan-15	10	Z7	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Pyrene	12,000	12,000	--	22	290	µg/Kg-dry	10	12-Jan-15	4	Z5	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Pyrene	9,600	9,600	--	23	300	µg/Kg-dry	10	12-Jan-15	12	Z7	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Pyrene	6,900	6,900	--	22	290	µg/Kg-dry	10	12-Jan-15	9	Z6	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Pyrene	3,500	3,500	--	22	300	µg/Kg-dry	10	12-Jan-15	7	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Pyrene	3,100	3,100	--	22	290	µg/Kg-dry	10	12-Jan-15	8	Z6	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Pyrene	2,600	2,600	E	1.2	6.5	µg/Kg-dry	1	04-Feb-15	18	Z9	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Pyrene	2,200	2,200	E	2.2	6.5	µg/Kg-dry	1	06-Feb-15	23	Z1	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Pyrene	1,700	1,700	--	2.2	6.5	µg/Kg-dry	1	06-Feb-15	17	Z9	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Pyrene	860	860	--	11	33	µg/Kg-dry	5	06-Feb-15	16	Z9	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Pyrene	800	800	--	2.2	6.5	µg/Kg-dry	1	06-Feb-15	22	Z1	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Pyrene	780	780	--	12	66	µg/Kg-dry	10	09-Feb-15	29	Z4	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Pyrene	770	770	--	12	66	µg/Kg-dry	10	09-Feb-15	30	Z4	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Pyrene	600	600	--	2.2	6.6	µg/Kg-dry	1	06-Feb-15	24	Z1	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Pyrene	600	600	--	2.2	6.5	µg/Kg-dry	1	06-Feb-15	28	Z4	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Pyrene	530	530	--	2.3	30	µg/Kg-dry	1	13-Jan-15	3	Z3	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Pyrene	520	520	--	2.2	30	µg/Kg-dry	1	13-Jan-15	2	Z3	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Pyrene	510	510	--	2.2	6.6	µg/Kg-dry	1	05-Feb-15	19	Z2	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Pyrene	470	470	--	11	33	µg/Kg-dry	5	06-Feb-15	13	Z8	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Pyrene	310	310	--	2.3	6.7	µg/Kg-dry	1	05-Feb-15	21	Z2	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Pyrene	290	290	--	1.2	6.6	µg/Kg-dry	1	13-Jan-15	1	Z3	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Pyrene	170	170	--	2.2	6.6	µg/Kg-dry	1	05-Feb-15	14	Z8	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Pyrene	170	170	--	2.2	6.6	µg/Kg-dry	1	06-Feb-15	20	Z2	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Pyrene	110	110	--	2.2	6.6	µg/Kg-dry	1	06-Feb-15	15	Z8	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Pyrene	82	82	--	2.2	6.6	µg/Kg-dry	1	05-Feb-15	27	Z10	2015

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Volatile and Semivolatile Organic Compound Data for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	Rlimit	Runits	Dilution Factor	Anal Date	Cell	Zone	Year
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Pyrene	67	67	--	2.2	6.5	µg/Kg-dry	1	06-Feb-15	25	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Pyrene	47	47	--	2.2	6.5	µg/Kg-dry	1	06-Feb-15	26	Z10	2015
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	1,1,1-Trichloroethane	--	U	U	11	38	µg/Kg-dry	1	04-Feb-15	22	Z1	2015
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	1,1,1-Trichloroethane	--	U	U	11	38	µg/Kg-dry	1	04-Feb-15	23	Z1	2015
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	1,1,1-Trichloroethane	--	U	U	11	38	µg/Kg-dry	1	04-Feb-15	24	Z1	2015
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	1,1,1-Trichloroethane	--	U	U	11	39	µg/Kg-dry	1	03-Feb-15	28	Z4	2015
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	1,1,1-Trichloroethane	--	U	U	11	39	µg/Kg-dry	1	04-Feb-15	29	Z4	2015
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	1,1,1-Trichloroethane	--	U	U	11	39	µg/Kg-dry	1	04-Feb-15	30	Z4	2015
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	1,1,2,2-Tetrachloroethane	--	U	U	9.3	38	µg/Kg-dry	1	04-Feb-15	22	Z1	2015
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	1,1,2,2-Tetrachloroethane	--	U	U	9.3	38	µg/Kg-dry	1	04-Feb-15	23	Z1	2015
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	1,1,2,2-Tetrachloroethane	--	U	U	9.3	38	µg/Kg-dry	1	04-Feb-15	24	Z1	2015
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	1,1,2,2-Tetrachloroethane	--	U	U	9.3	39	µg/Kg-dry	1	03-Feb-15	28	Z4	2015
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	1,1,2,2-Tetrachloroethane	--	U	U	9.3	39	µg/Kg-dry	1	04-Feb-15	29	Z4	2015
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	1,1,2,2-Tetrachloroethane	--	U	U	9.3	39	µg/Kg-dry	1	04-Feb-15	30	Z4	2015
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	1,1,2-Trichloroethane	--	U	U	12	38	µg/Kg-dry	1	04-Feb-15	22	Z1	2015
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	1,1,2-Trichloroethane	--	U	U	12	38	µg/Kg-dry	1	04-Feb-15	23	Z1	2015
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	1,1,2-Trichloroethane	--	U	U	12	38	µg/Kg-dry	1	04-Feb-15	24	Z1	2015
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	1,1,2-Trichloroethane	--	U	U	12	39	µg/Kg-dry	1	03-Feb-15	28	Z4	2015
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	1,1,2-Trichloroethane	--	U	U	12	39	µg/Kg-dry	1	04-Feb-15	29	Z4	2015
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	1,1,2-Trichloroethane	--	U	U	12	39	µg/Kg-dry	1	04-Feb-15	30	Z4	2015
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	1,1,2-Trichlorotrifluoroethane	--	U	U	8.7	38	µg/Kg-dry	1	04-Feb-15	22	Z1	2015
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	1,1,2-Trichlorotrifluoroethane	--	U	U	8.7	38	µg/Kg-dry	1	04-Feb-15	23	Z1	2015
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	1,1,2-Trichlorotrifluoroethane	--	U	U	8.7	38	µg/Kg-dry	1	04-Feb-15	24	Z1	2015
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	1,1,2-Trichlorotrifluoroethane	--	U	U	8.7	39	µg/Kg-dry	1	03-Feb-15	28	Z4	2015
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	1,1,2-Trichlorotrifluoroethane	--	U	U	8.7	39	µg/Kg-dry	1	04-Feb-15	29	Z4	2015
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	1,1,2-Trichlorotrifluoroethane	--	U	U	8.7	39	µg/Kg-dry	1	04-Feb-15	30	Z4	2015
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	1,1-Dichloroethane	--	U	U	9.8	38	µg/Kg-dry	1	04-Feb-15	22	Z1	2015
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	1,1-Dichloroethane	--	U	U	9.8	38	µg/Kg-dry	1	04-Feb-15	23	Z1	2015
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	1,1-Dichloroethane	--	U	U	9.8	38	µg/Kg-dry	1	04-Feb-15	24	Z1	2015
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	1,1-Dichloroethane	--	U	U	9.8	39	µg/Kg-dry	1	03-Feb-15	28	Z4	2015
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	1,1-Dichloroethane	--	U	U	9.8	39	µg/Kg-dry	1	04-Feb-15	29	Z4	2015
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	1,1-Dichloroethane	--	U	U	9.8	39	µg/Kg-dry	1	04-Feb-15	30	Z4	2015
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	1,1-Dichloroethene	--	U	U	10	38	µg/Kg-dry	1	04-Feb-15	22	Z1	2015
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	1,1-Dichloroethene	--	U	U	10	38	µg/Kg-dry	1	04-Feb-15	23	Z1	2015
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	1,1-Dichloroethene	--	U	U	10	38	µg/Kg-dry	1	04-Feb-15	24	Z1	2015
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	1,1-Dichloroethene	--	U	U	10	39	µg/Kg-dry	1	03-Feb-15	28	Z4	2015
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	1,1-Dichloroethene	--	U	U	10	39	µg/Kg-dry	1	04-Feb-15	29	Z4	2015
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	1,1-Dichloroethene	--	U	U	10	39	µg/Kg-dry	1	04-Feb-15	30	Z4	2015
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	1,2,4-Trichlorobenzene	--	U	U	28	38	µg/Kg-dry	1	04-Feb-15	22	Z1	2015
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	1,2,4-Trichlorobenzene	--	U	U	28	38	µg/Kg-dry	1	04-Feb-15	23	Z1	2015
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	1,2,4-Trichlorobenzene	--	U	U	28	38	µg/Kg-dry	1	04-Feb-15	24	Z1	2015
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	1,2,4-Trichlorobenzene	--	U	U	28	39	µg/Kg-dry	1	03-Feb-15	28	Z4	2015
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	1,2,4-Trichlorobenzene	--	U	U	28	39	µg/Kg-dry	1	04-Feb-15	29	Z4	2015

Table A-6
Volatile and Semivolatile Organic Compound Data for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	Rlimit	Runits	Dilution Factor	Anal Date	Cell	Zone	Year
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	1,2,4-Trichlorobenzene	--	U	U	28	39	µg/Kg-dry	1	04-Feb-15	30	Z4	2015
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	1,2-Dibromo-3-chloropropane	--	U	U	16	38	µg/Kg-dry	1	04-Feb-15	22	Z1	2015
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	1,2-Dibromo-3-chloropropane	--	U	U	16	38	µg/Kg-dry	1	04-Feb-15	23	Z1	2015
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	1,2-Dibromo-3-chloropropane	--	U	U	16	38	µg/Kg-dry	1	04-Feb-15	24	Z1	2015
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	1,2-Dibromo-3-chloropropane	--	U	U	16	39	µg/Kg-dry	1	03-Feb-15	28	Z4	2015
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	1,2-Dibromo-3-chloropropane	--	U	U	16	39	µg/Kg-dry	1	04-Feb-15	29	Z4	2015
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	1,2-Dibromo-3-chloropropane	--	U	U	16	39	µg/Kg-dry	1	04-Feb-15	30	Z4	2015
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	1,2-Dibromoethane	--	U	U	13	38	µg/Kg-dry	1	04-Feb-15	22	Z1	2015
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	1,2-Dibromoethane	--	U	U	13	38	µg/Kg-dry	1	04-Feb-15	23	Z1	2015
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	1,2-Dibromoethane	--	U	U	13	38	µg/Kg-dry	1	04-Feb-15	24	Z1	2015
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	1,2-Dibromoethane	--	U	U	13	39	µg/Kg-dry	1	03-Feb-15	28	Z4	2015
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	1,2-Dibromoethane	--	U	U	13	39	µg/Kg-dry	1	04-Feb-15	29	Z4	2015
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	1,2-Dibromoethane	--	U	U	13	39	µg/Kg-dry	1	04-Feb-15	30	Z4	2015
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	1,2-Dichlorobenzene	--	U	U	11	38	µg/Kg-dry	1	04-Feb-15	22	Z1	2015
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	1,2-Dichlorobenzene	--	U	U	11	38	µg/Kg-dry	1	04-Feb-15	23	Z1	2015
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	1,2-Dichlorobenzene	--	U	U	11	38	µg/Kg-dry	1	04-Feb-15	24	Z1	2015
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	1,2-Dichlorobenzene	--	U	U	11	39	µg/Kg-dry	1	03-Feb-15	28	Z4	2015
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	1,2-Dichlorobenzene	--	U	U	11	39	µg/Kg-dry	1	04-Feb-15	29	Z4	2015
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	1,2-Dichlorobenzene	--	U	U	11	39	µg/Kg-dry	1	04-Feb-15	30	Z4	2015
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	1,2-Dichloroethane	--	U	U	10	38	µg/Kg-dry	1	04-Feb-15	22	Z1	2015
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	1,2-Dichloroethane	--	U	U	10	38	µg/Kg-dry	1	04-Feb-15	23	Z1	2015
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	1,2-Dichloroethane	--	U	U	10	38	µg/Kg-dry	1	04-Feb-15	24	Z1	2015
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	1,2-Dichloroethane	--	U	U	11	39	µg/Kg-dry	1	03-Feb-15	28	Z4	2015
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	1,2-Dichloroethane	--	U	U	11	39	µg/Kg-dry	1	04-Feb-15	29	Z4	2015
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	1,2-Dichloroethane	--	U	U	11	39	µg/Kg-dry	1	04-Feb-15	30	Z4	2015
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	1,2-Dichloropropane	--	U	U	11	38	µg/Kg-dry	1	04-Feb-15	22	Z1	2015
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	1,2-Dichloropropane	--	U	U	11	38	µg/Kg-dry	1	04-Feb-15	23	Z1	2015
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	1,2-Dichloropropane	--	U	U	11	38	µg/Kg-dry	1	04-Feb-15	24	Z1	2015
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	1,2-Dichloropropane	--	U	U	11	39	µg/Kg-dry	1	03-Feb-15	28	Z4	2015
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	1,2-Dichloropropane	--	U	U	11	39	µg/Kg-dry	1	04-Feb-15	29	Z4	2015
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	1,2-Dichloropropane	--	U	U	11	39	µg/Kg-dry	1	04-Feb-15	30	Z4	2015
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	1,3-Dichlorobenzene	--	U	U	12	38	µg/Kg-dry	1	04-Feb-15	22	Z1	2015
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	1,3-Dichlorobenzene	--	U	U	12	38	µg/Kg-dry	1	04-Feb-15	23	Z1	2015
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	1,3-Dichlorobenzene	--	U	U	12	38	µg/Kg-dry	1	04-Feb-15	24	Z1	2015
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	1,3-Dichlorobenzene	--	U	U	12	39	µg/Kg-dry	1	03-Feb-15	28	Z4	2015
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	1,3-Dichlorobenzene	--	U	U	12	39	µg/Kg-dry	1	04-Feb-15	29	Z4	2015
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	1,3-Dichlorobenzene	--	U	U	12	39	µg/Kg-dry	1	04-Feb-15	30	Z4	2015
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	1,4-Dichlorobenzene	--	U	U	10	38	µg/Kg-dry	1	04-Feb-15	22	Z1	2015
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	1,4-Dichlorobenzene	--	U	U	10	38	µg/Kg-dry	1	04-Feb-15	23	Z1	2015
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	1,4-Dichlorobenzene	--	U	U	10	38	µg/Kg-dry	1	04-Feb-15	24	Z1	2015
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	1,4-Dichlorobenzene	--	U	U	10	39	µg/Kg-dry	1	03-Feb-15	28	Z4	2015
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	1,4-Dichlorobenzene	--	U	U	10	39	µg/Kg-dry	1	04-Feb-15	29	Z4	2015
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	1,4-Dichlorobenzene	--	U	U	10	39	µg/Kg-dry	1	04-Feb-15	30	Z4	2015

Table A-6
Volatile and Semivolatile Organic Compound Data for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	Rlimit	Runits	Dilution Factor	Anal Date	Cell	Zone	Year
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	2-Butanone	--	U	U	52	260	µg/Kg-dry	1	04-Feb-15	22	Z1	2015
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	2-Butanone	--	U	U	52	260	µg/Kg-dry	1	04-Feb-15	23	Z1	2015
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	2-Butanone	--	U	U	52	260	µg/Kg-dry	1	04-Feb-15	24	Z1	2015
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	2-Butanone	--	U	U	52	260	µg/Kg-dry	1	03-Feb-15	28	Z4	2015
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	2-Butanone	--	U	U	52	260	µg/Kg-dry	1	04-Feb-15	29	Z4	2015
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	2-Butanone	--	U	U	52	260	µg/Kg-dry	1	04-Feb-15	30	Z4	2015
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	2-Hexanone	--	U	U	26	38	µg/Kg-dry	1	04-Feb-15	22	Z1	2015
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	2-Hexanone	--	U	U	26	38	µg/Kg-dry	1	04-Feb-15	23	Z1	2015
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	2-Hexanone	--	U	U	26	38	µg/Kg-dry	1	04-Feb-15	24	Z1	2015
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	2-Hexanone	--	U	U	26	39	µg/Kg-dry	1	03-Feb-15	28	Z4	2015
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	2-Hexanone	--	U	U	26	39	µg/Kg-dry	1	04-Feb-15	29	Z4	2015
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	2-Hexanone	--	U	U	26	39	µg/Kg-dry	1	04-Feb-15	30	Z4	2015
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	4-Methyl-2-pentanone	--	U	U	28	38	µg/Kg-dry	1	04-Feb-15	22	Z1	2015
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	4-Methyl-2-pentanone	--	U	U	28	38	µg/Kg-dry	1	04-Feb-15	23	Z1	2015
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	4-Methyl-2-pentanone	--	U	U	28	38	µg/Kg-dry	1	04-Feb-15	24	Z1	2015
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	4-Methyl-2-pentanone	--	U	U	28	39	µg/Kg-dry	1	03-Feb-15	28	Z4	2015
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	4-Methyl-2-pentanone	--	U	U	28	39	µg/Kg-dry	1	04-Feb-15	29	Z4	2015
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	4-Methyl-2-pentanone	--	U	U	28	39	µg/Kg-dry	1	04-Feb-15	30	Z4	2015
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	Acetone	--	U	U	70	130	µg/Kg-dry	1	04-Feb-15	22	Z1	2015
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	Acetone	--	U	U	70	130	µg/Kg-dry	1	04-Feb-15	23	Z1	2015
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	Acetone	--	U	U	70	130	µg/Kg-dry	1	04-Feb-15	24	Z1	2015
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	Acetone	--	U	U	70	130	µg/Kg-dry	1	03-Feb-15	28	Z4	2015
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	Acetone	--	U	U	70	130	µg/Kg-dry	1	04-Feb-15	29	Z4	2015
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	Acetone	--	U	U	70	130	µg/Kg-dry	1	04-Feb-15	30	Z4	2015
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	Benzene	--	U	U	8.7	38	µg/Kg-dry	1	04-Feb-15	22	Z1	2015
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	Benzene	--	U	U	8.7	38	µg/Kg-dry	1	04-Feb-15	23	Z1	2015
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	Benzene	--	U	U	8.7	38	µg/Kg-dry	1	04-Feb-15	24	Z1	2015
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	Benzene	--	U	U	8.7	39	µg/Kg-dry	1	03-Feb-15	28	Z4	2015
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	Benzene	--	U	U	8.7	39	µg/Kg-dry	1	04-Feb-15	29	Z4	2015
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	Benzene	--	U	U	8.7	39	µg/Kg-dry	1	04-Feb-15	30	Z4	2015
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	Bromodichloromethane	--	U	U	10	38	µg/Kg-dry	1	04-Feb-15	22	Z1	2015
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	Bromodichloromethane	--	U	U	10	38	µg/Kg-dry	1	04-Feb-15	23	Z1	2015
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	Bromodichloromethane	--	U	U	10	38	µg/Kg-dry	1	04-Feb-15	24	Z1	2015
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	Bromodichloromethane	--	U	U	10	39	µg/Kg-dry	1	03-Feb-15	28	Z4	2015
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	Bromodichloromethane	--	U	U	10	39	µg/Kg-dry	1	04-Feb-15	29	Z4	2015
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	Bromodichloromethane	--	U	U	10	39	µg/Kg-dry	1	04-Feb-15	30	Z4	2015
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	Bromoform	--	U	U	14	38	µg/Kg-dry	1	04-Feb-15	22	Z1	2015
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	Bromoform	--	U	U	14	38	µg/Kg-dry	1	04-Feb-15	23	Z1	2015
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	Bromoform	--	U	U	14	38	µg/Kg-dry	1	04-Feb-15	24	Z1	2015
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	Bromoform	--	U	U	14	39	µg/Kg-dry	1	03-Feb-15	28	Z4	2015
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	Bromoform	--	U	U	14	39	µg/Kg-dry	1	04-Feb-15	29	Z4	2015
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	Bromoform	--	U	U	14	39	µg/Kg-dry	1	04-Feb-15	30	Z4	2015
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	Bromomethane	--	U	U	17	96	µg/Kg-dry	1	04-Feb-15	22	Z1	2015

Table A-6
Volatile and Semivolatile Organic Compound Data for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	Rlimit	Runits	Dilution Factor	Anal Date	Cell	Zone	Year
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	Bromomethane	--	U	U	17	96	µg/Kg-dry	1	04-Feb-15	23	Z1	2015
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	Bromomethane	--	U	U	17	96	µg/Kg-dry	1	04-Feb-15	24	Z1	2015
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	Bromomethane	--	U	U	17	97	µg/Kg-dry	1	03-Feb-15	28	Z4	2015
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	Bromomethane	--	U	U	17	97	µg/Kg-dry	1	04-Feb-15	29	Z4	2015
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	Bromomethane	--	U	U	17	97	µg/Kg-dry	1	04-Feb-15	30	Z4	2015
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	Carbon disulfide	--	U	U	13	38	µg/Kg-dry	1	04-Feb-15	22	Z1	2015
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	Carbon disulfide	--	U	U	13	38	µg/Kg-dry	1	04-Feb-15	23	Z1	2015
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	Carbon disulfide	--	U	U	13	38	µg/Kg-dry	1	04-Feb-15	24	Z1	2015
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	Carbon disulfide	--	U	U	13	39	µg/Kg-dry	1	03-Feb-15	28	Z4	2015
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	Carbon disulfide	--	U	U	13	39	µg/Kg-dry	1	04-Feb-15	29	Z4	2015
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	Carbon disulfide	--	U	U	13	39	µg/Kg-dry	1	04-Feb-15	30	Z4	2015
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	Carbon tetrachloride	--	U	U	6.8	38	µg/Kg-dry	1	04-Feb-15	22	Z1	2015
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	Carbon tetrachloride	--	U	U	6.8	38	µg/Kg-dry	1	04-Feb-15	23	Z1	2015
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	Carbon tetrachloride	--	U	U	6.8	38	µg/Kg-dry	1	04-Feb-15	24	Z1	2015
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	Carbon tetrachloride	--	U	U	6.8	39	µg/Kg-dry	1	03-Feb-15	28	Z4	2015
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	Carbon tetrachloride	--	U	U	6.8	39	µg/Kg-dry	1	04-Feb-15	29	Z4	2015
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	Carbon tetrachloride	--	U	U	6.8	39	µg/Kg-dry	1	04-Feb-15	30	Z4	2015
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	Chlorobenzene	--	U	U	12	38	µg/Kg-dry	1	04-Feb-15	22	Z1	2015
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	Chlorobenzene	--	U	U	12	38	µg/Kg-dry	1	04-Feb-15	23	Z1	2015
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	Chlorobenzene	--	U	U	12	38	µg/Kg-dry	1	04-Feb-15	24	Z1	2015
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	Chlorobenzene	--	U	U	12	39	µg/Kg-dry	1	03-Feb-15	28	Z4	2015
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	Chlorobenzene	--	U	U	12	39	µg/Kg-dry	1	04-Feb-15	29	Z4	2015
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	Chlorobenzene	--	U	U	12	39	µg/Kg-dry	1	04-Feb-15	30	Z4	2015
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	Chloroethane	--	U	U	24	130	µg/Kg-dry	1	04-Feb-15	22	Z1	2015
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	Chloroethane	--	U	U	24	130	µg/Kg-dry	1	04-Feb-15	23	Z1	2015
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	Chloroethane	--	U	U	24	130	µg/Kg-dry	1	04-Feb-15	24	Z1	2015
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	Chloroethane	--	U	U	25	130	µg/Kg-dry	1	03-Feb-15	28	Z4	2015
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	Chloroethane	--	U	U	25	130	µg/Kg-dry	1	04-Feb-15	29	Z4	2015
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	Chloroethane	--	U	U	25	130	µg/Kg-dry	1	04-Feb-15	30	Z4	2015
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	Chloroform	--	U	U	13	38	µg/Kg-dry	1	04-Feb-15	22	Z1	2015
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	Chloroform	--	U	U	13	38	µg/Kg-dry	1	04-Feb-15	23	Z1	2015
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	Chloroform	--	U	U	13	38	µg/Kg-dry	1	04-Feb-15	24	Z1	2015
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	Chloroform	--	U	U	13	39	µg/Kg-dry	1	03-Feb-15	28	Z4	2015
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	Chloroform	--	U	U	13	39	µg/Kg-dry	1	04-Feb-15	29	Z4	2015
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	Chloroform	--	U	U	13	39	µg/Kg-dry	1	04-Feb-15	30	Z4	2015
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	Chloromethane	--	U	U	16	130	µg/Kg-dry	1	04-Feb-15	22	Z1	2015
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	Chloromethane	--	U	U	16	130	µg/Kg-dry	1	04-Feb-15	23	Z1	2015
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	Chloromethane	--	U	U	16	130	µg/Kg-dry	1	04-Feb-15	24	Z1	2015
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	Chloromethane	--	U	U	16	130	µg/Kg-dry	1	03-Feb-15	28	Z4	2015
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	Chloromethane	--	U	U	16	130	µg/Kg-dry	1	04-Feb-15	29	Z4	2015
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	Chloromethane	--	U	U	16	130	µg/Kg-dry	1	04-Feb-15	30	Z4	2015
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	cis-1,2-Dichloroethene	--	U	U	11	38	µg/Kg-dry	1	04-Feb-15	22	Z1	2015
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	cis-1,2-Dichloroethene	--	U	U	11	38	µg/Kg-dry	1	04-Feb-15	23	Z1	2015

Table A-6
Volatile and Semivolatile Organic Compound Data for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	Rlimit	Runits	Dilution Factor	Anal Date	Cell	Zone	Year
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	cis-1,2-Dichloroethene	--	U	U	11	38	µg/Kg-dry	1	04-Feb-15	24	Z1	2015
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	cis-1,2-Dichloroethene	--	U	U	11	39	µg/Kg-dry	1	03-Feb-15	28	Z4	2015
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	cis-1,2-Dichloroethene	--	U	U	11	39	µg/Kg-dry	1	04-Feb-15	29	Z4	2015
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	cis-1,2-Dichloroethene	--	U	U	11	39	µg/Kg-dry	1	04-Feb-15	30	Z4	2015
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	cis-1,3-Dichloropropene	--	U	U	15	38	µg/Kg-dry	1	04-Feb-15	22	Z1	2015
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	cis-1,3-Dichloropropene	--	U	U	15	38	µg/Kg-dry	1	04-Feb-15	23	Z1	2015
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	cis-1,3-Dichloropropene	--	U	U	15	38	µg/Kg-dry	1	04-Feb-15	24	Z1	2015
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	cis-1,3-Dichloropropene	--	U	U	15	39	µg/Kg-dry	1	03-Feb-15	28	Z4	2015
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	cis-1,3-Dichloropropene	--	U	U	15	39	µg/Kg-dry	1	04-Feb-15	29	Z4	2015
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	cis-1,3-Dichloropropene	--	U	U	15	39	µg/Kg-dry	1	04-Feb-15	30	Z4	2015
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	Cyclohexane	--	U	U	19	38	µg/Kg-dry	1	04-Feb-15	22	Z1	2015
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	Cyclohexane	--	U	U	19	38	µg/Kg-dry	1	04-Feb-15	23	Z1	2015
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	Cyclohexane	--	U	U	19	38	µg/Kg-dry	1	04-Feb-15	24	Z1	2015
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	Cyclohexane	--	U	U	19	39	µg/Kg-dry	1	03-Feb-15	28	Z4	2015
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	Cyclohexane	--	U	U	19	39	µg/Kg-dry	1	04-Feb-15	29	Z4	2015
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	Cyclohexane	--	U	U	19	39	µg/Kg-dry	1	04-Feb-15	30	Z4	2015
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	Dibromochloromethane	--	U	U	8.8	38	µg/Kg-dry	1	04-Feb-15	22	Z1	2015
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	Dibromochloromethane	--	U	U	8.8	38	µg/Kg-dry	1	04-Feb-15	23	Z1	2015
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	Dibromochloromethane	--	U	U	8.8	38	µg/Kg-dry	1	04-Feb-15	24	Z1	2015
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	Dibromochloromethane	--	U	U	8.8	39	µg/Kg-dry	1	03-Feb-15	28	Z4	2015
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	Dibromochloromethane	--	U	U	8.8	39	µg/Kg-dry	1	04-Feb-15	29	Z4	2015
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	Dibromochloromethane	--	U	U	8.8	39	µg/Kg-dry	1	04-Feb-15	30	Z4	2015
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	Dichlorodifluoromethane	--	U	U	17	38	µg/Kg-dry	1	04-Feb-15	22	Z1	2015
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	Dichlorodifluoromethane	--	U	U	17	38	µg/Kg-dry	1	04-Feb-15	23	Z1	2015
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	Dichlorodifluoromethane	--	U	U	17	38	µg/Kg-dry	1	04-Feb-15	24	Z1	2015
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	Dichlorodifluoromethane	--	U	U	17	39	µg/Kg-dry	1	03-Feb-15	28	Z4	2015
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	Dichlorodifluoromethane	--	U	U	17	39	µg/Kg-dry	1	04-Feb-15	29	Z4	2015
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	Dichlorodifluoromethane	--	U	U	17	39	µg/Kg-dry	1	04-Feb-15	30	Z4	2015
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	Ethylbenzene	170	170	--	9	38	µg/Kg-dry	1	04-Feb-15	23	Z1	2015
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	Ethylbenzene	--	U	U	9	38	µg/Kg-dry	1	04-Feb-15	22	Z1	2015
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	Ethylbenzene	--	U	U	9	38	µg/Kg-dry	1	04-Feb-15	24	Z1	2015
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	Ethylbenzene	--	U	U	9	39	µg/Kg-dry	1	03-Feb-15	28	Z4	2015
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	Ethylbenzene	--	U	U	9	39	µg/Kg-dry	1	04-Feb-15	29	Z4	2015
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	Ethylbenzene	--	U	U	9	39	µg/Kg-dry	1	04-Feb-15	30	Z4	2015
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	Isopropylbenzene	19	19	J	15	38	µg/Kg-dry	1	04-Feb-15	23	Z1	2015
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	Isopropylbenzene	--	U	U	15	38	µg/Kg-dry	1	04-Feb-15	22	Z1	2015
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	Isopropylbenzene	--	U	U	15	38	µg/Kg-dry	1	04-Feb-15	24	Z1	2015
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	Isopropylbenzene	--	U	U	15	39	µg/Kg-dry	1	03-Feb-15	28	Z4	2015
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	Isopropylbenzene	--	U	U	15	39	µg/Kg-dry	1	04-Feb-15	29	Z4	2015
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	Isopropylbenzene	--	U	U	15	39	µg/Kg-dry	1	04-Feb-15	30	Z4	2015
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	Methyl acetate	180	180	J	79	260	µg/Kg-dry	1	04-Feb-15	22	Z1	2015
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	Methyl acetate	160	160	J	79	260	µg/Kg-dry	1	04-Feb-15	23	Z1	2015
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	Methyl acetate	120	120	J	79	260	µg/Kg-dry	1	04-Feb-15	24	Z1	2015

Table A-6
Volatile and Semivolatile Organic Compound Data for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	Rlimit	Runits	Dilution Factor	Anal Date	Cell	Zone	Year
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	Methyl acetate	--	U	U	79	260	µg/Kg-dry	1	03-Feb-15	28	Z4	2015
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	Methyl acetate	--	U	U	79	260	µg/Kg-dry	1	04-Feb-15	29	Z4	2015
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	Methyl acetate	--	U	U	79	260	µg/Kg-dry	1	04-Feb-15	30	Z4	2015
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	Methyl tert-butyl ether	--	U	U	12	38	µg/Kg-dry	1	04-Feb-15	22	Z1	2015
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	Methyl tert-butyl ether	--	U	U	12	38	µg/Kg-dry	1	04-Feb-15	23	Z1	2015
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	Methyl tert-butyl ether	--	U	U	12	38	µg/Kg-dry	1	04-Feb-15	24	Z1	2015
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	Methyl tert-butyl ether	--	U	U	13	39	µg/Kg-dry	1	03-Feb-15	28	Z4	2015
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	Methyl tert-butyl ether	--	U	U	13	39	µg/Kg-dry	1	04-Feb-15	29	Z4	2015
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	Methyl tert-butyl ether	--	U	U	13	39	µg/Kg-dry	1	04-Feb-15	30	Z4	2015
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	Methylcyclohexane	160	160	--	17	38	µg/Kg-dry	1	04-Feb-15	23	Z1	2015
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	Methylcyclohexane	--	U	U	17	38	µg/Kg-dry	1	04-Feb-15	22	Z1	2015
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	Methylcyclohexane	--	U	U	17	38	µg/Kg-dry	1	04-Feb-15	24	Z1	2015
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	Methylcyclohexane	--	U	U	17	39	µg/Kg-dry	1	03-Feb-15	28	Z4	2015
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	Methylcyclohexane	--	U	U	17	39	µg/Kg-dry	1	04-Feb-15	29	Z4	2015
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	Methylcyclohexane	--	U	U	17	39	µg/Kg-dry	1	04-Feb-15	30	Z4	2015
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	Methylene chloride	--	U	U	18	38	µg/Kg-dry	1	04-Feb-15	22	Z1	2015
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	Methylene chloride	--	U	U	18	38	µg/Kg-dry	1	04-Feb-15	23	Z1	2015
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	Methylene chloride	--	U	U	18	38	µg/Kg-dry	1	04-Feb-15	24	Z1	2015
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	Methylene chloride	--	U	U	18	39	µg/Kg-dry	1	03-Feb-15	28	Z4	2015
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	Methylene chloride	--	U	U	18	39	µg/Kg-dry	1	04-Feb-15	29	Z4	2015
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	Methylene chloride	--	U	U	18	39	µg/Kg-dry	1	04-Feb-15	30	Z4	2015
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	Styrene	--	U	U	27	38	µg/Kg-dry	1	04-Feb-15	22	Z1	2015
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	Styrene	--	U	U	27	38	µg/Kg-dry	1	04-Feb-15	23	Z1	2015
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	Styrene	--	U	U	27	38	µg/Kg-dry	1	04-Feb-15	24	Z1	2015
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	Styrene	--	U	U	27	39	µg/Kg-dry	1	03-Feb-15	28	Z4	2015
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	Styrene	--	U	U	27	39	µg/Kg-dry	1	04-Feb-15	29	Z4	2015
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	Styrene	--	U	U	27	39	µg/Kg-dry	1	04-Feb-15	30	Z4	2015
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	Tetrachloroethene	--	U	U	19	38	µg/Kg-dry	1	04-Feb-15	22	Z1	2015
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	Tetrachloroethene	--	U	U	19	38	µg/Kg-dry	1	04-Feb-15	23	Z1	2015
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	Tetrachloroethene	--	U	U	19	38	µg/Kg-dry	1	04-Feb-15	24	Z1	2015
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	Tetrachloroethene	--	U	U	19	39	µg/Kg-dry	1	03-Feb-15	28	Z4	2015
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	Tetrachloroethene	--	U	U	19	39	µg/Kg-dry	1	04-Feb-15	29	Z4	2015
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	Tetrachloroethene	--	U	U	19	39	µg/Kg-dry	1	04-Feb-15	30	Z4	2015
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	Toluene	350	350	--	13	38	µg/Kg-dry	1	04-Feb-15	23	Z1	2015
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	Toluene	--	U	U	13	38	µg/Kg-dry	1	04-Feb-15	22	Z1	2015
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	Toluene	--	U	U	13	38	µg/Kg-dry	1	04-Feb-15	24	Z1	2015
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	Toluene	--	U	U	13	39	µg/Kg-dry	1	03-Feb-15	28	Z4	2015
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	Toluene	--	U	U	13	39	µg/Kg-dry	1	04-Feb-15	29	Z4	2015
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	Toluene	--	U	U	13	39	µg/Kg-dry	1	04-Feb-15	30	Z4	2015
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	trans-1,2-Dichloroethene	--	U	U	11	38	µg/Kg-dry	1	04-Feb-15	22	Z1	2015
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	trans-1,2-Dichloroethene	--	U	U	11	38	µg/Kg-dry	1	04-Feb-15	23	Z1	2015
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	trans-1,2-Dichloroethene	--	U	U	11	38	µg/Kg-dry	1	04-Feb-15	24	Z1	2015
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	trans-1,2-Dichloroethene	--	U	U	11	39	µg/Kg-dry	1	03-Feb-15	28	Z4	2015

Table A-6
Volatile and Semivolatile Organic Compound Data for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	Rlimit	Runits	Dilution Factor	Anal Date	Cell	Zone	Year
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	trans-1,2-Dichloroethene	--	U	U	11	39	µg/Kg-dry	1	04-Feb-15	29	Z4	2015
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	trans-1,2-Dichloroethene	--	U	U	11	39	µg/Kg-dry	1	04-Feb-15	30	Z4	2015
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	trans-1,3-Dichloropropene	--	U	U	6.9	38	µg/Kg-dry	1	04-Feb-15	22	Z1	2015
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	trans-1,3-Dichloropropene	--	U	U	6.9	38	µg/Kg-dry	1	04-Feb-15	23	Z1	2015
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	trans-1,3-Dichloropropene	--	U	U	6.9	38	µg/Kg-dry	1	04-Feb-15	24	Z1	2015
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	trans-1,3-Dichloropropene	--	U	U	6.9	39	µg/Kg-dry	1	03-Feb-15	28	Z4	2015
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	trans-1,3-Dichloropropene	--	U	U	6.9	39	µg/Kg-dry	1	04-Feb-15	29	Z4	2015
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	trans-1,3-Dichloropropene	--	U	U	6.9	39	µg/Kg-dry	1	04-Feb-15	30	Z4	2015
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	Trichloroethene	--	U	U	10	38	µg/Kg-dry	1	04-Feb-15	22	Z1	2015
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	Trichloroethene	--	U	U	10	38	µg/Kg-dry	1	04-Feb-15	23	Z1	2015
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	Trichloroethene	--	U	U	10	38	µg/Kg-dry	1	04-Feb-15	24	Z1	2015
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	Trichloroethene	--	U	U	10	39	µg/Kg-dry	1	03-Feb-15	28	Z4	2015
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	Trichloroethene	--	U	U	10	39	µg/Kg-dry	1	04-Feb-15	29	Z4	2015
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	Trichloroethene	--	U	U	10	39	µg/Kg-dry	1	04-Feb-15	30	Z4	2015
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	Trichlorofluoromethane	--	U	U	7.4	38	µg/Kg-dry	1	04-Feb-15	22	Z1	2015
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	Trichlorofluoromethane	--	U	U	7.4	38	µg/Kg-dry	1	04-Feb-15	23	Z1	2015
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	Trichlorofluoromethane	--	U	U	7.4	38	µg/Kg-dry	1	04-Feb-15	24	Z1	2015
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	Trichlorofluoromethane	--	U	U	7.4	39	µg/Kg-dry	1	03-Feb-15	28	Z4	2015
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	Trichlorofluoromethane	--	U	U	7.4	39	µg/Kg-dry	1	04-Feb-15	29	Z4	2015
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	Trichlorofluoromethane	--	U	U	7.4	39	µg/Kg-dry	1	04-Feb-15	30	Z4	2015
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	Vinyl chloride	--	U	U	12	38	µg/Kg-dry	1	04-Feb-15	22	Z1	2015
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	Vinyl chloride	--	U	U	12	38	µg/Kg-dry	1	04-Feb-15	23	Z1	2015
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	Vinyl chloride	--	U	U	12	38	µg/Kg-dry	1	04-Feb-15	24	Z1	2015
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	Vinyl chloride	--	U	U	12	39	µg/Kg-dry	1	03-Feb-15	28	Z4	2015
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	Vinyl chloride	--	U	U	12	39	µg/Kg-dry	1	04-Feb-15	29	Z4	2015
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	Vinyl chloride	--	U	U	12	39	µg/Kg-dry	1	04-Feb-15	30	Z4	2015
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	Xylenes, Total	1,100	1,100	--	30	120	µg/Kg-dry	1	04-Feb-15	23	Z1	2015
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	Xylenes, Total	31	31	J	30	120	µg/Kg-dry	1	04-Feb-15	22	Z1	2015
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	Xylenes, Total	--	U	U	30	120	µg/Kg-dry	1	04-Feb-15	24	Z1	2015
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	Xylenes, Total	--	U	U	30	120	µg/Kg-dry	1	03-Feb-15	28	Z4	2015
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	Xylenes, Total	--	U	U	30	120	µg/Kg-dry	1	04-Feb-15	29	Z4	2015
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	Xylenes, Total	--	U	U	30	120	µg/Kg-dry	1	04-Feb-15	30	Z4	2015

Notes

µg/Kg-dry = micrograms per kilogram-dry weight
CVAA = cold vapor atomic absorption
ICP-MS = Inductively Coupled Plasma-Mass Spectrometry
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
RMDL = Recommended Method Detection Limit
SL = screening level

Qualifier Notes

H = Analyzed outside of Holding Time
J = Analyte is present at an estimated concentration between MDL and Report Limit
ND = Not Detected at the Reporting Limit
U = Analyzed but not detected above MDL

Table A-7
Metals and PCB Data for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Cell	Zone	Year
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Mercury by CVAA	Mercury	0.17	0.17	--	0.00078	0.013	mg/Kg-dry	1	12-Jan-15	10	Z7	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Metals by ICP-MS	Aluminum	7,500	7,500	--	1.1	3.2	mg/Kg-dry	4	12-Jan-15	10	Z7	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Metals by ICP-MS	Antimony	13	13	--	0.42	1.6	mg/Kg-dry	4	12-Jan-15	10	Z7	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Metals by ICP-MS	Arsenic	7.5	7.5	--	0.33	0.63	mg/Kg-dry	4	12-Jan-15	10	Z7	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Metals by ICP-MS	Barium	220	220	--	0.019	1.6	mg/Kg-dry	4	12-Jan-15	10	Z7	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Metals by ICP-MS	Beryllium	0.26	0.26	J	0.16	0.63	mg/Kg-dry	4	12-Jan-15	10	Z7	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Metals by ICP-MS	Cadmium	14	14	--	0.063	0.63	mg/Kg-dry	4	12-Jan-15	10	Z7	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Metals by ICP-MS	Chromium	30	30	--	0.35	1.6	mg/Kg-dry	4	12-Jan-15	10	Z7	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Metals by ICP-MS	Cobalt	6.5	6.5	--	0.19	1.6	mg/Kg-dry	4	12-Jan-15	10	Z7	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Metals by ICP-MS	Copper	520	520	--	0.18	1.6	mg/Kg-dry	4	12-Jan-15	10	Z7	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Metals by ICP-MS	Iron	30,000	30,000	--	4.7	25	mg/Kg-dry	4	12-Jan-15	10	Z7	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Metals by ICP-MS	Lead	1,000	1,000	--	1.6	16	mg/Kg-dry	40	13-Jan-15	10	Z7	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Metals by ICP-MS	Manganese	340	340	--	0.25	1.6	mg/Kg-dry	4	12-Jan-15	10	Z7	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Metals by ICP-MS	Nickel	35	35	--	0.85	1.6	mg/Kg-dry	4	12-Jan-15	10	Z7	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Metals by ICP-MS	Selenium	0.92	0.92	J	0.33	1.3	mg/Kg-dry	4	12-Jan-15	10	Z7	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Metals by ICP-MS	Silver	2.3	2.3	--	0.0063	0.63	mg/Kg-dry	4	12-Jan-15	10	Z7	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Metals by ICP-MS	Thallium	--	U	U	0.17	1.6	mg/Kg-dry	4	12-Jan-15	10	Z7	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Metals by ICP-MS	Vanadium	11	11	--	0.26	1.6	mg/Kg-dry	4	12-Jan-15	10	Z7	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Metals by ICP-MS	Zinc	960	960	--	11	32	mg/Kg-dry	40	13-Jan-15	10	Z7	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Moisture	Moisture	0.37	0.37	--	0.025	0.05	% of sample	1	12-Jan-15	10	Z7	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	PCBs	Aroclor 1016	--	U	U	26	81	µg/Kg-dry	1	15-Jan-15	10	Z7	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	PCBs	Aroclor 1221	--	U	U	26	81	µg/Kg-dry	1	15-Jan-15	10	Z7	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	PCBs	Aroclor 1232	--	U	U	26	81	µg/Kg-dry	1	15-Jan-15	10	Z7	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	PCBs	Aroclor 1242	--	U	U	26	81	µg/Kg-dry	1	15-Jan-15	10	Z7	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	PCBs	Aroclor 1248	230	230	--	26	81	µg/Kg-dry	1	15-Jan-15	10	Z7	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	PCBs	Aroclor 1254	240	240	--	31	81	µg/Kg-dry	1	15-Jan-15	10	Z7	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	PCBs	Aroclor 1260	--	U	U	31	81	µg/Kg-dry	1	15-Jan-15	10	Z7	2015
ISM-10-Z7	1501301-10	08-Jan-15	Soil	PCBs	PCBs, Total	470	--	--	--	--	µg/Kg-dry	--	--	10	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Mercury by CVAA	Mercury	0.21	0.21	--	0.00077	0.013	mg/Kg-dry	1	12-Jan-15	11	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Metals by ICP-MS	Aluminum	6,800	6,800	--	1	3	mg/Kg-dry	4	12-Jan-15	11	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Metals by ICP-MS	Antimony	12	12	--	0.39	1.5	mg/Kg-dry	4	12-Jan-15	11	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Metals by ICP-MS	Arsenic	8.1	8.1	--	0.31	0.59	mg/Kg-dry	4	12-Jan-15	11	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Metals by ICP-MS	Barium	280	280	--	0.018	1.5	mg/Kg-dry	4	12-Jan-15	11	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Metals by ICP-MS	Beryllium	0.3	0.30	J	0.15	0.59	mg/Kg-dry	4	12-Jan-15	11	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Metals by ICP-MS	Cadmium	5.6	5.6	--	0.059	0.59	mg/Kg-dry	4	12-Jan-15	11	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Metals by ICP-MS	Chromium	30	30	--	0.33	1.5	mg/Kg-dry	4	12-Jan-15	11	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Metals by ICP-MS	Cobalt	7.3	7.3	--	0.18	1.5	mg/Kg-dry	4	12-Jan-15	11	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Metals by ICP-MS	Copper	2,900	2,900	--	1.7	15	mg/Kg-dry	40	13-Jan-15	11	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Metals by ICP-MS	Iron	43,000	43,000	--	4.3	24	mg/Kg-dry	4	12-Jan-15	11	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Metals by ICP-MS	Lead	560	560	--	1.5	15	mg/Kg-dry	40	13-Jan-15	11	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Metals by ICP-MS	Manganese	470	470	--	0.24	1.5	mg/Kg-dry	4	12-Jan-15	11	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Metals by ICP-MS	Nickel	40	40	--	0.8	1.5	mg/Kg-dry	4	12-Jan-15	11	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Metals by ICP-MS	Selenium	1.3	1.3	--	0.31	1.2	mg/Kg-dry	4	12-Jan-15	11	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Metals by ICP-MS	Silver	2.6	2.6	--	0.0059	0.59	mg/Kg-dry	4	12-Jan-15	11	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Metals by ICP-MS	Thallium	--	U	U	0.16	1.5	mg/Kg-dry	4	12-Jan-15	11	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Metals by ICP-MS	Vanadium	13	13	--	0.24	1.5	mg/Kg-dry	4	12-Jan-15	11	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Metals by ICP-MS	Zinc	1,500	1,500	--	11	30	mg/Kg-dry	40	13-Jan-15	11	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Moisture	Moisture	0.32	0.32	--	0.025	0.05	% of sample	1	12-Jan-15	11	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	PCBs	Aroclor 1016	--	U	U	26	81	µg/Kg-dry	1	15-Jan-15	11	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	PCBs	Aroclor 1221	--	U	U	26	81	µg/Kg-dry	1	15-Jan-15	11	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	PCBs	Aroclor 1232	--	U	U	26	81	µg/Kg-dry	1	15-Jan-15	11	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	PCBs	Aroclor 1242	--	U	U	26	81	µg/Kg-dry	1	15-Jan-15	11	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	PCBs	Aroclor 1248	260	260	--	26	81	µg/Kg-dry	1	15-Jan-15	11	Z7	2015

Table A-7
Metals and PCB Data for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Cell	Zone	Year
ISM-11-Z7	1501301-11	08-Jan-15	Soil	PCBs	Aroclor 1254	450	450	--	30	81	µg/Kg-dry	1	15-Jan-15	11	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	PCBs	Aroclor 1260	--	U	U	30	81	µg/Kg-dry	1	15-Jan-15	11	Z7	2015
ISM-11-Z7	1501301-11	08-Jan-15	Soil	PCBs	PCBs, Total	710	--	--	--	--	µg/Kg-dry	--	--	11	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Mercury by CVAA	Mercury	0.2	0.20	--	0.00078	0.013	mg/Kg-dry	1	12-Jan-15	12	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Metals by ICP-MS	Aluminum	6,900	6,900	--	0.92	2.7	mg/Kg-dry	4	12-Jan-15	12	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Metals by ICP-MS	Antimony	11	11	--	0.36	1.4	mg/Kg-dry	4	12-Jan-15	12	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Metals by ICP-MS	Arsenic	7.6	7.6	--	0.28	0.54	mg/Kg-dry	4	12-Jan-15	12	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Metals by ICP-MS	Barium	300	300	--	0.016	1.4	mg/Kg-dry	4	12-Jan-15	12	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Metals by ICP-MS	Beryllium	0.28	0.28	J	0.14	0.54	mg/Kg-dry	4	12-Jan-15	12	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Metals by ICP-MS	Cadmium	6.2	6.2	--	0.054	0.54	mg/Kg-dry	4	12-Jan-15	12	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Metals by ICP-MS	Chromium	35	35	--	0.3	1.4	mg/Kg-dry	4	12-Jan-15	12	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Metals by ICP-MS	Cobalt	9.1	9.1	--	0.16	1.4	mg/Kg-dry	4	12-Jan-15	12	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Metals by ICP-MS	Copper	300	300	--	0.15	1.4	mg/Kg-dry	4	12-Jan-15	12	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Metals by ICP-MS	Iron	38,000	38,000	--	4	22	mg/Kg-dry	4	12-Jan-15	12	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Metals by ICP-MS	Lead	500	500	--	1.4	14	mg/Kg-dry	40	13-Jan-15	12	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Metals by ICP-MS	Manganese	420	420	--	0.22	1.4	mg/Kg-dry	4	12-Jan-15	12	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Metals by ICP-MS	Nickel	51	51	--	0.73	1.4	mg/Kg-dry	4	12-Jan-15	12	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Metals by ICP-MS	Selenium	1	1.0	J	0.28	1.1	mg/Kg-dry	4	12-Jan-15	12	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Metals by ICP-MS	Silver	2.4	2.4	--	0.0054	0.54	mg/Kg-dry	4	12-Jan-15	12	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Metals by ICP-MS	Thallium	--	U	U	0.15	1.4	mg/Kg-dry	4	12-Jan-15	12	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Metals by ICP-MS	Vanadium	8.7	8.7	--	0.22	1.4	mg/Kg-dry	4	12-Jan-15	12	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Metals by ICP-MS	Zinc	1,100	1,100	--	9.7	27	mg/Kg-dry	40	13-Jan-15	12	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Moisture	Moisture	0.33	0.33	--	0.025	0.05	% of sample	1	12-Jan-15	12	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	PCBs	Aroclor 1016	--	U	U	26	81	µg/Kg-dry	1	15-Jan-15	12	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	PCBs	Aroclor 1221	--	U	U	26	81	µg/Kg-dry	1	15-Jan-15	12	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	PCBs	Aroclor 1232	--	U	U	26	81	µg/Kg-dry	1	15-Jan-15	12	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	PCBs	Aroclor 1242	--	U	U	26	81	µg/Kg-dry	1	15-Jan-15	12	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	PCBs	Aroclor 1248	290	290	--	26	81	µg/Kg-dry	1	15-Jan-15	12	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	PCBs	Aroclor 1254	250	250	--	30	81	µg/Kg-dry	1	15-Jan-15	12	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	PCBs	Aroclor 1260	--	U	U	30	81	µg/Kg-dry	1	15-Jan-15	12	Z7	2015
ISM-12-Z7	1501301-12	08-Jan-15	Soil	PCBs	PCBs, Total	540	--	--	--	--	µg/Kg-dry	--	--	12	Z7	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Mercury by CVAA	Mercury	0.12	0.12	--	0.00081	0.013	mg/Kg-dry	1	04-Feb-15	13	Z8	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Metals by ICP-MS	Aluminum	7,300	7,300	--	1.1	3.2	mg/Kg-dry	4	03-Feb-15	13	Z8	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Metals by ICP-MS	Antimony	20	20	--	0.42	1.6	mg/Kg-dry	4	03-Feb-15	13	Z8	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Metals by ICP-MS	Arsenic	6.5	6.5	--	0.33	1.6	mg/Kg-dry	4	03-Feb-15	13	Z8	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Metals by ICP-MS	Barium	400	400	--	0.019	1.6	mg/Kg-dry	4	03-Feb-15	13	Z8	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Metals by ICP-MS	Beryllium	0.32	0.32	J	0.16	0.63	mg/Kg-dry	4	03-Feb-15	13	Z8	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Metals by ICP-MS	Cadmium	16	16	--	0.063	0.63	mg/Kg-dry	4	03-Feb-15	13	Z8	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Metals by ICP-MS	Chromium	29	29	--	0.35	1.6	mg/Kg-dry	4	03-Feb-15	13	Z8	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Metals by ICP-MS	Cobalt	7.5	7.5	--	0.19	1.6	mg/Kg-dry	4	03-Feb-15	13	Z8	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Metals by ICP-MS	Copper	230	230	--	0.18	1.6	mg/Kg-dry	4	03-Feb-15	13	Z8	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Metals by ICP-MS	Iron	23,000	23,000	--	4.7	25	mg/Kg-dry	4	03-Feb-15	13	Z8	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Metals by ICP-MS	Lead	960	960	--	1.6	16	mg/Kg-dry	40	03-Feb-15	13	Z8	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Metals by ICP-MS	Manganese	450	450	--	0.25	1.6	mg/Kg-dry	4	03-Feb-15	13	Z8	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Metals by ICP-MS	Nickel	40	40	--	0.85	1.6	mg/Kg-dry	4	03-Feb-15	13	Z8	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Metals by ICP-MS	Selenium	1.2	1.2	J	0.33	1.6	mg/Kg-dry	4	03-Feb-15	13	Z8	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Metals by ICP-MS	Silver	4.4	4.4	--	0.0063	1.6	mg/Kg-dry	4	03-Feb-15	13	Z8	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Metals by ICP-MS	Thallium	--	U	U	0.17	1.6	mg/Kg-dry	4	03-Feb-15	13	Z8	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Metals by ICP-MS	Vanadium	14	14	--	0.26	1.6	mg/Kg-dry	4	03-Feb-15	13	Z8	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Metals by ICP-MS	Zinc	810	810	--	11	32	mg/Kg-dry	40	03-Feb-15	13	Z8	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Moisture	Moisture	0.36	0.36	--	0.025	0.05	% of sample	1	05-Feb-15	13	Z8	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	PCBs	Aroclor 1016	--	U	U	26	81	µg/Kg-dry	1	04-Feb-15	13	Z8	2015

Table A-7
Metals and PCB Data for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Cell	Zone	Year
ISM-13-Z8	1502016-01	23-Jan-15	Soil	PCBs	Aroclor 1221	--	U	U	26	81	µg/Kg-dry	1	04-Feb-15	13	Z8	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	PCBs	Aroclor 1232	--	U	U	26	81	µg/Kg-dry	1	04-Feb-15	13	Z8	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	PCBs	Aroclor 1242	--	U	U	26	81	µg/Kg-dry	1	04-Feb-15	13	Z8	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	PCBs	Aroclor 1248	--	U	U	26	81	µg/Kg-dry	1	04-Feb-15	13	Z8	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	PCBs	Aroclor 1254	110	110	--	30	81	µg/Kg-dry	1	04-Feb-15	13	Z8	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	PCBs	Aroclor 1260	--	U	U	30	81	µg/Kg-dry	1	04-Feb-15	13	Z8	2015
ISM-13-Z8	1502016-01	23-Jan-15	Soil	PCBs	PCBs, Total	110	110	--	--	--	µg/Kg-dry	1	04-Feb-15	13	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Mercury by CVAA	Mercury	0.067	0.067	--	0.0008	0.013	mg/Kg-dry	1	04-Feb-15	14	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Metals by ICP-MS	Aluminum	5,800	5,800	--	0.88	2.6	mg/Kg-dry	4	03-Feb-15	14	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Metals by ICP-MS	Antimony	9.1	9.1	--	0.34	1.3	mg/Kg-dry	4	03-Feb-15	14	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Metals by ICP-MS	Arsenic	5.6	5.6	--	0.27	1.3	mg/Kg-dry	4	03-Feb-15	14	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Metals by ICP-MS	Barium	380	380	--	0.015	1.3	mg/Kg-dry	4	03-Feb-15	14	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Metals by ICP-MS	Beryllium	0.27	0.27	J	0.13	0.52	mg/Kg-dry	4	03-Feb-15	14	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Metals by ICP-MS	Cadmium	3.6	3.6	--	0.052	0.52	mg/Kg-dry	4	03-Feb-15	14	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Metals by ICP-MS	Chromium	20	20	--	0.29	1.3	mg/Kg-dry	4	03-Feb-15	14	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Metals by ICP-MS	Cobalt	5.5	5.5	--	0.15	1.3	mg/Kg-dry	4	03-Feb-15	14	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Metals by ICP-MS	Copper	150	150	--	0.14	1.3	mg/Kg-dry	4	03-Feb-15	14	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Metals by ICP-MS	Iron	21,000	21,000	--	3.8	21	mg/Kg-dry	4	03-Feb-15	14	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Metals by ICP-MS	Lead	350	350	--	0.13	1.3	mg/Kg-dry	4	03-Feb-15	14	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Metals by ICP-MS	Manganese	320	320	--	0.21	1.3	mg/Kg-dry	4	03-Feb-15	14	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Metals by ICP-MS	Nickel	33	33	--	0.7	1.3	mg/Kg-dry	4	03-Feb-15	14	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Metals by ICP-MS	Selenium	0.87	0.87	J	0.27	1.3	mg/Kg-dry	4	03-Feb-15	14	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Metals by ICP-MS	Silver	3.2	3.2	--	0.0052	1.3	mg/Kg-dry	4	03-Feb-15	14	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Metals by ICP-MS	Thallium	--	U	U	0.14	1.3	mg/Kg-dry	4	03-Feb-15	14	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Metals by ICP-MS	Vanadium	14	14	--	0.21	1.3	mg/Kg-dry	4	03-Feb-15	14	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Metals by ICP-MS	Zinc	510	510	--	9.3	26	mg/Kg-dry	40	03-Feb-15	14	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Moisture	Moisture	0.3	0.30	--	0.025	0.05	% of sample	1	05-Feb-15	14	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	PCBs	Aroclor 1016	--	U	U	26	81	µg/Kg-dry	1	05-Feb-15	14	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	PCBs	Aroclor 1221	--	U	U	26	81	µg/Kg-dry	1	05-Feb-15	14	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	PCBs	Aroclor 1232	--	U	U	26	81	µg/Kg-dry	1	05-Feb-15	14	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	PCBs	Aroclor 1242	--	U	U	26	81	µg/Kg-dry	1	05-Feb-15	14	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	PCBs	Aroclor 1248	--	U	U	26	81	µg/Kg-dry	1	05-Feb-15	14	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	PCBs	Aroclor 1254	120	120	--	31	81	µg/Kg-dry	1	05-Feb-15	14	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	PCBs	Aroclor 1260	--	U	U	31	81	µg/Kg-dry	1	05-Feb-15	14	Z8	2015
ISM-14-Z8	1502016-02	23-Jan-15	Soil	PCBs	PCBs, Total	120	120	--	--	--	µg/Kg-dry	1	05-Feb-15	14	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Mercury by CVAA	Mercury	0.11	0.11	--	0.00087	0.014	mg/Kg-dry	1	04-Feb-15	15	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Metals by ICP-MS	Aluminum	5,900	5,900	--	0.87	2.5	mg/Kg-dry	4	03-Feb-15	15	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Metals by ICP-MS	Antimony	9.3	9.3	--	0.33	1.3	mg/Kg-dry	4	03-Feb-15	15	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Metals by ICP-MS	Arsenic	7.1	7.1	--	0.26	1.3	mg/Kg-dry	4	03-Feb-15	15	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Metals by ICP-MS	Barium	220	220	--	0.015	1.3	mg/Kg-dry	4	03-Feb-15	15	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Metals by ICP-MS	Beryllium	0.26	0.26	J	0.13	0.51	mg/Kg-dry	4	03-Feb-15	15	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Metals by ICP-MS	Cadmium	3.3	3.3	--	0.051	0.51	mg/Kg-dry	4	03-Feb-15	15	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Metals by ICP-MS	Chromium	27	27	--	0.28	1.3	mg/Kg-dry	4	03-Feb-15	15	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Metals by ICP-MS	Cobalt	5.3	5.3	--	0.15	1.3	mg/Kg-dry	4	03-Feb-15	15	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Metals by ICP-MS	Copper	160	160	--	0.14	1.3	mg/Kg-dry	4	03-Feb-15	15	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Metals by ICP-MS	Iron	19,000	19,000	--	3.7	20	mg/Kg-dry	4	03-Feb-15	15	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Metals by ICP-MS	Lead	300	300	--	0.13	1.3	mg/Kg-dry	4	03-Feb-15	15	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Metals by ICP-MS	Manganese	340	340	--	0.2	1.3	mg/Kg-dry	4	03-Feb-15	15	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Metals by ICP-MS	Nickel	37	37	--	0.68	1.3	mg/Kg-dry	4	03-Feb-15	15	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Metals by ICP-MS	Selenium	1.5	1.5	--	0.26	1.3	mg/Kg-dry	4	03-Feb-15	15	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Metals by ICP-MS	Silver	1.7	1.7	--	0.0051	1.3	mg/Kg-dry	4	03-Feb-15	15	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Metals by ICP-MS	Thallium	--	U	U	0.14	1.3	mg/Kg-dry	4	03-Feb-15	15	Z8	2015

Table A-7
Metals and PCB Data for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Cell	Zone	Year
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Metals by ICP-MS	Vanadium	13	13	--	0.21	1.3	mg/Kg-dry	4	03-Feb-15	15	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Metals by ICP-MS	Zinc	560	560	--	9.1	25	mg/Kg-dry	40	03-Feb-15	15	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Moisture	Moisture	0.33	0.33	--	0.025	0.05	% of sample	1	05-Feb-15	15	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	PCBs	Aroclor 1016	--	U	U	26	80	µg/Kg-dry	1	05-Feb-15	15	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	PCBs	Aroclor 1221	--	U	U	26	80	µg/Kg-dry	1	05-Feb-15	15	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	PCBs	Aroclor 1232	--	U	U	26	80	µg/Kg-dry	1	05-Feb-15	15	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	PCBs	Aroclor 1242	--	U	U	26	80	µg/Kg-dry	1	05-Feb-15	15	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	PCBs	Aroclor 1248	--	U	U	26	80	µg/Kg-dry	1	05-Feb-15	15	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	PCBs	Aroclor 1254	120	120		30	80	µg/Kg-dry	1	05-Feb-15	15	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	PCBs	Aroclor 1260	--	U	U	30	80	µg/Kg-dry	1	05-Feb-15	15	Z8	2015
ISM-15-Z8	1502016-03	23-Jan-15	Soil	PCBs	PCBs, Total	120	120	--	--	--	µg/Kg-dry	1	05-Feb-15	15	Z8	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Mercury by CVAA	Mercury	0.37	0.37	--	0.0045	0.074	mg/Kg-dry	5	05-Feb-15	16	Z9	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Metals by ICP-MS	Aluminum	5,000	5,000	--	0.89	2.6	mg/Kg-dry	4	03-Feb-15	16	Z9	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Metals by ICP-MS	Antimony	6	6.0	--	0.34	1.3	mg/Kg-dry	4	03-Feb-15	16	Z9	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Metals by ICP-MS	Arsenic	6.1	6.1	--	0.27	1.3	mg/Kg-dry	4	03-Feb-15	16	Z9	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Metals by ICP-MS	Barium	450	450	--	0.016	1.3	mg/Kg-dry	4	03-Feb-15	16	Z9	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Metals by ICP-MS	Beryllium	0.21	0.21	J	0.14	0.52	mg/Kg-dry	4	03-Feb-15	16	Z9	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Metals by ICP-MS	Cadmium	3	3.0	--	0.052	0.52	mg/Kg-dry	4	03-Feb-15	16	Z9	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Metals by ICP-MS	Chromium	20	20	--	0.29	1.3	mg/Kg-dry	4	03-Feb-15	16	Z9	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Metals by ICP-MS	Cobalt	5.1	5.1	--	0.16	1.3	mg/Kg-dry	4	03-Feb-15	16	Z9	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Metals by ICP-MS	Copper	150	150	--	0.15	1.3	mg/Kg-dry	4	03-Feb-15	16	Z9	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Metals by ICP-MS	Iron	25,000	25,000	--	3.8	21	mg/Kg-dry	4	03-Feb-15	16	Z9	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Metals by ICP-MS	Lead	230	230	--	0.14	1.3	mg/Kg-dry	4	03-Feb-15	16	Z9	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Metals by ICP-MS	Manganese	310	310	--	0.21	1.3	mg/Kg-dry	4	03-Feb-15	16	Z9	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Metals by ICP-MS	Nickel	34	34	--	0.7	1.3	mg/Kg-dry	4	03-Feb-15	16	Z9	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Metals by ICP-MS	Selenium	1	1.0	J	0.27	1.3	mg/Kg-dry	4	03-Feb-15	16	Z9	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Metals by ICP-MS	Silver	1.3	1.3	J	0.0052	1.3	mg/Kg-dry	4	03-Feb-15	16	Z9	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Metals by ICP-MS	Thallium	--	U	U	0.14	1.3	mg/Kg-dry	4	03-Feb-15	16	Z9	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Metals by ICP-MS	Vanadium	13	13	--	0.21	1.3	mg/Kg-dry	4	03-Feb-15	16	Z9	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Metals by ICP-MS	Zinc	440	440	--	0.94	2.6	mg/Kg-dry	4	03-Feb-15	16	Z9	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Moisture	Moisture	0.26	0.26	--	0.025	0.05	% of sample	1	05-Feb-15	16	Z9	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	PCBs	Aroclor 1016	--	U	U	27	83	µg/Kg-dry	1	05-Feb-15	16	Z9	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	PCBs	Aroclor 1221	--	U	U	27	83	µg/Kg-dry	1	05-Feb-15	16	Z9	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	PCBs	Aroclor 1232	--	U	U	27	83	µg/Kg-dry	1	05-Feb-15	16	Z9	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	PCBs	Aroclor 1242	--	U	U	27	83	µg/Kg-dry	1	05-Feb-15	16	Z9	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	PCBs	Aroclor 1248	--	U	U	27	83	µg/Kg-dry	1	05-Feb-15	16	Z9	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	PCBs	Aroclor 1254	230	230	--	31	83	µg/Kg-dry	1	05-Feb-15	16	Z9	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	PCBs	Aroclor 1260	--	U	U	31	83	µg/Kg-dry	1	05-Feb-15	16	Z9	2015
ISM-16-Z9	1502016-04	23-Jan-15	Soil	PCBs	PCBs, Total	230	230	--	--	--	µg/Kg-dry	1	05-Feb-15	16	Z9	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Mercury by CVAA	Mercury	0.13	0.13	--	0.00087	0.014	mg/Kg-dry	1	04-Feb-15	17	Z9	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Metals by ICP-MS	Aluminum	4,700	4,700	--	1.1	3.1	mg/Kg-dry	4	03-Feb-15	17	Z9	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Metals by ICP-MS	Antimony	5.4	5.4	--	0.41	1.5	mg/Kg-dry	4	03-Feb-15	17	Z9	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Metals by ICP-MS	Arsenic	6	6.0	--	0.32	1.5	mg/Kg-dry	4	03-Feb-15	17	Z9	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Metals by ICP-MS	Barium	230	230	--	0.018	1.5	mg/Kg-dry	4	03-Feb-15	17	Z9	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Metals by ICP-MS	Beryllium	0.23	0.23	J	0.16	0.62	mg/Kg-dry	4	03-Feb-15	17	Z9	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Metals by ICP-MS	Cadmium	2.9	2.9	--	0.062	0.62	mg/Kg-dry	4	03-Feb-15	17	Z9	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Metals by ICP-MS	Chromium	29	29	--	0.34	1.5	mg/Kg-dry	4	03-Feb-15	17	Z9	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Metals by ICP-MS	Cobalt	5.9	5.9	--	0.18	1.5	mg/Kg-dry	4	03-Feb-15	17	Z9	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Metals by ICP-MS	Copper	200	200	--	0.17	1.5	mg/Kg-dry	4	03-Feb-15	17	Z9	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Metals by ICP-MS	Iron	26,000	26,000	--	4.5	25	mg/Kg-dry	4	03-Feb-15	17	Z9	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Metals by ICP-MS	Lead	220	220	--	0.16	1.5	mg/Kg-dry	4	03-Feb-15	17	Z9	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Metals by ICP-MS	Manganese	290	290	--	0.25	1.5	mg/Kg-dry	4	03-Feb-15	17	Z9	2015

Table A-7
Metals and PCB Data for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Cell	Zone	Year
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Metals by ICP-MS	Nickel	28	28	--	0.83	1.5	mg/Kg-dry	4	03-Feb-15	17	Z9	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Metals by ICP-MS	Selenium	0.67	0.67	J	0.32	1.5	mg/Kg-dry	4	03-Feb-15	17	Z9	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Metals by ICP-MS	Silver	1.3	1.3	J	0.0062	1.5	mg/Kg-dry	4	03-Feb-15	17	Z9	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Metals by ICP-MS	Thallium	--	U	U	0.17	1.5	mg/Kg-dry	4	03-Feb-15	17	Z9	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Metals by ICP-MS	Vanadium	13	13	--	0.25	1.5	mg/Kg-dry	4	03-Feb-15	17	Z9	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Metals by ICP-MS	Zinc	440	440	--	1.1	3.1	mg/Kg-dry	4	03-Feb-15	17	Z9	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Moisture	Moisture	0.33	0.33	--	0.025	0.05	% of sample	1	05-Feb-15	17	Z9	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	PCBs	Aroclor 1016	--	U	U	27	83	µg/Kg-dry	1	06-Feb-15	17	Z9	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	PCBs	Aroclor 1221	--	U	U	27	83	µg/Kg-dry	1	06-Feb-15	17	Z9	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	PCBs	Aroclor 1232	--	U	U	27	83	µg/Kg-dry	1	06-Feb-15	17	Z9	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	PCBs	Aroclor 1242	--	U	U	27	83	µg/Kg-dry	1	06-Feb-15	17	Z9	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	PCBs	Aroclor 1248	150	150	--	27	83	µg/Kg-dry	1	06-Feb-15	17	Z9	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	PCBs	Aroclor 1254	140	140		31	83	µg/Kg-dry	1	06-Feb-15	17	Z9	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	PCBs	Aroclor 1260	--	U	U	31	83	µg/Kg-dry	1	06-Feb-15	17	Z9	2015
ISM-17-Z9	1502016-05	23-Jan-15	Soil	PCBs	PCBs, Total	290	290	--	--	--	µg/Kg-dry	1	06-Feb-15	17	Z9	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Mercury by CVAA	Mercury	0.16	0.16	--	0.00073	0.012	mg/Kg-dry	1	04-Feb-15	18	Z9	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Metals by ICP-MS	Aluminum	4,800	4,800	--	0.89	2.6	mg/Kg-dry	4	03-Feb-15	18	Z9	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Metals by ICP-MS	Antimony	6.3	6.3	--	0.35	1.3	mg/Kg-dry	4	03-Feb-15	18	Z9	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Metals by ICP-MS	Arsenic	4.9	4.9	--	0.27	1.3	mg/Kg-dry	4	03-Feb-15	18	Z9	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Metals by ICP-MS	Barium	150	150	--	0.016	1.3	mg/Kg-dry	4	03-Feb-15	18	Z9	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Metals by ICP-MS	Beryllium	0.22	0.22	J	0.14	0.52	mg/Kg-dry	4	03-Feb-15	18	Z9	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Metals by ICP-MS	Cadmium	2.8	2.8	--	0.052	0.52	mg/Kg-dry	4	03-Feb-15	18	Z9	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Metals by ICP-MS	Chromium	17	17	--	0.29	1.3	mg/Kg-dry	4	03-Feb-15	18	Z9	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Metals by ICP-MS	Cobalt	5.3	5.3	--	0.16	1.3	mg/Kg-dry	4	03-Feb-15	18	Z9	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Metals by ICP-MS	Copper	230	230	--	0.15	1.3	mg/Kg-dry	4	03-Feb-15	18	Z9	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Metals by ICP-MS	Iron	22,000	22,000	--	3.8	21	mg/Kg-dry	4	03-Feb-15	18	Z9	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Metals by ICP-MS	Lead	240	240	--	0.14	1.3	mg/Kg-dry	4	03-Feb-15	18	Z9	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Metals by ICP-MS	Manganese	270	270	--	0.21	1.3	mg/Kg-dry	4	03-Feb-15	18	Z9	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Metals by ICP-MS	Nickel	33	33	--	0.71	1.3	mg/Kg-dry	4	03-Feb-15	18	Z9	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Metals by ICP-MS	Selenium	1	1.0	J	0.27	1.3	mg/Kg-dry	4	03-Feb-15	18	Z9	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Metals by ICP-MS	Silver	1.3	1.3	J	0.0052	1.3	mg/Kg-dry	4	03-Feb-15	18	Z9	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Metals by ICP-MS	Thallium	--	U	U	0.14	1.3	mg/Kg-dry	4	03-Feb-15	18	Z9	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Metals by ICP-MS	Vanadium	13	13	--	0.21	1.3	mg/Kg-dry	4	03-Feb-15	18	Z9	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Metals by ICP-MS	Zinc	410	410	--	0.94	2.6	mg/Kg-dry	4	03-Feb-15	18	Z9	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Moisture	Moisture	0.25	0.25	--	0.025	0.05	% of sample	1	05-Feb-15	18	Z9	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	PCBs	Aroclor 1016	--	U	U	26	82	µg/Kg-dry	1	05-Feb-15	18	Z9	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	PCBs	Aroclor 1221	--	U	U	26	82	µg/Kg-dry	1	05-Feb-15	18	Z9	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	PCBs	Aroclor 1232	--	U	U	26	82	µg/Kg-dry	1	05-Feb-15	18	Z9	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	PCBs	Aroclor 1242	--	U	U	26	82	µg/Kg-dry	1	05-Feb-15	18	Z9	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	PCBs	Aroclor 1248	--	U	U	26	82	µg/Kg-dry	1	05-Feb-15	18	Z9	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	PCBs	Aroclor 1254	130	130	--	31	82	µg/Kg-dry	1	05-Feb-15	18	Z9	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	PCBs	Aroclor 1260	--	U	U	31	82	µg/Kg-dry	1	05-Feb-15	18	Z9	2015
ISM-18-Z9	1502016-06	23-Jan-15	Soil	PCBs	PCBs, Total	130	130	--	--	--	µg/Kg-dry	1	05-Feb-15	18	Z9	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Mercury by CVAA	Mercury	0.1	0.10	--	0.00099	0.016	mg/Kg-dry	1	04-Feb-15	19	Z2	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Metals by ICP-MS	Aluminum	7,700	7,700	--	2.8	8.1	mg/Kg-dry	10	13-Feb-15	19	Z2	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Metals by ICP-MS	Antimony	8.5	8.5	--	0.43	1.6	mg/Kg-dry	4	03-Feb-15	19	Z2	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Metals by ICP-MS	Arsenic	7.3	7.3	--	0.34	1.6	mg/Kg-dry	4	03-Feb-15	19	Z2	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Metals by ICP-MS	Barium	240	240	--	0.019	1.6	mg/Kg-dry	4	03-Feb-15	19	Z2	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Metals by ICP-MS	Beryllium	--	U	U	0.17	0.65	mg/Kg-dry	4	03-Feb-15	19	Z2	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Metals by ICP-MS	Cadmium	7.8	7.8	--	0.065	0.65	mg/Kg-dry	4	03-Feb-15	19	Z2	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Metals by ICP-MS	Chromium	31	31	--	0.36	1.6	mg/Kg-dry	4	03-Feb-15	19	Z2	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Metals by ICP-MS	Cobalt	5.9	5.9	--	0.19	1.6	mg/Kg-dry	4	03-Feb-15	19	Z2	2015

Table A-7
Metals and PCB Data for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Cell	Zone	Year
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Metals by ICP-MS	Copper	230	230	--	0.18	1.6	mg/Kg-dry	4	03-Feb-15	19	Z2	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Metals by ICP-MS	Iron	40,000	40,000	--	4.7	26	mg/Kg-dry	4	03-Feb-15	19	Z2	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Metals by ICP-MS	Lead	460	460	--	0.17	1.6	mg/Kg-dry	4	03-Feb-15	19	Z2	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Metals by ICP-MS	Manganese	400	400	--	0.26	1.6	mg/Kg-dry	4	03-Feb-15	19	Z2	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Metals by ICP-MS	Nickel	42	42	--	0.87	1.6	mg/Kg-dry	4	03-Feb-15	19	Z2	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Metals by ICP-MS	Selenium	1.1	1.1	J	0.34	1.6	mg/Kg-dry	4	03-Feb-15	19	Z2	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Metals by ICP-MS	Silver	4.1	4.1	--	0.0065	1.6	mg/Kg-dry	4	03-Feb-15	19	Z2	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Metals by ICP-MS	Thallium	--	U	U	0.17	1.6	mg/Kg-dry	4	03-Feb-15	19	Z2	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Metals by ICP-MS	Vanadium	12	12	--	0.26	1.6	mg/Kg-dry	4	03-Feb-15	19	Z2	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Metals by ICP-MS	Zinc	780	780	--	12	32	mg/Kg-dry	40	05-Feb-15	19	Z2	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Moisture	Moisture	0.46	0.46	--	0.025	0.05	% of sample	1	05-Feb-15	19	Z2	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	PCBs	Aroclor 1016	--	U	U	27	83	µg/Kg-dry	1	05-Feb-15	19	Z2	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	PCBs	Aroclor 1221	--	U	U	27	83	µg/Kg-dry	1	05-Feb-15	19	Z2	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	PCBs	Aroclor 1232	--	U	U	27	83	µg/Kg-dry	1	05-Feb-15	19	Z2	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	PCBs	Aroclor 1242	--	U	U	27	83	µg/Kg-dry	1	05-Feb-15	19	Z2	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	PCBs	Aroclor 1248	--	U	U	27	83	µg/Kg-dry	1	05-Feb-15	19	Z2	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	PCBs	Aroclor 1254	330	330	--	31	83	µg/Kg-dry	1	05-Feb-15	19	Z2	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	PCBs	Aroclor 1260	--	U	U	31	83	µg/Kg-dry	1	05-Feb-15	19	Z2	2015
ISM-19-Z2	1502016-07	23-Jan-15	Soil	PCBs	PCBs, Total	330	330	--	--	--	µg/Kg-dry	1	05-Feb-15	19	Z2	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Mercury by CVAA	Mercury	0.049	0.049	--	0.0008	0.013	mg/Kg-dry	1	12-Jan-15	1	Z3	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Metals by ICP-MS	Aluminum	3,400	3,400	--	1.1	3.2	mg/Kg-dry	4	12-Jan-15	1	Z3	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Metals by ICP-MS	Antimony	1.4	1.4	J	0.43	1.6	mg/Kg-dry	4	12-Jan-15	1	Z3	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Metals by ICP-MS	Arsenic	3.9	3.9	--	0.33	1.6	mg/Kg-dry	4	12-Jan-15	1	Z3	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Metals by ICP-MS	Barium	44	44	--	0.019	1.6	mg/Kg-dry	4	12-Jan-15	1	Z3	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Metals by ICP-MS	Beryllium	0.19	0.19	J	0.17	0.64	mg/Kg-dry	4	12-Jan-15	1	Z3	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Metals by ICP-MS	Cadmium	1.4	1.4	--	0.064	0.64	mg/Kg-dry	4	12-Jan-15	1	Z3	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Metals by ICP-MS	Chromium	8.9	8.9	--	0.36	1.6	mg/Kg-dry	4	12-Jan-15	1	Z3	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Metals by ICP-MS	Cobalt	3.3	3.3	--	0.19	1.6	mg/Kg-dry	4	12-Jan-15	1	Z3	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Metals by ICP-MS	Copper	36	36	--	0.18	1.6	mg/Kg-dry	4	12-Jan-15	1	Z3	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Metals by ICP-MS	Iron	11,000	11,000	--	4.7	26	mg/Kg-dry	4	12-Jan-15	1	Z3	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Metals by ICP-MS	Lead	74	74	--	0.17	1.6	mg/Kg-dry	4	12-Jan-15	1	Z3	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Metals by ICP-MS	Manganese	190	190	--	0.26	1.6	mg/Kg-dry	4	12-Jan-15	1	Z3	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Metals by ICP-MS	Nickel	11	11	--	0.87	1.6	mg/Kg-dry	4	12-Jan-15	1	Z3	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Metals by ICP-MS	Selenium	0.62	0.62	J	0.33	1.6	mg/Kg-dry	4	12-Jan-15	1	Z3	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Metals by ICP-MS	Silver	0.32	0.32	J	0.0064	1.6	mg/Kg-dry	4	12-Jan-15	1	Z3	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Metals by ICP-MS	Thallium	--	U	U	0.17	1.6	mg/Kg-dry	4	12-Jan-15	1	Z3	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Metals by ICP-MS	Vanadium	9.7	9.7	--	0.26	1.6	mg/Kg-dry	4	12-Jan-15	1	Z3	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Metals by ICP-MS	Zinc	180	180	--	1.2	3.2	mg/Kg-dry	4	12-Jan-15	1	Z3	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Moisture	Moisture	0.46	0.46	--	0.025	0.05	% of sample	1	12-Jan-15	1	Z3	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	PCBs	Aroclor 1016	--	U	U	27	83	µg/Kg-dry	1	15-Jan-15	1	Z3	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	PCBs	Aroclor 1221	--	U	U	27	83	µg/Kg-dry	1	15-Jan-15	1	Z3	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	PCBs	Aroclor 1232	--	U	U	27	83	µg/Kg-dry	1	15-Jan-15	1	Z3	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	PCBs	Aroclor 1242	--	U	U	27	83	µg/Kg-dry	1	15-Jan-15	1	Z3	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	PCBs	Aroclor 1248	--	U	U	27	83	µg/Kg-dry	1	15-Jan-15	1	Z3	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	PCBs	Aroclor 1254	--	U	U	31	83	µg/Kg-dry	1	15-Jan-15	1	Z3	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	PCBs	Aroclor 1260	--	U	U	31	83	µg/Kg-dry	1	15-Jan-15	1	Z3	2015
ISM-1-Z3	1501301-01	06-Jan-15	Soil	PCBs	PCBs, Total	--	U	U	--	--	µg/Kg-dry	1	15-Jan-15	1	Z3	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Mercury by CVAA	Mercury	0.12	0.12	--	0.00085	0.014	mg/Kg-dry	1	04-Feb-15	20	Z2	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Metals by ICP-MS	Aluminum	7,100	7,100	--	2.8	8.1	mg/Kg-dry	10	13-Feb-15	20	Z2	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Metals by ICP-MS	Antimony	6.7	6.7	--	0.43	1.6	mg/Kg-dry	4	03-Feb-15	20	Z2	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Metals by ICP-MS	Arsenic	6.7	6.7	--	0.34	1.6	mg/Kg-dry	4	03-Feb-15	20	Z2	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Metals by ICP-MS	Barium	250	250	--	0.02	1.6	mg/Kg-dry	4	03-Feb-15	20	Z2	2015

Table A-7
Metals and PCB Data for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Cell	Zone	Year
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Metals by ICP-MS	Beryllium	--	U	U	0.17	0.65	mg/Kg-dry	4	03-Feb-15	20	Z2	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Metals by ICP-MS	Cadmium	4.7	4.7	--	0.065	0.65	mg/Kg-dry	4	03-Feb-15	20	Z2	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Metals by ICP-MS	Chromium	28	28	--	0.36	1.6	mg/Kg-dry	4	03-Feb-15	20	Z2	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Metals by ICP-MS	Cobalt	6.2	6.2	--	0.2	1.6	mg/Kg-dry	4	03-Feb-15	20	Z2	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Metals by ICP-MS	Copper	250	250	--	0.18	1.6	mg/Kg-dry	4	03-Feb-15	20	Z2	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Metals by ICP-MS	Iron	35,000	35,000	--	4.8	26	mg/Kg-dry	4	03-Feb-15	20	Z2	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Metals by ICP-MS	Lead	490	490	--	0.17	1.6	mg/Kg-dry	4	03-Feb-15	20	Z2	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Metals by ICP-MS	Manganese	430	430	--	0.26	1.6	mg/Kg-dry	4	03-Feb-15	20	Z2	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Metals by ICP-MS	Nickel	33	33	--	0.88	1.6	mg/Kg-dry	4	03-Feb-15	20	Z2	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Metals by ICP-MS	Selenium	0.64	0.64	J	0.34	1.6	mg/Kg-dry	4	03-Feb-15	20	Z2	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Metals by ICP-MS	Silver	2.1	2.1	--	0.0065	1.6	mg/Kg-dry	4	03-Feb-15	20	Z2	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Metals by ICP-MS	Thallium	--	U	U	0.18	1.6	mg/Kg-dry	4	03-Feb-15	20	Z2	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Metals by ICP-MS	Vanadium	12	12	--	0.27	1.6	mg/Kg-dry	4	03-Feb-15	20	Z2	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Metals by ICP-MS	Zinc	690	690	--	12	33	mg/Kg-dry	40	05-Feb-15	20	Z2	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Moisture	Moisture	0.47	0.47	--	0.025	0.05	% of sample	1	05-Feb-15	20	Z2	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	PCBs	Aroclor 1016	--	U	U	27	83	µg/Kg-dry	1	05-Feb-15	20	Z2	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	PCBs	Aroclor 1221	--	U	U	27	83	µg/Kg-dry	1	05-Feb-15	20	Z2	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	PCBs	Aroclor 1232	--	U	U	27	83	µg/Kg-dry	1	05-Feb-15	20	Z2	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	PCBs	Aroclor 1242	--	U	U	27	83	µg/Kg-dry	1	05-Feb-15	20	Z2	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	PCBs	Aroclor 1248	--	U	U	27	83	µg/Kg-dry	1	05-Feb-15	20	Z2	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	PCBs	Aroclor 1254	260	260	--	31	83	µg/Kg-dry	1	05-Feb-15	20	Z2	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	PCBs	Aroclor 1260	--	U	U	31	83	µg/Kg-dry	1	05-Feb-15	20	Z2	2015
ISM-20-Z2	1502016-08	23-Jan-15	Soil	PCBs	PCBs, Total	260	260	--	--	--	µg/Kg-dry	1	05-Feb-15	20	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Mercury by CVAA	Mercury	0.83	0.83	--	0.0086	0.14	mg/Kg-dry	10	05-Feb-15	21	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Metals by ICP-MS	Aluminum	8,100	8,100	--	2.7	7.9	mg/Kg-dry	10	13-Feb-15	21	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Metals by ICP-MS	Antimony	8.7	8.7	--	0.42	1.6	mg/Kg-dry	4	03-Feb-15	21	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Metals by ICP-MS	Arsenic	7.6	7.6	--	0.33	1.6	mg/Kg-dry	4	03-Feb-15	21	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Metals by ICP-MS	Barium	230	230	--	0.019	1.6	mg/Kg-dry	4	03-Feb-15	21	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Metals by ICP-MS	Beryllium	--	U	U	0.16	0.63	mg/Kg-dry	4	03-Feb-15	21	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Metals by ICP-MS	Cadmium	5.4	5.4	--	0.063	0.63	mg/Kg-dry	4	03-Feb-15	21	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Metals by ICP-MS	Chromium	29	29	--	0.35	1.6	mg/Kg-dry	4	03-Feb-15	21	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Metals by ICP-MS	Cobalt	6	6.0	--	0.19	1.6	mg/Kg-dry	4	03-Feb-15	21	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Metals by ICP-MS	Copper	200	200	--	0.18	1.6	mg/Kg-dry	4	03-Feb-15	21	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Metals by ICP-MS	Iron	41,000	41,000	--	4.6	25	mg/Kg-dry	4	03-Feb-15	21	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Metals by ICP-MS	Lead	420	420	--	0.16	1.6	mg/Kg-dry	4	03-Feb-15	21	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Metals by ICP-MS	Manganese	390	390	--	0.25	1.6	mg/Kg-dry	4	03-Feb-15	21	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Metals by ICP-MS	Nickel	52	52	--	0.85	1.6	mg/Kg-dry	4	03-Feb-15	21	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Metals by ICP-MS	Selenium	0.85	0.85	J	0.33	1.6	mg/Kg-dry	4	03-Feb-15	21	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Metals by ICP-MS	Silver	2.5	2.5	--	0.0063	1.6	mg/Kg-dry	4	03-Feb-15	21	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Metals by ICP-MS	Thallium	--	U	U	0.17	1.6	mg/Kg-dry	4	03-Feb-15	21	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Metals by ICP-MS	Vanadium	11	11	--	0.26	1.6	mg/Kg-dry	4	03-Feb-15	21	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Metals by ICP-MS	Zinc	820	820	--	11	31	mg/Kg-dry	40	05-Feb-15	21	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Moisture	Moisture	0.6	0.60	--	0.025	0.05	% of sample	1	05-Feb-15	21	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	PCBs	Aroclor 1016	--	U	U	26	80	µg/Kg-dry	1	05-Feb-15	21	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	PCBs	Aroclor 1221	--	U	U	26	80	µg/Kg-dry	1	05-Feb-15	21	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	PCBs	Aroclor 1232	--	U	U	26	80	µg/Kg-dry	1	05-Feb-15	21	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	PCBs	Aroclor 1242	--	U	U	26	80	µg/Kg-dry	1	05-Feb-15	21	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	PCBs	Aroclor 1248	--	U	U	26	80	µg/Kg-dry	1	05-Feb-15	21	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	PCBs	Aroclor 1254	270	270	--	30	80	µg/Kg-dry	1	05-Feb-15	21	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	PCBs	Aroclor 1260	--	U	U	30	80	µg/Kg-dry	1	05-Feb-15	21	Z2	2015
ISM-21-Z2	1502016-09	23-Jan-15	Soil	PCBs	PCBs, Total	270	270	--	--	--	µg/Kg-dry	1	05-Feb-15	21	Z2	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Mercury by CVAA	Mercury	0.063	0.063	--	0.00074	0.012	mg/Kg-dry	1	04-Feb-15	22	Z1	2015

Table A-7
Metals and PCB Data for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Cell	Zone	Year
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Metals by ICP-MS	Aluminum	4,800	4,800	--	0.95	2.8	mg/Kg-dry	4	03-Feb-15	22	Z1	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Metals by ICP-MS	Antimony	6.4	6.4	--	0.37	1.4	mg/Kg-dry	4	03-Feb-15	22	Z1	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Metals by ICP-MS	Arsenic	6.4	6.4	--	0.29	1.4	mg/Kg-dry	4	03-Feb-15	22	Z1	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Metals by ICP-MS	Barium	150	150	--	0.017	1.4	mg/Kg-dry	4	03-Feb-15	22	Z1	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Metals by ICP-MS	Beryllium	0.23	0.23	J	0.14	0.56	mg/Kg-dry	4	03-Feb-15	22	Z1	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Metals by ICP-MS	Cadmium	5.3	5.3	--	0.056	0.56	mg/Kg-dry	4	03-Feb-15	22	Z1	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Metals by ICP-MS	Chromium	23	23	--	0.31	1.4	mg/Kg-dry	4	03-Feb-15	22	Z1	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Metals by ICP-MS	Cobalt	9.7	9.7	--	0.17	1.4	mg/Kg-dry	4	03-Feb-15	22	Z1	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Metals by ICP-MS	Copper	310	310	--	0.16	1.4	mg/Kg-dry	4	03-Feb-15	22	Z1	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Metals by ICP-MS	Iron	27,000	27,000	--	4.1	22	mg/Kg-dry	4	03-Feb-15	22	Z1	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Metals by ICP-MS	Lead	380	380	--	1.4	14	mg/Kg-dry	40	03-Feb-15	22	Z1	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Metals by ICP-MS	Manganese	420	420	--	0.22	1.4	mg/Kg-dry	4	03-Feb-15	22	Z1	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Metals by ICP-MS	Nickel	50	50	--	0.75	1.4	mg/Kg-dry	4	03-Feb-15	22	Z1	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Metals by ICP-MS	Selenium	1.1	1.1	J	0.29	1.4	mg/Kg-dry	4	03-Feb-15	22	Z1	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Metals by ICP-MS	Silver	1.8	1.8	--	0.0056	1.4	mg/Kg-dry	4	03-Feb-15	22	Z1	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Metals by ICP-MS	Thallium	--	U	U	0.15	1.4	mg/Kg-dry	4	03-Feb-15	22	Z1	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Metals by ICP-MS	Vanadium	11	11	--	0.23	1.4	mg/Kg-dry	4	03-Feb-15	22	Z1	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Metals by ICP-MS	Zinc	590	590	--	10	28	mg/Kg-dry	40	03-Feb-15	22	Z1	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Moisture	Moisture	0.21	0.21	--	0.025	0.05	% of sample	1	05-Feb-15	22	Z1	2015
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Moisture	Moisture	22	22	--	0.025	0.05	% of sample	1	30-Jan-15	22	Z1	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	PCBs	Aroclor 1016	--	U	U	26	82	µg/Kg-dry	1	05-Feb-15	22	Z1	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	PCBs	Aroclor 1221	--	U	U	26	82	µg/Kg-dry	1	05-Feb-15	22	Z1	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	PCBs	Aroclor 1232	--	U	U	26	82	µg/Kg-dry	1	05-Feb-15	22	Z1	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	PCBs	Aroclor 1242	--	U	U	26	82	µg/Kg-dry	1	05-Feb-15	22	Z1	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	PCBs	Aroclor 1248	--	U	U	26	82	µg/Kg-dry	1	05-Feb-15	22	Z1	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	PCBs	Aroclor 1254	3,400	3,400	--	150	410	µg/Kg-dry	5	06-Feb-15	22	Z1	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	PCBs	Aroclor 1260	--	U	U	31	82	µg/Kg-dry	1	05-Feb-15	22	Z1	2015
ISM-22-Z1	1502013-01	28-Jan-15	Soil	PCBs	PCBs, Total	3,400	3,400	--	--	--	µg/Kg-dry	5	06-Feb-15	22	Z1	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Mercury by CVAA	Mercury	0.16	0.16	--	0.00077	0.013	mg/Kg-dry	1	04-Feb-15	23	Z1	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Metals by ICP-MS	Aluminum	7,600	7,600	--	0.99	2.9	mg/Kg-dry	4	03-Feb-15	23	Z1	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Metals by ICP-MS	Antimony	14	14	--	0.38	1.4	mg/Kg-dry	4	03-Feb-15	23	Z1	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Metals by ICP-MS	Arsenic	12	12	--	0.3	1.4	mg/Kg-dry	4	03-Feb-15	23	Z1	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Metals by ICP-MS	Barium	320	320	--	0.017	1.4	mg/Kg-dry	4	03-Feb-15	23	Z1	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Metals by ICP-MS	Beryllium	0.32	0.32	J	0.15	0.58	mg/Kg-dry	4	03-Feb-15	23	Z1	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Metals by ICP-MS	Cadmium	8.4	8.4	--	0.058	0.58	mg/Kg-dry	4	03-Feb-15	23	Z1	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Metals by ICP-MS	Chromium	62	62	--	0.32	1.4	mg/Kg-dry	4	03-Feb-15	23	Z1	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Metals by ICP-MS	Cobalt	12	12	--	0.17	1.4	mg/Kg-dry	4	03-Feb-15	23	Z1	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Metals by ICP-MS	Copper	410	410	--	0.16	1.4	mg/Kg-dry	4	03-Feb-15	23	Z1	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Metals by ICP-MS	Iron	43,000	43,000	--	43	230	mg/Kg-dry	40	03-Feb-15	23	Z1	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Metals by ICP-MS	Lead	650	650	--	1.5	14	mg/Kg-dry	40	03-Feb-15	23	Z1	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Metals by ICP-MS	Manganese	720	720	--	2.3	14	mg/Kg-dry	40	03-Feb-15	23	Z1	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Metals by ICP-MS	Nickel	58	58	--	0.78	1.4	mg/Kg-dry	4	03-Feb-15	23	Z1	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Metals by ICP-MS	Selenium	1.3	1.3	J	0.3	1.4	mg/Kg-dry	4	03-Feb-15	23	Z1	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Metals by ICP-MS	Silver	3.6	3.6	--	0.0058	1.4	mg/Kg-dry	4	03-Feb-15	23	Z1	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Metals by ICP-MS	Thallium	--	U	U	0.16	1.4	mg/Kg-dry	4	03-Feb-15	23	Z1	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Metals by ICP-MS	Vanadium	16	16	--	0.24	1.4	mg/Kg-dry	4	03-Feb-15	23	Z1	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Metals by ICP-MS	Zinc	950	950	--	10	29	mg/Kg-dry	40	03-Feb-15	23	Z1	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Moisture	Moisture	0.23	0.23	--	0.025	0.05	% of sample	1	05-Feb-15	23	Z1	2015
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Moisture	Moisture	22	22	--	0.025	0.05	% of sample	1	30-Jan-15	23	Z1	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	PCBs	Aroclor 1016	--	U	U	26	79	µg/Kg-dry	1	05-Feb-15	23	Z1	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	PCBs	Aroclor 1221	--	U	U	26	79	µg/Kg-dry	1	05-Feb-15	23	Z1	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	PCBs	Aroclor 1232	--	U	U	26	79	µg/Kg-dry	1	05-Feb-15	23	Z1	2015

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Metals and PCB Data for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Cell	Zone	Year
ISM-23-Z1	1502013-02	28-Jan-15	Soil	PCBs	Aroclor 1242	--	U	U	26	79	µg/Kg-dry	1	05-Feb-15	23	Z1	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	PCBs	Aroclor 1248	--	U	U	26	79	µg/Kg-dry	1	05-Feb-15	23	Z1	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	PCBs	Aroclor 1254	130	130	--	30	79	µg/Kg-dry	1	05-Feb-15	23	Z1	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	PCBs	Aroclor 1260	--	U	U	30	79	µg/Kg-dry	1	05-Feb-15	23	Z1	2015
ISM-23-Z1	1502013-02	28-Jan-15	Soil	PCBs	PCBs, Total	130	130	--	--	--	µg/Kg-dry	1	05-Feb-15	23	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Mercury by CVAA	Mercury	0.088	0.088	--	0.00095	0.016	mg/Kg-dry	1	04-Feb-15	24	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Metals by ICP-MS	Aluminum	4,600	4,600	--	0.98	2.9	mg/Kg-dry	4	03-Feb-15	24	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Metals by ICP-MS	Antimony	5.1	5.1	--	0.38	1.4	mg/Kg-dry	4	03-Feb-15	24	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Metals by ICP-MS	Arsenic	6.4	6.4	--	0.3	1.4	mg/Kg-dry	4	03-Feb-15	24	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Metals by ICP-MS	Barium	160	160	--	0.017	1.4	mg/Kg-dry	4	03-Feb-15	24	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Metals by ICP-MS	Beryllium	0.22	0.22	J	0.15	0.57	mg/Kg-dry	4	03-Feb-15	24	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Metals by ICP-MS	Cadmium	3.7	3.7	--	0.057	0.57	mg/Kg-dry	4	03-Feb-15	24	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Metals by ICP-MS	Chromium	23	23	--	0.32	1.4	mg/Kg-dry	4	03-Feb-15	24	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Metals by ICP-MS	Cobalt	5.4	5.4	--	0.17	1.4	mg/Kg-dry	4	03-Feb-15	24	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Metals by ICP-MS	Copper	130	130	--	0.16	1.4	mg/Kg-dry	4	03-Feb-15	24	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Metals by ICP-MS	Iron	30,000	30,000	--	4.2	23	mg/Kg-dry	4	03-Feb-15	24	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Metals by ICP-MS	Lead	140	140	--	0.15	1.4	mg/Kg-dry	4	03-Feb-15	24	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Metals by ICP-MS	Manganese	430	430	--	0.23	1.4	mg/Kg-dry	4	03-Feb-15	24	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Metals by ICP-MS	Nickel	25	25	--	0.77	1.4	mg/Kg-dry	4	03-Feb-15	24	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Metals by ICP-MS	Selenium	0.77	0.77	J	0.3	1.4	mg/Kg-dry	4	03-Feb-15	24	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Metals by ICP-MS	Silver	1.6	1.6	--	0.0057	1.4	mg/Kg-dry	4	03-Feb-15	24	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Metals by ICP-MS	Thallium	--	U	U	0.15	1.4	mg/Kg-dry	4	03-Feb-15	24	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Metals by ICP-MS	Vanadium	11	11	--	0.24	1.4	mg/Kg-dry	4	03-Feb-15	24	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Metals by ICP-MS	Zinc	760	760	--	10	29	mg/Kg-dry	40	03-Feb-15	24	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Moisture	Moisture	0.19	0.19	--	0.025	0.05	% of sample	1	05-Feb-15	24	Z1	2015
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Moisture	Moisture	22	22	--	0.025	0.05	% of sample	1	30-Jan-15	24	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	PCBs	Aroclor 1016	--	U	U	26	81	µg/Kg-dry	1	05-Feb-15	24	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	PCBs	Aroclor 1221	--	U	U	26	81	µg/Kg-dry	1	05-Feb-15	24	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	PCBs	Aroclor 1232	--	U	U	26	81	µg/Kg-dry	1	05-Feb-15	24	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	PCBs	Aroclor 1242	--	U	U	26	81	µg/Kg-dry	1	05-Feb-15	24	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	PCBs	Aroclor 1248	--	U	U	26	81	µg/Kg-dry	1	05-Feb-15	24	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	PCBs	Aroclor 1254	78	78	J	30	81	µg/Kg-dry	1	05-Feb-15	24	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	PCBs	Aroclor 1260	--	U	U	30	81	µg/Kg-dry	1	05-Feb-15	24	Z1	2015
ISM-24-Z1	1502013-03	28-Jan-15	Soil	PCBs	PCBs, Total	78	78	--	--	--	µg/Kg-dry	1	05-Feb-15	24	Z1	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Mercury by CVAA	Mercury	0.054	0.054	--	0.00086	0.014	mg/Kg-dry	1	04-Feb-15	25	Z10	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Metals by ICP-MS	Aluminum	4,600	4,600	--	2.4	7.1	mg/Kg-dry	10	13-Feb-15	25	Z10	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Metals by ICP-MS	Antimony	--	U	U	0.38	1.4	mg/Kg-dry	4	03-Feb-15	25	Z10	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Metals by ICP-MS	Arsenic	2.4	2.4	--	0.3	1.4	mg/Kg-dry	4	03-Feb-15	25	Z10	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Metals by ICP-MS	Barium	32	32	--	0.017	1.4	mg/Kg-dry	4	03-Feb-15	25	Z10	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Metals by ICP-MS	Beryllium	0.16	0.16	J	0.15	0.57	mg/Kg-dry	4	03-Feb-15	25	Z10	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Metals by ICP-MS	Cadmium	0.34	0.34	J	0.057	0.57	mg/Kg-dry	4	03-Feb-15	25	Z10	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Metals by ICP-MS	Chromium	7.8	7.8	--	0.32	1.4	mg/Kg-dry	4	03-Feb-15	25	Z10	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Metals by ICP-MS	Cobalt	1.6	1.6	--	0.17	1.4	mg/Kg-dry	4	03-Feb-15	25	Z10	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Metals by ICP-MS	Copper	9.9	9.9	--	0.16	1.4	mg/Kg-dry	4	03-Feb-15	25	Z10	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Metals by ICP-MS	Iron	5,900	5,900	--	4.2	23	mg/Kg-dry	4	03-Feb-15	25	Z10	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Metals by ICP-MS	Lead	19	19	--	0.15	1.4	mg/Kg-dry	4	03-Feb-15	25	Z10	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Metals by ICP-MS	Manganese	97	97	--	0.23	1.4	mg/Kg-dry	4	03-Feb-15	25	Z10	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Metals by ICP-MS	Nickel	5.2	5.2	--	0.77	1.4	mg/Kg-dry	4	03-Feb-15	25	Z10	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Metals by ICP-MS	Selenium	0.71	0.71	J	0.3	1.4	mg/Kg-dry	4	03-Feb-15	25	Z10	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Metals by ICP-MS	Silver	0.057	0.057	J	0.0057	1.4	mg/Kg-dry	4	03-Feb-15	25	Z10	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Metals by ICP-MS	Thallium	--	U	U	0.15	1.4	mg/Kg-dry	4	03-Feb-15	25	Z10	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Metals by ICP-MS	Vanadium	9.4	9.4	--	0.23	1.4	mg/Kg-dry	4	03-Feb-15	25	Z10	2015

Table A-7
Metals and PCB Data for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Cell	Zone	Year
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Metals by ICP-MS	Zinc	36	36	--	1	2.9	mg/Kg-dry	4	03-Feb-15	25	Z10	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Moisture	Moisture	0.42	0.42	--	0.025	0.05	% of sample	1	05-Feb-15	25	Z10	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	PCBs	Aroclor 1016	--	U	U	26	81	µg/Kg-dry	1	05-Feb-15	25	Z10	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	PCBs	Aroclor 1221	--	U	U	26	81	µg/Kg-dry	1	05-Feb-15	25	Z10	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	PCBs	Aroclor 1232	--	U	U	26	81	µg/Kg-dry	1	05-Feb-15	25	Z10	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	PCBs	Aroclor 1242	--	U	U	26	81	µg/Kg-dry	1	05-Feb-15	25	Z10	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	PCBs	Aroclor 1248	--	U	U	26	81	µg/Kg-dry	1	05-Feb-15	25	Z10	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	PCBs	Aroclor 1254	--	U	U	30	81	µg/Kg-dry	1	05-Feb-15	25	Z10	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	PCBs	Aroclor 1260	--	U	U	30	81	µg/Kg-dry	1	05-Feb-15	25	Z10	2015
ISM-25-Z10	1502016-10	26-Jan-15	Soil	PCBs	PCBs, Total	--	U	U	--	--	µg/Kg-dry	1	05-Feb-15	25	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Mercury by CVAA	Mercury	0.032	0.032	--	0.00074	0.012	mg/Kg-dry	1	04-Feb-15	26	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Metals by ICP-MS	Aluminum	4,500	4,500	--	2.4	7	mg/Kg-dry	10	13-Feb-15	26	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Metals by ICP-MS	Antimony	--	U	U	0.37	1.4	mg/Kg-dry	4	03-Feb-15	26	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Metals by ICP-MS	Arsenic	4.7	4.7	--	0.29	1.4	mg/Kg-dry	4	03-Feb-15	26	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Metals by ICP-MS	Barium	26	26	--	0.017	1.4	mg/Kg-dry	4	03-Feb-15	26	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Metals by ICP-MS	Beryllium	--	U	U	0.15	0.56	mg/Kg-dry	4	03-Feb-15	26	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Metals by ICP-MS	Cadmium	0.24	0.24	J	0.056	0.56	mg/Kg-dry	4	03-Feb-15	26	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Metals by ICP-MS	Chromium	6.7	6.7	--	0.31	1.4	mg/Kg-dry	4	03-Feb-15	26	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Metals by ICP-MS	Cobalt	1.8	1.8	--	0.17	1.4	mg/Kg-dry	4	03-Feb-15	26	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Metals by ICP-MS	Copper	5.6	5.6	--	0.16	1.4	mg/Kg-dry	4	03-Feb-15	26	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Metals by ICP-MS	Iron	8,100	8,100	--	4.1	22	mg/Kg-dry	4	03-Feb-15	26	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Metals by ICP-MS	Lead	14	14	--	0.15	1.4	mg/Kg-dry	4	03-Feb-15	26	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Metals by ICP-MS	Manganese	140	140	--	0.22	1.4	mg/Kg-dry	4	03-Feb-15	26	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Metals by ICP-MS	Nickel	4.8	4.8	--	0.76	1.4	mg/Kg-dry	4	03-Feb-15	26	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Metals by ICP-MS	Selenium	0.59	0.59	J	0.29	1.4	mg/Kg-dry	4	03-Feb-15	26	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Metals by ICP-MS	Silver	0.021	0.021	J	0.0056	1.4	mg/Kg-dry	4	03-Feb-15	26	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Metals by ICP-MS	Thallium	--	U	U	0.15	1.4	mg/Kg-dry	4	03-Feb-15	26	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Metals by ICP-MS	Vanadium	11	11	--	0.23	1.4	mg/Kg-dry	4	03-Feb-15	26	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Metals by ICP-MS	Zinc	25	25	--	1	2.8	mg/Kg-dry	4	03-Feb-15	26	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Moisture	Moisture	0.14	0.14	--	0.025	0.05	% of sample	1	05-Feb-15	26	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	PCBs	Aroclor 1016	--	U	U	26	80	µg/Kg-dry	1	05-Feb-15	26	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	PCBs	Aroclor 1221	--	U	U	26	80	µg/Kg-dry	1	05-Feb-15	26	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	PCBs	Aroclor 1232	--	U	U	26	80	µg/Kg-dry	1	05-Feb-15	26	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	PCBs	Aroclor 1242	--	U	U	26	80	µg/Kg-dry	1	05-Feb-15	26	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	PCBs	Aroclor 1248	--	U	U	26	80	µg/Kg-dry	1	05-Feb-15	26	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	PCBs	Aroclor 1254	--	U	U	30	80	µg/Kg-dry	1	05-Feb-15	26	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	PCBs	Aroclor 1260	--	U	U	30	80	µg/Kg-dry	1	05-Feb-15	26	Z10	2015
ISM-26-Z10	1502016-11	26-Jan-15	Soil	PCBs	PCBs, Total	--	U	U	--	--	µg/Kg-dry	1	05-Feb-15	26	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Mercury by CVAA	Mercury	0.039	0.039	--	0.00089	0.015	mg/Kg-dry	1	04-Feb-15	27	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Metals by ICP-MS	Aluminum	3,900	3,900	--	2.6	7.5	mg/Kg-dry	10	13-Feb-15	27	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Metals by ICP-MS	Antimony	--	U	U	0.4	1.5	mg/Kg-dry	4	03-Feb-15	27	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Metals by ICP-MS	Arsenic	3.3	3.3	--	0.31	1.5	mg/Kg-dry	4	03-Feb-15	27	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Metals by ICP-MS	Barium	22	22	--	0.018	1.5	mg/Kg-dry	4	03-Feb-15	27	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Metals by ICP-MS	Beryllium	--	U	U	0.16	0.6	mg/Kg-dry	4	03-Feb-15	27	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Metals by ICP-MS	Cadmium	0.17	0.17	J	0.06	0.6	mg/Kg-dry	4	03-Feb-15	27	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Metals by ICP-MS	Chromium	6.6	6.6	--	0.34	1.5	mg/Kg-dry	4	03-Feb-15	27	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Metals by ICP-MS	Cobalt	1.8	1.8	--	0.18	1.5	mg/Kg-dry	4	03-Feb-15	27	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Metals by ICP-MS	Copper	4.7	4.7	--	0.17	1.5	mg/Kg-dry	4	03-Feb-15	27	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Metals by ICP-MS	Iron	6,300	6,300	--	4.4	24	mg/Kg-dry	4	03-Feb-15	27	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Metals by ICP-MS	Lead	13	13	--	0.16	1.5	mg/Kg-dry	4	03-Feb-15	27	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Metals by ICP-MS	Manganese	130	130	--	0.24	1.5	mg/Kg-dry	4	03-Feb-15	27	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Metals by ICP-MS	Nickel	4.8	4.8	--	0.81	1.5	mg/Kg-dry	4	03-Feb-15	27	Z10	2015

Table A-7
Metals and PCB Data for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Cell	Zone	Year
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Metals by ICP-MS	Selenium	0.93	0.93	J	0.31	1.5	mg/Kg-dry	4	03-Feb-15	27	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Metals by ICP-MS	Silver	0.025	0.025	J	0.006	1.5	mg/Kg-dry	4	03-Feb-15	27	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Metals by ICP-MS	Thallium	--	U	U	0.16	1.5	mg/Kg-dry	4	03-Feb-15	27	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Metals by ICP-MS	Vanadium	10	10	--	0.25	1.5	mg/Kg-dry	4	03-Feb-15	27	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Metals by ICP-MS	Zinc	22	22	--	1.1	3	mg/Kg-dry	4	03-Feb-15	27	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Moisture	Moisture	0.2	0.20	--	0.025	0.05	% of sample	1	05-Feb-15	27	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	PCBs	Aroclor 1016	--	U	U	26	81	µg/Kg-dry	1	05-Feb-15	27	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	PCBs	Aroclor 1221	--	U	U	26	81	µg/Kg-dry	1	05-Feb-15	27	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	PCBs	Aroclor 1232	--	U	U	26	81	µg/Kg-dry	1	05-Feb-15	27	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	PCBs	Aroclor 1242	--	U	U	26	81	µg/Kg-dry	1	05-Feb-15	27	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	PCBs	Aroclor 1248	--	U	U	26	81	µg/Kg-dry	1	05-Feb-15	27	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	PCBs	Aroclor 1254	--	U	U	31	81	µg/Kg-dry	1	05-Feb-15	27	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	PCBs	Aroclor 1260	--	U	U	31	81	µg/Kg-dry	1	05-Feb-15	27	Z10	2015
ISM-27-Z10	1502016-12	26-Jan-15	Soil	PCBs	PCBs, Total	--	U	U	--	--	µg/Kg-dry	1	05-Feb-15	27	Z10	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Mercury by CVAA	Mercury	0.11	0.11	--	0.0008	0.013	mg/Kg-dry	1	04-Feb-15	28	Z4	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Metals by ICP-MS	Aluminum	6,500	6,500	--	1	3	mg/Kg-dry	4	03-Feb-15	28	Z4	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Metals by ICP-MS	Antimony	6.8	6.8	--	0.4	1.5	mg/Kg-dry	4	03-Feb-15	28	Z4	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Metals by ICP-MS	Arsenic	10	10	--	0.31	1.5	mg/Kg-dry	4	03-Feb-15	28	Z4	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Metals by ICP-MS	Barium	200	200	--	0.018	1.5	mg/Kg-dry	4	03-Feb-15	28	Z4	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Metals by ICP-MS	Beryllium	0.48	0.48	J	0.16	0.6	mg/Kg-dry	4	03-Feb-15	28	Z4	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Metals by ICP-MS	Cadmium	5.2	5.2	--	0.06	0.6	mg/Kg-dry	4	03-Feb-15	28	Z4	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Metals by ICP-MS	Chromium	30	30	--	0.34	1.5	mg/Kg-dry	4	03-Feb-15	28	Z4	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Metals by ICP-MS	Cobalt	8.5	8.5	--	0.18	1.5	mg/Kg-dry	4	03-Feb-15	28	Z4	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Metals by ICP-MS	Copper	330	330	--	0.17	1.5	mg/Kg-dry	4	03-Feb-15	28	Z4	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Metals by ICP-MS	Iron	33,000	33,000	--	4.4	24	mg/Kg-dry	4	03-Feb-15	28	Z4	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Metals by ICP-MS	Lead	380	380	--	0.16	1.5	mg/Kg-dry	4	03-Feb-15	28	Z4	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Metals by ICP-MS	Manganese	390	390	--	0.24	1.5	mg/Kg-dry	4	03-Feb-15	28	Z4	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Metals by ICP-MS	Nickel	56	56	--	0.81	1.5	mg/Kg-dry	4	03-Feb-15	28	Z4	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Metals by ICP-MS	Selenium	0.98	0.98	J	0.31	1.5	mg/Kg-dry	4	03-Feb-15	28	Z4	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Metals by ICP-MS	Silver	1.3	1.3	J	0.006	1.5	mg/Kg-dry	4	03-Feb-15	28	Z4	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Metals by ICP-MS	Thallium	--	U	U	0.16	1.5	mg/Kg-dry	4	03-Feb-15	28	Z4	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Metals by ICP-MS	Vanadium	16	16	--	0.25	1.5	mg/Kg-dry	4	03-Feb-15	28	Z4	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Metals by ICP-MS	Zinc	970	970	--	11	30	mg/Kg-dry	40	03-Feb-15	28	Z4	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Moisture	Moisture	0.31	0.31	--	0.025	0.05	% of sample	1	05-Feb-15	28	Z4	2015
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Moisture	Moisture	22.3	22.3	--	0.025	0.05	% of sample	1	30-Jan-15	28	Z4	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	PCBs	Aroclor 1016	--	U	U	25	79	µg/Kg-dry	1	05-Feb-15	28	Z4	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	PCBs	Aroclor 1221	--	U	U	25	79	µg/Kg-dry	1	05-Feb-15	28	Z4	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	PCBs	Aroclor 1232	--	U	U	25	79	µg/Kg-dry	1	05-Feb-15	28	Z4	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	PCBs	Aroclor 1242	--	U	U	25	79	µg/Kg-dry	1	05-Feb-15	28	Z4	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	PCBs	Aroclor 1248	--	U	U	25	79	µg/Kg-dry	1	05-Feb-15	28	Z4	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	PCBs	Aroclor 1254	--	U	U	30	79	µg/Kg-dry	1	05-Feb-15	28	Z4	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	PCBs	Aroclor 1260	470	470	--	30	79	µg/Kg-dry	1	05-Feb-15	28	Z4	2015
ISM-28-Z4	1502011-01	30-Jan-15	Soil	PCBs	PCBs, Total	470	470	--	--	--	µg/Kg-dry	1	05-Feb-15	28	Z4	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Mercury by CVAA	Mercury	2.5	2.5	--	0.037	0.61	mg/Kg-dry	50	05-Feb-15	29	Z4	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Metals by ICP-MS	Aluminum	5,500	5,500	--	0.89	2.6	mg/Kg-dry	4	03-Feb-15	29	Z4	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Metals by ICP-MS	Antimony	3.1	3.1	--	0.34	1.3	mg/Kg-dry	4	03-Feb-15	29	Z4	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Metals by ICP-MS	Arsenic	6.8	6.8	--	0.27	1.3	mg/Kg-dry	4	03-Feb-15	29	Z4	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Metals by ICP-MS	Barium	150	150	--	0.016	1.3	mg/Kg-dry	4	03-Feb-15	29	Z4	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Metals by ICP-MS	Beryllium	0.26	0.26	J	0.14	0.52	mg/Kg-dry	4	03-Feb-15	29	Z4	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Metals by ICP-MS	Cadmium	2.6	2.6	--	0.052	0.52	mg/Kg-dry	4	03-Feb-15	29	Z4	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Metals by ICP-MS	Chromium	20	20	--	0.29	1.3	mg/Kg-dry	4	03-Feb-15	29	Z4	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Metals by ICP-MS	Cobalt	4.8	4.8	--	0.16	1.3	mg/Kg-dry	4	03-Feb-15	29	Z4	2015

Table A-7
Metals and PCB Data for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Cell	Zone	Year
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Metals by ICP-MS	Copper	120	120	--	0.15	1.3	mg/Kg-dry	4	03-Feb-15	29	Z4	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Metals by ICP-MS	Iron	17,000	17,000	--	3.8	21	mg/Kg-dry	4	03-Feb-15	29	Z4	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Metals by ICP-MS	Lead	310	310	--	0.14	1.3	mg/Kg-dry	4	03-Feb-15	29	Z4	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Metals by ICP-MS	Manganese	240	240	--	0.21	1.3	mg/Kg-dry	4	03-Feb-15	29	Z4	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Metals by ICP-MS	Nickel	54	54	--	0.7	1.3	mg/Kg-dry	4	03-Feb-15	29	Z4	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Metals by ICP-MS	Selenium	1	1.0	J	0.27	1.3	mg/Kg-dry	4	03-Feb-15	29	Z4	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Metals by ICP-MS	Silver	0.78	0.78	J	0.0052	1.3	mg/Kg-dry	4	03-Feb-15	29	Z4	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Metals by ICP-MS	Thallium	--	U	U	0.14	1.3	mg/Kg-dry	4	03-Feb-15	29	Z4	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Metals by ICP-MS	Vanadium	13	13	--	0.21	1.3	mg/Kg-dry	4	03-Feb-15	29	Z4	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Metals by ICP-MS	Zinc	940	940	--	9.4	26	mg/Kg-dry	40	03-Feb-15	29	Z4	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Moisture	Moisture	0.28	0.28	--	0.025	0.05	% of sample	1	05-Feb-15	29	Z4	2015
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Moisture	Moisture	22.3	22.3	--	0.025	0.05	% of sample	1	30-Jan-15	29	Z4	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	PCBs	Aroclor 1016	--	U	U	27	83	µg/Kg-dry	1	05-Feb-15	29	Z4	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	PCBs	Aroclor 1221	--	U	U	27	83	µg/Kg-dry	1	05-Feb-15	29	Z4	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	PCBs	Aroclor 1232	--	U	U	27	83	µg/Kg-dry	1	05-Feb-15	29	Z4	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	PCBs	Aroclor 1242	--	U	U	27	83	µg/Kg-dry	1	05-Feb-15	29	Z4	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	PCBs	Aroclor 1248	--	U	U	27	83	µg/Kg-dry	1	05-Feb-15	29	Z4	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	PCBs	Aroclor 1254	490	490	--	31	83	µg/Kg-dry	1	05-Feb-15	29	Z4	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	PCBs	Aroclor 1260	--	U	U	31	83	µg/Kg-dry	1	05-Feb-15	29	Z4	2015
ISM-29-Z4	1502011-02	30-Jan-15	Soil	PCBs	PCBs, Total	490	490	--	--	--	µg/Kg-dry	1	05-Feb-15	29	Z4	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Mercury by CVAA	Mercury	0.035	0.035	--	0.00089	0.015	mg/Kg-dry	1	12-Jan-15	2	Z3	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Metals by ICP-MS	Aluminum	2,900	2,900	--	1	2.9	mg/Kg-dry	4	12-Jan-15	2	Z3	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Metals by ICP-MS	Antimony	2.1	2.1	--	0.38	1.5	mg/Kg-dry	4	12-Jan-15	2	Z3	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Metals by ICP-MS	Arsenic	3.7	3.7	--	0.3	0.58	mg/Kg-dry	4	12-Jan-15	2	Z3	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Metals by ICP-MS	Barium	59	59	--	0.017	1.5	mg/Kg-dry	4	12-Jan-15	2	Z3	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Metals by ICP-MS	Beryllium	--	U	U	0.15	0.58	mg/Kg-dry	4	12-Jan-15	2	Z3	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Metals by ICP-MS	Cadmium	1.9	1.9	--	0.058	0.58	mg/Kg-dry	4	12-Jan-15	2	Z3	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Metals by ICP-MS	Chromium	9.1	9.1	--	0.33	1.5	mg/Kg-dry	4	12-Jan-15	2	Z3	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Metals by ICP-MS	Cobalt	3.8	3.8	--	0.17	1.5	mg/Kg-dry	4	12-Jan-15	2	Z3	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Metals by ICP-MS	Copper	36	36	--	0.16	1.5	mg/Kg-dry	4	12-Jan-15	2	Z3	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Metals by ICP-MS	Iron	12,000	12,000	--	4.3	23	mg/Kg-dry	4	12-Jan-15	2	Z3	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Metals by ICP-MS	Lead	110	110	--	0.15	1.5	mg/Kg-dry	4	12-Jan-15	2	Z3	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Metals by ICP-MS	Manganese	210	210	--	0.23	1.5	mg/Kg-dry	4	12-Jan-15	2	Z3	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Metals by ICP-MS	Nickel	17	17	--	0.79	1.5	mg/Kg-dry	4	12-Jan-15	2	Z3	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Metals by ICP-MS	Selenium	0.63	0.63	J	0.3	1.2	mg/Kg-dry	4	12-Jan-15	2	Z3	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Metals by ICP-MS	Silver	0.33	0.33	J	0.0058	0.58	mg/Kg-dry	4	12-Jan-15	2	Z3	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Metals by ICP-MS	Thallium	--	U	U	0.16	1.5	mg/Kg-dry	4	12-Jan-15	2	Z3	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Metals by ICP-MS	Vanadium	8.4	8.4	--	0.24	1.5	mg/Kg-dry	4	12-Jan-15	2	Z3	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Metals by ICP-MS	Zinc	190	190	--	1	2.9	mg/Kg-dry	4	12-Jan-15	2	Z3	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Moisture	Moisture	0.3	0.30	--	0.025	0.05	% of sample	1	12-Jan-15	2	Z3	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	PCBs	Aroclor 1016	--	U	U	27	83	µg/Kg-dry	1	15-Jan-15	2	Z3	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	PCBs	Aroclor 1221	--	U	U	27	83	µg/Kg-dry	1	15-Jan-15	2	Z3	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	PCBs	Aroclor 1232	--	U	U	27	83	µg/Kg-dry	1	15-Jan-15	2	Z3	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	PCBs	Aroclor 1242	--	U	U	27	83	µg/Kg-dry	1	15-Jan-15	2	Z3	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	PCBs	Aroclor 1248	--	U	U	27	83	µg/Kg-dry	1	15-Jan-15	2	Z3	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	PCBs	Aroclor 1254	33	33	J	31	83	µg/Kg-dry	1	15-Jan-15	2	Z3	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	PCBs	Aroclor 1260	--	U	U	31	83	µg/Kg-dry	1	15-Jan-15	2	Z3	2015
ISM-2-Z3	1501301-02	06-Jan-15	Soil	PCBs	PCBs, Total	33	--	--	--	--	µg/Kg-dry	--	--	2	Z3	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Mercury by CVAA	Mercury	0.11	0.11	--	0.00075	0.012	mg/Kg-dry	1	04-Feb-15	30	Z4	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Metals by ICP-MS	Aluminum	5,200	5,200	--	0.99	2.9	mg/Kg-dry	4	03-Feb-15	30	Z4	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Metals by ICP-MS	Antimony	2.7	2.7	--	0.38	1.4	mg/Kg-dry	4	03-Feb-15	30	Z4	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Metals by ICP-MS	Arsenic	7.4	7.4	--	0.3	1.4	mg/Kg-dry	4	03-Feb-15	30	Z4	2015

Table A-7
Metals and PCB Data for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Cell	Zone	Year
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Metals by ICP-MS	Barium	140	140	--	0.017	1.4	mg/Kg-dry	4	03-Feb-15	30	Z4	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Metals by ICP-MS	Beryllium	0.24	0.24	J	0.15	0.58	mg/Kg-dry	4	03-Feb-15	30	Z4	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Metals by ICP-MS	Cadmium	3.7	3.7	--	0.058	0.58	mg/Kg-dry	4	03-Feb-15	30	Z4	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Metals by ICP-MS	Chromium	25	25	--	0.32	1.4	mg/Kg-dry	4	03-Feb-15	30	Z4	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Metals by ICP-MS	Cobalt	5.3	5.3	--	0.17	1.4	mg/Kg-dry	4	03-Feb-15	30	Z4	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Metals by ICP-MS	Copper	130	130	--	0.16	1.4	mg/Kg-dry	4	03-Feb-15	30	Z4	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Metals by ICP-MS	Iron	24,000	24,000	--	4.3	23	mg/Kg-dry	4	03-Feb-15	30	Z4	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Metals by ICP-MS	Lead	210	210	--	0.15	1.4	mg/Kg-dry	4	03-Feb-15	30	Z4	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Metals by ICP-MS	Manganese	380	380	--	0.23	1.4	mg/Kg-dry	4	03-Feb-15	30	Z4	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Metals by ICP-MS	Nickel	52	52	--	0.78	1.4	mg/Kg-dry	4	03-Feb-15	30	Z4	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Metals by ICP-MS	Selenium	0.96	0.96	J	0.3	1.4	mg/Kg-dry	4	03-Feb-15	30	Z4	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Metals by ICP-MS	Silver	0.52	0.52	J	0.0058	1.4	mg/Kg-dry	4	03-Feb-15	30	Z4	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Metals by ICP-MS	Thallium	--	U	U	0.16	1.4	mg/Kg-dry	4	03-Feb-15	30	Z4	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Metals by ICP-MS	Vanadium	13	13	--	0.24	1.4	mg/Kg-dry	4	03-Feb-15	30	Z4	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Metals by ICP-MS	Zinc	1,800	1,800	--	10	29	mg/Kg-dry	40	03-Feb-15	30	Z4	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Moisture	Moisture	0.23	0.23	--	0.025	0.05	% of sample	1	05-Feb-15	30	Z4	2015
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Moisture	Moisture	22.3	22.3	--	0.025	0.05	% of sample	1	30-Jan-15	30	Z4	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	PCBs	Aroclor 1016	--	U	U	26	82	µg/Kg-dry	1	05-Feb-15	30	Z4	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	PCBs	Aroclor 1221	--	U	U	26	82	µg/Kg-dry	1	05-Feb-15	30	Z4	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	PCBs	Aroclor 1232	--	U	U	26	82	µg/Kg-dry	1	05-Feb-15	30	Z4	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	PCBs	Aroclor 1242	--	U	U	26	82	µg/Kg-dry	1	05-Feb-15	30	Z4	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	PCBs	Aroclor 1248	--	U	U	26	82	µg/Kg-dry	1	05-Feb-15	30	Z4	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	PCBs	Aroclor 1254	230	230	--	31	82	µg/Kg-dry	1	05-Feb-15	30	Z4	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	PCBs	Aroclor 1260	--	U	U	31	82	µg/Kg-dry	1	05-Feb-15	30	Z4	2015
ISM-30-Z4	1502011-03	30-Jan-15	Soil	PCBs	PCBs, Total	230	230	--	--	--	µg/Kg-dry	1	05-Feb-15	30	Z4	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Mercury by CVAA	Mercury	0.076	0.076	--	0.00074	0.012	mg/Kg-dry	1	12-Jan-15	3	Z3	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Metals by ICP-MS	Aluminum	3,600	3,600	--	0.9	2.6	mg/Kg-dry	4	12-Jan-15	3	Z3	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Metals by ICP-MS	Antimony	2.1	2.1	--	0.35	1.3	mg/Kg-dry	4	12-Jan-15	3	Z3	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Metals by ICP-MS	Arsenic	4.5	4.5	--	0.27	0.53	mg/Kg-dry	4	12-Jan-15	3	Z3	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Metals by ICP-MS	Barium	55	55	--	0.016	1.3	mg/Kg-dry	4	12-Jan-15	3	Z3	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Metals by ICP-MS	Beryllium	0.18	0.18	J	0.14	0.53	mg/Kg-dry	4	12-Jan-15	3	Z3	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Metals by ICP-MS	Cadmium	1.9	1.9	--	0.053	0.53	mg/Kg-dry	4	12-Jan-15	3	Z3	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Metals by ICP-MS	Chromium	11	11	--	0.29	1.3	mg/Kg-dry	4	12-Jan-15	3	Z3	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Metals by ICP-MS	Cobalt	3.3	3.3	--	0.16	1.3	mg/Kg-dry	4	12-Jan-15	3	Z3	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Metals by ICP-MS	Copper	45	45	--	0.15	1.3	mg/Kg-dry	4	12-Jan-15	3	Z3	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Metals by ICP-MS	Iron	15,000	15,000	--	3.9	21	mg/Kg-dry	4	12-Jan-15	3	Z3	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Metals by ICP-MS	Lead	140	140	--	0.14	1.3	mg/Kg-dry	4	12-Jan-15	3	Z3	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Metals by ICP-MS	Manganese	210	210	--	0.21	1.3	mg/Kg-dry	4	12-Jan-15	3	Z3	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Metals by ICP-MS	Nickel	15	15	--	0.71	1.3	mg/Kg-dry	4	12-Jan-15	3	Z3	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Metals by ICP-MS	Selenium	0.82	0.82	J	0.27	1.1	mg/Kg-dry	4	12-Jan-15	3	Z3	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Metals by ICP-MS	Silver	0.46	0.46	J	0.0053	0.53	mg/Kg-dry	4	12-Jan-15	3	Z3	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Metals by ICP-MS	Thallium	--	U	U	0.14	1.3	mg/Kg-dry	4	12-Jan-15	3	Z3	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Metals by ICP-MS	Vanadium	9.4	9.4	--	0.22	1.3	mg/Kg-dry	4	12-Jan-15	3	Z3	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Metals by ICP-MS	Zinc	180	180	--	0.95	2.6	mg/Kg-dry	4	12-Jan-15	3	Z3	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Moisture	Moisture	0.41	0.41	--	0.025	0.05	% of sample	1	12-Jan-15	3	Z3	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	PCBs	Aroclor 1016	--	U	U	26	79	µg/Kg-dry	1	20-Jan-15	3	Z3	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	PCBs	Aroclor 1221	--	U	U	26	79	µg/Kg-dry	1	20-Jan-15	3	Z3	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	PCBs	Aroclor 1232	--	U	U	26	79	µg/Kg-dry	1	20-Jan-15	3	Z3	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	PCBs	Aroclor 1242	--	U	U	26	79	µg/Kg-dry	1	20-Jan-15	3	Z3	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	PCBs	Aroclor 1248	--	U	U	26	79	µg/Kg-dry	1	20-Jan-15	3	Z3	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	PCBs	Aroclor 1254	330	330	--	30	79	µg/Kg-dry	1	20-Jan-15	3	Z3	2015
ISM-3-Z3	1501301-03	06-Jan-15	Soil	PCBs	Aroclor 1260	--	U	U	30	79	µg/Kg-dry	1	20-Jan-15	3	Z3	2015

Table A-7
Metals and PCB Data for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Cell	Zone	Year
ISM-3-Z3	1501301-03	06-Jan-15	Soil	PCBs	PCBs, Total	330	--	--	--	--	µg/Kg-dry	--	--	3	Z3	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Mercury by CVAA	Mercury	0.12	0.12	--	0.00079	0.013	mg/Kg-dry	1	12-Jan-15	4	Z5	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Metals by ICP-MS	Aluminum	4,700	4,700	--	0.97	2.8	mg/Kg-dry	4	12-Jan-15	4	Z5	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Metals by ICP-MS	Antimony	8.2	8.2	--	0.38	1.4	mg/Kg-dry	4	12-Jan-15	4	Z5	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Metals by ICP-MS	Arsenic	5.3	5.3	--	0.3	0.57	mg/Kg-dry	4	12-Jan-15	4	Z5	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Metals by ICP-MS	Barium	150	150	--	0.017	1.4	mg/Kg-dry	4	12-Jan-15	4	Z5	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Metals by ICP-MS	Beryllium	0.23	0.23	J	0.15	0.57	mg/Kg-dry	4	12-Jan-15	4	Z5	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Metals by ICP-MS	Cadmium	3.4	3.4	--	0.057	0.57	mg/Kg-dry	4	12-Jan-15	4	Z5	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Metals by ICP-MS	Chromium	20	20	--	0.32	1.4	mg/Kg-dry	4	12-Jan-15	4	Z5	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Metals by ICP-MS	Cobalt	5	5.0	--	0.17	1.4	mg/Kg-dry	4	12-Jan-15	4	Z5	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Metals by ICP-MS	Copper	120	120	--	0.16	1.4	mg/Kg-dry	4	12-Jan-15	4	Z5	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Metals by ICP-MS	Iron	23,000	23,000	--	4.2	23	mg/Kg-dry	4	12-Jan-15	4	Z5	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Metals by ICP-MS	Lead	360	360	--	0.15	1.4	mg/Kg-dry	4	12-Jan-15	4	Z5	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Metals by ICP-MS	Manganese	280	280	--	0.23	1.4	mg/Kg-dry	4	12-Jan-15	4	Z5	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Metals by ICP-MS	Nickel	31	31	--	0.77	1.4	mg/Kg-dry	4	12-Jan-15	4	Z5	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Metals by ICP-MS	Selenium	0.67	0.67	J	0.3	1.1	mg/Kg-dry	4	12-Jan-15	4	Z5	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Metals by ICP-MS	Silver	1.2	1.2	--	0.0057	0.57	mg/Kg-dry	4	12-Jan-15	4	Z5	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Metals by ICP-MS	Thallium	--	U	U	0.15	1.4	mg/Kg-dry	4	12-Jan-15	4	Z5	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Metals by ICP-MS	Vanadium	9	9.0	--	0.23	1.4	mg/Kg-dry	4	12-Jan-15	4	Z5	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Metals by ICP-MS	Zinc	640	640	--	10	28	mg/Kg-dry	40	13-Jan-15	4	Z5	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Moisture	Moisture	0.48	0.48	--	0.025	0.05	% of sample	1	12-Jan-15	4	Z5	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	PCBs	Aroclor 1016	--	U	U	27	84	µg/Kg-dry	1	20-Jan-15	4	Z5	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	PCBs	Aroclor 1221	--	U	U	27	84	µg/Kg-dry	1	20-Jan-15	4	Z5	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	PCBs	Aroclor 1232	--	U	U	27	84	µg/Kg-dry	1	20-Jan-15	4	Z5	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	PCBs	Aroclor 1242	--	U	U	27	84	µg/Kg-dry	1	20-Jan-15	4	Z5	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	PCBs	Aroclor 1248	1,100	1,100	--	27	84	µg/Kg-dry	1	20-Jan-15	4	Z5	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	PCBs	Aroclor 1254	--	U	U	31	84	µg/Kg-dry	1	20-Jan-15	4	Z5	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	PCBs	Aroclor 1260	360	360	--	31	84	µg/Kg-dry	1	20-Jan-15	4	Z5	2015
ISM-4-Z5	1501301-04	06-Jan-15	Soil	PCBs	PCBs, Total	1,460	--	--	--	--	µg/Kg-dry	--	--	4	Z5	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Mercury by CVAA	Mercury	0.19	0.19	--	0.00087	0.014	mg/Kg-dry	1	12-Jan-15	5	Z5	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Metals by ICP-MS	Aluminum	6,600	6,600	--	0.96	2.8	mg/Kg-dry	4	12-Jan-15	5	Z5	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Metals by ICP-MS	Antimony	12	12	--	0.37	1.4	mg/Kg-dry	4	12-Jan-15	5	Z5	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Metals by ICP-MS	Arsenic	7.5	7.5	--	0.29	0.56	mg/Kg-dry	4	12-Jan-15	5	Z5	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Metals by ICP-MS	Barium	270	270	--	0.017	1.4	mg/Kg-dry	4	12-Jan-15	5	Z5	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Metals by ICP-MS	Beryllium	0.26	0.26	J	0.15	0.56	mg/Kg-dry	4	12-Jan-15	5	Z5	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Metals by ICP-MS	Cadmium	6.1	6.1	--	0.056	0.56	mg/Kg-dry	4	12-Jan-15	5	Z5	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Metals by ICP-MS	Chromium	30	30	--	0.31	1.4	mg/Kg-dry	4	12-Jan-15	5	Z5	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Metals by ICP-MS	Cobalt	6.9	6.9	--	0.17	1.4	mg/Kg-dry	4	12-Jan-15	5	Z5	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Metals by ICP-MS	Copper	290	290	--	0.16	1.4	mg/Kg-dry	4	12-Jan-15	5	Z5	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Metals by ICP-MS	Iron	37,000	37,000	--	4.1	22	mg/Kg-dry	4	12-Jan-15	5	Z5	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Metals by ICP-MS	Lead	540	540	--	1.5	14	mg/Kg-dry	40	13-Jan-15	5	Z5	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Metals by ICP-MS	Manganese	450	450	--	0.22	1.4	mg/Kg-dry	4	12-Jan-15	5	Z5	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Metals by ICP-MS	Nickel	40	40	--	0.76	1.4	mg/Kg-dry	4	12-Jan-15	5	Z5	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Metals by ICP-MS	Selenium	0.84	0.84	J	0.29	1.1	mg/Kg-dry	4	12-Jan-15	5	Z5	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Metals by ICP-MS	Silver	3.2	3.2	--	0.0056	0.56	mg/Kg-dry	4	12-Jan-15	5	Z5	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Metals by ICP-MS	Thallium	--	U	U	0.15	1.4	mg/Kg-dry	4	12-Jan-15	5	Z5	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Metals by ICP-MS	Vanadium	10	10	--	0.23	1.4	mg/Kg-dry	4	12-Jan-15	5	Z5	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Metals by ICP-MS	Zinc	880	880	--	10	28	mg/Kg-dry	40	13-Jan-15	5	Z5	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Moisture	Moisture	0.55	0.55	--	0.025	0.05	% of sample	1	12-Jan-15	5	Z5	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	PCBs	Aroclor 1016	--	U	U	27	83	µg/Kg-dry	1	15-Jan-15	5	Z5	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	PCBs	Aroclor 1221	--	U	U	27	83	µg/Kg-dry	1	15-Jan-15	5	Z5	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	PCBs	Aroclor 1232	--	U	U	27	83	µg/Kg-dry	1	15-Jan-15	5	Z5	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	PCBs	Aroclor 1242	--	U	U	27	83	µg/Kg-dry	1	15-Jan-15	5	Z5	2015

Table A-7
Metals and PCB Data for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Cell	Zone	Year
ISM-5-Z5	1501301-05	07-Jan-15	Soil	PCBs	Aroclor 1248	390	390	--	27	83	µg/Kg-dry	1	15-Jan-15	5	Z5	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	PCBs	Aroclor 1254	--	U	U	31	83	µg/Kg-dry	1	15-Jan-15	5	Z5	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	PCBs	Aroclor 1260	180	180	--	31	83	µg/Kg-dry	1	15-Jan-15	5	Z5	2015
ISM-5-Z5	1501301-05	07-Jan-15	Soil	PCBs	PCBs, Total	570	--	--	--	--	µg/Kg-dry	--	--	5	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Mercury by CVAA	Mercury	0.31	0.31	--	0.0037	0.061	mg/Kg-dry	5	12-Jan-15	6	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Metals by ICP-MS	Aluminum	6,700	6,700	--	1.1	3.2	mg/Kg-dry	4	12-Jan-15	6	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Metals by ICP-MS	Antimony	8.8	8.8	--	0.42	1.6	mg/Kg-dry	4	12-Jan-15	6	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Metals by ICP-MS	Arsenic	9.1	9.1	--	0.33	0.64	mg/Kg-dry	4	12-Jan-15	6	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Metals by ICP-MS	Barium	430	430	--	0.019	1.6	mg/Kg-dry	4	12-Jan-15	6	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Metals by ICP-MS	Beryllium	0.27	0.27	J	0.17	0.64	mg/Kg-dry	4	12-Jan-15	6	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Metals by ICP-MS	Cadmium	7.9	7.9	--	0.064	0.64	mg/Kg-dry	4	12-Jan-15	6	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Metals by ICP-MS	Chromium	41	41	--	0.36	1.6	mg/Kg-dry	4	12-Jan-15	6	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Metals by ICP-MS	Cobalt	7.4	7.4	--	0.19	1.6	mg/Kg-dry	4	12-Jan-15	6	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Metals by ICP-MS	Copper	200	200	--	0.18	1.6	mg/Kg-dry	4	12-Jan-15	6	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Metals by ICP-MS	Iron	47,000	47,000	--	4.7	26	mg/Kg-dry	4	12-Jan-15	6	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Metals by ICP-MS	Lead	680	680	--	1.7	16	mg/Kg-dry	40	13-Jan-15	6	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Metals by ICP-MS	Manganese	700	700	--	2.6	16	mg/Kg-dry	40	13-Jan-15	6	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Metals by ICP-MS	Nickel	39	39	--	0.86	1.6	mg/Kg-dry	4	12-Jan-15	6	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Metals by ICP-MS	Selenium	0.96	0.96	J	0.33	1.3	mg/Kg-dry	4	12-Jan-15	6	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Metals by ICP-MS	Silver	2.3	2.3	--	0.0064	0.64	mg/Kg-dry	4	12-Jan-15	6	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Metals by ICP-MS	Thallium	--	U	U	0.17	1.6	mg/Kg-dry	4	12-Jan-15	6	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Metals by ICP-MS	Vanadium	19	19	--	0.26	1.6	mg/Kg-dry	4	12-Jan-15	6	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Metals by ICP-MS	Zinc	920	920	--	11	32	mg/Kg-dry	40	13-Jan-15	6	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Moisture	Moisture	0.62	0.62	--	0.025	0.05	% of sample	1	12-Jan-15	6	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	PCBs	Aroclor 1016	--	U	U	27	83	µg/Kg-dry	1	15-Jan-15	6	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	PCBs	Aroclor 1221	--	U	U	27	83	µg/Kg-dry	1	15-Jan-15	6	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	PCBs	Aroclor 1232	--	U	U	27	83	µg/Kg-dry	1	15-Jan-15	6	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	PCBs	Aroclor 1242	--	U	U	27	83	µg/Kg-dry	1	15-Jan-15	6	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	PCBs	Aroclor 1248	--	U	U	27	83	µg/Kg-dry	1	15-Jan-15	6	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	PCBs	Aroclor 1254	440	440	--	31	83	µg/Kg-dry	1	15-Jan-15	6	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	PCBs	Aroclor 1260	--	U	U	31	83	µg/Kg-dry	1	15-Jan-15	6	Z5	2015
ISM-6-Z5	1501301-06	07-Jan-15	Soil	PCBs	PCBs, Total	440	--	--	--	--	µg/Kg-dry	--	--	6	Z5	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Mercury by CVAA	Mercury	0.12	0.12	--	0.00074	0.012	mg/Kg-dry	1	12-Jan-15	7	Z6	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Metals by ICP-MS	Aluminum	7,700	7,700	--	1.1	3.1	mg/Kg-dry	4	12-Jan-15	7	Z6	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Metals by ICP-MS	Antimony	6.8	6.8	--	0.41	1.5	mg/Kg-dry	4	12-Jan-15	7	Z6	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Metals by ICP-MS	Arsenic	6.6	6.6	--	0.32	0.61	mg/Kg-dry	4	12-Jan-15	7	Z6	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Metals by ICP-MS	Barium	200	200	--	0.018	1.5	mg/Kg-dry	4	12-Jan-15	7	Z6	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Metals by ICP-MS	Beryllium	0.24	0.24	J	0.16	0.61	mg/Kg-dry	4	12-Jan-15	7	Z6	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Metals by ICP-MS	Cadmium	4.3	4.3	--	0.061	0.61	mg/Kg-dry	4	12-Jan-15	7	Z6	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Metals by ICP-MS	Chromium	21	21	--	0.34	1.5	mg/Kg-dry	4	12-Jan-15	7	Z6	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Metals by ICP-MS	Cobalt	5	5.0	--	0.18	1.5	mg/Kg-dry	4	12-Jan-15	7	Z6	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Metals by ICP-MS	Copper	260	260	--	0.17	1.5	mg/Kg-dry	4	12-Jan-15	7	Z6	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Metals by ICP-MS	Iron	29,000	29,000	--	4.5	25	mg/Kg-dry	4	12-Jan-15	7	Z6	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Metals by ICP-MS	Lead	350	350	--	0.16	1.5	mg/Kg-dry	4	12-Jan-15	7	Z6	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Metals by ICP-MS	Manganese	380	380	--	0.25	1.5	mg/Kg-dry	4	12-Jan-15	7	Z6	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Metals by ICP-MS	Nickel	32	32	--	0.83	1.5	mg/Kg-dry	4	12-Jan-15	7	Z6	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Metals by ICP-MS	Selenium	1.1	1.1	J	0.32	1.2	mg/Kg-dry	4	12-Jan-15	7	Z6	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Metals by ICP-MS	Silver	1.5	1.5	--	0.0061	0.61	mg/Kg-dry	4	12-Jan-15	7	Z6	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Metals by ICP-MS	Thallium	--	U	U	0.17	1.5	mg/Kg-dry	4	12-Jan-15	7	Z6	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Metals by ICP-MS	Vanadium	11	11	--	0.25	1.5	mg/Kg-dry	4	12-Jan-15	7	Z6	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Metals by ICP-MS	Zinc	530	530	--	1.1	3.1	mg/Kg-dry	4	12-Jan-15	7	Z6	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Moisture	Moisture	0.4	0.40	--	0.025	0.05	% of sample	1	12-Jan-15	7	Z6	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	PCBs	Aroclor 1016	--	U	U	26	82	µg/Kg-dry	1	15-Jan-15	7	Z6	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	PCBs	Aroclor 1221	--	U	U	26	82	µg/Kg-dry	1	15-Jan-15	7	Z6	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	PCBs	Aroclor 1232	--	U	U	26	82	µg/Kg-dry	1	15-Jan-15	7	Z6	2015

Table A-7
Metals and PCB Data for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Cell	Zone	Year
ISM-7-Z6	1501301-07	07-Jan-15	Soil	PCBs	Aroclor 1242	--	U	U	26	82	µg/Kg-dry	1	15-Jan-15	7	Z6	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	PCBs	Aroclor 1248	--	U	U	26	82	µg/Kg-dry	1	15-Jan-15	7	Z6	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	PCBs	Aroclor 1254	300	300	--	31	82	µg/Kg-dry	1	15-Jan-15	7	Z6	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	PCBs	Aroclor 1260	240	240	--	31	82	µg/Kg-dry	1	15-Jan-15	7	Z6	2015
ISM-7-Z6	1501301-07	07-Jan-15	Soil	PCBs	PCBs, Total	540	--	--	--	--	µg/Kg-dry	--	--	7	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Mercury by CVAA	Mercury	0.25	0.25	--	0.0017	0.028	mg/Kg-dry	2	12-Jan-15	8	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Metals by ICP-MS	Aluminum	5,200	5,200	--	0.99	2.9	mg/Kg-dry	4	12-Jan-15	8	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Metals by ICP-MS	Antimony	6.9	6.9	--	0.38	1.4	mg/Kg-dry	4	12-Jan-15	8	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Metals by ICP-MS	Arsenic	6.4	6.4	--	0.3	0.58	mg/Kg-dry	4	12-Jan-15	8	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Metals by ICP-MS	Barium	180	180	--	0.017	1.4	mg/Kg-dry	4	12-Jan-15	8	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Metals by ICP-MS	Beryllium	0.23	0.23	J	0.15	0.58	mg/Kg-dry	4	12-Jan-15	8	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Metals by ICP-MS	Cadmium	6.3	6.3	--	0.058	0.58	mg/Kg-dry	4	12-Jan-15	8	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Metals by ICP-MS	Chromium	22	22	--	0.32	1.4	mg/Kg-dry	4	12-Jan-15	8	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Metals by ICP-MS	Cobalt	5.7	5.7	--	0.17	1.4	mg/Kg-dry	4	12-Jan-15	8	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Metals by ICP-MS	Copper	110	110	--	0.16	1.4	mg/Kg-dry	4	12-Jan-15	8	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Metals by ICP-MS	Iron	28,000	28,000	--	4.2	23	mg/Kg-dry	4	12-Jan-15	8	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Metals by ICP-MS	Lead	400	400	--	0.15	1.4	mg/Kg-dry	4	12-Jan-15	8	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Metals by ICP-MS	Manganese	360	360	--	0.23	1.4	mg/Kg-dry	4	12-Jan-15	8	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Metals by ICP-MS	Nickel	30	30	--	0.78	1.4	mg/Kg-dry	4	12-Jan-15	8	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Metals by ICP-MS	Selenium	0.78	0.78	J	0.3	1.2	mg/Kg-dry	4	12-Jan-15	8	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Metals by ICP-MS	Silver	2.4	2.4	--	0.0058	0.58	mg/Kg-dry	4	12-Jan-15	8	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Metals by ICP-MS	Thallium	--	U	U	0.16	1.4	mg/Kg-dry	4	12-Jan-15	8	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Metals by ICP-MS	Vanadium	10	10	--	0.24	1.4	mg/Kg-dry	4	12-Jan-15	8	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Metals by ICP-MS	Zinc	580	580	--	10	29	mg/Kg-dry	40	13-Jan-15	8	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Moisture	Moisture	0.39	0.39	--	0.025	0.05	% of sample	1	12-Jan-15	8	Z6	2015

Table A-7
Metals and PCB Data for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units	Dilution Factor	Anal Date	Cell	Zone	Year
ISM-8-Z6	1501301-08	07-Jan-15	Soil	PCBs	Aroclor 1016	--	U	U	26	82	µg/Kg-dry	1	15-Jan-15	8	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	PCBs	Aroclor 1221	--	U	U	26	82	µg/Kg-dry	1	15-Jan-15	8	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	PCBs	Aroclor 1232	--	U	U	26	82	µg/Kg-dry	1	15-Jan-15	8	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	PCBs	Aroclor 1242	--	U	U	26	82	µg/Kg-dry	1	15-Jan-15	8	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	PCBs	Aroclor 1248	1,100	1,100	--	26	82	µg/Kg-dry	1	15-Jan-15	8	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	PCBs	Aroclor 1254	--	U	U	31	82	µg/Kg-dry	1	15-Jan-15	8	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	PCBs	Aroclor 1260	--	U	U	31	82	µg/Kg-dry	1	15-Jan-15	8	Z6	2015
ISM-8-Z6	1501301-08	07-Jan-15	Soil	PCBs	PCBs, Total	1,100	--	--	--	--	µg/Kg-dry	--	--	8	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Mercury by CVAA	Mercury	0.14	0.14	--	0.00082	0.014	mg/Kg-dry	1	12-Jan-15	9	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Metals by ICP-MS	Aluminum	5,500	5,500	--	0.99	2.9	mg/Kg-dry	4	12-Jan-15	9	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Metals by ICP-MS	Antimony	13	13	--	0.38	1.4	mg/Kg-dry	4	12-Jan-15	9	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Metals by ICP-MS	Arsenic	7.7	7.7	--	0.3	0.58	mg/Kg-dry	4	12-Jan-15	9	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Metals by ICP-MS	Barium	170	170	--	0.017	1.4	mg/Kg-dry	4	12-Jan-15	9	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Metals by ICP-MS	Beryllium	0.23	0.23	J	0.15	0.58	mg/Kg-dry	4	12-Jan-15	9	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Metals by ICP-MS	Cadmium	5	5.0	--	0.058	0.58	mg/Kg-dry	4	12-Jan-15	9	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Metals by ICP-MS	Chromium	26	26	--	0.32	1.4	mg/Kg-dry	4	12-Jan-15	9	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Metals by ICP-MS	Cobalt	6.2	6.2	--	0.17	1.4	mg/Kg-dry	4	12-Jan-15	9	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Metals by ICP-MS	Copper	170	170	--	0.16	1.4	mg/Kg-dry	4	12-Jan-15	9	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Metals by ICP-MS	Iron	32,000	32,000	--	4.2	23	mg/Kg-dry	4	12-Jan-15	9	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Metals by ICP-MS	Lead	420	420	--	0.15	1.4	mg/Kg-dry	4	12-Jan-15	9	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Metals by ICP-MS	Manganese	400	400	--	0.23	1.4	mg/Kg-dry	4	12-Jan-15	9	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Metals by ICP-MS	Nickel	28	28	--	0.78	1.4	mg/Kg-dry	4	12-Jan-15	9	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Metals by ICP-MS	Selenium	0.85	0.85	J	0.3	1.2	mg/Kg-dry	4	12-Jan-15	9	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Metals by ICP-MS	Silver	1.3	1.3	--	0.0058	0.58	mg/Kg-dry	4	12-Jan-15	9	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Metals by ICP-MS	Thallium	--	U	U	0.16	1.4	mg/Kg-dry	4	12-Jan-15	9	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Metals by ICP-MS	Vanadium	9.3	9.3	--	0.24	1.4	mg/Kg-dry	4	12-Jan-15	9	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Metals by ICP-MS	Zinc	740	740	--	10	29	mg/Kg-dry	40	13-Jan-15	9	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Moisture	Moisture	0.26	0.26	--	0.025	0.05	% of sample	1	12-Jan-15	9	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	PCBs	Aroclor 1016	--	U	U	25	79	µg/Kg-dry	1	15-Jan-15	9	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	PCBs	Aroclor 1221	--	U	U	25	79	µg/Kg-dry	1	15-Jan-15	9	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	PCBs	Aroclor 1232	--	U	U	25	79	µg/Kg-dry	1	15-Jan-15	9	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	PCBs	Aroclor 1242	--	U	U	25	79	µg/Kg-dry	1	15-Jan-15	9	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	PCBs	Aroclor 1248	230	230	--	25	79	µg/Kg-dry	1	15-Jan-15	9	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	PCBs	Aroclor 1254	140	140	--	30	79	µg/Kg-dry	1	15-Jan-15	9	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	PCBs	Aroclor 1260	--	U	U	30	79	µg/Kg-dry	1	15-Jan-15	9	Z6	2015
ISM-9-Z6	1501301-09	07-Jan-15	Soil	PCBs	PCBs, Total	370	--	--	--	--	µg/Kg-dry	--	--	9	Z6	2015

Notes

µg/Kg-dry = micrograms per kilogram-dry weight
CVAA = cold vapor atomic absorption
ICP-MS = Inductively Coupled Plasma-Mass Spectrometry
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
RMDL = Recommended Method Detection Limit
SL = screening level

Qualifier Notes

H = Analyzed outside of Holding Time
J = Analyte is present at an estimated concentration between MDL and Report Limit
U = Analyzed but not detected above MDL

Table A-8
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Vernal Pool and Seep Samples

Client Sample ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qualifier	RMDL
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	1,1,1-Trichloroethane	--	U	U	0.14
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	1,1,1-Trichloroethane	--	U	U	0.11
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	1,1,1-Trichloroethane	--	U	U	0.14
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	1,1,1-Trichloroethane	--	U	U	0.11
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	1,1,1-Trichloroethane	--	U	U	0.11
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	1,1,2,2-Tetrachloroethane	--	U	U	0.13
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	1,1,2,2-Tetrachloroethane	--	U	U	0.21
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	1,1,2,2-Tetrachloroethane	--	U	U	0.13
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	1,1,2,2-Tetrachloroethane	--	U	U	0.21
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	1,1,2,2-Tetrachloroethane	--	U	U	0.21
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	Tetrachloroethene	--	U	U	0.15
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	Tetrachloroethene	--	U	U	0.098
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	Tetrachloroethene	--	U	U	0.15
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	Tetrachloroethene	--	U	U	0.098
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	Tetrachloroethene	--	U	U	0.098
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	1,1,2-Trichloroethane	--	U	U	0.084
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	1,1,2-Trichloroethane	--	U	U	0.11
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	1,1,2-Trichloroethane	--	U	U	0.084
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	1,1,2-Trichloroethane	--	U	U	0.11
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	1,1,2-Trichloroethane	--	U	U	0.11
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	Trichloroethene	--	U	U	0.14
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	Trichloroethene	--	U	U	0.16
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	Trichloroethene	--	U	U	0.14
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	Trichloroethene	--	U	U	0.16
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	Trichloroethene	--	U	U	0.16
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	1,1`-Biphenyl	--	U	U	0.095
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	1,1`-Biphenyl	--	U	U, H	0.095
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	1,1`-Biphenyl	--	U	U	0.095
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	1,1`-Biphenyl	--	U	U, H	0.095
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	1,1`-Biphenyl	--	U	U, H	0.095
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	1,1-Dichloroethane	--	U	U	0.11
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	1,1-Dichloroethane	--	U	U	0.14
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	1,1-Dichloroethane	--	U	U	0.11
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	1,1-Dichloroethane	--	U	U	0.14
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	1,1-Dichloroethane	--	U	U	0.14
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	1,1-Dichloroethene	--	U	U	0.12
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	1,1-Dichloroethene	--	U	U	0.12
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	1,1-Dichloroethene	--	U	U	0.12
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	1,1-Dichloroethene	--	U	U	0.12
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	1,1-Dichloroethene	--	U	U	0.12
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	1,2,4-Trichlorobenzene	--	U	U	0.16
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	1,2,4-Trichlorobenzene	--	U	U	0.096
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	1,2,4-Trichlorobenzene	--	U	U	0.16
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	1,2,4-Trichlorobenzene	--	U	U	0.096

Table A-8
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Vernal Pool and Seep Samples

R limit	R units	Dilution Factor	Anal Date	Region 4 Chemical	CAS	Freshwater, Chronic, µg/L	Source	MDL/SL Ratio	Detected Result HQ	Detection Flag	Monitoring Point	Type
1.0	µg/L	1	11-May-13	1,1,1-Trichloroethane	71-55-6	76	b	0.001842105	--	0	SW-2	Pool
1.0	µg/L	1	26-Apr-14	1,1,1-Trichloroethane	71-55-6	76	b	0.001447368	--	0	SW-2	Pool
1.0	µg/L	1	11-May-13	1,1,1-Trichloroethane	71-55-6	76	b	0.001842105	--	0	SW-1	Seep
1.0	µg/L	1	25-Apr-14	1,1,1-Trichloroethane	71-55-6	76	b	0.001447368	--	0	SW-1	Seep
1.0	µg/L	1	25-Apr-14	1,1,1-Trichloroethane	71-55-6	76	b	0.001447368	--	0	SW-3	Seep
1.0	µg/L	1	11-May-13	1,1,2,2-Tetrachloroethane	79-34-5	200	b	0.00065	--	0	SW-2	Pool
1.0	µg/L	1	26-Apr-14	1,1,2,2-Tetrachloroethane	79-34-5	200	b	0.00105	--	0	SW-2	Pool
1.0	µg/L	1	11-May-13	1,1,2,2-Tetrachloroethane	79-34-5	200	b	0.00065	--	0	SW-1	Seep
1.0	µg/L	1	25-Apr-14	1,1,2,2-Tetrachloroethane	79-34-5	200	b	0.00105	--	0	SW-1	Seep
1.0	µg/L	1	25-Apr-14	1,1,2,2-Tetrachloroethane	79-34-5	200	b	0.00105	--	0	SW-3	Seep
1.0	µg/L	1	11-May-13	1,1,2,2-Tetrachloroethylene (PCE)	127-18-4	53	b	0.002830189	--	0	SW-2	Pool
1.0	µg/L	1	26-Apr-14	1,1,2,2-Tetrachloroethylene (PCE)	127-18-4	53	b	0.001849057	--	0	SW-2	Pool
1.0	µg/L	1	11-May-13	1,1,2,2-Tetrachloroethylene (PCE)	127-18-4	53	b	0.002830189	--	0	SW-1	Seep
1.0	µg/L	1	25-Apr-14	1,1,2,2-Tetrachloroethylene (PCE)	127-18-4	53	b	0.001849057	--	0	SW-1	Seep
1.0	µg/L	1	25-Apr-14	1,1,2,2-Tetrachloroethylene (PCE)	127-18-4	53	b	0.001849057	--	0	SW-3	Seep
1.0	µg/L	1	11-May-13	1,1,2-Trichloroethane	79-00-5	730	b	0.000115068	--	0	SW-2	Pool
1.0	µg/L	1	26-Apr-14	1,1,2-Trichloroethane	79-00-5	730	b	0.000150685	--	0	SW-2	Pool
1.0	µg/L	1	11-May-13	1,1,2-Trichloroethane	79-00-5	730	b	0.000115068	--	0	SW-1	Seep
1.0	µg/L	1	25-Apr-14	1,1,2-Trichloroethane	79-00-5	730	b	0.000150685	--	0	SW-1	Seep
1.0	µg/L	1	25-Apr-14	1,1,2-Trichloroethane	79-00-5	730	b	0.000150685	--	0	SW-3	Seep
1.0	µg/L	1	11-May-13	1,1,2-Trichloroethylene (TCE)	79-01-6	200	b	0.0007	--	0	SW-2	Pool
1.0	µg/L	1	26-Apr-14	1,1,2-Trichloroethylene (TCE)	79-01-6	200	b	0.0008	--	0	SW-2	Pool
1.0	µg/L	1	11-May-13	1,1,2-Trichloroethylene (TCE)	79-01-6	200	b	0.0007	--	0	SW-1	Seep
1.0	µg/L	1	25-Apr-14	1,1,2-Trichloroethylene (TCE)	79-01-6	200	b	0.0008	--	0	SW-1	Seep
1.0	µg/L	1	25-Apr-14	1,1,2-Trichloroethylene (TCE)	79-01-6	200	b	0.0008	--	0	SW-3	Seep
10	µg/L	1	09-May-13	1,1-Biphenyl	92-52-4	6.5	b	0.014615385	--	0	SW-2	Pool
10	µg/L	1	28-Apr-14	1,1-Biphenyl	92-52-4	6.5	b	0.014615385	--	0	SW-2	Pool
10	µg/L	1	09-May-13	1,1-Biphenyl	92-52-4	6.5	b	0.014615385	--	0	SW-1	Seep
10	µg/L	1	28-Apr-14	1,1-Biphenyl	92-52-4	6.5	b	0.014615385	--	0	SW-1	Seep
10	µg/L	1	28-Apr-14	1,1-Biphenyl	92-52-4	6.5	b	0.014615385	--	0	SW-3	Seep
1.0	µg/L	1	11-May-13	1,1-Dichloroethane	75-34-3	410	b	0.000268293	--	0	SW-2	Pool
1.0	µg/L	1	26-Apr-14	1,1-Dichloroethane	75-34-3	410	b	0.000341463	--	0	SW-2	Pool
1.0	µg/L	1	11-May-13	1,1-Dichloroethane	75-34-3	410	b	0.000268293	--	0	SW-1	Seep
1.0	µg/L	1	25-Apr-14	1,1-Dichloroethane	75-34-3	410	b	0.000341463	--	0	SW-1	Seep
1.0	µg/L	1	25-Apr-14	1,1-Dichloroethane	75-34-3	410	b	0.000341463	--	0	SW-3	Seep
1.0	µg/L	1	11-May-13	1,1-Dichloroethene (1,1-Dichloroethylene)	75-35-4	130	b	0.000923077	--	0	SW-2	Pool
1.0	µg/L	1	26-Apr-14	1,1-Dichloroethene (1,1-Dichloroethylene)	75-35-4	130	b	0.000923077	--	0	SW-2	Pool
1.0	µg/L	1	11-May-13	1,1-Dichloroethene (1,1-Dichloroethylene)	75-35-4	130	b	0.000923077	--	0	SW-1	Seep
1.0	µg/L	1	25-Apr-14	1,1-Dichloroethene (1,1-Dichloroethylene)	75-35-4	130	b	0.000923077	--	0	SW-1	Seep
1.0	µg/L	1	25-Apr-14	1,1-Dichloroethene (1,1-Dichloroethylene)	75-35-4	130	b	0.000923077	--	0	SW-3	Seep
5.0	µg/L	1	11-May-13	1,2,4-Trichlorobenzene	120-82-1	130	b	0.001230769	--	0	SW-2	Pool
5.0	µg/L	1	26-Apr-14	1,2,4-Trichlorobenzene	120-82-1	130	b	0.000738462	--	0	SW-2	Pool
5.0	µg/L	1	11-May-13	1,2,4-Trichlorobenzene	120-82-1	130	b	0.001230769	--	0	SW-1	Seep
5.0	µg/L	1	25-Apr-14	1,2,4-Trichlorobenzene	120-82-1	130	b	0.000738462	--	0	SW-1	Seep

Table A-8
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Vernal Pool and Seep Samples

Client Sample ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qualifier	RMDL
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	1,2,4-Trichlorobenzene	--	U	U	0.096
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	cis-1,2-Dichloroethene	--	U	U	0.11
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	cis-1,2-Dichloroethene	--	U	U	0.1
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	cis-1,2-Dichloroethene	--	U	U	0.11
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	cis-1,2-Dichloroethene	--	U	U	0.1
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	cis-1,2-Dichloroethene	--	U	U	0.1
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	1,2-Dichlorobenzene	--	U	U	0.13
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	1,2-Dichlorobenzene	--	U	U	0.17
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	1,2-Dichlorobenzene	--	U	U	0.13
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	1,2-Dichlorobenzene	--	U	U	0.17
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	1,2-Dichlorobenzene	--	U	U	0.17
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	1,2-Dichloroethane	--	U	U	0.15
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	1,2-Dichloroethane	--	U	U	0.11
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	1,2-Dichloroethane	--	U	U	0.15
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	1,2-Dichloroethane	--	U	U	0.11
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	1,2-Dichloroethane	--	U	U	0.11
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	1,2-Dichloropropane	--	U	U	0.13
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	1,2-Dichloropropane	--	U	U	0.12
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	1,2-Dichloropropane	--	U	U	0.13
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	1,2-Dichloropropane	--	U	U	0.12
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	1,2-Dichloropropane	--	U	U	0.12
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	trans-1,2-Dichloroethene	--	U	U	0.12
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	trans-1,2-Dichloroethene	--	U	U	0.12
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	trans-1,2-Dichloroethene	--	U	U	0.12
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	trans-1,2-Dichloroethene	--	U	U	0.12
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	trans-1,2-Dichloroethene	--	U	U	0.12
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	1,3-Dichlorobenzene	--	U	U	0.16
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	1,3-Dichlorobenzene	--	U	U	0.15
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	1,3-Dichlorobenzene	--	U	U	0.16
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	1,3-Dichlorobenzene	--	U	U	0.15
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	1,3-Dichlorobenzene	--	U	U	0.15
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	cis-1,3-Dichloropropene	--	U	U	0.081
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	cis-1,3-Dichloropropene	--	U	U	0.097
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	trans-1,3-Dichloropropene	--	U	U	0.15
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	trans-1,3-Dichloropropene	--	U	U	0.093
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	cis-1,3-Dichloropropene	--	U	U	0.081
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	cis-1,3-Dichloropropene	--	U	U	0.097
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	cis-1,3-Dichloropropene	--	U	U	0.097
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	trans-1,3-Dichloropropene	--	U	U	0.15
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	trans-1,3-Dichloropropene	--	U	U	0.093
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	trans-1,3-Dichloropropene	--	U	U	0.093
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	1,4-Dichlorobenzene	--	U	U	0.15
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	1,4-Dichlorobenzene	--	U	U	0.15
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	1,4-Dichlorobenzene	--	U	U	0.15

Table A-8
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Vernal Pool and Seep Samples

R limit	R units	Dilution Factor	Anal Date	Region 4 Chemical	CAS	Freshwater, Chronic, µg/L	Source	MDL/SL Ratio	Detected Result HQ	Detection Flag	Monitoring Point	Type
5.0	µg/L	1	25-Apr-14	1,2,4-Trichlorobenzene	120-82-1	130	b	0.000738462	--	0	SW-3	Seep
1.0	µg/L	1	11-May-13	1,2-cis-Dichloroethylene	156-59-2	620	b	0.000177419	--	0	SW-2	Pool
1.0	µg/L	1	26-Apr-14	1,2-cis-Dichloroethylene	156-59-2	620	b	0.00016129	--	0	SW-2	Pool
1.0	µg/L	1	11-May-13	1,2-cis-Dichloroethylene	156-59-2	620	b	0.000177419	--	0	SW-1	Seep
1.0	µg/L	1	25-Apr-14	1,2-cis-Dichloroethylene	156-59-2	620	b	0.00016129	--	0	SW-1	Seep
1.0	µg/L	1	25-Apr-14	1,2-cis-Dichloroethylene	156-59-2	620	b	0.00016129	--	0	SW-3	Seep
1.0	µg/L	1	11-May-13	1,2-Dichlorobenzene	95-50-1	23	b	0.005652174	--	0	SW-2	Pool
1.0	µg/L	1	26-Apr-14	1,2-Dichlorobenzene	95-50-1	23	b	0.007391304	--	0	SW-2	Pool
1.0	µg/L	1	11-May-13	1,2-Dichlorobenzene	95-50-1	23	b	0.005652174	--	0	SW-1	Seep
1.0	µg/L	1	25-Apr-14	1,2-Dichlorobenzene	95-50-1	23	b	0.007391304	--	0	SW-1	Seep
1.0	µg/L	1	25-Apr-14	1,2-Dichlorobenzene	95-50-1	23	b	0.007391304	--	0	SW-3	Seep
1.0	µg/L	1	11-May-13	1,2-Dichloroethane	107-06-2	2,000	b	0.000075	--	0	SW-2	Pool
1.0	µg/L	1	26-Apr-14	1,2-Dichloroethane	107-06-2	2,000	b	0.000055	--	0	SW-2	Pool
1.0	µg/L	1	11-May-13	1,2-Dichloroethane	107-06-2	2,000	b	0.000075	--	0	SW-1	Seep
1.0	µg/L	1	25-Apr-14	1,2-Dichloroethane	107-06-2	2,000	b	0.000055	--	0	SW-1	Seep
1.0	µg/L	1	25-Apr-14	1,2-Dichloroethane	107-06-2	2,000	b	0.000055	--	0	SW-3	Seep
1.0	µg/L	1	11-May-13	1,2-Dichloropropane	78-87-5	520	b	0.00025	--	0	SW-2	Pool
1.0	µg/L	1	26-Apr-14	1,2-Dichloropropane	78-87-5	520	b	0.000230769	--	0	SW-2	Pool
1.0	µg/L	1	11-May-13	1,2-Dichloropropane	78-87-5	520	b	0.00025	--	0	SW-1	Seep
1.0	µg/L	1	25-Apr-14	1,2-Dichloropropane	78-87-5	520	b	0.000230769	--	0	SW-1	Seep
1.0	µg/L	1	25-Apr-14	1,2-Dichloropropane	78-87-5	520	b	0.000230769	--	0	SW-3	Seep
1.0	µg/L	1	11-May-13	1,2-trans-Dichloroethylene	156-60-5	558	b	0.000215054	--	0	SW-2	Pool
1.0	µg/L	1	26-Apr-14	1,2-trans-Dichloroethylene	156-60-5	558	b	0.000215054	--	0	SW-2	Pool
1.0	µg/L	1	11-May-13	1,2-trans-Dichloroethylene	156-60-5	558	b	0.000215054	--	0	SW-1	Seep
1.0	µg/L	1	25-Apr-14	1,2-trans-Dichloroethylene	156-60-5	558	b	0.000215054	--	0	SW-1	Seep
1.0	µg/L	1	25-Apr-14	1,2-trans-Dichloroethylene	156-60-5	558	b	0.000215054	--	0	SW-3	Seep
1.0	µg/L	1	11-May-13	1,3-Dichlorobenzene	541-73-1	22	b	0.007272727	--	0	SW-2	Pool
1.0	µg/L	1	26-Apr-14	1,3-Dichlorobenzene	541-73-1	22	b	0.006818182	--	0	SW-2	Pool
1.0	µg/L	1	11-May-13	1,3-Dichlorobenzene	541-73-1	22	b	0.007272727	--	0	SW-1	Seep
1.0	µg/L	1	25-Apr-14	1,3-Dichlorobenzene	541-73-1	22	b	0.006818182	--	0	SW-1	Seep
1.0	µg/L	1	25-Apr-14	1,3-Dichlorobenzene	541-73-1	22	b	0.006818182	--	0	SW-3	Seep
1.0	µg/L	1	11-May-13	1,3-Dichloropropene (cis and trans)	542-75-6	1.7	b	0.047647059	--	0	SW-2	Pool
1.0	µg/L	1	26-Apr-14	1,3-Dichloropropene (cis and trans)	542-75-6	1.7	b	0.057058824	--	0	SW-2	Pool
1.0	µg/L	1	11-May-13	1,3-Dichloropropene (cis and trans)	542-75-6	1.7	b	0.088235294	--	0	SW-2	Pool
1.0	µg/L	1	26-Apr-14	1,3-Dichloropropene (cis and trans)	542-75-6	1.7	b	0.054705882	--	0	SW-2	Pool
1.0	µg/L	1	11-May-13	1,3-Dichloropropene (cis and trans)	542-75-6	1.7	b	0.047647059	--	0	SW-1	Seep
1.0	µg/L	1	25-Apr-14	1,3-Dichloropropene (cis and trans)	542-75-6	1.7	b	0.057058824	--	0	SW-1	Seep
1.0	µg/L	1	25-Apr-14	1,3-Dichloropropene (cis and trans)	542-75-6	1.7	b	0.057058824	--	0	SW-3	Seep
1.0	µg/L	1	11-May-13	1,3-Dichloropropene (cis and trans)	542-75-6	1.7	b	0.088235294	--	0	SW-1	Seep
1.0	µg/L	1	25-Apr-14	1,3-Dichloropropene (cis and trans)	542-75-6	1.7	b	0.054705882	--	0	SW-1	Seep
1.0	µg/L	1	25-Apr-14	1,3-Dichloropropene (cis and trans)	542-75-6	1.7	b	0.054705882	--	0	SW-3	Seep
1.0	µg/L	1	11-May-13	1,4-Dichlorobenzene	106-46-7	9.4	b	0.015957447	--	0	SW-2	Pool
1.0	µg/L	1	26-Apr-14	1,4-Dichlorobenzene	106-46-7	9.4	b	0.015957447	--	0	SW-2	Pool
1.0	µg/L	1	11-May-13	1,4-Dichlorobenzene	106-46-7	9.4	b	0.015957447	--	0	SW-1	Seep

Table A-8
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Vernal Pool and Seep Samples

Client Sample ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qualifier	RMDL
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	1,4-Dichlorobenzene	--	U	U	0.15
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	1,4-Dichlorobenzene	--	U	U	0.15
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	0.12
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U, H	0.25
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	0.12
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U, H	0.25
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U, H	0.25
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	0.11
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U, H	0.27
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	0.11
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U, H	0.27
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U, H	0.27
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	0.22
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U, H	0.22
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	0.22
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U, H	0.22
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U, H	0.22
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	0.24
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U, H	1.8
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	0.24
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U, H	1.8
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U, H	1.8
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	0.76
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U, H	0.67
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	0.76
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U, H	0.67
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U, H	0.67
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	0.78
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U, H	0.27
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	0.78
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U, H	0.27
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U, H	0.27
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	0.82
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U, H	0.23
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	0.82
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U, H	0.23
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U, H	0.23
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	2-Butanone	--	U	U	0.22
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	2-Butanone	--	U	U	0.64
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	2-Butanone	--	U	U	0.22
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	2-Butanone	--	U	U	0.64
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	2-Butanone	--	U	U	0.64
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	0.73
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U, H	0.32

Table A-8
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Vernal Pool and Seep Samples

R limit	R units	Dilution Factor	Anal Date	Region 4 Chemical	CAS	Freshwater, Chronic, µg/L	Source	MDL/SL Ratio	Detected Result HQ	Detection Flag	Monitoring Point	Type
1.0	µg/L	1	25-Apr-14	1,4-Dichlorobenzene	106-46-7	9.4	b	0.015957447	--	0	SW-1	Seep
1.0	µg/L	1	25-Apr-14	1,4-Dichlorobenzene	106-46-7	9.4	b	0.015957447	--	0	SW-3	Seep
5.0	µg/L	1	09-May-13	2,4,5-Trichlorophenol	95-95-4	1.9	b	0.063157895	--	0	SW-2	Pool
5.0	µg/L	1	28-Apr-14	2,4,5-Trichlorophenol	95-95-4	1.9	b	0.131578947	--	0	SW-2	Pool
5.0	µg/L	1	09-May-13	2,4,5-Trichlorophenol	95-95-4	1.9	b	0.063157895	--	0	SW-1	Seep
5.0	µg/L	1	28-Apr-14	2,4,5-Trichlorophenol	95-95-4	1.9	b	0.131578947	--	0	SW-1	Seep
5.0	µg/L	1	28-Apr-14	2,4,5-Trichlorophenol	95-95-4	1.9	b	0.131578947	--	0	SW-3	Seep
4.0	µg/L	1	09-May-13	2,4,6-Trichlorophenol	88-06-2	4.9	b	0.02244898	--	0	SW-2	Pool
4.0	µg/L	1	28-Apr-14	2,4,6-Trichlorophenol	88-06-2	4.9	b	0.055102041	--	0	SW-2	Pool
4.0	µg/L	1	09-May-13	2,4,6-Trichlorophenol	88-06-2	4.9	b	0.02244898	--	0	SW-1	Seep
4.0	µg/L	1	28-Apr-14	2,4,6-Trichlorophenol	88-06-2	4.9	b	0.055102041	--	0	SW-1	Seep
4.0	µg/L	1	28-Apr-14	2,4,6-Trichlorophenol	88-06-2	4.9	b	0.055102041	--	0	SW-3	Seep
10	µg/L	1	09-May-13	2,4-Dichlorophenol	120-83-2	11	b	0.02	--	0	SW-2	Pool
10	µg/L	1	28-Apr-14	2,4-Dichlorophenol	120-83-2	11	b	0.02	--	0	SW-2	Pool
10	µg/L	1	09-May-13	2,4-Dichlorophenol	120-83-2	11	b	0.02	--	0	SW-1	Seep
10	µg/L	1	28-Apr-14	2,4-Dichlorophenol	120-83-2	11	b	0.02	--	0	SW-1	Seep
10	µg/L	1	28-Apr-14	2,4-Dichlorophenol	120-83-2	11	b	0.02	--	0	SW-3	Seep
5.0	µg/L	1	09-May-13	2,4-Dimethylphenol	105-67-9	15	b	0.016	--	0	SW-2	Pool
5.0	µg/L	1	28-Apr-14	2,4-Dimethylphenol	105-67-9	15	b	0.12	--	0	SW-2	Pool
5.0	µg/L	1	09-May-13	2,4-Dimethylphenol	105-67-9	15	b	0.016	--	0	SW-1	Seep
5.0	µg/L	1	28-Apr-14	2,4-Dimethylphenol	105-67-9	15	b	0.12	--	0	SW-1	Seep
5.0	µg/L	1	28-Apr-14	2,4-Dimethylphenol	105-67-9	15	b	0.12	--	0	SW-3	Seep
25	µg/L	1	09-May-13	2,4-Dinitrophenol	51-28-5	71	b	0.010704225	--	0	SW-2	Pool
25	µg/L	1	28-Apr-14	2,4-Dinitrophenol	51-28-5	71	b	0.00943662	--	0	SW-2	Pool
25	µg/L	1	09-May-13	2,4-Dinitrophenol	51-28-5	71	b	0.010704225	--	0	SW-1	Seep
25	µg/L	1	28-Apr-14	2,4-Dinitrophenol	51-28-5	71	b	0.00943662	--	0	SW-1	Seep
25	µg/L	1	28-Apr-14	2,4-Dinitrophenol	51-28-5	71	b	0.00943662	--	0	SW-3	Seep
5.0	µg/L	1	09-May-13	2,4-Dinitrotoluene	121-14-2	44	b	0.017727273	--	0	SW-2	Pool
5.0	µg/L	1	28-Apr-14	2,4-Dinitrotoluene	121-14-2	44	b	0.006136364	--	0	SW-2	Pool
5.0	µg/L	1	09-May-13	2,4-Dinitrotoluene	121-14-2	44	b	0.017727273	--	0	SW-1	Seep
5.0	µg/L	1	28-Apr-14	2,4-Dinitrotoluene	121-14-2	44	b	0.006136364	--	0	SW-1	Seep
5.0	µg/L	1	28-Apr-14	2,4-Dinitrotoluene	121-14-2	44	b	0.006136364	--	0	SW-3	Seep
5.0	µg/L	1	09-May-13	2,6-Dinitrotoluene	606-20-2	81	b	0.010123457	--	0	SW-2	Pool
5.0	µg/L	1	28-Apr-14	2,6-Dinitrotoluene	606-20-2	81	b	0.002839506	--	0	SW-2	Pool
5.0	µg/L	1	09-May-13	2,6-Dinitrotoluene	606-20-2	81	b	0.010123457	--	0	SW-1	Seep
5.0	µg/L	1	28-Apr-14	2,6-Dinitrotoluene	606-20-2	81	b	0.002839506	--	0	SW-1	Seep
5.0	µg/L	1	28-Apr-14	2,6-Dinitrotoluene	606-20-2	81	b	0.002839506	--	0	SW-3	Seep
25	µg/L	1	11-May-13	2-Butanone (methyl ethyl ketone)	78-93-3	22,000	b	0.00001	--	0	SW-2	Pool
25	µg/L	1	26-Apr-14	2-Butanone (methyl ethyl ketone)	78-93-3	22,000	b	2.90909E-05	--	0	SW-2	Pool
25	µg/L	1	11-May-13	2-Butanone (methyl ethyl ketone)	78-93-3	22,000	b	0.00001	--	0	SW-1	Seep
25	µg/L	1	25-Apr-14	2-Butanone (methyl ethyl ketone)	78-93-3	22,000	b	2.90909E-05	--	0	SW-1	Seep
25	µg/L	1	25-Apr-14	2-Butanone (methyl ethyl ketone)	78-93-3	22,000	b	2.90909E-05	--	0	SW-3	Seep
10	µg/L	1	09-May-13	2-Chlorophenol	95-57-8	32	b	0.0228125	--	0	SW-2	Pool
10	µg/L	1	28-Apr-14	2-Chlorophenol	95-57-8	32	b	0.01	--	0	SW-2	Pool

Table A-8
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Vernal Pool and Seep Samples

Client Sample ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qualifier	RMDL
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	0.73
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U, H	0.32
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U, H	0.32
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	2-Hexanone	--	U	U	0.12
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	2-Hexanone	--	U	U	0.19
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	2-Hexanone	--	U	U	0.12
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	2-Hexanone	--	U	U	0.19
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	2-Hexanone	--	U	U	0.19
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	2-Methylnaphthalene	--	U	U	0.13
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	2-Methylnaphthalene	--	U	U, H	0.13
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	2-Methylnaphthalene	--	U	U	0.13
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	2-Methylnaphthalene	--	U	U, H	0.13
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	2-Methylnaphthalene	--	U	U, H	0.13
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	0.6
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U, H	0.2
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	0.6
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U, H	0.2
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U, H	0.2
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	0.19
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U, H	0.28
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	0.19
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U, H	0.28
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U, H	0.28
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	0.54
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U, H	3.9
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	0.54
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U, H	3.9
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U, H	3.9
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	0.11
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U, H	0.23
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	0.11
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U, H	0.23
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U, H	0.23
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	1.1
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U, H	0.32
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	1.1
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U, H	0.32
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U, H	0.32
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	4-Methyl-2-pentanone	--	U	U	0.096
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	4-Methyl-2-pentanone	--	U	U	0.2
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	4-Methyl-2-pentanone	--	U	U	0.096
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	4-Methyl-2-pentanone	--	U	U	0.2
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	4-Methylphenol	--	U	U	0.55
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	4-Methylphenol	--	U	U, H	0.2

Table A-8
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Vernal Pool and Seep Samples

R limit	R units	Dilution Factor	Anal Date	Region 4 Chemical	CAS	Freshwater, Chronic, µg/L	Source	MDL/SL Ratio	Detected Result HQ	Detection Flag	Monitoring Point	Type
10	µg/L	1	09-May-13	2-Chlorophenol	95-57-8	32	b	0.0228125	--	0	SW-1	Seep
10	µg/L	1	28-Apr-14	2-Chlorophenol	95-57-8	32	b	0.01	--	0	SW-1	Seep
10	µg/L	1	28-Apr-14	2-Chlorophenol	95-57-8	32	b	0.01	--	0	SW-3	Seep
50	µg/L	1	11-May-13	2-Hexanone (methyl butyl ketone)	591-78-6	99	c	0.001212121	--	0	SW-2	Pool
50	µg/L	1	26-Apr-14	2-Hexanone (methyl butyl ketone)	591-78-6	99	c	0.001919192	--	0	SW-2	Pool
50	µg/L	1	11-May-13	2-Hexanone (methyl butyl ketone)	591-78-6	99	c	0.001212121	--	0	SW-1	Seep
50	µg/L	1	25-Apr-14	2-Hexanone (methyl butyl ketone)	591-78-6	99	c	0.001919192	--	0	SW-1	Seep
50	µg/L	1	25-Apr-14	2-Hexanone (methyl butyl ketone)	591-78-6	99	c	0.001919192	--	0	SW-3	Seep
5.0	µg/L	1	09-May-13	2-Methylnaphthalene	91-57-6	4.7	b	0.027659574	--	0	SW-2	Pool
5.0	µg/L	1	28-Apr-14	2-Methylnaphthalene	91-57-6	4.7	b	0.027659574	--	0	SW-2	Pool
5.0	µg/L	1	09-May-13	2-Methylnaphthalene	91-57-6	4.7	b	0.027659574	--	0	SW-1	Seep
5.0	µg/L	1	28-Apr-14	2-Methylnaphthalene	91-57-6	4.7	b	0.027659574	--	0	SW-1	Seep
5.0	µg/L	1	28-Apr-14	2-Methylnaphthalene	91-57-6	4.7	b	0.027659574	--	0	SW-3	Seep
10	µg/L	1	09-May-13	2-Methylphenol (Cresol, o-)	95-48-7	67	b	0.008955224	--	0	SW-2	Pool
10	µg/L	1	28-Apr-14	2-Methylphenol (Cresol, o-)	95-48-7	67	b	0.002985075	--	0	SW-2	Pool
10	µg/L	1	09-May-13	2-Methylphenol (Cresol, o-)	95-48-7	67	b	0.008955224	--	0	SW-1	Seep
10	µg/L	1	28-Apr-14	2-Methylphenol (Cresol, o-)	95-48-7	67	b	0.002985075	--	0	SW-1	Seep
10	µg/L	1	28-Apr-14	2-Methylphenol (Cresol, o-)	95-48-7	67	b	0.002985075	--	0	SW-3	Seep
5.0	µg/L	1	09-May-13	2-Nitrophenol	88-75-5	73	b	0.00260274	--	0	SW-2	Pool
5.0	µg/L	1	28-Apr-14	2-Nitrophenol	88-75-5	73	b	0.003835616	--	0	SW-2	Pool
5.0	µg/L	1	09-May-13	2-Nitrophenol	88-75-5	73	b	0.00260274	--	0	SW-1	Seep
5.0	µg/L	1	28-Apr-14	2-Nitrophenol	88-75-5	73	b	0.003835616	--	0	SW-1	Seep
5.0	µg/L	1	28-Apr-14	2-Nitrophenol	88-75-5	73	b	0.003835616	--	0	SW-3	Seep
1.0	µg/L	1	09-May-13	3,3'-Dichlorobenzidine	91-94-1	4.5	n	0.12	--	0	SW-2	Pool
1.0	µg/L	1	28-Apr-14	3,3'-Dichlorobenzidine	91-94-1	4.5	n	0.866666667	--	0	SW-2	Pool
1.0	µg/L	1	09-May-13	3,3'-Dichlorobenzidine	91-94-1	4.5	n	0.12	--	0	SW-1	Seep
1.0	µg/L	1	28-Apr-14	3,3'-Dichlorobenzidine	91-94-1	4.5	n	0.866666667	--	0	SW-1	Seep
1.0	µg/L	1	28-Apr-14	3,3'-Dichlorobenzidine	91-94-1	4.5	n	0.866666667	--	0	SW-3	Seep
5.0	µg/L	1	09-May-13	4-Bromophenyl Phenyl Ether	101-55-3	1.5	c	0.073333333	--	0	SW-2	Pool
5.0	µg/L	1	28-Apr-14	4-Bromophenyl Phenyl Ether	101-55-3	1.5	c	0.153333333	--	0	SW-2	Pool
5.0	µg/L	1	09-May-13	4-Bromophenyl Phenyl Ether	101-55-3	1.5	c	0.073333333	--	0	SW-1	Seep
5.0	µg/L	1	28-Apr-14	4-Bromophenyl Phenyl Ether	101-55-3	1.5	c	0.153333333	--	0	SW-1	Seep
5.0	µg/L	1	28-Apr-14	4-Bromophenyl Phenyl Ether	101-55-3	1.5	c	0.153333333	--	0	SW-3	Seep
10	µg/L	1	09-May-13	4-Chloroaniline	106-47-8	19	j	0.057894737	--	0	SW-2	Pool
10	µg/L	1	28-Apr-14	4-Chloroaniline	106-47-8	19	j	0.016842105	--	0	SW-2	Pool
10	µg/L	1	09-May-13	4-Chloroaniline	106-47-8	19	j	0.057894737	--	0	SW-1	Seep
10	µg/L	1	28-Apr-14	4-Chloroaniline	106-47-8	19	j	0.016842105	--	0	SW-1	Seep
10	µg/L	1	28-Apr-14	4-Chloroaniline	106-47-8	19	j	0.016842105	--	0	SW-3	Seep
50	µg/L	1	11-May-13	4-Methyl-2-pentanone (MIBK)	108-10-1	170	c	0.000564706	--	0	SW-2	Pool
50	µg/L	1	26-Apr-14	4-Methyl-2-pentanone (MIBK)	108-10-1	170	c	0.001176471	--	0	SW-2	Pool
50	µg/L	1	11-May-13	4-Methyl-2-pentanone (MIBK)	108-10-1	170	c	0.000564706	--	0	SW-1	Seep
50	µg/L	1	25-Apr-14	4-Methyl-2-pentanone (MIBK)	108-10-1	170	c	0.001176471	--	0	SW-3	Seep
10	µg/L	1	09-May-13	4-Methylphenol (Cresol, p-)	106-44-5	53	b	0.010377358	--	0	SW-2	Pool
10	µg/L	1	28-Apr-14	4-Methylphenol (Cresol, p-)	106-44-5	53	b	0.003773585	--	0	SW-2	Pool

Table A-8
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Vernal Pool and Seep Samples

Client Sample ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qualifier	RMDL
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	4-Methylphenol	--	U	U	0.55
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	4-Methylphenol	--	U	U, H	0.2
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	4-Methylphenol	--	U	U, H	0.2
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	1.6
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U, H	0.51
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	1.6
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U, H	0.51
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U, H	0.51
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Acenaphthene	--	U	U	0.11
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Acenaphthene	--	U	U, H	0.11
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Acenaphthene	--	U	U	0.11
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Acenaphthene	--	U	U, H	0.11
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Acenaphthene	--	U	U, H	0.11
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Acenaphthylene	--	U	U	0.12
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Acenaphthylene	--	U	U, H	0.12
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Acenaphthylene	--	U	U	0.12
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Acenaphthylene	--	U	U, H	0.12
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Acenaphthylene	--	U	U, H	0.12
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	Acetone	--	U	U	0.33
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Aluminum, dissolved	--	U	U	0.0039
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Anthracene	--	U	U	0.72
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Anthracene	--	U	U, H	0.72
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Anthracene	--	U	U	0.72
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Anthracene	--	U	U, H	0.72
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Anthracene	--	U	U, H	0.72
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Metals by ICP-MS	Arsenic	--	U	U	0.0029
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Arsenic, dissolved	--	U	U	0.0029
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Metals by ICP-MS	Arsenic	--	U	U	0.00058
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Metals by ICP-MS	Arsenic	--	U	U	0.0029
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Metals by ICP-MS	Arsenic	--	U	U	0.0029
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Arsenic, dissolved	--	U	U	0.0029
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Arsenic, dissolved	--	U	U	0.0029
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Benzo(a)anthracene	--	U	U	0.57
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Benzo(a)anthracene	--	U	U, H	0.57
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Benzo(a)anthracene	--	U	U	0.57
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Benzo(a)anthracene	--	U	U, H	0.57
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Benzo(a)anthracene	--	U	U, H	0.57
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Benzaldehyde	--	U	U	0.46
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Benzaldehyde	--	U	U, H	0.46
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Benzaldehyde	--	U	U	0.46
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Benzaldehyde	--	U	U, H	0.46
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Benzaldehyde	--	U	U, H	0.46
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	Benzene	--	U	U	0.18
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	Benzene	--	U	U	0.14

Table A-8
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Vernal Pool and Seep Samples

R limit	R units	Dilution Factor	Anal Date	Region 4 Chemical	CAS	Freshwater, Chronic, µg/L	Source	MDL/SL Ratio	Detected Result HQ	Detection Flag	Monitoring Point	Type
10	µg/L	1	09-May-13	4-Methylphenol (Cresol, p-)	106-44-5	53	b	0.010377358	--	0	SW-1	Seep
10	µg/L	1	28-Apr-14	4-Methylphenol (Cresol, p-)	106-44-5	53	b	0.003773585	--	0	SW-1	Seep
10	µg/L	1	28-Apr-14	4-Methylphenol (Cresol, p-)	106-44-5	53	b	0.003773585	--	0	SW-3	Seep
25	µg/L	1	09-May-13	4-Nitrophenol	100-02-7	58	b	0.027586207	--	0	SW-2	Pool
25	µg/L	1	28-Apr-14	4-Nitrophenol	100-02-7	58	b	0.008793103	--	0	SW-2	Pool
25	µg/L	1	09-May-13	4-Nitrophenol	100-02-7	58	b	0.027586207	--	0	SW-1	Seep
25	µg/L	1	28-Apr-14	4-Nitrophenol	100-02-7	58	b	0.008793103	--	0	SW-1	Seep
25	µg/L	1	28-Apr-14	4-Nitrophenol	100-02-7	58	b	0.008793103	--	0	SW-3	Seep
5.0	µg/L	1	09-May-13	Acenaphthene	83-32-9	15	b	0.007333333	--	0	SW-2	Pool
5.0	µg/L	1	28-Apr-14	Acenaphthene	83-32-9	15	b	0.007333333	--	0	SW-2	Pool
5.0	µg/L	1	09-May-13	Acenaphthene	83-32-9	15	b	0.007333333	--	0	SW-1	Seep
5.0	µg/L	1	28-Apr-14	Acenaphthene	83-32-9	15	b	0.007333333	--	0	SW-1	Seep
5.0	µg/L	1	28-Apr-14	Acenaphthene	83-32-9	15	b	0.007333333	--	0	SW-3	Seep
5.0	µg/L	1	09-May-13	Acenaphthylene	208-96-8	13	b	0.009230769	--	0	SW-2	Pool
5.0	µg/L	1	28-Apr-14	Acenaphthylene	208-96-8	13	b	0.009230769	--	0	SW-2	Pool
5.0	µg/L	1	09-May-13	Acenaphthylene	208-96-8	13	b	0.009230769	--	0	SW-1	Seep
5.0	µg/L	1	28-Apr-14	Acenaphthylene	208-96-8	13	b	0.009230769	--	0	SW-1	Seep
5.0	µg/L	1	28-Apr-14	Acenaphthylene	208-96-8	13	b	0.009230769	--	0	SW-3	Seep
50	µg/L	1	11-May-13	Acetone	67-64-1	1,700	b	0.000194118	--	0	SW-1	Seep
0.25	mg/L	5	30-Apr-14	Aluminum (pH 6.5 -9.0)	7429-90-5	87	a	0.044827586	--	0	SW-2	Pool
5.0	µg/L	1	09-May-13	Anthracene	120-12-7	0.02	b	36	--	0	SW-2	Pool
5.0	µg/L	1	28-Apr-14	Anthracene	120-12-7	0.02	b	36	--	0	SW-2	Pool
5.0	µg/L	1	09-May-13	Anthracene	120-12-7	0.02	b	36	--	0	SW-1	Seep
5.0	µg/L	1	28-Apr-14	Anthracene	120-12-7	0.02	b	36	--	0	SW-1	Seep
5.0	µg/L	1	28-Apr-14	Anthracene	120-12-7	0.02	b	36	--	0	SW-3	Seep
0.025	mg/L	5	30-Apr-14	Arsenic III (unfiltered)	22541-54-4	148	b	0.019594595	--	0	SW-2	Pool
0.025	mg/L	5	30-Apr-14	Arsenic III (unfiltered)	22541-54-4	148	b	0.019594595	--	0	SW-2	Pool
0.0050	mg/L	1	09-May-13	Arsenic III (unfiltered)	22541-54-4	148	b	0.003918919	--	0	SW-1	Seep
0.025	mg/L	5	30-Apr-14	Arsenic III (unfiltered)	22541-54-4	148	b	0.019594595	--	0	SW-1	Seep
0.025	mg/L	5	30-Apr-14	Arsenic III (unfiltered)	22541-54-4	148	b	0.019594595	--	0	SW-3	Seep
0.025	mg/L	5	29-Apr-14	Arsenic III (unfiltered)	22541-54-4	148	b	0.019594595	--	0	SW-1	Seep
0.025	mg/L	5	30-Apr-14	Arsenic III (unfiltered)	22541-54-4	148	b	0.019594595	--	0	SW-3	Seep
1.0	µg/L	1	09-May-13	Benz(a)anthracene	56-55-3	4.7	b	0.121276596	--	0	SW-2	Pool
1.0	µg/L	1	28-Apr-14	Benz(a)anthracene	56-55-3	4.7	b	0.121276596	--	0	SW-2	Pool
1.0	µg/L	1	09-May-13	Benz(a)anthracene	56-55-3	4.7	b	0.121276596	--	0	SW-1	Seep
1.0	µg/L	1	28-Apr-14	Benz(a)anthracene	56-55-3	4.7	b	0.121276596	--	0	SW-1	Seep
1.0	µg/L	1	28-Apr-14	Benz(a)anthracene	56-55-3	4.7	b	0.121276596	--	0	SW-3	Seep
10	µg/L	1	09-May-13	Benzaldehyde	100-52-7	57	j	0.008070175	--	0	SW-2	Pool
10	µg/L	1	28-Apr-14	Benzaldehyde	100-52-7	57	j	0.008070175	--	0	SW-2	Pool
10	µg/L	1	09-May-13	Benzaldehyde	100-52-7	57	j	0.008070175	--	0	SW-1	Seep
10	µg/L	1	28-Apr-14	Benzaldehyde	100-52-7	57	j	0.008070175	--	0	SW-1	Seep
10	µg/L	1	28-Apr-14	Benzaldehyde	100-52-7	57	j	0.008070175	--	0	SW-3	Seep
1.0	µg/L	1	11-May-13	Benzene	71-43-2	160	b	0.001125	--	0	SW-2	Pool
1.0	µg/L	1	26-Apr-14	Benzene	71-43-2	160	b	0.000875	--	0	SW-2	Pool

Table A-8
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Vernal Pool and Seep Samples

Client Sample ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qualifier	RMDL
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	Benzene	--	U	U	0.18
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	Benzene	--	U	U	0.14
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	Benzene	--	U	U	0.14
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Benzo(a)pyrene	--	U	U	0.1
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Benzo(a)pyrene	--	U	U, H	0.1
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Benzo(a)pyrene	--	U	U	0.1
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Benzo(a)pyrene	--	U	U, H	0.1
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Benzo(a)pyrene	--	U	U, H	0.1
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	--	U	U	0.74
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	--	U	U, H	0.74
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	--	U	U	0.74
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	--	U	U, H	0.74
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	--	U	U, H	0.74
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	--	U	U	0.7
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	--	U	U, H	0.7
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	--	U	U	0.7
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	--	U	U, H	0.7
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	--	U	U, H	0.7
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	--	U	U	0.17
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	--	U	U, H	0.17
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	--	U	U	0.17
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	--	U	U, H	0.17
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	--	U	U, H	0.17
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Metals by ICP-MS	Beryllium	--	U	U	0.000082
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Metals by ICP-MS	Beryllium	--	U	U	0.00041
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Beryllium, dissolved	--	U	U	0.00041
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Metals by ICP-MS	Beryllium	--	U	U	0.000082
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Metals by ICP-MS	Beryllium	--	U	U	0.00041
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Metals by ICP-MS	Beryllium	--	U	U	0.00041
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Beryllium, dissolved	--	U	U	0.00041
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Beryllium, dissolved	--	U	U	0.00041
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	--	U	U	0.12
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	--	U	U, H	0.15
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	--	U	U	0.12
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	--	U	U, H	0.15
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	--	U	U, H	0.15
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	Bromoform	--	U	U	0.15
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	Bromoform	--	U	U	0.18
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	Bromoform	--	U	U	0.15
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	Bromoform	--	U	U	0.18
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	Bromoform	--	U	U	0.18
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	Bromomethane	--	U	U	0.21
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	Bromomethane	--	U	U	0.38
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	Bromomethane	--	U	U	0.21

Table A-8
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Vernal Pool and Seep Samples

R limit	R units	Dilution Factor	Anal Date	Region 4 Chemical	CAS	Freshwater, Chronic, µg/L	Source	MDL/SL Ratio	Detected Result HQ	Detection Flag	Monitoring Point	Type
1.0	µg/L	1	11-May-13	Benzene	71-43-2	160	b	0.001125	--	0	SW-1	Seep
1.0	µg/L	1	25-Apr-14	Benzene	71-43-2	160	b	0.000875	--	0	SW-1	Seep
1.0	µg/L	1	25-Apr-14	Benzene	71-43-2	160	b	0.000875	--	0	SW-3	Seep
1.0	µg/L	1	09-May-13	Benzo(a)pyrene	50-32-8	0.060	b	1.666666667	--	0	SW-2	Pool
1.0	µg/L	1	28-Apr-14	Benzo(a)pyrene	50-32-8	0.060	b	1.666666667	--	0	SW-2	Pool
1.0	µg/L	1	09-May-13	Benzo(a)pyrene	50-32-8	0.060	b	1.666666667	--	0	SW-1	Seep
1.0	µg/L	1	28-Apr-14	Benzo(a)pyrene	50-32-8	0.060	b	1.666666667	--	0	SW-1	Seep
1.0	µg/L	1	28-Apr-14	Benzo(a)pyrene	50-32-8	0.060	b	1.666666667	--	0	SW-3	Seep
1.0	µg/L	1	09-May-13	Benzo(b)fluoranthene	205-99-2	2.6	b	0.284615385	--	0	SW-2	Pool
1.0	µg/L	1	28-Apr-14	Benzo(b)fluoranthene	205-99-2	2.6	b	0.284615385	--	0	SW-2	Pool
1.0	µg/L	1	09-May-13	Benzo(b)fluoranthene	205-99-2	2.6	b	0.284615385	--	0	SW-1	Seep
1.0	µg/L	1	28-Apr-14	Benzo(b)fluoranthene	205-99-2	2.6	b	0.284615385	--	0	SW-1	Seep
1.0	µg/L	1	28-Apr-14	Benzo(b)fluoranthene	205-99-2	2.6	b	0.284615385	--	0	SW-3	Seep
1.0	µg/L	1	09-May-13	Benzo(g,h,i)perylene	191-24-2	0.44	q, j	1.590909091	--	0	SW-2	Pool
1.0	µg/L	1	28-Apr-14	Benzo(g,h,i)perylene	191-24-2	0.44	q, j	1.590909091	--	0	SW-2	Pool
1.0	µg/L	1	09-May-13	Benzo(g,h,i)perylene	191-24-2	0.44	q, j	1.590909091	--	0	SW-1	Seep
1.0	µg/L	1	28-Apr-14	Benzo(g,h,i)perylene	191-24-2	0.44	q, j	1.590909091	--	0	SW-1	Seep
1.0	µg/L	1	28-Apr-14	Benzo(g,h,i)perylene	191-24-2	0.44	q, j	1.590909091	--	0	SW-3	Seep
1.0	µg/L	1	09-May-13	Benzo(k)fluoranthene	207-08-9	0.64	q, i	0.265625	--	0	SW-2	Pool
1.0	µg/L	1	28-Apr-14	Benzo(k)fluoranthene	207-08-9	0.64	q, i	0.265625	--	0	SW-2	Pool
1.0	µg/L	1	09-May-13	Benzo(k)fluoranthene	207-08-9	0.64	q, i	0.265625	--	0	SW-1	Seep
1.0	µg/L	1	28-Apr-14	Benzo(k)fluoranthene	207-08-9	0.64	q, i	0.265625	--	0	SW-1	Seep
1.0	µg/L	1	28-Apr-14	Benzo(k)fluoranthene	207-08-9	0.64	q, i	0.265625	--	0	SW-3	Seep
0.0010	mg/L	1	09-May-13	Beryllium	7440-41-7	102	b	0.000805295	--	0	SW-2	Pool
0.0050	mg/L	5	30-Apr-14	Beryllium	7440-41-7	102	b	0.004026473	--	0	SW-2	Pool
0.0050	mg/L	5	30-Apr-14	Beryllium	7440-41-7	102	b	0.004026473	--	0	SW-2	Pool
0.0010	mg/L	1	09-May-13	Beryllium	7440-41-7	102	b	0.000805295	--	0	SW-1	Seep
0.0050	mg/L	5	30-Apr-14	Beryllium	7440-41-7	102	b	0.004026473	--	0	SW-1	Seep
0.0050	mg/L	5	30-Apr-14	Beryllium	7440-41-7	102	b	0.004026473	--	0	SW-3	Seep
0.0050	mg/L	5	29-Apr-14	Beryllium	7440-41-7	102	b	0.004026473	--	0	SW-1	Seep
0.0050	mg/L	5	30-Apr-14	Beryllium	7440-41-7	102	b	0.004026473	--	0	SW-3	Seep
5.0	µg/L	1	09-May-13	bis(2-Ethylhexyl) Phthalate	117-81-7	3	c	0.04	--	0	SW-2	Pool
5.0	µg/L	1	28-Apr-14	bis(2-Ethylhexyl) Phthalate	117-81-7	3	c	0.05	--	0	SW-2	Pool
5.0	µg/L	1	09-May-13	bis(2-Ethylhexyl) Phthalate	117-81-7	3	c	0.04	--	0	SW-1	Seep
5.0	µg/L	1	28-Apr-14	bis(2-Ethylhexyl) Phthalate	117-81-7	3	c	0.05	--	0	SW-1	Seep
5.0	µg/L	1	28-Apr-14	bis(2-Ethylhexyl) Phthalate	117-81-7	3	c	0.05	--	0	SW-3	Seep
1.0	µg/L	1	11-May-13	Bromoform (tribromomethane)	75-25-2	230	b	0.000652174	--	0	SW-2	Pool
1.0	µg/L	1	26-Apr-14	Bromoform (tribromomethane)	75-25-2	230	b	0.000782609	--	0	SW-2	Pool
1.0	µg/L	1	11-May-13	Bromoform (tribromomethane)	75-25-2	230	b	0.000652174	--	0	SW-1	Seep
1.0	µg/L	1	25-Apr-14	Bromoform (tribromomethane)	75-25-2	230	b	0.000782609	--	0	SW-1	Seep
1.0	µg/L	1	25-Apr-14	Bromoform (tribromomethane)	75-25-2	230	b	0.000782609	--	0	SW-3	Seep
5.0	µg/L	1	11-May-13	Bromomethane (methyl bromide)	74-83-9	16	b	0.013125	--	0	SW-2	Pool
5.0	µg/L	1	26-Apr-14	Bromomethane (methyl bromide)	74-83-9	16	b	0.02375	--	0	SW-2	Pool
5.0	µg/L	1	11-May-13	Bromomethane (methyl bromide)	74-83-9	16	b	0.013125	--	0	SW-1	Seep

Table A-8
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Vernal Pool and Seep Samples

Client Sample ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qualifier	RMDL
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	Bromomethane	--	U	U	0.38
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	Bromomethane	--	U	U	0.38
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	--	U	U	0.11
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	--	U	U, H	0.1
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	--	U	U	0.11
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	--	U	U, H	0.1
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	--	U	U, H	0.1
W-R2330012-071816-SW-02	1607976-01	18-Jul-16	Water	Metals by ICP-MS (dissolved)	Cadmium, dissolved	--	U	U	0.00005
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Cadmium, dissolved	--	U	U	0.00022
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	Carbon disulfide	--	U	U	0.17
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	Carbon disulfide	--	U	U	0.26
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	Carbon disulfide	--	U	U	0.17
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	Carbon disulfide	--	U	U	0.26
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	Carbon disulfide	--	U	U	0.26
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	Chlorobenzene	--	U	U	0.13
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	Chlorobenzene	--	U	U	0.12
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	Chlorobenzene	--	U	U	0.13
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	Chlorobenzene	--	U	U	0.12
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	Chlorobenzene	--	U	U	0.12
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	Vinyl chloride	--	U	U	0.17
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	Vinyl chloride	--	U	U	0.15
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	Vinyl chloride	--	U	U	0.17
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	Vinyl chloride	--	U	U	0.15
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	Vinyl chloride	--	U	U	0.15
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Chromium, dissolved	--	U	U	0.0014
W-R2330012-071816-SW-02	1607976-01	18-Jul-16	Water	Metals by ICP-MS (dissolved)	Chromium, dissolved	--	U	U	0.00065
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Chromium, dissolved	--	U	U	0.0014
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Chrysene	--	U	U	0.71
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Chrysene	--	U	U, H	0.71
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Chrysene	--	U	U	0.71
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Chrysene	--	U	U, H	0.71
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Chrysene	--	U	U, H	0.71
W-R2330012-071816-SW-02	1607976-01	18-Jul-16	Water	Metals by ICP-MS (dissolved)	Copper, dissolved	--	U	U	0.00028
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Cyanide, Amenable	Cyanide, Amenable	--	U	U	0.001
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Cyanide, Amenable	Cyanide, Amenable	--	U	U	0.001
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Cyanide, Amenable	Cyanide, Amenable	--	U	U	0.001
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Cyanide, Amenable	Cyanide, Amenable	--	U	U	0.001
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	Cyclohexane	--	U	U	0.22
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	Cyclohexane	--	U	U	0.2
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	Cyclohexane	--	U	U	0.22
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	Cyclohexane	--	U	U	0.2
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	Cyclohexane	--	U	U	0.2
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	--	U	U	0.67
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	--	U	U, H	0.67

Table A-8
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Vernal Pool and Seep Samples

R limit	R units	Dilution Factor	Anal Date	Region 4 Chemical	CAS	Freshwater, Chronic, µg/L	Source	MDL/SL Ratio	Detected Result HQ	Detection Flag	Monitoring Point	Type
5.0	µg/L	1	25-Apr-14	Bromomethane (methyl bromide)	74-83-9	16	b	0.02375	--	0	SW-1	Seep
5.0	µg/L	1	25-Apr-14	Bromomethane (methyl bromide)	74-83-9	16	b	0.02375	--	0	SW-3	Seep
5.0	µg/L	1	09-May-13	Butylbenzyl Phthalate	85-68-7	23	b	0.004782609	--	0	SW-2	Pool
5.0	µg/L	1	28-Apr-14	Butylbenzyl Phthalate	85-68-7	23	b	0.004347826	--	0	SW-2	Pool
5.0	µg/L	1	09-May-13	Butylbenzyl Phthalate	85-68-7	23	b	0.004782609	--	0	SW-1	Seep
5.0	µg/L	1	28-Apr-14	Butylbenzyl Phthalate	85-68-7	23	b	0.004347826	--	0	SW-1	Seep
5.0	µg/L	1	28-Apr-14	Butylbenzyl Phthalate	85-68-7	23	b	0.004347826	--	0	SW-3	Seep
0.001	mg/L	1	7/21/2016 14:42	Cadmium (dissolved)	7740-43-9	0.64	a	0.077733691	--	0	SW-2	Pool
0.0050	mg/L	5	30-Apr-14	Cadmium (dissolved)	7740-43-9	0.64	a	0.342028242	--	0	SW-3	Seep
5.0	µg/L	1	11-May-13	Carbon disulfide	75-15-0	15	b	0.011333333	--	0	SW-2	Pool
5.0	µg/L	1	26-Apr-14	Carbon disulfide	75-15-0	15	b	0.017333333	--	0	SW-2	Pool
5.0	µg/L	1	11-May-13	Carbon disulfide	75-15-0	15	b	0.011333333	--	0	SW-1	Seep
5.0	µg/L	1	25-Apr-14	Carbon disulfide	75-15-0	15	b	0.017333333	--	0	SW-1	Seep
5.0	µg/L	1	25-Apr-14	Carbon disulfide	75-15-0	15	b	0.017333333	--	0	SW-3	Seep
1.0	µg/L	1	11-May-13	Chlorobenzene	108-90-7	25	b	0.0052	--	0	SW-2	Pool
1.0	µg/L	1	26-Apr-14	Chlorobenzene	108-90-7	25	b	0.0048	--	0	SW-2	Pool
1.0	µg/L	1	11-May-13	Chlorobenzene	108-90-7	25	b	0.0052	--	0	SW-1	Seep
1.0	µg/L	1	25-Apr-14	Chlorobenzene	108-90-7	25	b	0.0048	--	0	SW-1	Seep
1.0	µg/L	1	25-Apr-14	Chlorobenzene	108-90-7	25	b	0.0048	--	0	SW-3	Seep
1.0	µg/L	1	11-May-13	Chloroethene (Vill chloride)	75-01-4	930	b	0.000182796	--	0	SW-2	Pool
1.0	µg/L	1	26-Apr-14	Chloroethene (Vill chloride)	75-01-4	930	b	0.00016129	--	0	SW-2	Pool
1.0	µg/L	1	11-May-13	Chloroethene (Vill chloride)	75-01-4	930	b	0.000182796	--	0	SW-1	Seep
1.0	µg/L	1	25-Apr-14	Chloroethene (Vill chloride)	75-01-4	930	b	0.00016129	--	0	SW-1	Seep
1.0	µg/L	1	25-Apr-14	Chloroethene (Vill chloride)	75-01-4	930	b	0.00016129	--	0	SW-3	Seep
0.050	mg/L	5	30-Apr-14	Chromium III (dissolved)	16065-83-1	231	a	0.006069286	--	0	SW-2	Pool
0.01	mg/L	1	7/21/2016 14:42	Chromium III (dissolved)	16065-83-1	231	a	0.002817883	--	0	SW-2	Pool
0.050	mg/L	5	30-Apr-14	Chromium III (dissolved)	16065-83-1	231	a	0.006069286	--	0	SW-3	Seep
1.0	µg/L	1	09-May-13	Chrysene	218-01-9	4.7	b	0.15106383	--	0	SW-2	Pool
1.0	µg/L	1	28-Apr-14	Chrysene	218-01-9	4.7	b	0.15106383	--	0	SW-2	Pool
1.0	µg/L	1	09-May-13	Chrysene	218-01-9	4.7	b	0.15106383	--	0	SW-1	Seep
1.0	µg/L	1	28-Apr-14	Chrysene	218-01-9	4.7	b	0.15106383	--	0	SW-1	Seep
1.0	µg/L	1	28-Apr-14	Chrysene	218-01-9	4.7	b	0.15106383	--	0	SW-3	Seep
0.004	mg/L	1	7/21/2016 14:42	Copper (dissolved)	7740-50-8	29.3	a	0.009563035	--	0	SW-2	Pool
0.0050	mg/L	1	13-May-13	Cyanide (free)	57-12-5	5.2	a	0.192307692	--	0	SW-2	Pool
0.0050	mg/L	1	30-Apr-14	Cyanide (free)	57-12-5	5.2	a	0.192307692	--	0	SW-2	Pool
0.0050	mg/L	1	13-May-13	Cyanide (free)	57-12-5	5.2	a	0.192307692	--	0	SW-1	Seep
0.0050	mg/L	1	30-Apr-14	Cyanide (free)	57-12-5	5.2	a	0.192307692	--	0	SW-3	Seep
1.0	µg/L	1	11-May-13	Cyclohexane	110-82-7	230	e	0.000956522	--	0	SW-2	Pool
1.0	µg/L	1	26-Apr-14	Cyclohexane	110-82-7	230	e	0.000869565	--	0	SW-2	Pool
1.0	µg/L	1	11-May-13	Cyclohexane	110-82-7	230	e	0.000956522	--	0	SW-1	Seep
1.0	µg/L	1	25-Apr-14	Cyclohexane	110-82-7	230	e	0.000869565	--	0	SW-1	Seep
1.0	µg/L	1	25-Apr-14	Cyclohexane	110-82-7	230	e	0.000869565	--	0	SW-3	Seep
2.0	µg/L	1	09-May-13	Dibenz(a,h)anthracene	53-70-3	0.28	q, j	2.392857143	--	0	SW-2	Pool
2.0	µg/L	1	28-Apr-14	Dibenz(a,h)anthracene	53-70-3	0.28	q, j	2.392857143	--	0	SW-2	Pool

Table A-8
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Vernal Pool and Seep Samples

Client Sample ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qualifier	RMDL
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	--	U	U	0.67
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	--	U	U, H	0.67
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	--	U	U, H	0.67
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Dibenzofuran	--	U	U	0.11
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Dibenzofuran	--	U	U, H	0.28
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Dibenzofuran	--	U	U	0.11
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Dibenzofuran	--	U	U, H	0.28
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Dibenzofuran	--	U	U, H	0.28
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	Dibromochloromethane	--	U	U	0.13
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	Dibromochloromethane	--	U	U	0.12
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	Dibromochloromethane	--	U	U	0.13
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	Dibromochloromethane	--	U	U	0.12
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	Dibromochloromethane	--	U	U	0.12
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	Bromodichloromethane	--	U	U	0.12
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	Bromodichloromethane	--	U	U	0.22
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	Bromodichloromethane	--	U	U	0.12
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	Bromodichloromethane	--	U	U	0.22
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	Bromodichloromethane	--	U	U	0.22
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	Methylene chloride	--	U	U	0.19
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	Methylene chloride	--	U	U	0.75
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	Methylene chloride	--	U	U	0.19
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	Methylene chloride	--	U	U	0.75
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	Methylene chloride	--	U	U	0.75
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	0.69
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U, H	0.24
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	0.69
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U, H	0.24
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U, H	0.24
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	0.14
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U, H	0.27
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	0.14
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U, H	0.27
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U, H	0.27
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U, H	0.14
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U	0.71
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U, H	0.14
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U, H	0.14
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	Ethylbenzene	--	U	U	0.13
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	Ethylbenzene	--	U	U	0.12
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	Ethylbenzene	--	U	U	0.13
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	Ethylbenzene	--	U	U	0.12
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	Ethylbenzene	--	U	U	0.12
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Fluoranthene	--	U	U	0.77
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Fluoranthene	--	U	U	0.77

Table A-8
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Vernal Pool and Seep Samples

R limit	R units	Dilution Factor	Anal Date	Region 4 Chemical	CAS	Freshwater, Chronic, µg/L	Source	MDL/SL Ratio	Detected Result HQ	Detection Flag	Monitoring Point	Type
2.0	µg/L	1	09-May-13	Dibenz(a,h)anthracene	53-70-3	0.28	q, j	2.392857143	--	0	SW-1	Seep
2.0	µg/L	1	28-Apr-14	Dibenz(a,h)anthracene	53-70-3	0.28	q, j	2.392857143	--	0	SW-1	Seep
2.0	µg/L	1	28-Apr-14	Dibenz(a,h)anthracene	53-70-3	0.28	q, j	2.392857143	--	0	SW-3	Seep
4.0	µg/L	1	09-May-13	Dibenzofuran	132-64-9	4	b	0.0275	--	0	SW-2	Pool
4.0	µg/L	1	28-Apr-14	Dibenzofuran	132-64-9	4	b	0.07	--	0	SW-2	Pool
4.0	µg/L	1	09-May-13	Dibenzofuran	132-64-9	4	b	0.0275	--	0	SW-1	Seep
4.0	µg/L	1	28-Apr-14	Dibenzofuran	132-64-9	4	b	0.07	--	0	SW-1	Seep
4.0	µg/L	1	28-Apr-14	Dibenzofuran	132-64-9	4	b	0.07	--	0	SW-3	Seep
5.0	µg/L	1	11-May-13	Dibromochloromethane	124-48-1	320	b	0.00040625	--	0	SW-2	Pool
5.0	µg/L	1	26-Apr-14	Dibromochloromethane	124-48-1	320	b	0.000375	--	0	SW-2	Pool
5.0	µg/L	1	11-May-13	Dibromochloromethane	124-48-1	320	b	0.00040625	--	0	SW-1	Seep
5.0	µg/L	1	25-Apr-14	Dibromochloromethane	124-48-1	320	b	0.000375	--	0	SW-1	Seep
5.0	µg/L	1	25-Apr-14	Dibromochloromethane	124-48-1	320	b	0.000375	--	0	SW-3	Seep
1.0	µg/L	1	11-May-13	Dichlorobromomethane	75-27-4	340	b	0.000352941	--	0	SW-2	Pool
1.0	µg/L	1	26-Apr-14	Dichlorobromomethane	75-27-4	340	b	0.000647059	--	0	SW-2	Pool
1.0	µg/L	1	11-May-13	Dichlorobromomethane	75-27-4	340	b	0.000352941	--	0	SW-1	Seep
1.0	µg/L	1	25-Apr-14	Dichlorobromomethane	75-27-4	340	b	0.000647059	--	0	SW-1	Seep
1.0	µg/L	1	25-Apr-14	Dichlorobromomethane	75-27-4	340	b	0.000647059	--	0	SW-3	Seep
5.0	µg/L	1	11-May-13	Dichloromethane (Methylene chloride)	75-09-2	1,500	b	0.000126667	--	0	SW-2	Pool
5.0	µg/L	1	26-Apr-14	Dichloromethane (Methylene chloride)	75-09-2	1,500	b	0.0005	--	0	SW-2	Pool
5.0	µg/L	1	11-May-13	Dichloromethane (Methylene chloride)	75-09-2	1,500	b	0.000126667	--	0	SW-1	Seep
5.0	µg/L	1	25-Apr-14	Dichloromethane (Methylene chloride)	75-09-2	1,500	b	0.0005	--	0	SW-1	Seep
5.0	µg/L	1	25-Apr-14	Dichloromethane (Methylene chloride)	75-09-2	1,500	b	0.0005	--	0	SW-3	Seep
5.0	µg/L	1	09-May-13	Diethyl Phthalate	84-66-2	220	b	0.003136364	--	0	SW-2	Pool
5.0	µg/L	1	28-Apr-14	Diethyl Phthalate	84-66-2	220	b	0.001090909	--	0	SW-2	Pool
5.0	µg/L	1	09-May-13	Diethyl Phthalate	84-66-2	220	b	0.003136364	--	0	SW-1	Seep
5.0	µg/L	1	28-Apr-14	Diethyl Phthalate	84-66-2	220	b	0.001090909	--	0	SW-1	Seep
5.0	µg/L	1	28-Apr-14	Diethyl Phthalate	84-66-2	220	b	0.001090909	--	0	SW-3	Seep
5.0	µg/L	1	09-May-13	Dimethyl Phthalate	131-11-3	1,100	b	0.000127273	--	0	SW-2	Pool
5.0	µg/L	1	28-Apr-14	Dimethyl Phthalate	131-11-3	1,100	b	0.000245455	--	0	SW-2	Pool
5.0	µg/L	1	09-May-13	Dimethyl Phthalate	131-11-3	1,100	b	0.000127273	--	0	SW-1	Seep
5.0	µg/L	1	28-Apr-14	Dimethyl Phthalate	131-11-3	1,100	b	0.000245455	--	0	SW-1	Seep
5.0	µg/L	1	28-Apr-14	Dimethyl Phthalate	131-11-3	1,100	b	0.000245455	--	0	SW-3	Seep
5.0	µg/L	1	28-Apr-14	Di-n-Butyl Phthalate	84-74-2	19	b	0.007368421	--	0	SW-2	Pool
5.0	µg/L	1	09-May-13	Di-n-Butyl Phthalate	84-74-2	19	b	0.037368421	--	0	SW-1	Seep
5.0	µg/L	1	28-Apr-14	Di-n-Butyl Phthalate	84-74-2	19	b	0.007368421	--	0	SW-1	Seep
5.0	µg/L	1	28-Apr-14	Di-n-Butyl Phthalate	84-74-2	19	b	0.007368421	--	0	SW-3	Seep
1.0	µg/L	1	11-May-13	Ethylbenzene	100-41-4	61	b	0.002131148	--	0	SW-2	Pool
1.0	µg/L	1	26-Apr-14	Ethylbenzene	100-41-4	61	b	0.001967213	--	0	SW-2	Pool
1.0	µg/L	1	11-May-13	Ethylbenzene	100-41-4	61	b	0.002131148	--	0	SW-1	Seep
1.0	µg/L	1	25-Apr-14	Ethylbenzene	100-41-4	61	b	0.001967213	--	0	SW-1	Seep
1.0	µg/L	1	25-Apr-14	Ethylbenzene	100-41-4	61	b	0.001967213	--	0	SW-3	Seep
1.0	µg/L	1	09-May-13	Fluoranthene	206-44-0	0.8	b	0.9625	--	0	SW-2	Pool
1.0	µg/L	1	09-May-13	Fluoranthene	206-44-0	0.8	b	0.9625	--	0	SW-1	Seep

Table A-8
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Vernal Pool and Seep Samples

Client Sample ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qualifier	RMDL
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Fluorene	--	U	U	0.1
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Fluorene	--	U	U, H	0.1
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Fluorene	--	U	U	0.1
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Fluorene	--	U	U, H	0.1
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Fluorene	--	U	U, H	0.1
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	0.1
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U, H	0.22
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	0.1
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U, H	0.22
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U, H	0.22
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	0.12
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U, H	0.24
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	0.12
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U, H	0.24
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U, H	0.24
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	0.18
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U, H	0.18
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	0.18
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U, H	0.18
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U, H	0.18
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	0.13
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U, H	0.47
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	0.13
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U, H	0.47
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U, H	0.47
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	--	U	U	0.69
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	--	U	U, H	0.69
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	--	U	U	0.69
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	--	U	U, H	0.69
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	--	U	U, H	0.69
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Iron, dissolved	--	U	U	0.027
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Isophorone	--	U	U	0.12
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Isophorone	--	U	U, H	0.3
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Isophorone	--	U	U	0.12
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Isophorone	--	U	U, H	0.3
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Isophorone	--	U	U, H	0.3
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	Isopropylbenzene	--	U	U	0.14
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	Isopropylbenzene	--	U	U	0.11
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	Isopropylbenzene	--	U	U	0.14
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	Isopropylbenzene	--	U	U	0.11
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	Isopropylbenzene	--	U	U	0.11
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Mercury by CVAA (dissolved)	Mercury, dissolved	--	U	U	0.0001
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Mercury by CVAA (dissolved)	Mercury, dissolved	--	U	U	0.0001
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Mercury by CVAA (dissolved)	Mercury, dissolved	--	U	U	0.0001

Table A-8
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Vernal Pool and Seep Samples

R limit	R units	Dilution Factor	Anal Date	Region 4 Chemical	CAS	Freshwater, Chronic, µg/L	Source	MDL/SL Ratio	Detected Result HQ	Detection Flag	Monitoring Point	Type
5.0	µg/L	1	09-May-13	Fluorene	86-73-7	19	b	0.005263158	--	0	SW-2	Pool
5.0	µg/L	1	28-Apr-14	Fluorene	86-73-7	19	b	0.005263158	--	0	SW-2	Pool
5.0	µg/L	1	09-May-13	Fluorene	86-73-7	19	b	0.005263158	--	0	SW-1	Seep
5.0	µg/L	1	28-Apr-14	Fluorene	86-73-7	19	b	0.005263158	--	0	SW-1	Seep
5.0	µg/L	1	28-Apr-14	Fluorene	86-73-7	19	b	0.005263158	--	0	SW-3	Seep
0.50	µg/L	1	09-May-13	Hexachlorobenzene (wildlife based)	118-74-1	0.0003	n	333.3333333	--	0	SW-2	Pool
0.50	µg/L	1	28-Apr-14	Hexachlorobenzene (wildlife based)	118-74-1	0.0003	n	733.3333333	--	0	SW-2	Pool
0.50	µg/L	1	09-May-13	Hexachlorobenzene (wildlife based)	118-74-1	0.0003	n	333.3333333	--	0	SW-1	Seep
0.50	µg/L	1	28-Apr-14	Hexachlorobenzene (wildlife based)	118-74-1	0.0003	n	733.3333333	--	0	SW-1	Seep
0.50	µg/L	1	28-Apr-14	Hexachlorobenzene (wildlife based)	118-74-1	0.0003	n	733.3333333	--	0	SW-3	Seep
0.50	µg/L	1	09-May-13	Hexachlorobutadiene (Aquatic Life)	87-68-3	1	b	0.12	--	0	SW-2	Pool
0.50	µg/L	1	28-Apr-14	Hexachlorobutadiene (Aquatic Life)	87-68-3	1	b	0.24	--	0	SW-2	Pool
0.50	µg/L	1	09-May-13	Hexachlorobutadiene (Aquatic Life)	87-68-3	1	b	0.12	--	0	SW-1	Seep
0.50	µg/L	1	28-Apr-14	Hexachlorobutadiene (Aquatic Life)	87-68-3	1	b	0.24	--	0	SW-1	Seep
0.50	µg/L	1	28-Apr-14	Hexachlorobutadiene (Aquatic Life)	87-68-3	1	b	0.24	--	0	SW-3	Seep
5.0	µg/L	1	09-May-13	Hexachlorocyclopentadiene	77-47-4	0.45	b	0.4	--	0	SW-2	Pool
5.0	µg/L	1	28-Apr-14	Hexachlorocyclopentadiene	77-47-4	0.45	b	0.4	--	0	SW-2	Pool
5.0	µg/L	1	09-May-13	Hexachlorocyclopentadiene	77-47-4	0.45	b	0.4	--	0	SW-1	Seep
5.0	µg/L	1	28-Apr-14	Hexachlorocyclopentadiene	77-47-4	0.45	b	0.4	--	0	SW-1	Seep
5.0	µg/L	1	28-Apr-14	Hexachlorocyclopentadiene	77-47-4	0.45	b	0.4	--	0	SW-3	Seep
5.0	µg/L	1	09-May-13	Hexachloroethane	67-72-1	12	c	0.010833333	--	0	SW-2	Pool
5.0	µg/L	1	28-Apr-14	Hexachloroethane	67-72-1	12	c	0.039166667	--	0	SW-2	Pool
5.0	µg/L	1	09-May-13	Hexachloroethane	67-72-1	12	c	0.010833333	--	0	SW-1	Seep
5.0	µg/L	1	28-Apr-14	Hexachloroethane	67-72-1	12	c	0.039166667	--	0	SW-1	Seep
5.0	µg/L	1	28-Apr-14	Hexachloroethane	67-72-1	12	c	0.039166667	--	0	SW-3	Seep
2.0	µg/L	1	09-May-13	Indeno(1,2,3-cd)pyrene	193-39-5	0.28	q, j	2.464285714	--	0	SW-2	Pool
2.0	µg/L	1	28-Apr-14	Indeno(1,2,3-cd)pyrene	193-39-5	0.28	q, j	2.464285714	--	0	SW-2	Pool
2.0	µg/L	1	09-May-13	Indeno(1,2,3-cd)pyrene	193-39-5	0.28	q, j	2.464285714	--	0	SW-1	Seep
2.0	µg/L	1	28-Apr-14	Indeno(1,2,3-cd)pyrene	193-39-5	0.28	q, j	2.464285714	--	0	SW-1	Seep
2.0	µg/L	1	28-Apr-14	Indeno(1,2,3-cd)pyrene	193-39-5	0.28	q, j	2.464285714	--	0	SW-3	Seep
1.0	mg/L	5	30-Apr-14	Iron	7439-89-6	1,000	a	0.027	--	0	SW-3	Seep
5.0	µg/L	1	09-May-13	Isophorone	78-59-1	920	b	0.000130435	--	0	SW-2	Pool
5.0	µg/L	1	28-Apr-14	Isophorone	78-59-1	920	b	0.000326087	--	0	SW-2	Pool
5.0	µg/L	1	09-May-13	Isophorone	78-59-1	920	b	0.000130435	--	0	SW-1	Seep
5.0	µg/L	1	28-Apr-14	Isophorone	78-59-1	920	b	0.000326087	--	0	SW-1	Seep
5.0	µg/L	1	28-Apr-14	Isophorone	78-59-1	920	b	0.000326087	--	0	SW-3	Seep
5.0	µg/L	1	11-May-13	Isopropylbenzene (Cumene)	98-82-8	4.8	b	0.029166667	--	0	SW-2	Pool
5.0	µg/L	1	26-Apr-14	Isopropylbenzene (Cumene)	98-82-8	4.8	b	0.022916667	--	0	SW-2	Pool
5.0	µg/L	1	11-May-13	Isopropylbenzene (Cumene)	98-82-8	4.8	b	0.029166667	--	0	SW-1	Seep
5.0	µg/L	1	25-Apr-14	Isopropylbenzene (Cumene)	98-82-8	4.8	b	0.022916667	--	0	SW-1	Seep
5.0	µg/L	1	25-Apr-14	Isopropylbenzene (Cumene)	98-82-8	4.8	b	0.022916667	--	0	SW-3	Seep
0.00020	mg/L	1	30-Apr-14	Mercury (dissolved) (aquatic)	7439-97-6	0.65	a	0.152788388	--	0	SW-2	Pool
0.00020	mg/L	1	30-Apr-14	Mercury (dissolved) (aquatic)	7439-97-6	0.65	a	0.152788388	--	0	SW-1	Seep
0.00020	mg/L	1	30-Apr-14	Mercury (dissolved) (aquatic)	7439-97-6	0.65	a	0.152788388	--	0	SW-3	Seep

Table A-8
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Vernal Pool and Seep Samples

Client Sample ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qualifier	RMDL
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Mercury by CVAA	Mercury	--	U	U	0.0001
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Mercury by CVAA	Mercury	--	U	U	0.0001
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Mercury by CVAA	Mercury	--	U	U	0.0001
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Mercury by CVAA	Mercury	--	U	U	0.0001
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Mercury by CVAA	Mercury	--	U	U	0.0001
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	Methyl tert-butyl ether	--	U	U	0.07
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	Methyl tert-butyl ether	--	U	U	0.28
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	Methyl tert-butyl ether	--	U	U	0.07
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	Methyl tert-butyl ether	--	U	U	0.28
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	Methyl tert-butyl ether	--	U	U	0.28
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Naphthalene	--	U	U	0.12
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Naphthalene	--	U	U, H	0.12
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Naphthalene	--	U	U	0.12
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Naphthalene	--	U	U, H	0.12
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Naphthalene	--	U	U, H	0.12
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	0.1
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U, H	0.33
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	0.1
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U, H	0.33
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U, H	0.33
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	0.81
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U, H	0.81
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	0.81
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U, H	0.81
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U, H	0.81
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	0.11
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U, H	0.22
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	0.11
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U, H	0.22
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U, H	0.22
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Phenanthrene	--	U	U	0.86
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Phenanthrene	--	U	U, H	0.86
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Phenanthrene	--	U	U	0.86
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Phenanthrene	--	U	U, H	0.86
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Phenanthrene	--	U	U, H	0.86
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Phenol	--	U	U	0.094
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Phenol	--	U	U, H	0.32
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Phenol	--	U	U	0.094
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Phenol	--	U	U, H	0.32
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Phenol	--	U	U, H	0.32
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Pyrene	--	U	U	0.65
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Pyrene	--	U	U, H	0.65
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Pyrene	--	U	U	0.65
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Pyrene	--	U	U, H	0.65

Table A-8
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Vernal Pool and Seep Samples

R limit	R units	Dilution Factor	Anal Date	Region 4 Chemical	CAS	Freshwater, Chronic, µg/L	Source	MDL/SL Ratio	Detected Result HQ	Detection Flag	Monitoring Point	Type
0.00020	mg/L	1	13-May-13	Mercury (unfiltered)	7439-97-6	0.77	a	0.12987013	--	0	SW-2	Pool
0.00020	mg/L	1	30-Apr-14	Mercury (unfiltered)	7439-97-6	0.77	a	0.12987013	--	0	SW-2	Pool
0.00020	mg/L	1	13-May-13	Mercury (unfiltered)	7439-97-6	0.77	a	0.12987013	--	0	SW-1	Seep
0.00020	mg/L	1	30-Apr-14	Mercury (unfiltered)	7439-97-6	0.77	a	0.12987013	--	0	SW-1	Seep
0.00020	mg/L	1	30-Apr-14	Mercury (unfiltered)	7439-97-6	0.77	a	0.12987013	--	0	SW-3	Seep
5.0	µg/L	1	11-May-13	Methyl tert-butyl ether (MTBE)	#####	730	b	9.58904E-05	--	0	SW-2	Pool
5.0	µg/L	1	26-Apr-14	Methyl tert-butyl ether (MTBE)	#####	730	b	0.000383562	--	0	SW-2	Pool
5.0	µg/L	1	11-May-13	Methyl tert-butyl ether (MTBE)	#####	730	b	9.58904E-05	--	0	SW-1	Seep
5.0	µg/L	1	25-Apr-14	Methyl tert-butyl ether (MTBE)	#####	730	b	0.000383562	--	0	SW-1	Seep
5.0	µg/L	1	25-Apr-14	Methyl tert-butyl ether (MTBE)	#####	730	b	0.000383562	--	0	SW-3	Seep
5.0	µg/L	1	09-May-13	Naphthalene	91-20-3	21	b	0.005714286	--	0	SW-2	Pool
5.0	µg/L	1	28-Apr-14	Naphthalene	91-20-3	21	b	0.005714286	--	0	SW-2	Pool
5.0	µg/L	1	09-May-13	Naphthalene	91-20-3	21	b	0.005714286	--	0	SW-1	Seep
5.0	µg/L	1	28-Apr-14	Naphthalene	91-20-3	21	b	0.005714286	--	0	SW-1	Seep
5.0	µg/L	1	28-Apr-14	Naphthalene	91-20-3	21	b	0.005714286	--	0	SW-3	Seep
3.0	µg/L	1	09-May-13	Nitrobenzene	98-95-3	380	b	0.000263158	--	0	SW-2	Pool
3.0	µg/L	1	28-Apr-14	Nitrobenzene	98-95-3	380	b	0.000868421	--	0	SW-2	Pool
3.0	µg/L	1	09-May-13	Nitrobenzene	98-95-3	380	b	0.000263158	--	0	SW-1	Seep
3.0	µg/L	1	28-Apr-14	Nitrobenzene	98-95-3	380	b	0.000868421	--	0	SW-1	Seep
3.0	µg/L	1	28-Apr-14	Nitrobenzene	98-95-3	380	b	0.000868421	--	0	SW-3	Seep
5.0	µg/L	1	09-May-13	N-Nitrosodiphenylamine	86-30-6	25	b	0.0324	--	0	SW-2	Pool
5.0	µg/L	1	28-Apr-14	N-Nitrosodiphenylamine	86-30-6	25	b	0.0324	--	0	SW-2	Pool
5.0	µg/L	1	09-May-13	N-Nitrosodiphenylamine	86-30-6	25	b	0.0324	--	0	SW-1	Seep
5.0	µg/L	1	28-Apr-14	N-Nitrosodiphenylamine	86-30-6	25	b	0.0324	--	0	SW-1	Seep
5.0	µg/L	1	28-Apr-14	N-Nitrosodiphenylamine	86-30-6	25	b	0.0324	--	0	SW-3	Seep
1.0	µg/L	1	09-May-13	Pentachlorophenol # (aquatic)	87-86-5	15	a	0.007333333	--	0	SW-2	Pool
1.0	µg/L	1	28-Apr-14	Pentachlorophenol # (aquatic)	87-86-5	15	a	0.014666667	--	0	SW-2	Pool
1.0	µg/L	1	09-May-13	Pentachlorophenol # (aquatic)	87-86-5	15	a	0.007333333	--	0	SW-1	Seep
1.0	µg/L	1	28-Apr-14	Pentachlorophenol # (aquatic)	87-86-5	15	a	0.014666667	--	0	SW-1	Seep
1.0	µg/L	1	28-Apr-14	Pentachlorophenol # (aquatic)	87-86-5	15	a	0.014666667	--	0	SW-3	Seep
2.0	µg/L	1	09-May-13	Phenanthrene	85-01-8	2.3	b	0.373913043	--	0	SW-2	Pool
2.0	µg/L	1	28-Apr-14	Phenanthrene	85-01-8	2.3	b	0.373913043	--	0	SW-2	Pool
2.0	µg/L	1	09-May-13	Phenanthrene	85-01-8	2.3	b	0.373913043	--	0	SW-1	Seep
2.0	µg/L	1	28-Apr-14	Phenanthrene	85-01-8	2.3	b	0.373913043	--	0	SW-1	Seep
2.0	µg/L	1	28-Apr-14	Phenanthrene	85-01-8	2.3	b	0.373913043	--	0	SW-3	Seep
5.0	µg/L	1	09-May-13	Phenol	108-95-2	160	b	0.0005875	--	0	SW-2	Pool
5.0	µg/L	1	28-Apr-14	Phenol	108-95-2	160	b	0.002	--	0	SW-2	Pool
5.0	µg/L	1	09-May-13	Phenol	108-95-2	160	b	0.0005875	--	0	SW-1	Seep
5.0	µg/L	1	28-Apr-14	Phenol	108-95-2	160	b	0.002	--	0	SW-1	Seep
5.0	µg/L	1	28-Apr-14	Phenol	108-95-2	160	b	0.002	--	0	SW-3	Seep
5.0	µg/L	1	09-May-13	Pyrene	129-00-0	4.6	b	0.141304348	--	0	SW-2	Pool
5.0	µg/L	1	28-Apr-14	Pyrene	129-00-0	4.6	b	0.141304348	--	0	SW-2	Pool
5.0	µg/L	1	09-May-13	Pyrene	129-00-0	4.6	b	0.141304348	--	0	SW-1	Seep
5.0	µg/L	1	28-Apr-14	Pyrene	129-00-0	4.6	b	0.141304348	--	0	SW-3	Seep

Table A-8
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Vernal Pool and Seep Samples

Client Sample ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qualifier	RMDL
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Metals by ICP-MS	Selenium	--	U	U	0.00064
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Metals by ICP-MS	Selenium	--	U	U	0.0032
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Selenium, dissolved	--	U	U	0.0032
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Metals by ICP-MS	Selenium	--	U	U	0.00064
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Metals by ICP-MS	Selenium	--	U	U	0.0032
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Selenium, dissolved	--	U	U	0.0032
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Selenium, dissolved	--	U	U	0.0032
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Silver, dissolved	--	U	U	0.00021
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Silver, dissolved	--	U	U	0.00021
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Silver, dissolved	--	U	U	0.00021
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Metals by ICP-MS	Silver	--	U	U	0.000042
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Metals by ICP-MS	Silver	--	U	U	0.00021
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Metals by ICP-MS	Silver	--	U	U	0.000042
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Metals by ICP-MS	Silver	--	U	U	0.00021
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Metals by ICP-MS	Silver	--	U	U	0.00021
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	Styrene	--	U	U	0.11
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	Styrene	--	U	U	0.12
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	Styrene	--	U	U	0.11
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	Styrene	--	U	U	0.12
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	Styrene	--	U	U	0.12
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	Carbon tetrachloride	--	U	U	0.12
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	Carbon tetrachloride	--	U	U	0.16
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	Carbon tetrachloride	--	U	U	0.12
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	Carbon tetrachloride	--	U	U	0.16
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	Carbon tetrachloride	--	U	U	0.16
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Metals by ICP-MS	Thallium	--	U	U	0.000062
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Metals by ICP-MS	Thallium	--	U	U	0.00031
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Thallium, dissolved	--	U	U	0.00031
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Metals by ICP-MS	Thallium	--	U	U	0.000062
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Metals by ICP-MS	Thallium	--	U	U	0.00031
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Metals by ICP-MS	Thallium	--	U	U	0.00031
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Thallium, dissolved	--	U	U	0.00031
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Thallium, dissolved	--	U	U	0.00031
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	Toluene	--	U	U	0.12
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	Toluene	--	U	U	0.13
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	Toluene	--	U	U	0.12
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	Toluene	--	U	U	0.13
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	Toluene	--	U	U	0.13
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	Chloroform	--	U	U	0.15
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	Chloroform	--	U	U	0.15
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	Chloroform	--	U	U	0.15
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	Chloroform	--	U	U	0.15
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	Chloroform	--	U	U	0.15

Table A-8
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Vernal Pool and Seep Samples

R limit	R units	Dilution Factor	Anal Date	Region 4 Chemical	CAS	Freshwater, Chronic, µg/L	Source	MDL/SL Ratio	Detected Result HQ	Detection Flag	Monitoring Point	Type
0.0050	mg/L	1	09-May-13	Selenium (unfiltered)	7782-49-2	5	a	0.128	--	0	SW-2	Pool
0.025	mg/L	5	30-Apr-14	Selenium (unfiltered)	7782-49-2	5	a	0.64	--	0	SW-2	Pool
0.025	mg/L	5	30-Apr-14	Selenium (unfiltered)	7782-49-2	5	a	0.64	--	0	SW-2	Pool
0.0050	mg/L	1	09-May-13	Selenium (unfiltered)	7782-49-2	5	a	0.128	--	0	SW-1	Seep
0.025	mg/L	5	30-Apr-14	Selenium (unfiltered)	7782-49-2	5	a	0.64	--	0	SW-3	Seep
0.025	mg/L	5	29-Apr-14	Selenium (unfiltered)	7782-49-2	5	a	0.64	--	0	SW-1	Seep
0.025	mg/L	5	30-Apr-14	Selenium (unfiltered)	7782-49-2	5	a	0.64	--	0	SW-3	Seep
0.0010	mg/L	5	30-Apr-14	Silver (dissolved)	7740-22-4	0.06	b	3.5	--	0	SW-2	Pool
0.0010	mg/L	5	29-Apr-14	Silver (dissolved)	7740-22-4	0.06	b	3.5	--	0	SW-1	Seep
0.0010	mg/L	5	30-Apr-14	Silver (dissolved)	7740-22-4	0.06	b	3.5	--	0	SW-3	Seep
0.00020	mg/L	1	09-May-13	Silver (unfiltered)	7740-22-4	0.06	b	0.7	--	0	SW-2	Pool
0.0010	mg/L	5	30-Apr-14	Silver (unfiltered)	7740-22-4	0.06	b	3.5	--	0	SW-2	Pool
0.00020	mg/L	1	09-May-13	Silver (unfiltered)	7740-22-4	0.06	b	0.7	--	0	SW-1	Seep
0.0010	mg/L	5	30-Apr-14	Silver (unfiltered)	7740-22-4	0.06	b	3.5	--	0	SW-1	Seep
0.0010	mg/L	5	30-Apr-14	Silver (unfiltered)	7740-22-4	0.06	b	3.5	--	0	SW-3	Seep
1.0	µg/L	1	11-May-13	Styrene (vinyl benzene)	100-42-5	32	b	0.0034375	--	0	SW-2	Pool
1.0	µg/L	1	26-Apr-14	Styrene (vinyl benzene)	100-42-5	32	b	0.00375	--	0	SW-2	Pool
1.0	µg/L	1	11-May-13	Styrene (vinyl benzene)	100-42-5	32	b	0.0034375	--	0	SW-1	Seep
1.0	µg/L	1	25-Apr-14	Styrene (vinyl benzene)	100-42-5	32	b	0.00375	--	0	SW-1	Seep
1.0	µg/L	1	25-Apr-14	Styrene (vinyl benzene)	100-42-5	32	b	0.00375	--	0	SW-3	Seep
1.0	µg/L	1	11-May-13	Tetrachloromethane (Carbon tetrachloride)	56-23-5	77	b	0.001558442	--	0	SW-2	Pool
1.0	µg/L	1	26-Apr-14	Tetrachloromethane (Carbon tetrachloride)	56-23-5	77	b	0.002077922	--	0	SW-2	Pool
1.0	µg/L	1	11-May-13	Tetrachloromethane (Carbon tetrachloride)	56-23-5	77	b	0.001558442	--	0	SW-1	Seep
1.0	µg/L	1	25-Apr-14	Tetrachloromethane (Carbon tetrachloride)	56-23-5	77	b	0.002077922	--	0	SW-1	Seep
1.0	µg/L	1	25-Apr-14	Tetrachloromethane (Carbon tetrachloride)	56-23-5	77	b	0.002077922	--	0	SW-3	Seep
0.0020	mg/L	1	09-May-13	Thallium	7740-28-0	6	b	0.010333333	--	0	SW-2	Pool
0.010	mg/L	5	30-Apr-14	Thallium	7740-28-0	6	b	0.051666667	--	0	SW-2	Pool
0.010	mg/L	5	30-Apr-14	Thallium	7740-28-0	6	b	0.051666667	--	0	SW-2	Pool
0.0020	mg/L	1	09-May-13	Thallium	7740-28-0	6	b	0.010333333	--	0	SW-1	Seep
0.010	mg/L	5	30-Apr-14	Thallium	7740-28-0	6	b	0.051666667	--	0	SW-1	Seep
0.010	mg/L	5	30-Apr-14	Thallium	7740-28-0	6	b	0.051666667	--	0	SW-3	Seep
0.010	mg/L	5	29-Apr-14	Thallium	7740-28-0	6	b	0.051666667	--	0	SW-1	Seep
0.010	mg/L	5	30-Apr-14	Thallium	7740-28-0	6	b	0.051666667	--	0	SW-3	Seep
1.0	µg/L	1	11-May-13	Toluene	108-88-3	62	b	0.001935484	--	0	SW-2	Pool
1.0	µg/L	1	26-Apr-14	Toluene	108-88-3	62	b	0.002096774	--	0	SW-2	Pool
1.0	µg/L	1	11-May-13	Toluene	108-88-3	62	b	0.001935484	--	0	SW-1	Seep
1.0	µg/L	1	25-Apr-14	Toluene	108-88-3	62	b	0.002096774	--	0	SW-1	Seep
1.0	µg/L	1	25-Apr-14	Toluene	108-88-3	62	b	0.002096774	--	0	SW-3	Seep
1.0	µg/L	1	11-May-13	Trichloromethane (Chloroform)	67-66-3	140	b	0.001071429	--	0	SW-2	Pool
1.0	µg/L	1	26-Apr-14	Trichloromethane (Chloroform)	67-66-3	140	b	0.001071429	--	0	SW-2	Pool
1.0	µg/L	1	11-May-13	Trichloromethane (Chloroform)	67-66-3	140	b	0.001071429	--	0	SW-1	Seep
1.0	µg/L	1	25-Apr-14	Trichloromethane (Chloroform)	67-66-3	140	b	0.001071429	--	0	SW-1	Seep
1.0	µg/L	1	25-Apr-14	Trichloromethane (Chloroform)	67-66-3	140	b	0.001071429	--	0	SW-3	Seep

Table A-8
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Vernal Pool and Seep Samples

Client Sample ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qualifier	RMDL
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Metals by ICP-MS	Vanadium	--	U	U	0.00082
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Vanadium, dissolved	--	U	U	0.00082
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Metals by ICP-MS	Vanadium	--	U	U	0.00016
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Metals by ICP-MS (dissolved)	Vanadium, dissolved	--	U	U	0.00082
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	Xylenes, Total	--	U	U	0.29
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	Xylenes, Total	--	U	U	0.3
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	Xylenes, Total	--	U	U	0.29
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	Xylenes, Total	--	U	U	0.3
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	Xylenes, Total	--	U	U	0.3
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	0.13
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U, H	0.13
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	0.11
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U, H	0.34
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	2.5
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U, H	0.34
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	0.34
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U, H	1.2
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	0.65
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U, H	0.31
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	0.11
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U, H	0.23
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	1.5
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U, H	0.3
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	0.09
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Acetophenone	--	U	U, H	0.09
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Atrazine	--	U	U	3.2
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Atrazine	--	U	U, H	0.13
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	0.13
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U, H	0.33
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	0.11
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U, H	0.34
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	0.12
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U, H	0.32
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	4.7
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Caprolactam	--	U	U, H	4.7
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Carbazole	--	U	U	0.84
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Carbazole	--	U	U, H	0.16
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	0.12
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U, H	0.12
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	0.13
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U, H	0.32
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	1,1,2-Trichlorotrifluoroethane	--	U	U	0.18
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	1,1,2-Trichlorotrifluoroethane	--	U	U	0.4
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	1,2-Dibromo-3-chloropropane	--	U	U	0.31

Table A-8
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Vernal Pool and Seep Samples

R limit	R units	Dilution Factor	Anal Date	Region 4 Chemical	CAS	Freshwater, Chronic, µg/L	Source	MDL/SL Ratio	Detected Result HQ	Detection Flag	Monitoring Point	Type
0.020	mg/L	5	30-Apr-14	Vanadium	7440-62-2	27	b	0.03037037	--	0	SW-2	Pool
0.020	mg/L	5	30-Apr-14	Vanadium	7440-62-2	27	b	0.03037037	--	0	SW-2	Pool
0.0040	mg/L	1	09-May-13	Vanadium	7440-62-2	27	b	0.005925926	--	0	SW-1	Seep
0.020	mg/L	5	30-Apr-14	Vanadium	7440-62-2	27	b	0.03037037	--	0	SW-3	Seep
3.0	µg/L	1	11-May-13	Xylenes (total)	1330-20-7	27	b	0.010740741	--	0	SW-2	Pool
3.0	µg/L	1	26-Apr-14	Xylenes (total)	1330-20-7	27	b	0.011111111	--	0	SW-2	Pool
3.0	µg/L	1	11-May-13	Xylenes (total)	1330-20-7	27	b	0.010740741	--	0	SW-1	Seep
3.0	µg/L	1	25-Apr-14	Xylenes (total)	1330-20-7	27	b	0.011111111	--	0	SW-1	Seep
3.0	µg/L	1	25-Apr-14	Xylenes (total)	1330-20-7	27	b	0.011111111	--	0	SW-3	Seep
5.0	µg/L	1	09-May-13	--	--	--	--	--	--	0	SW-2	Pool
5.0	µg/L	1	28-Apr-14	--	--	--	--	--	--	0	SW-2	Pool
25	µg/L	1	09-May-13	--	--	--	--	--	--	0	SW-2	Pool
25	µg/L	1	28-Apr-14	--	--	--	--	--	--	0	SW-2	Pool
25	µg/L	1	09-May-13	--	--	--	--	--	--	0	SW-2	Pool
25	µg/L	1	28-Apr-14	--	--	--	--	--	--	0	SW-2	Pool
20	µg/L	1	09-May-13	--	--	--	--	--	--	0	SW-2	Pool
20	µg/L	1	28-Apr-14	--	--	--	--	--	--	0	SW-2	Pool
5.0	µg/L	1	09-May-13	--	--	--	--	--	--	0	SW-2	Pool
5.0	µg/L	1	28-Apr-14	--	--	--	--	--	--	0	SW-2	Pool
5.0	µg/L	1	09-May-13	--	--	--	--	--	--	0	SW-2	Pool
5.0	µg/L	1	28-Apr-14	--	--	--	--	--	--	0	SW-2	Pool
25	µg/L	1	09-May-13	--	--	--	--	--	--	0	SW-2	Pool
25	µg/L	1	28-Apr-14	--	--	--	--	--	--	0	SW-2	Pool
5.0	µg/L	1	09-May-13	--	--	--	--	--	--	0	SW-2	Pool
5.0	µg/L	1	28-Apr-14	--	--	--	--	--	--	0	SW-2	Pool
5.0	µg/L	1	09-May-13	--	--	--	--	--	--	0	SW-2	Pool
5.0	µg/L	1	28-Apr-14	--	--	--	--	--	--	0	SW-2	Pool
5.0	µg/L	1	09-May-13	--	--	--	--	--	--	0	SW-2	Pool
5.0	µg/L	1	28-Apr-14	--	--	--	--	--	--	0	SW-2	Pool
1.0	µg/L	1	09-May-13	--	--	--	--	--	--	0	SW-2	Pool
1.0	µg/L	1	28-Apr-14	--	--	--	--	--	--	0	SW-2	Pool
5.0	µg/L	1	09-May-13	--	--	--	--	--	--	0	SW-2	Pool
5.0	µg/L	1	28-Apr-14	--	--	--	--	--	--	0	SW-2	Pool
10	µg/L	1	09-May-13	--	--	--	--	--	--	0	SW-2	Pool
10	µg/L	1	28-Apr-14	--	--	--	--	--	--	0	SW-2	Pool
10	µg/L	1	09-May-13	--	--	--	--	--	--	0	SW-2	Pool
10	µg/L	1	28-Apr-14	--	--	--	--	--	--	0	SW-2	Pool
5.0	µg/L	1	09-May-13	--	--	--	--	--	--	0	SW-2	Pool
5.0	µg/L	1	28-Apr-14	--	--	--	--	--	--	0	SW-2	Pool
5.0	µg/L	1	09-May-13	--	--	--	--	--	--	0	SW-2	Pool
5.0	µg/L	1	28-Apr-14	--	--	--	--	--	--	0	SW-2	Pool
1.0	µg/L	1	11-May-13	--	--	--	--	--	--	0	SW-2	Pool
1.0	µg/L	1	26-Apr-14	--	--	--	--	--	--	0	SW-2	Pool
1.0	µg/L	1	11-May-13	--	--	--	--	--	--	0	SW-2	Pool

Table A-8
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Vernal Pool and Seep Samples

Client Sample ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qualifier	RMDL
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	1,2-Dibromo-3-chloropropane	--	U	U	0.35
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	1,2-Dibromoethane	--	U	U	0.16
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	1,2-Dibromoethane	--	U	U	0.14
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	Chloroethane	--	U	U	0.46
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	Chloroethane	--	U	U	0.25
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	Chloromethane	--	U	U	0.16
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	Chloromethane	--	U	U	0.29
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	Dichlorodifluoromethane	--	U	U	0.2
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	Dichlorodifluoromethane	--	U	U	0.18
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	Methyl acetate	--	U	U	0.19
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	Methyl acetate	--	U	U	0.76
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	Methylcyclohexane	--	U	U	0.99
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	Methylcyclohexane	--	U	U	0.19
W-R2330009-050313-MJF-014	1305208-14	03-May-13	Water	Volatile Organic Compounds	Trichlorofluoromethane	--	U	U	0.18
W-R2330012-041514-ACN-019	14041218-03	15-Apr-14	Water	Volatile Organic Compounds	Trichlorofluoromethane	--	U	U	0.22
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	0.13
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U, H	0.13
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U, H	0.13
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	0.11
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U, H	0.34
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U, H	0.34
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	2.5
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U, H	0.34
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U, H	0.34
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	0.34
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U, H	1.2
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U, H	1.2
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	0.65
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U, H	0.31
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U, H	0.31
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	0.11
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U, H	0.23
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U, H	0.23
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	1.5
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U, H	0.3
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U, H	0.3
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	0.09
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Acetophenone	--	U	U, H	0.09
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Acetophenone	--	U	U, H	0.09
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Atrazine	--	U	U	3.2
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Atrazine	--	U	U, H	0.13
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Atrazine	--	U	U, H	0.13
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	0.13
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U, H	0.33

Table A-8
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Vernal Pool and Seep Samples

R limit	R units	Dilution Factor	Anal Date	Region 4 Chemical	CAS	Freshwater, Chronic, µg/L	Source	MDL/SL Ratio	Detected Result HQ	Detection Flag	Monitoring Point	Type
1.0	µg/L	1	26-Apr-14	--	--	--	--	--	--	0	SW-2	Pool
1.0	µg/L	1	11-May-13	--	--	--	--	--	--	0	SW-2	Pool
1.0	µg/L	1	26-Apr-14	--	--	--	--	--	--	0	SW-2	Pool
5.0	µg/L	1	11-May-13	--	--	--	--	--	--	0	SW-2	Pool
5.0	µg/L	1	26-Apr-14	--	--	--	--	--	--	0	SW-2	Pool
5.0	µg/L	1	11-May-13	--	--	--	--	--	--	0	SW-2	Pool
5.0	µg/L	1	26-Apr-14	--	--	--	--	--	--	0	SW-2	Pool
5.0	µg/L	1	11-May-13	--	--	--	--	--	--	0	SW-2	Pool
5.0	µg/L	1	26-Apr-14	--	--	--	--	--	--	0	SW-2	Pool
10	µg/L	1	11-May-13	--	--	--	--	--	--	0	SW-2	Pool
10	µg/L	1	26-Apr-14	--	--	--	--	--	--	0	SW-2	Pool
1.0	µg/L	1	11-May-13	--	--	--	--	--	--	0	SW-2	Pool
1.0	µg/L	1	26-Apr-14	--	--	--	--	--	--	0	SW-2	Pool
1.0	µg/L	1	11-May-13	--	--	--	--	--	--	0	SW-2	Pool
1.0	µg/L	1	26-Apr-14	--	--	--	--	--	--	0	SW-2	Pool
5.0	µg/L	1	09-May-13	--	--	--	--	--	--	0	SW-1	Seep
5.0	µg/L	1	28-Apr-14	--	--	--	--	--	--	0	SW-1	Seep
5.0	µg/L	1	28-Apr-14	--	--	--	--	--	--	0	SW-3	Seep
25	µg/L	1	09-May-13	--	--	--	--	--	--	0	SW-1	Seep
25	µg/L	1	28-Apr-14	--	--	--	--	--	--	0	SW-1	Seep
25	µg/L	1	28-Apr-14	--	--	--	--	--	--	0	SW-3	Seep
25	µg/L	1	09-May-13	--	--	--	--	--	--	0	SW-1	Seep
25	µg/L	1	28-Apr-14	--	--	--	--	--	--	0	SW-1	Seep
25	µg/L	1	28-Apr-14	--	--	--	--	--	--	0	SW-3	Seep
20	µg/L	1	09-May-13	--	--	--	--	--	--	0	SW-1	Seep
20	µg/L	1	28-Apr-14	--	--	--	--	--	--	0	SW-1	Seep
20	µg/L	1	28-Apr-14	--	--	--	--	--	--	0	SW-3	Seep
5.0	µg/L	1	09-May-13	--	--	--	--	--	--	0	SW-1	Seep
5.0	µg/L	1	28-Apr-14	--	--	--	--	--	--	0	SW-1	Seep
5.0	µg/L	1	28-Apr-14	--	--	--	--	--	--	0	SW-3	Seep
5.0	µg/L	1	09-May-13	--	--	--	--	--	--	0	SW-1	Seep
5.0	µg/L	1	28-Apr-14	--	--	--	--	--	--	0	SW-1	Seep
5.0	µg/L	1	28-Apr-14	--	--	--	--	--	--	0	SW-3	Seep
25	µg/L	1	09-May-13	--	--	--	--	--	--	0	SW-1	Seep
25	µg/L	1	28-Apr-14	--	--	--	--	--	--	0	SW-1	Seep
25	µg/L	1	28-Apr-14	--	--	--	--	--	--	0	SW-3	Seep
5.0	µg/L	1	09-May-13	--	--	--	--	--	--	0	SW-1	Seep
5.0	µg/L	1	28-Apr-14	--	--	--	--	--	--	0	SW-1	Seep
5.0	µg/L	1	28-Apr-14	--	--	--	--	--	--	0	SW-3	Seep
5.0	µg/L	1	09-May-13	--	--	--	--	--	--	0	SW-1	Seep
5.0	µg/L	1	28-Apr-14	--	--	--	--	--	--	0	SW-1	Seep
5.0	µg/L	1	28-Apr-14	--	--	--	--	--	--	0	SW-3	Seep
5.0	µg/L	1	09-May-13	--	--	--	--	--	--	0	SW-1	Seep
5.0	µg/L	1	28-Apr-14	--	--	--	--	--	--	0	SW-1	Seep

Table A-8
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Vernal Pool and Seep Samples

Client Sample ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qualifier	RMDL
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U, H	0.33
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	0.11
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U, H	0.34
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U, H	0.34
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	0.12
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U, H	0.32
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U, H	0.32
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	4.7
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Caprolactam	--	U	U, H	4.7
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Caprolactam	--	U	U, H	4.7
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Carbazole	--	U	U	0.84
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Carbazole	--	U	U, H	0.16
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Carbazole	--	U	U, H	0.16
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	0.12
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U, H	0.12
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U, H	0.12
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	0.13
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U, H	0.32
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U, H	0.32
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	1,1,2-Trichlorotrifluoroethane	--	U	U	0.18
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	1,1,2-Trichlorotrifluoroethane	--	U	U	0.4
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	1,1,2-Trichlorotrifluoroethane	--	U	U	0.4
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	1,2-Dibromo-3-chloropropane	--	U	U	0.31
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	1,2-Dibromo-3-chloropropane	--	U	U	0.35
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	1,2-Dibromo-3-chloropropane	--	U	U	0.35
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	1,2-Dibromoethane	--	U	U	0.16
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	1,2-Dibromoethane	--	U	U	0.14
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	1,2-Dibromoethane	--	U	U	0.14
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	Chloroethane	--	U	U	0.46
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	Chloroethane	--	U	U	0.25
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	Chloroethane	--	U	U	0.25
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	Chloromethane	--	U	U	0.16
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	Chloromethane	--	U	U	0.29
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	Chloromethane	--	U	U	0.29
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	Dichlorodifluoromethane	--	U	U	0.2
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	Dichlorodifluoromethane	--	U	U	0.18
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	Dichlorodifluoromethane	--	U	U	0.18
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	Methyl acetate	--	U	U	0.19
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	Methyl acetate	--	U	U	0.76
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	Methyl acetate	--	U	U	0.76

Table A-8
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Vernal Pool and Seep Samples

R limit	R units	Dilution Factor	Anal Date	Region 4 Chemical	CAS	Freshwater, Chronic, µg/L	Source	MDL/SL Ratio	Detected Result HQ	Detection Flag	Monitoring Point	Type
5.0	µg/L	1	28-Apr-14	--	--	--	--	--	--	0	SW-3	Seep
1.0	µg/L	1	09-May-13	--	--	--	--	--	--	0	SW-1	Seep
1.0	µg/L	1	28-Apr-14	--	--	--	--	--	--	0	SW-1	Seep
1.0	µg/L	1	28-Apr-14	--	--	--	--	--	--	0	SW-3	Seep
5.0	µg/L	1	09-May-13	--	--	--	--	--	--	0	SW-1	Seep
5.0	µg/L	1	28-Apr-14	--	--	--	--	--	--	0	SW-1	Seep
5.0	µg/L	1	28-Apr-14	--	--	--	--	--	--	0	SW-3	Seep
10	µg/L	1	09-May-13	--	--	--	--	--	--	0	SW-1	Seep
10	µg/L	1	28-Apr-14	--	--	--	--	--	--	0	SW-1	Seep
10	µg/L	1	28-Apr-14	--	--	--	--	--	--	0	SW-3	Seep
10	µg/L	1	09-May-13	--	--	--	--	--	--	0	SW-1	Seep
10	µg/L	1	28-Apr-14	--	--	--	--	--	--	0	SW-1	Seep
10	µg/L	1	28-Apr-14	--	--	--	--	--	--	0	SW-3	Seep
5.0	µg/L	1	09-May-13	--	--	--	--	--	--	0	SW-1	Seep
5.0	µg/L	1	28-Apr-14	--	--	--	--	--	--	0	SW-1	Seep
5.0	µg/L	1	28-Apr-14	--	--	--	--	--	--	0	SW-3	Seep
5.0	µg/L	1	09-May-13	--	--	--	--	--	--	0	SW-1	Seep
5.0	µg/L	1	28-Apr-14	--	--	--	--	--	--	0	SW-1	Seep
5.0	µg/L	1	28-Apr-14	--	--	--	--	--	--	0	SW-3	Seep
1.0	µg/L	1	11-May-13	--	--	--	--	--	--	0	SW-1	Seep
1.0	µg/L	1	25-Apr-14	--	--	--	--	--	--	0	SW-1	Seep
1.0	µg/L	1	25-Apr-14	--	--	--	--	--	--	0	SW-3	Seep
1.0	µg/L	1	11-May-13	--	--	--	--	--	--	0	SW-1	Seep
1.0	µg/L	1	25-Apr-14	--	--	--	--	--	--	0	SW-1	Seep
1.0	µg/L	1	25-Apr-14	--	--	--	--	--	--	0	SW-3	Seep
1.0	µg/L	1	11-May-13	--	--	--	--	--	--	0	SW-1	Seep
1.0	µg/L	1	25-Apr-14	--	--	--	--	--	--	0	SW-1	Seep
1.0	µg/L	1	25-Apr-14	--	--	--	--	--	--	0	SW-3	Seep
5.0	µg/L	1	11-May-13	--	--	--	--	--	--	0	SW-1	Seep
5.0	µg/L	1	25-Apr-14	--	--	--	--	--	--	0	SW-1	Seep
5.0	µg/L	1	25-Apr-14	--	--	--	--	--	--	0	SW-3	Seep
5.0	µg/L	1	11-May-13	--	--	--	--	--	--	0	SW-1	Seep
5.0	µg/L	1	25-Apr-14	--	--	--	--	--	--	0	SW-1	Seep
5.0	µg/L	1	25-Apr-14	--	--	--	--	--	--	0	SW-3	Seep
10	µg/L	1	11-May-13	--	--	--	--	--	--	0	SW-1	Seep
10	µg/L	1	25-Apr-14	--	--	--	--	--	--	0	SW-1	Seep
10	µg/L	1	25-Apr-14	--	--	--	--	--	--	0	SW-3	Seep

Table A-8
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Vernal Pool and Seep Samples

Client Sample ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qualifier	RMDL
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	Methylcyclohexane	--	U	U	0.99
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	Methylcyclohexane	--	U	U	0.19
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	Methylcyclohexane	--	U	U	0.19
W-R2330009-050313-MJF-015	1305208-15	03-May-13	Water	Volatile Organic Compounds	Trichlorofluoromethane	--	U	U	0.18
W-R2330012-041514-ACN-017	14041218-01	15-Apr-14	Water	Volatile Organic Compounds	Trichlorofluoromethane	--	U	U	0.22
W-R2330012-041514-ACN-018	14041218-02	15-Apr-14	Water	Volatile Organic Compounds	Trichlorofluoromethane	--	U	U	0.22

Table A-8
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Vernal Pool and Seep Samples

R limit	R units	Dilution Factor	Anal Date	Region 4 Chemical	CAS	Freshwater, Chronic, µg/L	Source	MDL/SL Ratio	Detected Result HQ	Detection Flag	Monitoring Point	Type
1.0	µg/L	1	11-May-13	--	--	--	--	--	--	0	SW-1	Seep
1.0	µg/L	1	25-Apr-14	--	--	--	--	--	--	0	SW-1	Seep
1.0	µg/L	1	25-Apr-14	--	--	--	--	--	--	0	SW-3	Seep
1.0	µg/L	1	11-May-13	--	--	--	--	--	--	0	SW-1	Seep
1.0	µg/L	1	25-Apr-14	--	--	--	--	--	--	0	SW-1	Seep
1.0	µg/L	1	25-Apr-14	--	--	--	--	--	--	0	SW-3	Seep

Qualifier Notes

H = Analyzed outside of Holding Time
J = Analyte is present at an estimated concentration between MDL and Report Limit
ND = Not Detected at the Reporting Limit
U = Analyzed but not detected above MDL

Region 4 Table 1a Sources (USEPA 2015):

a - National Recommended Water Quality Criteria <http://water.epa.gov/s>
b - Great Lakes Initiative (GLI) Clearinghouse resources Tier II criteria revised 2013 <http://www.epa.gov/gliclearinghouse/>
c - Suter, G.W. II, and Tsao, C.L. 1996. Toxicological benchmarks for screening potential contaminants of concern for effects on aquatic biota: 1996 Revision. ES/ER/TM-96/R2. <http://www.esd.ornl.gov/programs/ecorisk/documents/tm96r2.pdf>
e - North Carolina Department of Natural Resources (NCDNR) Surface Water Standards <http://portal.ncdenr.org/web/wq/ps/csu/swstandards>
j - ECOSAR program predicted lowest chronic or acute value. See Section 6.1.4 in text
i - Region 4 Surface Water Model - See text Section 6.1.4 Equation 1
n - Michigan Water Quality Values - Rule 57: http://www.michigan.gov/deq/0,4561,7-135-3313_3686_3728-11383--,00
q - EPA. 2003. Equilibrium Partitioning Sediment Benchmarks for Protection of Benthic Organisms: PAH Mixtures. EPA-600-R-02-013. http://www.epa.gov/nheerl/download_files/publications/PAHESB.pdf
* - The freshwater screening value is hardness dependent. The screening value shown in Table 1a is for total metals assuming a hardness of 50 mg/L as CaCO3
A correction for site-specific hardness was based on equations listed in Tables 1b and 1c in USEPA (2015). If hardness data are unavailable hardness may be estimated as: $H = 2.497 \times Ca \text{ (mg/L)} + 4.118 \times Mg \text{ (mg/L)}$

Acronyms

µg/L = micrograms per liter
ICP-MS = Inductively Coupled Plasma-Mass Spectrometry
mg/L = milligrams per liter

Table A-9
Sitewide, MDL and HQ Evaluation for Vernal Pool Water Samples

Type	Van Buren Analyte	Test Name	Region 4 Chemical	Source	R Units	Max of Result	Max of RMDL	Max of Freshwater, Chronic, µg/L	Max of MDL/SL Ratio	Max of HQ for Detected Result	Detection Flag	Flag
Pool	Manganese	Metals by ICP-MS	Manganese	b	mg/L	0.45	0.00027	93	0.00290	4.84	1	a
Pool	Manganese, dissolved	Metals by ICP-MS (dissolved)	Manganese	b	mg/L	0.46	0.00027	93	0.00290	4.95	1	a
Pool	Di-n-butyl phthalate	Semi-Volatile Organic Compounds	Di-n-Butyl Phthalate	b	µg/L	1.3	0.71	19	0.0374	1.83	1	a
Pool	Fluoranthene	Semi-Volatile Organic Compounds	Fluoranthene	b	µg/L	1.3	0.77	0.8	0.9625	1.69	1	a
Pool	Acetone	Volatile Organic Compounds	Acetone	b	µg/L	4	3	1700	0.00176	12.12	1	a
Pool	Selenium	Metals by ICP-MS	Selenium (unfiltered) (aquatic)	a	mg/L	--	0.0032	5	0.6400	--	0	b
Pool	Silver	Metals by ICP-MS	Silver (unfiltered)	b	mg/L	--	0.00021	0.06	3.50	--	0	b
Pool	Selenium, dissolved	Metals by ICP-MS (dissolved)	Selenium (unfiltered) (aquatic)	a	mg/L	--	0.0032	5	0.6400	--	0	b
Pool	Silver, dissolved	Metals by ICP-MS (dissolved)	Silver (dissolved)	b	mg/L	--	0.00021	0.06	3.50	--	0	b
Pool	3,3'-Dichlorobenzidine	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	n	µg/L	--	3.9	4.5	0.8667	--	0	b
Pool	Anthracene	Semi-Volatile Organic Compounds	Anthracene	b	µg/L	--	0.72	0.02	36.00	--	0	b
Pool	Benzo(a)pyrene	Semi-Volatile Organic Compounds	Benzo(a)pyrene	b	µg/L	--	0.1	0.06	1.67	--	0	b
Pool	Benzo(b)fluoranthene	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	b	µg/L	--	0.74	2.6	0.2846	--	0	b
Pool	Benzo(g,h,i)perylene	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	q, j	µg/L	--	0.7	0.44	1.59	--	0	b
Pool	Benzo(k)fluoranthene	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	q, i	µg/L	--	0.17	0.64	0.2656	--	0	b
Pool	Dibenzo(a,h)anthracene	Semi-Volatile Organic Compounds	Dibenz(a,h)anthracene	q, j	µg/L	--	0.67	0.28	2.39	--	0	b
Pool	Hexachlorobenzene	Semi-Volatile Organic Compounds	Hexachlorobenzene (wildlife based)	n	µg/L	--	0.22	0.0003	733	--	0	b
Pool	Hexachlorobutadiene	Semi-Volatile Organic Compounds	Hexachlorobutadiene (Aquatic Life)	b	µg/L	--	0.24	1	0.2400	--	0	b
Pool	Hexachlorocyclopentadiene	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	b	µg/L	--	0.18	0.45	0.4000	--	0	b
Pool	Indeno(1,2,3-cd)pyrene	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	q, j	µg/L	--	0.69	0.28	2.46	--	0	b
Pool	Phenanthrene	Semi-Volatile Organic Compounds	Phenanthrene	b	µg/L	--	0.86	2.3	0.3739	--	0	b
Pool	2-Chloronaphthalene	Semi-Volatile Organic Compounds	(blank)	(blank)	µg/L	--	0.13			--	0	c
Pool	2-Nitroaniline	Semi-Volatile Organic Compounds	(blank)	(blank)	µg/L	--	0.34			--	0	c
Pool	3-Nitroaniline	Semi-Volatile Organic Compounds	(blank)	(blank)	µg/L	--	2.5			--	0	c
Pool	4,6-Dinitro-2-methylphenol	Semi-Volatile Organic Compounds	(blank)	(blank)	µg/L	--	1.2			--	0	c
Pool	4-Chloro-3-methylphenol	Semi-Volatile Organic Compounds	(blank)	(blank)	µg/L	--	0.65			--	0	c
Pool	4-Chlorophenyl phenyl ether	Semi-Volatile Organic Compounds	(blank)	(blank)	µg/L	--	0.23			--	0	c
Pool	4-Nitroaniline	Semi-Volatile Organic Compounds	(blank)	(blank)	µg/L	--	1.5			--	0	c
Pool	Acetophenone	Semi-Volatile Organic Compounds	(blank)	(blank)	µg/L	--	0.09			--	0	c
Pool	Atrazine	Semi-Volatile Organic Compounds	(blank)	(blank)	µg/L	--	3.2			--	0	c
Pool	Bis(2-chloroethoxy)methane	Semi-Volatile Organic Compounds	(blank)	(blank)	µg/L	--	0.33			--	0	c
Pool	Bis(2-chloroethyl)ether	Semi-Volatile Organic Compounds	(blank)	(blank)	µg/L	--	0.34			--	0	c
Pool	Bis(2-chloroisopropyl)ether	Semi-Volatile Organic Compounds	(blank)	(blank)	µg/L	--	0.32			--	0	c
Pool	Caprolactam	Semi-Volatile Organic Compounds	(blank)	(blank)	µg/L	--	4.7			--	0	c
Pool	Carbazole	Semi-Volatile Organic Compounds	(blank)	(blank)	µg/L	--	0.84			--	0	c
Pool	Di-n-octyl phthalate	Semi-Volatile Organic Compounds	(blank)	(blank)	µg/L	--	0.12			--	0	c
Pool	N-Nitrosodi-n-propylamine	Semi-Volatile Organic Compounds	(blank)	(blank)	µg/L	--	0.32			--	0	c
Pool	1,1,2-Trichlorotrifluoroethane	Volatile Organic Compounds	(blank)	(blank)	µg/L	--	0.4			--	0	c
Pool	1,2-Dibromo-3-chloropropane	Volatile Organic Compounds	(blank)	(blank)	µg/L	--	0.35			--	0	c
Pool	1,2-Dibromoethane	Volatile Organic Compounds	(blank)	(blank)	µg/L	--	0.16			--	0	c
Pool	Chloroethane	Volatile Organic Compounds	(blank)	(blank)	µg/L	--	0.46			--	0	c
Pool	Chloromethane	Volatile Organic Compounds	(blank)	(blank)	µg/L	--	0.29			--	0	c
Pool	Dichlorodifluoromethane	Volatile Organic Compounds	(blank)	(blank)	µg/L	--	0.2			--	0	c
Pool	Methyl acetate	Volatile Organic Compounds	(blank)	(blank)	µg/L	--	0.76			--	0	c
Pool	Methylcyclohexane	Volatile Organic Compounds	(blank)	(blank)	µg/L	--	0.99			--	0	c
Pool	Trichlorofluoromethane	Volatile Organic Compounds	(blank)	(blank)	µg/L	--	0.22			--	0	c
Pool	Cyanide, Amenable	Cyanide, Amenable	Cyanide (free)	a	mg/L	--	0.001	5.2	0.1923	--	0	e
Pool	Mercury	Mercury by CVAA	Mercury (unfiltered) (aquatic)	a	mg/L	--	0.0001	0.77	0.1299	--	0	e
Pool	Mercury, dissolved	Mercury by CVAA (dissolved)	Mercury (dissolved) (aquatic)	a	mg/L	--	0.0001	0.6545	0.1528	--	0	e
Pool	Aluminum	Metals by ICP-MS	Aluminum (pH 6.5 -9.0)	a	mg/L	0.035	0.0039	87	0.0448	0.4023	1	e
Pool	Antimony	Metals by ICP-MS	Antimony	b	mg/L	0.0013	0.00018	190	0.00095	0.00684	1	e
Pool	Arsenic	Metals by ICP-MS	Arsenic III (unfiltered)	b	mg/L	0.00093	0.0029	148	0.0196	0.00628	1	e
Pool	Barium	Metals by ICP-MS	Barium	b	mg/L	0.093	0.00032	220	0.00145	0.4227	1	e
Pool	Beryllium	Metals by ICP-MS	Beryllium	b	mg/L	--	0.00041	101.8261	0.00403	--	0	e
Pool	Cobalt	Metals by ICP-MS	Cobalt	b	mg/L	0.0012	0.0002	19	0.0105	0.0632	1	e
Pool	Iron	Metals by ICP-MS	Iron	a	mg/L	0.33	0.027	1000	0.0270	0.3300	1	e
Pool	Thallium	Metals by ICP-MS	Thallium	b	mg/L	--	0.00031	6	0.0517	--	0	e
Pool	Vanadium	Metals by ICP-MS	Vanadium	b	mg/L	0.00028	0.00082	27	0.0304	0.0104	1	e

Table A-9
Sitewide, MDL and HQ Evaluation for Vernal Pool Water Samples

Type	Van Buren Analyte	Test Name	Region 4 Chemical	Source	R Units	Max of Result	Max of RMDL	Max of Freshwater, Chronic, µg/L	Max of MDL/SL Ratio	Max of HQ for Detected Result	Detection Flag	Flag
Pool	Aluminum, dissolved	Metals by ICP-MS (dissolved)	Aluminum (pH 6.5 -9.0)	a	mg/L	--	0.0039	87	0.0448	--	0	e
Pool	Antimony, dissolved	Metals by ICP-MS (dissolved)	Antimony	b	mg/L	0.0014	0.00018	190	0.00095	0.00737	1	e
Pool	Arsenic, dissolved	Metals by ICP-MS (dissolved)	Arsenic III (unfiltered)	b	mg/L	--	0.0029	148	0.0196	--	0	e
Pool	Barium, dissolved	Metals by ICP-MS (dissolved)	Barium	b	mg/L	0.078	0.00032	220	0.00145	0.3545	1	e
Pool	Beryllium, dissolved	Metals by ICP-MS (dissolved)	Beryllium	b	mg/L	--	0.00041	101.8261	0.00403	--	0	e
Pool	Cadmium, dissolved	Metals by ICP-MS (dissolved)	Cadmium (dissolved)	a	mg/L	0.00023	0.00022	0.643221736	0.3420	0.3576	1	e
Pool	Chromium, dissolved	Metals by ICP-MS (dissolved)	Chromium III (dissolved)	a	mg/L	--	0.0014	230.669644	0.00607	--	0	e
Pool	Cobalt, dissolved	Metals by ICP-MS (dissolved)	Cobalt	b	mg/L	0.0013	0.0002	19	0.0105	0.0684	1	e
Pool	Copper, dissolved	Metals by ICP-MS (dissolved)	Copper (dissolved)	a	mg/L	0.0059	0.0026	29.27940773	0.0888	0.2015	1	e
Pool	Iron, dissolved	Metals by ICP-MS (dissolved)	Iron	a	mg/L	0.25	0.027	1000	0.0270	0.2500	1	e
Pool	Lead, dissolved	Metals by ICP-MS (dissolved)	Lead (dissolved)	a	mg/L	0.00077	0.00033	10.94418418	0.0302	0.0704	1	e
Pool	Nickel, dissolved	Metals by ICP-MS (dissolved)	Nickel (dissolved)	a	mg/L	0.0075	0.0013	168.0353708	0.00774	0.0446	1	e
Pool	Thallium, dissolved	Metals by ICP-MS (dissolved)	Thallium	b	mg/L	--	0.00031	6	0.0517	--	0	e
Pool	Vanadium, dissolved	Metals by ICP-MS (dissolved)	Vanadium	b	mg/L	--	0.00082	27	0.0304	--	0	e
Pool	Zinc, dissolved	Metals by ICP-MS (dissolved)	Zinc (dissolved)	a	mg/L	0.08	0.0024	382.4006903	0.00628	0.2092	1	e
Pool	1,1'-Biphenyl	Semi-Volatile Organic Compounds	1,1-Biphenyl	b	µg/L	--	0.095	6.5	0.0146	--	0	e
Pool	2,4,5-Trichlorophenol	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	b	µg/L	--	0.25	1.9	0.1316	--	0	e
Pool	2,4,6-Trichlorophenol	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	b	µg/L	--	0.27	4.9	0.0551	--	0	e
Pool	2,4-Dichlorophenol	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	b	µg/L	--	0.22	11	0.0200	--	0	e
Pool	2,4-Dimethylphenol	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	b	µg/L	--	1.8	15	0.1200	--	0	e
Pool	2,4-Dinitrophenol	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	b	µg/L	--	0.76	71	0.0107	--	0	e
Pool	2,4-Dinitrotoluene	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	b	µg/L	--	0.78	44	0.0177	--	0	e
Pool	2,6-Dinitrotoluene	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	b	µg/L	--	0.82	81	0.0101	--	0	e
Pool	2-Chlorophenol	Semi-Volatile Organic Compounds	2-Chlorophenol	b	µg/L	--	0.73	32	0.0228	--	0	e
Pool	2-Methylnaphthalene	Semi-Volatile Organic Compounds	2-Methylnaphthalene	b	µg/L	--	0.13	4.7	0.0277	--	0	e
Pool	2-Methylphenol	Semi-Volatile Organic Compounds	2-Methylphenol (Cresol, o-)	b	µg/L	--	0.6	67	0.00896	--	0	e
Pool	2-Nitrophenol	Semi-Volatile Organic Compounds	2-Nitrophenol	b	µg/L	--	0.28	73	0.00384	--	0	e
Pool	4-Bromophenyl phenyl ether	Semi-Volatile Organic Compounds	4-Bromophenyl Phenyl Ether	c	µg/L	--	0.23	1.5	0.1533	--	0	e
Pool	4-Chloroaniline	Semi-Volatile Organic Compounds	4-Chloroaniline	j	µg/L	--	1.1	19	0.0579	--	0	e
Pool	4-Methylphenol	Semi-Volatile Organic Compounds	4-Methylphenol (Cresol, p-)	b	µg/L	--	0.55	53	0.0104	--	0	e
Pool	4-Nitrophenol	Semi-Volatile Organic Compounds	4-Nitrophenol	b	µg/L	--	1.6	58	0.0276	--	0	e
Pool	Acenaphthene	Semi-Volatile Organic Compounds	Acenaphthene	b	µg/L	--	0.11	15	0.00733	--	0	e
Pool	Acenaphthylene	Semi-Volatile Organic Compounds	Acenaphthylene	b	µg/L	--	0.12	13	0.00923	--	0	e
Pool	Benzaldehyde	Semi-Volatile Organic Compounds	Benzaldehyde	j	µg/L	--	0.46	57	0.00807	--	0	e
Pool	Benzo(a)anthracene	Semi-Volatile Organic Compounds	Benz(a)anthracene	b	µg/L	--	0.57	4.7	0.1213	--	0	e
Pool	Bis(2-ethylhexyl)phthalate	Semi-Volatile Organic Compounds	bis(2-Ethylhexyl) Phthalate	c	µg/L	--	0.15	3	0.0500	--	0	e
Pool	Butyl benzyl phthalate	Semi-Volatile Organic Compounds	Butylbenzyl Phthalate	b	µg/L	--	0.11	23	0.00478	--	0	e
Pool	Chrysene	Semi-Volatile Organic Compounds	Chrysene	b	µg/L	--	0.71	4.7	0.1511	--	0	e
Pool	Dibenzofuran	Semi-Volatile Organic Compounds	Dibenzofuran	b	µg/L	--	0.28	4	0.0700	--	0	e
Pool	Diethyl phthalate	Semi-Volatile Organic Compounds	Diethyl Phthalate	b	µg/L	--	0.69	220	0.00314	--	0	e
Pool	Dimethyl phthalate	Semi-Volatile Organic Compounds	Dimethyl Phthalate	b	µg/L	--	0.27	1100	0.00025	--	0	e
Pool	Fluorene	Semi-Volatile Organic Compounds	Fluorene	b	µg/L	--	0.1	19	0.00526	--	0	e
Pool	Hexachloroethane	Semi-Volatile Organic Compounds	Hexachloroethane	c	µg/L	--	0.47	12	0.0392	--	0	e
Pool	Isophorone	Semi-Volatile Organic Compounds	Isophorone	b	µg/L	--	0.3	920	0.00033	--	0	e
Pool	Naphthalene	Semi-Volatile Organic Compounds	Naphthalene	b	µg/L	--	0.12	21	0.00571	--	0	e
Pool	Nitrobenzene	Semi-Volatile Organic Compounds	Nitrobenzene	b	µg/L	--	0.33	380	0.00087	--	0	e
Pool	N-Nitrosodiphenylamine	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	b	µg/L	--	0.81	25	0.0324	--	0	e
Pool	Pentachlorophenol	Semi-Volatile Organic Compounds	Pentachlorophenol # (aquatic)	a	µg/L	--	0.22	15	0.0147	--	0	e
Pool	Phenol	Semi-Volatile Organic Compounds	Phenol	b	µg/L	--	0.32	160	0.00200	--	0	e
Pool	Pyrene	Semi-Volatile Organic Compounds	Pyrene	b	µg/L	--	0.65	4.6	0.1413	--	0	e
Pool	1,1,1-Trichloroethane	Volatile Organic Compounds	1,1,1-Trichloroethane	b	µg/L	--	0.14	76	0.00184	--	0	e
Pool	1,1,2,2-Tetrachloroethane	Volatile Organic Compounds	1,1,2,2-Tetrachloroethane	b	µg/L	--	0.21	200	0.00105	--	0	e
Pool	1,1,2-Trichloroethane	Volatile Organic Compounds	1,1,2-Trichloroethane	b	µg/L	--	0.11	730	0.00015	--	0	e
Pool	1,1-Dichloroethane	Volatile Organic Compounds	1,1-Dichloroethane	b	µg/L	--	0.14	410	0.00034	--	0	e
Pool	1,1-Dichloroethene	Volatile Organic Compounds	1,1-Dichloroethene (1,1-Dichloroethylene)	b	µg/L	--	0.12	130	0.00092	--	0	e
Pool	1,2,4-Trichlorobenzene	Volatile Organic Compounds	1,2,4-Trichlorobenzene	b	µg/L	--	0.16	130	0.00123	--	0	e
Pool	1,2-Dichlorobenzene	Volatile Organic Compounds	1,2-Dichlorobenzene	b	µg/L	--	0.17	23	0.00739	--	0	e
Pool	1,2-Dichloroethane	Volatile Organic Compounds	1,2-Dichloroethane	b	µg/L	--	0.15	2000	0.00008	--	0	e

Table A-9
Sitewide, MDL and HQ Evaluation for Vernal Pool Water Samples

Type	Van Buren Analyte	Test Name	Region 4 Chemical	Source	R Units	Max of Result	Max of RMDL	Max of Freshwater, Chronic, µg/L	Max of MDL/SL Ratio	Max of HQ for Detected Result	Detection Flag	Flag
Pool	1,2-Dichloropropane	Volatile Organic Compounds	1,2-Dichloropropane	b	µg/L	--	0.13	520	0.00025	--	0	e
Pool	1,3-Dichlorobenzene	Volatile Organic Compounds	1,3-Dichlorobenzene	b	µg/L	--	0.16	22	0.00727	--	0	e
Pool	1,4-Dichlorobenzene	Volatile Organic Compounds	1,4-Dichlorobenzene	b	µg/L	--	0.15	9.4	0.0160	--	0	e
Pool	2-Butanone	Volatile Organic Compounds	2-Butanone (methyl ethyl ketone)	b	µg/L	--	0.64	22000	2.90909E-05	--	0	e
Pool	2-Hexanone	Volatile Organic Compounds	2-Hexanone (methyl butyl ketone)	c	µg/L	--	0.19	99	0.00192	--	0	e
Pool	4-Methyl-2-pentanone	Volatile Organic Compounds	4-Methyl-2-pentanone (MIBK)	c	µg/L	--	0.2	170	0.00118	--	0	e
Pool	Benzene	Volatile Organic Compounds	Benzene	b	µg/L	--	0.18	160	0.00113	--	0	e
Pool	Bromodichloromethane	Volatile Organic Compounds	Dichlorobromomethane	b	µg/L	--	0.22	340	0.00065	--	0	e
Pool	Bromoform	Volatile Organic Compounds	Bromoform (tribromomethane)	b	µg/L	--	0.18	230	0.00078	--	0	e
Pool	Bromomethane	Volatile Organic Compounds	Bromomethane (methyl bromide)	b	µg/L	--	0.38	16	0.0238	--	0	e
Pool	Carbon disulfide	Volatile Organic Compounds	Carbon disulfide	b	µg/L	--	0.26	15	0.0173	--	0	e
Pool	Carbon tetrachloride	Volatile Organic Compounds	tetrachloromethane (Carbon tetrachlorid	b	µg/L	--	0.16	77	0.00208	--	0	e
Pool	Chlorobenzene	Volatile Organic Compounds	Chlorobenzene	b	µg/L	--	0.13	25	0.00520	--	0	e
Pool	Chloroform	Volatile Organic Compounds	Trichloromethane (Chloroform)	b	µg/L	--	0.15	140	0.00107	--	0	e
Pool	cis-1,2-Dichloroethene	Volatile Organic Compounds	1,2-cis-Dichloroethyene	b	µg/L	--	0.11	620	0.00018	--	0	e
Pool	cis-1,3-Dichloropropene	Volatile Organic Compounds	1,3-Dichloropropene (cis and trans)	b	µg/L	--	0.097	1.7	0.0571	--	0	e
Pool	Cyclohexane	Volatile Organic Compounds	Cyclohexane	e	µg/L	--	0.22	230	0.00096	--	0	e
Pool	Dibromochloromethane	Volatile Organic Compounds	Dibromochloromethane	b	µg/L	--	0.13	320	0.00041	--	0	e
Pool	Ethylbenzene	Volatile Organic Compounds	Ethylbenzene	b	µg/L	--	0.13	61	0.00213	--	0	e
Pool	Isopropylbenzene	Volatile Organic Compounds	Isopropylbenzene (Cumene)	b	µg/L	--	0.14	4.8	0.0292	--	0	e
Pool	Methyl tert-butyl ether	Volatile Organic Compounds	Methyl tert-butyl ether (MTBE)	b	µg/L	--	0.28	730	0.00038	--	0	e
Pool	Methylene chloride	Volatile Organic Compounds	Dichloromethane (Methylene chloride)	b	µg/L	--	0.75	1500	0.00050	--	0	e
Pool	Styrene	Volatile Organic Compounds	Styrene (vinyl benzene)	b	µg/L	--	0.12	32	0.00375	--	0	e
Pool	Tetrachloroethene	Volatile Organic Compounds	1,1,2,2-Tetrachloroethylene (PCE)	b	µg/L	--	0.15	53	0.00283	--	0	e
Pool	Toluene	Volatile Organic Compounds	Toluene	b	µg/L	--	0.13	62	0.00210	--	0	e
Pool	trans-1,2-Dichloroethene	Volatile Organic Compounds	1,2-trans-Dichloroethylene	b	µg/L	--	0.12	558	0.00022	--	0	e
Pool	trans-1,3-Dichloropropene	Volatile Organic Compounds	1,3-Dichloropropene (cis and trans)	b	µg/L	--	0.15	1.7	0.0882	--	0	e
Pool	Trichloroethene	Volatile Organic Compounds	1,1,2-Trichloroethylene (TCE)	b	µg/L	--	0.16	200	0.00080	--	0	e
Pool	Vinyl chloride	Volatile Organic Compounds	Chloroethene (Vill chloride)	b	µg/L	--	0.17	930	0.00018	--	0	e
Pool	Xylenes, Total	Volatile Organic Compounds	Xylenes (total)	b	µg/L	--	0.3	27	0.0111	--	0	e

Notes

µg/L = micrograms per liter

Detection Flags

1= Detected

0 = Not detected

Flag descriptions

a: Exceeds screening level benchmark, chemical is a COPEC

b: Could exceed screening level benchmark, , chemical is an uncertain COPEC

c: No screening level benchmark, chemical is an uncertain COPEC

e: Not chemical of concern

Region 4 Table 1a Sources (USEPA 2015):

a - National Recommended Water Quality Criteria <http://water.epa.gov/s>

b - Great Lakes Initiative (GLI) Clearinghouse resources Tier II criteria revised 2013 <http://www.epa.gov/gliclearinghouse/>

c - Suter, G.W. II, and Tsao, C.L. 1996. Toxicological benchmarks for screening potential contaminants of concern for effects on aquatic biota: 1996 Revision. ES/ER/TM-96/R2. <http://www.esd.ornl.gov/programs/ecorisk/documents/tm96r2.pdf>

e - North Carolina Department of Natural Resources (NCDNR) Surface Water Standards <http://portal.ncdenr.org/web/wq/ps/csu/swstandards>

j - ECOSAR program predicted lowest chronic or acute value. See Section 6.1.4 in text.

i - Region 4 Surface Water Model - See text Section 6.1.4 Equation 1.

n - Michigan Water Quality Values - Rule 57: http://www.michigan.gov/deq/0,4561,7-135-3313_3686_3728-11383--,00.

q - EPA. 2003. Equilibrium Partitioning Sediment Benchmarks for Protection of Benthic Organisms: PAH Mixtures. EPA-600-R-02-013. http://www.epa.gov/nheerl/download_files/publications/PAHESB.pdf

* - The freshwater screening value is hardness dependent. The screening value shown in Table 1a is for total metals assuming a hardness of 50 mg/L as CaCO3.

A correction for site-specific hardness was based on equations listed in Tables 1b and 1c in USEPA (2015). If hardness data are unavailable hardness may be estimated as: H = 2.497 × Ca (mg/L) + 4.118 × Mg (mg/L).

Notes

µg/L = micrograms per liter

mg/L = milligrams per liter

Detection Flags

1= Detected

0 = Not detected

Flag descriptions

a: Exceeds screening level benchmark, chemical is a COPEC

b: Could exceed screening level benchmark, , chemical is an uncertain COPEC

c: No screening level benchmark, chemical is an uncertain COPEC

e: Not chemical of concern

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	Runits	Dilution Factor	AnalDate
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Cyanide, Total	Cyanide, Total	0.072	0.072	J	0.028	0.54	mg/Kg-dry-dry	1	10-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Cyanide, Total	Cyanide, Total	0.072	0.072	J	0.029	0.55	mg/Kg-dry-dry	1	10-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Cyanide, Total	Cyanide, Total	0.31	0.31	J	0.031	0.6	mg/Kg-dry-dry	1	10-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Cyanide, Total	Cyanide, Total	0.096	0.096	J	0.029	0.55	mg/Kg-dry-dry	1	10-Apr-13
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Cyanide, Total	Cyanide, Total	0.07	0.070	J	0.03	0.57	mg/Kg-dry-dry	1	10-Apr-13
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Cyanide, Total	Cyanide, Total	0.065	0.065	J	0.029	0.56	mg/Kg-dry-dry	1	10-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Cyanide, Total	Cyanide, Total	0.075	0.075	J	0.03	0.58	mg/Kg-dry-dry	1	10-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Cyanide, Total	Cyanide, Total	0.11	0.11	J	0.028	0.55	mg/Kg-dry-dry	1	10-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Herbicides	2,4,5-T	--	U	U	0.1	5.1	µg/Kg-dry-dry	1	24-Jul-12
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Herbicides	2,4,5-T	--	U	U	0.1	5.1	µg/Kg-dry-dry	1	25-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Herbicides	2,4,5-T	--	U	U	0.1	5.2	µg/Kg-dry-dry	1	24-Jul-12
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Herbicides	2,4,5-T	--	U	U	0.1	5.2	µg/Kg-dry-dry	1	25-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Herbicides	2,4,5-T	--	U	U	0.1	5.3	µg/Kg-dry-dry	1	24-Jul-12
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Herbicides	2,4,5-TP (Silvex)	--	U	U	0.068	10	µg/Kg-dry-dry	1	24-Jul-12
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Herbicides	2,4,5-TP (Silvex)	--	U	U	0.068	10	µg/Kg-dry-dry	1	25-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Herbicides	2,4,5-TP (Silvex)	--	U	U	0.07	10	µg/Kg-dry-dry	1	24-Jul-12
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Herbicides	2,4,5-TP (Silvex)	--	U	U	0.069	10	µg/Kg-dry-dry	1	25-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Herbicides	2,4,5-TP (Silvex)	--	U	U	0.071	11	µg/Kg-dry-dry	1	24-Jul-12
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Herbicides	2,4-D	--	U	U	0.073	5.1	µg/Kg-dry-dry	1	24-Jul-12
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Herbicides	2,4-D	--	U	U	0.073	5.1	µg/Kg-dry-dry	1	25-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Herbicides	2,4-D	--	U	U	0.075	5.2	µg/Kg-dry-dry	1	24-Jul-12
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Herbicides	2,4-D	--	U	U	0.074	5.2	µg/Kg-dry-dry	1	25-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Herbicides	2,4-D	--	U	U	0.076	5.3	µg/Kg-dry-dry	1	24-Jul-12
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Mercury by CVAA	Mercury	0.072	0.072	--	0.0009	0.018	mg/Kg-dry-dry	1	23-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Mercury by CVAA	Mercury	0.025	0.025	--	0.0008	0.016	mg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Mercury by CVAA	Mercury	0.025	0.025	--	0.0009	0.018	mg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Mercury by CVAA	Mercury	0.12	0.12	--	0.0009	0.018	mg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Mercury by CVAA	Mercury	0.022	0.022	--	0.0008	0.015	mg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Mercury by CVAA	Mercury	0.62	0.62	--	0.0089	0.18	mg/Kg-dry-dry	10	23-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Mercury by CVAA	Mercury	0.21	0.21	--	0.001	0.02	mg/Kg-dry-dry	1	23-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Mercury by CVAA	Mercury	0.027	0.027	--	0.0008	0.016	mg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Mercury by CVAA	Mercury	0.1	0.10	--	0.001	0.02	mg/Kg-dry-dry	1	24-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Mercury by CVAA	Mercury	0.45	0.45	--	0.0021	0.042	mg/Kg-dry-dry	2	23-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Mercury by CVAA	Mercury	0.018	0.018	--	0.0008	0.016	mg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Mercury by CVAA	Mercury	0.037	0.037	--	0.0008	0.016	mg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Mercury by CVAA	Mercury	0.025	0.025	--	0.0009	0.017	mg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Metals by ICP-MS	Aluminum	9,500	9,500	--	0.6	8.3	mg/Kg-dry-dry	10	26-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Metals by ICP-MS	Aluminum	5,000	5,000	--	0.44	3.5	mg/Kg-dry-dry	5	15-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Metals by ICP-MS	Aluminum	4,800	4,800	--	0.44	3.5	mg/Kg-dry-dry	5	15-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Metals by ICP-MS	Aluminum	14,000	14,000	--	0.55	4.4	mg/Kg-dry-dry	5	15-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Metals by ICP-MS	Aluminum	3,800	3,800	--	0.51	4	mg/Kg-dry-dry	5	15-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Metals by ICP-MS	Aluminum	4,500	4,500	--	0.26	3.6	mg/Kg-dry-dry	5	26-Jul-12

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Region 4 Chemical	CAS	Screening Level (mg/Kg-dry)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/Kg-dry)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Soil Bore	Year
Cyanide (free)	57-12-5	0.1	c	SI, A	100	0.28	0.72	1	SB-10	2013
Cyanide (free)	57-12-5	0.1	c	SI, A	100	0.29	0.72	1	SB-11	2013
Cyanide (free)	57-12-5	0.1	c	SI, A	100	0.31	3.1	1	SB-12	2013
Cyanide (free)	57-12-5	0.1	c	SI, A	100	0.29	0.96	1	SB-1A	2013
Cyanide (free)	57-12-5	0.1	c	SI, A	100	0.3	0.7	1	SB-5C	2013
Cyanide (free)	57-12-5	0.1	c	SI, A	100	0.29	0.65	1	SB-7E	2013
Cyanide (free)	57-12-5	0.1	c	SI, A	100	0.3	0.75	1	SB-8	2013
Cyanide (free)	57-12-5	0.1	c	SI, A	100	0.28	1.1	1	SB-9	2013
--	--	--	--	--	--	--	--	0	SB-1	2012
--	--	--	--	--	--	--	--	0	SB-2	2012
--	--	--	--	--	--	--	--	0	SB-5	2012
--	--	--	--	--	--	--	--	0	SB-6A	2012
--	--	--	--	--	--	--	--	0	SB-7	2012
2,4,5-TP (Silvex)	93-72-1	12	d	SI	12000	5.66667E-06	--	0	SB-1	2012
2,4,5-TP (Silvex)	93-72-1	12	d	SI	12000	5.66667E-06	--	0	SB-2	2012
2,4,5-TP (Silvex)	93-72-1	12	d	SI	12000	5.83333E-06	--	0	SB-5	2012
2,4,5-TP (Silvex)	93-72-1	12	d	SI	12000	0.00000575	--	0	SB-6A	2012
2,4,5-TP (Silvex)	93-72-1	12	d	SI	12000	5.91667E-06	--	0	SB-7	2012
--	--	--	--	--	--	--	--	0	SB-1	2012
--	--	--	--	--	--	--	--	0	SB-2	2012
--	--	--	--	--	--	--	--	0	SB-5	2012
--	--	--	--	--	--	--	--	0	SB-6A	2012
--	--	--	--	--	--	--	--	0	SB-7	2012
Mercury (total)	7439-97-6	0.1	b	All	100	0.0092	0.72	1	SB-1	2012
Mercury (total)	7439-97-6	0.1	b	All	100	0.008	0.25	1	SB-10	2013
Mercury (total)	7439-97-6	0.1	b	All	100	0.0089	0.25	1	SB-11	2013
Mercury (total)	7439-97-6	0.1	b	All	100	0.0088	1.2	1	SB-12	2013
Mercury (total)	7439-97-6	0.1	b	All	100	0.0077	0.22	1	SB-1A	2013
Mercury (total)	7439-97-6	0.1	b	All	100	0.089	6.2	1	SB-2	2012
Mercury (total)	7439-97-6	0.1	b	All	100	0.01	2.1	1	SB-5	2012
Mercury (total)	7439-97-6	0.1	b	All	100	0.0078	0.27	1	SB-5C	2013
Mercury (total)	7439-97-6	0.1	b	All	100	0.01	1	1	SB-6A	2012
Mercury (total)	7439-97-6	0.1	b	All	100	0.021	4.5	1	SB-7	2012
Mercury (total)	7439-97-6	0.1	b	All	100	0.0082	0.18	1	SB-7E	2013
Mercury (total)	7439-97-6	0.1	b	All	100	0.0081	0.37	1	SB-8	2013
Mercury (total)	7439-97-6	0.1	b	All	100	0.0085	0.25	1	SB-9	2013
Aluminum	7429-90-5	--	a	All	--	--	--	1	SB-1	2012
Aluminum	7429-90-5	--	a	All	--	--	--	1	SB-10	2013
Aluminum	7429-90-5	--	a	All	--	--	--	1	SB-11	2013
Aluminum	7429-90-5	--	a	All	--	--	--	1	SB-12	2013
Aluminum	7429-90-5	--	a	All	--	--	--	1	SB-1A	2013
Aluminum	7429-90-5	--	a	All	--	--	--	1	SB-2	2012

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	Runits	Dilution Factor	AnalDate
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Metals by ICP-MS	Aluminum	6,900	6,900	--	0.054	0.75	mg/Kg-dry-dry	1	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Metals by ICP-MS	Aluminum	5,000	5,000	--	0.47	3.7	mg/Kg-dry-dry	5	15-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Metals by ICP-MS	Aluminum	7,600	7,600	--	0.3	4.2	mg/Kg-dry-dry	5	26-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Metals by ICP-MS	Aluminum	12,000	12,000	--	2.8	38	mg/Kg-dry-dry	50	26-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Metals by ICP-MS	Aluminum	5,100	5,100	--	0.48	3.8	mg/Kg-dry-dry	5	16-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Metals by ICP-MS	Aluminum	5,600	5,600	--	0.53	4.2	mg/Kg-dry-dry	5	15-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Metals by ICP-MS	Aluminum	3,800	3,800	--	0.53	4.2	mg/Kg-dry-dry	5	15-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Metals by ICP-MS	Antimony	5.8	5.8	--	0.01	0.42	mg/Kg-dry-dry	1	25-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Metals by ICP-MS	Antimony	0.24	0.24	J	0.007	1.7	mg/Kg-dry-dry	5	14-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Metals by ICP-MS	Antimony	0.028	0.028	J	0.007	1.8	mg/Kg-dry-dry	5	14-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Metals by ICP-MS	Antimony	4.5	4.5	--	0.0087	2.2	mg/Kg-dry-dry	5	14-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Metals by ICP-MS	Antimony	0.13	0.13	J	0.0016	0.4	mg/Kg-dry-dry	1	13-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Metals by ICP-MS	Antimony	1.6	1.6	--	0.0085	0.36	mg/Kg-dry-dry	1	25-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Metals by ICP-MS	Antimony	2.9	2.9	--	0.0091	0.38	mg/Kg-dry-dry	1	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Metals by ICP-MS	Antimony	0.19	0.19	J	0.0074	1.9	mg/Kg-dry-dry	5	14-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Metals by ICP-MS	Antimony	1.5	1.5	--	0.01	0.42	mg/Kg-dry-dry	1	25-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Metals by ICP-MS	Antimony	18	18	--	0.0092	0.38	mg/Kg-dry-dry	1	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Metals by ICP-MS	Antimony	0.16	0.16	J	0.0077	1.9	mg/Kg-dry-dry	5	16-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Metals by ICP-MS	Antimony	0.19	0.19	J	0.0085	2.1	mg/Kg-dry-dry	5	14-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Metals by ICP-MS	Antimony	0.15	0.15	J	0.0085	2.1	mg/Kg-dry-dry	5	14-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Metals by ICP-MS	Arsenic	6.1	6.1	--	0.05	0.17	mg/Kg-dry-dry	1	25-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Metals by ICP-MS	Arsenic	4.2	4.2	--	0.24	0.7	mg/Kg-dry-dry	5	14-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Metals by ICP-MS	Arsenic	1.8	1.8	--	0.24	0.7	mg/Kg-dry-dry	5	14-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Metals by ICP-MS	Arsenic	8	8.0	--	0.3	0.87	mg/Kg-dry-dry	5	14-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Metals by ICP-MS	Arsenic	3.2	3.2	--	0.055	0.16	mg/Kg-dry-dry	1	12-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Metals by ICP-MS	Arsenic	2.8	2.8	--	0.043	0.14	mg/Kg-dry-dry	1	25-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Metals by ICP-MS	Arsenic	5.6	5.6	--	0.045	0.15	mg/Kg-dry-dry	1	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Metals by ICP-MS	Arsenic	11	11	--	0.25	0.74	mg/Kg-dry-dry	5	14-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Metals by ICP-MS	Arsenic	4.3	4.3	--	0.05	0.17	mg/Kg-dry-dry	1	25-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Metals by ICP-MS	Arsenic	12	12	--	0.046	0.15	mg/Kg-dry-dry	1	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Metals by ICP-MS	Arsenic	5.3	5.3	--	0.26	0.77	mg/Kg-dry-dry	5	16-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Metals by ICP-MS	Arsenic	4.9	4.9	--	0.29	0.85	mg/Kg-dry-dry	5	14-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Metals by ICP-MS	Arsenic	4.1	4.1	--	0.29	0.85	mg/Kg-dry-dry	5	14-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Metals by ICP-MS	Barium	140	140	--	0.015	0.42	mg/Kg-dry-dry	1	25-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Metals by ICP-MS	Barium	19	19	--	0.049	1.7	mg/Kg-dry-dry	5	14-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Metals by ICP-MS	Barium	24	24	--	0.049	1.8	mg/Kg-dry-dry	5	14-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Metals by ICP-MS	Barium	460	460	--	0.061	2.2	mg/Kg-dry-dry	5	14-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Metals by ICP-MS	Barium	25	25	--	0.011	0.4	mg/Kg-dry-dry	1	12-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Metals by ICP-MS	Barium	45	45	--	0.013	0.36	mg/Kg-dry-dry	1	25-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Metals by ICP-MS	Barium	92	92	--	0.014	0.38	mg/Kg-dry-dry	1	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Metals by ICP-MS	Barium	27	27	--	0.052	1.9	mg/Kg-dry-dry	5	14-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Metals by ICP-MS	Barium	89	89	--	0.015	0.42	mg/Kg-dry-dry	1	25-Jul-12

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Region 4 Chemical	CAS	Screening Level (mg/Kg-dry)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/Kg-dry)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Soil Bore	Year
Aluminum	7429-90-5	--	a	All	--	--	--	1	SB-5	2012
Aluminum	7429-90-5	--	a	All	--	--	--	1	SB-5C	2013
Aluminum	7429-90-5	--	a	All	--	--	--	1	SB-6A	2012
Aluminum	7429-90-5	--	a	All	--	--	--	1	SB-7	2012
Aluminum	7429-90-5	--	a	All	--	--	--	1	SB-7E	2013
Aluminum	7429-90-5	--	a	All	--	--	--	1	SB-8	2013
Aluminum	7429-90-5	--	a	All	--	--	--	1	SB-9	2013
Antimony	7440-36-0	0.27	a	All	0.27	0.037037037	21.48148	1	SB-1	2012
Antimony	7440-36-0	0.27	a	All	0.27	0.025925926	0.888889	1	SB-10	2013
Antimony	7440-36-0	0.27	a	All	0.27	0.025925926	0.103704	1	SB-11	2013
Antimony	7440-36-0	0.27	a	All	0.27	0.032222222	16.66667	1	SB-12	2013
Antimony	7440-36-0	0.27	a	All	0.27	0.005925926	0.481481	1	SB-1A	2013
Antimony	7440-36-0	0.27	a	All	0.27	0.031481481	5.925926	1	SB-2	2012
Antimony	7440-36-0	0.27	a	All	0.27	0.033703704	10.74074	1	SB-5	2012
Antimony	7440-36-0	0.27	a	All	0.27	0.027407407	0.703704	1	SB-5C	2013
Antimony	7440-36-0	0.27	a	All	0.27	0.037037037	5.555556	1	SB-6A	2012
Antimony	7440-36-0	0.27	a	All	0.27	0.034074074	66.66667	1	SB-7	2012
Antimony	7440-36-0	0.27	a	All	0.27	0.028518519	0.592593	1	SB-7E	2013
Antimony	7440-36-0	0.27	a	All	0.27	0.031481481	0.703704	1	SB-8	2013
Antimony	7440-36-0	0.27	a	All	0.27	0.031481481	0.555556	1	SB-9	2013
Arsenic	7440-38-2	18	a	All	18000	0.002777778	0.338889	1	SB-1	2012
Arsenic	7440-38-2	18	a	All	18000	0.013333333	0.233333	1	SB-10	2013
Arsenic	7440-38-2	18	a	All	18000	0.013333333	0.1	1	SB-11	2013
Arsenic	7440-38-2	18	a	All	18000	0.016666667	0.444444	1	SB-12	2013
Arsenic	7440-38-2	18	a	All	18000	0.003055556	0.177778	1	SB-1A	2013
Arsenic	7440-38-2	18	a	All	18000	0.002388889	0.155556	1	SB-2	2012
Arsenic	7440-38-2	18	a	All	18000	0.0025	0.311111	1	SB-5	2012
Arsenic	7440-38-2	18	a	All	18000	0.013888889	0.611111	1	SB-5C	2013
Arsenic	7440-38-2	18	a	All	18000	0.002777778	0.238889	1	SB-6A	2012
Arsenic	7440-38-2	18	a	All	18000	0.002555556	0.666667	1	SB-7	2012
Arsenic	7440-38-2	18	a	All	18000	0.014444444	0.294444	1	SB-7E	2013
Arsenic	7440-38-2	18	a	All	18000	0.016111111	0.272222	1	SB-8	2013
Arsenic	7440-38-2	18	a	All	18000	0.016111111	0.227778	1	SB-9	2013
Barium	7440-39-3	330	a	All	330000	4.54545E-05	0.424242	1	SB-1	2012
Barium	7440-39-3	330	a	All	330000	0.000148485	0.057576	1	SB-10	2013
Barium	7440-39-3	330	a	All	330000	0.000148485	0.072727	1	SB-11	2013
Barium	7440-39-3	330	a	All	330000	0.000184848	1.393939	1	SB-12	2013
Barium	7440-39-3	330	a	All	330000	3.33333E-05	0.075758	1	SB-1A	2013
Barium	7440-39-3	330	a	All	330000	3.93939E-05	0.136364	1	SB-2	2012
Barium	7440-39-3	330	a	All	330000	4.24242E-05	0.278788	1	SB-5	2012
Barium	7440-39-3	330	a	All	330000	0.000157576	0.081818	1	SB-5C	2013
Barium	7440-39-3	330	a	All	330000	4.54545E-05	0.269697	1	SB-6A	2012

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	Runits	Dilution Factor	AnalDate
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Metals by ICP-MS	Barium	540	540	--	0.69	19	mg/Kg-dry-dry	50	26-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Metals by ICP-MS	Barium	34	34	--	0.054	1.9	mg/Kg-dry-dry	5	16-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Metals by ICP-MS	Barium	37	37	--	0.059	2.1	mg/Kg-dry-dry	5	14-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Metals by ICP-MS	Barium	21	21	--	0.059	2.1	mg/Kg-dry-dry	5	14-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Metals by ICP-MS	Beryllium	0.5	0.50	J	0.05	1.7	mg/Kg-dry-dry	10	26-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Metals by ICP-MS	Beryllium	0.21	0.21	J	0.014	0.7	mg/Kg-dry-dry	5	14-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Metals by ICP-MS	Beryllium	0.22	0.22	J	0.014	0.7	mg/Kg-dry-dry	5	14-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Metals by ICP-MS	Beryllium	0.24	0.24	J	0.017	0.87	mg/Kg-dry-dry	5	14-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Metals by ICP-MS	Beryllium	0.28	0.28	J	0.016	0.81	mg/Kg-dry-dry	5	14-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Metals by ICP-MS	Beryllium	0.12	0.12	J	0.0043	0.14	mg/Kg-dry-dry	1	25-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Metals by ICP-MS	Beryllium	0.35	0.35	J	0.045	1.5	mg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Metals by ICP-MS	Beryllium	0.32	0.32	J	0.015	0.74	mg/Kg-dry-dry	5	14-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Metals by ICP-MS	Beryllium	0.16	0.16	J	0.005	0.17	mg/Kg-dry-dry	1	25-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Metals by ICP-MS	Beryllium	0.22	0.22	--	0.0046	0.15	mg/Kg-dry-dry	1	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Metals by ICP-MS	Beryllium	0.26	0.26	J	0.015	0.77	mg/Kg-dry-dry	5	16-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Metals by ICP-MS	Beryllium	0.23	0.23	J	0.017	0.85	mg/Kg-dry-dry	5	14-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Metals by ICP-MS	Beryllium	0.21	0.21	J	0.017	0.85	mg/Kg-dry-dry	5	14-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Metals by ICP-MS	Cadmium	1.5	1.5	--	0.0017	0.17	mg/Kg-dry-dry	1	25-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Metals by ICP-MS	Cadmium	0.51	0.51	J	0.007	0.7	mg/Kg-dry-dry	5	14-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Metals by ICP-MS	Cadmium	0.095	0.095	J	0.007	0.7	mg/Kg-dry-dry	5	14-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Metals by ICP-MS	Cadmium	9.9	9.9	--	0.0087	0.87	mg/Kg-dry-dry	5	14-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Metals by ICP-MS	Cadmium	0.15	0.15	J	0.0016	0.16	mg/Kg-dry-dry	1	12-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Metals by ICP-MS	Cadmium	0.86	0.86	--	0.0014	0.14	mg/Kg-dry-dry	1	25-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Metals by ICP-MS	Cadmium	1.6	1.6	--	0.0015	0.15	mg/Kg-dry-dry	1	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Metals by ICP-MS	Cadmium	0.23	0.23	J	0.0074	0.74	mg/Kg-dry-dry	5	14-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Metals by ICP-MS	Cadmium	2.1	2.1	--	0.0017	0.17	mg/Kg-dry-dry	1	25-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Metals by ICP-MS	Cadmium	9.3	9.3	--	0.0015	0.15	mg/Kg-dry-dry	1	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Metals by ICP-MS	Cadmium	0.37	0.37	J	0.0077	0.77	mg/Kg-dry-dry	5	16-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Metals by ICP-MS	Cadmium	0.29	0.29	J	0.0085	0.85	mg/Kg-dry-dry	5	14-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Metals by ICP-MS	Cadmium	0.18	0.18	J	0.0085	0.85	mg/Kg-dry-dry	5	14-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Metals by ICP-MS	Chromium	24	24	--	0.012	0.42	mg/Kg-dry-dry	1	25-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Metals by ICP-MS	Chromium	9.4	9.4	--	0.29	1.7	mg/Kg-dry-dry	5	14-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Metals by ICP-MS	Chromium	7.1	7.1	--	0.29	1.8	mg/Kg-dry-dry	5	14-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Metals by ICP-MS	Chromium	34	34	--	0.36	2.2	mg/Kg-dry-dry	5	14-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Metals by ICP-MS	Chromium	6.4	6.4	--	0.066	0.4	mg/Kg-dry-dry	1	13-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Metals by ICP-MS	Chromium	8.5	8.5	--	0.01	0.36	mg/Kg-dry-dry	1	25-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Metals by ICP-MS	Chromium	17	17	--	0.011	0.38	mg/Kg-dry-dry	1	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Metals by ICP-MS	Chromium	8.8	8.8	--	0.3	1.9	mg/Kg-dry-dry	5	14-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Metals by ICP-MS	Chromium	22	22	--	0.012	0.42	mg/Kg-dry-dry	1	25-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Metals by ICP-MS	Chromium	53	53	--	0.011	0.38	mg/Kg-dry-dry	1	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Metals by ICP-MS	Chromium	9	9.0	--	0.32	1.9	mg/Kg-dry-dry	5	16-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Metals by ICP-MS	Chromium	12	12	--	0.35	2.1	mg/Kg-dry-dry	5	14-Apr-13

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Region 4 Chemical	CAS	Screening Level (mg/Kg-dry)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/Kg-dry)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Soil Bore	Year
Barium	7440-39-3	330	a	All	330000	0.002090909	1.636364	1	SB-7	2012
Barium	7440-39-3	330	a	All	330000	0.000163636	0.10303	1	SB-7E	2013
Barium	7440-39-3	330	a	All	330000	0.000178788	0.112121	1	SB-8	2013
Barium	7440-39-3	330	a	All	330000	0.000178788	0.063636	1	SB-9	2013
Beryllium	7440-41-7	10	b	All	10000	0.005	0.05	1	SB-1	2012
Beryllium	7440-41-7	10	b	All	10000	0.0014	0.021	1	SB-10	2013
Beryllium	7440-41-7	10	b	All	10000	0.0014	0.022	1	SB-11	2013
Beryllium	7440-41-7	10	b	All	10000	0.0017	0.024	1	SB-12	2013
Beryllium	7440-41-7	10	b	All	10000	0.0016	0.028	1	SB-1A	2013
Beryllium	7440-41-7	10	b	All	10000	0.00043	0.012	1	SB-2	2012
Beryllium	7440-41-7	10	b	All	10000	0.0045	0.035	1	SB-5	2012
Beryllium	7440-41-7	10	b	All	10000	0.0015	0.032	1	SB-5C	2013
Beryllium	7440-41-7	10	b	All	10000	0.0005	0.016	1	SB-6A	2012
Beryllium	7440-41-7	10	b	All	10000	0.00046	0.022	1	SB-7	2012
Beryllium	7440-41-7	10	b	All	10000	0.0015	0.026	1	SB-7E	2013
Beryllium	7440-41-7	10	b	All	10000	0.0017	0.023	1	SB-8	2013
Beryllium	7440-41-7	10	b	All	10000	0.0017	0.021	1	SB-9	2013
Cadmium	7440-43-9	0.36	a	All	360	0.004722222	4.166667	1	SB-1	2012
Cadmium	7440-43-9	0.36	a	All	360	0.019444444	1.416667	1	SB-10	2013
Cadmium	7440-43-9	0.36	a	All	360	0.019444444	0.263889	1	SB-11	2013
Cadmium	7440-43-9	0.36	a	All	360	0.024166667	27.5	1	SB-12	2013
Cadmium	7440-43-9	0.36	a	All	360	0.004444444	0.416667	1	SB-1A	2013
Cadmium	7440-43-9	0.36	a	All	360	0.003888889	2.388889	1	SB-2	2012
Cadmium	7440-43-9	0.36	a	All	360	0.004166667	4.444444	1	SB-5	2012
Cadmium	7440-43-9	0.36	a	All	360	0.020555556	0.638889	1	SB-5C	2013
Cadmium	7440-43-9	0.36	a	All	360	0.004722222	5.833333	1	SB-6A	2012
Cadmium	7440-43-9	0.36	a	All	360	0.004166667	25.83333	1	SB-7	2012
Cadmium	7440-43-9	0.36	a	All	360	0.021388889	1.027778	1	SB-7E	2013
Cadmium	7440-43-9	0.36	a	All	360	0.023611111	0.805556	1	SB-8	2013
Cadmium	7440-43-9	0.36	a	All	360	0.023611111	0.5	1	SB-9	2013
Chromium III	16065-83-1	18	a	All	18000	0.000666667	1.333333	1	SB-1	2012
Chromium III	16065-83-1	18	a	All	18000	0.016111111	0.522222	1	SB-10	2013
Chromium III	16065-83-1	18	a	All	18000	0.016111111	0.394444	1	SB-11	2013
Chromium III	16065-83-1	18	a	All	18000	0.02	1.888889	1	SB-12	2013
Chromium III	16065-83-1	18	a	All	18000	0.003666667	0.355556	1	SB-1A	2013
Chromium III	16065-83-1	18	a	All	18000	0.000555556	0.472222	1	SB-2	2012
Chromium III	16065-83-1	18	a	All	18000	0.000611111	0.944444	1	SB-5	2012
Chromium III	16065-83-1	18	a	All	18000	0.016666667	0.488889	1	SB-5C	2013
Chromium III	16065-83-1	18	a	All	18000	0.000666667	1.222222	1	SB-6A	2012
Chromium III	16065-83-1	18	a	All	18000	0.000611111	2.944444	1	SB-7	2012
Chromium III	16065-83-1	18	a	All	18000	0.017777778	0.5	1	SB-7E	2013
Chromium III	16065-83-1	18	a	All	18000	0.019444444	0.666667	1	SB-8	2013

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	Runits	Dilution Factor	AnalDate
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Metals by ICP-MS	Chromium	8.2	8.2	--	0.35	2.1	mg/Kg-dry-dry	5	14-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Metals by ICP-MS	Cobalt	8.2	8.2	--	0.0017	0.42	mg/Kg-dry-dry	1	25-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Metals by ICP-MS	Cobalt	2.9	2.9	--	0.007	1.7	mg/Kg-dry-dry	5	14-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Metals by ICP-MS	Cobalt	1.7	1.7	J	0.007	1.8	mg/Kg-dry-dry	5	14-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Metals by ICP-MS	Cobalt	6.7	6.7	--	0.0087	2.2	mg/Kg-dry-dry	5	14-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Metals by ICP-MS	Cobalt	2.5	2.5	--	0.0016	0.4	mg/Kg-dry-dry	1	13-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Metals by ICP-MS	Cobalt	2.7	2.7	--	0.0014	0.36	mg/Kg-dry-dry	1	25-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Metals by ICP-MS	Cobalt	5.5	5.5	--	0.0015	0.38	mg/Kg-dry-dry	1	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Metals by ICP-MS	Cobalt	3.6	3.6	--	0.0074	1.9	mg/Kg-dry-dry	5	14-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Metals by ICP-MS	Cobalt	3.5	3.5	--	0.0017	0.42	mg/Kg-dry-dry	1	25-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Metals by ICP-MS	Cobalt	7.8	7.8	--	0.0015	0.38	mg/Kg-dry-dry	1	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Metals by ICP-MS	Cobalt	4.4	4.4	--	0.0077	1.9	mg/Kg-dry-dry	5	16-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Metals by ICP-MS	Cobalt	3.3	3.3	--	0.0085	2.1	mg/Kg-dry-dry	5	14-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Metals by ICP-MS	Cobalt	2.6	2.6	--	0.0085	2.1	mg/Kg-dry-dry	5	14-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Metals by ICP-MS	Copper	130	130	--	0.012	0.42	mg/Kg-dry-dry	1	25-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Metals by ICP-MS	Copper	11	11	--	0.34	1.7	mg/Kg-dry-dry	5	14-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Metals by ICP-MS	Copper	2.9	2.9	--	0.34	1.8	mg/Kg-dry-dry	5	14-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Metals by ICP-MS	Copper	240	240	--	0.43	2.2	mg/Kg-dry-dry	5	14-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Metals by ICP-MS	Copper	6.3	6.3	--	0.079	0.4	mg/Kg-dry-dry	1	13-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Metals by ICP-MS	Copper	31	31	--	0.01	0.36	mg/Kg-dry-dry	1	25-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Metals by ICP-MS	Copper	120	120	--	0.011	0.38	mg/Kg-dry-dry	1	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Metals by ICP-MS	Copper	11	11	--	0.36	1.9	mg/Kg-dry-dry	5	14-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Metals by ICP-MS	Copper	110	110	--	0.012	0.42	mg/Kg-dry-dry	1	25-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Metals by ICP-MS	Copper	1,500	1,500	--	0.54	19	mg/Kg-dry-dry	50	26-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Metals by ICP-MS	Copper	10	10	--	0.38	1.9	mg/Kg-dry-dry	5	16-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Metals by ICP-MS	Copper	8.4	8.4	--	0.41	2.1	mg/Kg-dry-dry	5	14-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Metals by ICP-MS	Copper	9.8	9.8	--	0.42	2.1	mg/Kg-dry-dry	5	14-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Metals by ICP-MS	Iron	20,000	20,000	--	14	67	mg/Kg-dry-dry	10	26-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Metals by ICP-MS	Iron	11,000	11,000	--	5.8	28	mg/Kg-dry-dry	5	15-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Metals by ICP-MS	Iron	8,200	8,200	--	5.9	28	mg/Kg-dry-dry	5	15-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Metals by ICP-MS	Iron	44,000	44,000	--	7.2	35	mg/Kg-dry-dry	5	15-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Metals by ICP-MS	Iron	6,900	6,900	--	1.3	6.5	mg/Kg-dry-dry	1	13-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Metals by ICP-MS	Iron	15,000	15,000	--	6	28	mg/Kg-dry-dry	5	26-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Metals by ICP-MS	Iron	20,000	20,000	--	13	60	mg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Metals by ICP-MS	Iron	15,000	15,000	--	6.2	30	mg/Kg-dry-dry	5	15-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Metals by ICP-MS	Iron	17,000	17,000	--	7.1	33	mg/Kg-dry-dry	5	26-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Metals by ICP-MS	Iron	74,000	74,000	--	65	310	mg/Kg-dry-dry	50	26-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Metals by ICP-MS	Iron	11,000	11,000	--	6.4	31	mg/Kg-dry-dry	5	16-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Metals by ICP-MS	Iron	12,000	12,000	--	7	34	mg/Kg-dry-dry	5	15-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Metals by ICP-MS	Iron	9,200	9,200	--	7.1	34	mg/Kg-dry-dry	5	15-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Metals by ICP-MS	Lead	190	190	--	0.017	4.2	mg/Kg-dry-dry	10	26-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Metals by ICP-MS	Lead	20	20	--	0.007	1.7	mg/Kg-dry-dry	5	14-Apr-13

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Region 4 Chemical	CAS	Screening Level (mg/Kg-dry)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/Kg-dry)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Soil Bore	Year
Chromium III	16065-83-1	18	a	All	18000	0.019444444	0.455556	1	SB-9	2013
Cobalt	7440-48-4	13	a	All	13000	0.000130769	0.630769	1	SB-1	2012
Cobalt	7440-48-4	13	a	All	13000	0.000538462	0.223077	1	SB-10	2013
Cobalt	7440-48-4	13	a	All	13000	0.000538462	0.130769	1	SB-11	2013
Cobalt	7440-48-4	13	a	All	13000	0.000669231	0.515385	1	SB-12	2013
Cobalt	7440-48-4	13	a	All	13000	0.000123077	0.192308	1	SB-1A	2013
Cobalt	7440-48-4	13	a	All	13000	0.000107692	0.207692	1	SB-2	2012
Cobalt	7440-48-4	13	a	All	13000	0.000115385	0.423077	1	SB-5	2012
Cobalt	7440-48-4	13	a	All	13000	0.000569231	0.276923	1	SB-5C	2013
Cobalt	7440-48-4	13	a	All	13000	0.000130769	0.269231	1	SB-6A	2012
Cobalt	7440-48-4	13	a	All	13000	0.000115385	0.6	1	SB-7	2012
Cobalt	7440-48-4	13	a	All	13000	0.000592308	0.338462	1	SB-7E	2013
Cobalt	7440-48-4	13	a	All	13000	0.000653846	0.253846	1	SB-8	2013
Cobalt	7440-48-4	13	a	All	13000	0.000653846	0.2	1	SB-9	2013
Copper	7440-50-8	28	a	All	28000	0.000428571	4.642857	1	SB-1	2012
Copper	7440-50-8	28	a	All	28000	0.012142857	0.392857	1	SB-10	2013
Copper	7440-50-8	28	a	All	28000	0.012142857	0.103571	1	SB-11	2013
Copper	7440-50-8	28	a	All	28000	0.015357143	8.571429	1	SB-12	2013
Copper	7440-50-8	28	a	All	28000	0.002821429	0.225	1	SB-1A	2013
Copper	7440-50-8	28	a	All	28000	0.000357143	1.107143	1	SB-2	2012
Copper	7440-50-8	28	a	All	28000	0.000392857	4.285714	1	SB-5	2012
Copper	7440-50-8	28	a	All	28000	0.012857143	0.392857	1	SB-5C	2013
Copper	7440-50-8	28	a	All	28000	0.000428571	3.928571	1	SB-6A	2012
Copper	7440-50-8	28	a	All	28000	0.019285714	53.57143	1	SB-7	2012
Copper	7440-50-8	28	a	All	28000	0.013571429	0.357143	1	SB-7E	2013
Copper	7440-50-8	28	a	All	28000	0.014642857	0.3	1	SB-8	2013
Copper	7440-50-8	28	a	All	28000	0.015	0.35	1	SB-9	2013
Iron	7439-89-6	--	a	All	--	--	--	1	SB-1	2012
Iron	7439-89-6	--	a	All	--	--	--	1	SB-10	2013
Iron	7439-89-6	--	a	All	--	--	--	1	SB-11	2013
Iron	7439-89-6	--	a	All	--	--	--	1	SB-12	2013
Iron	7439-89-6	--	a	All	--	--	--	1	SB-1A	2013
Iron	7439-89-6	--	a	All	--	--	--	1	SB-2	2012
Iron	7439-89-6	--	a	All	--	--	--	1	SB-5	2012
Iron	7439-89-6	--	a	All	--	--	--	1	SB-5C	2013
Iron	7439-89-6	--	a	All	--	--	--	1	SB-6A	2012
Iron	7439-89-6	--	a	All	--	--	--	1	SB-7	2012
Iron	7439-89-6	--	a	All	--	--	--	1	SB-7E	2013
Iron	7439-89-6	--	a	All	--	--	--	1	SB-8	2013
Iron	7439-89-6	--	a	All	--	--	--	1	SB-9	2013
Lead	7439-92-1	11	a	All	11000	0.001545455	17.27273	1	SB-1	2012
Lead	7439-92-1	11	a	All	11000	0.000636364	1.818182	1	SB-10	2013

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	Runits	Dilution Factor	AnalDate
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Metals by ICP-MS	Lead	5	5.0	--	0.007	1.8	mg/Kg-dry-dry	5	14-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Metals by ICP-MS	Lead	860	860	--	0.087	22	mg/Kg-dry-dry	50	16-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Metals by ICP-MS	Lead	7.8	7.8	--	0.0016	0.4	mg/Kg-dry-dry	1	12-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Metals by ICP-MS	Lead	64	64	--	0.0014	0.36	mg/Kg-dry-dry	1	25-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Metals by ICP-MS	Lead	99	99	--	0.015	3.8	mg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Metals by ICP-MS	Lead	16	16	--	0.0074	1.9	mg/Kg-dry-dry	5	14-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Metals by ICP-MS	Lead	130	130	--	0.0084	2.1	mg/Kg-dry-dry	5	26-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Metals by ICP-MS	Lead	770	770	--	0.077	19	mg/Kg-dry-dry	50	26-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Metals by ICP-MS	Lead	9.5	9.5	--	0.0077	1.9	mg/Kg-dry-dry	5	16-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Metals by ICP-MS	Lead	21	21	--	0.0085	2.1	mg/Kg-dry-dry	5	14-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Metals by ICP-MS	Lead	21	21	--	0.0085	2.1	mg/Kg-dry-dry	5	14-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Metals by ICP-MS	Manganese	220	220	--	0.12	4.2	mg/Kg-dry-dry	10	26-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Metals by ICP-MS	Manganese	310	310	--	0.15	1.7	mg/Kg-dry-dry	5	14-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Metals by ICP-MS	Manganese	86	86	--	0.15	1.8	mg/Kg-dry-dry	5	14-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Metals by ICP-MS	Manganese	460	460	--	0.19	2.2	mg/Kg-dry-dry	5	14-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Metals by ICP-MS	Manganese	270	270	--	0.18	2	mg/Kg-dry-dry	5	14-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Metals by ICP-MS	Manganese	360	360	--	0.05	1.8	mg/Kg-dry-dry	5	26-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Metals by ICP-MS	Manganese	470	470	--	0.11	3.8	mg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Metals by ICP-MS	Manganese	380	380	--	0.16	1.9	mg/Kg-dry-dry	5	14-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Metals by ICP-MS	Manganese	240	240	--	0.059	2.1	mg/Kg-dry-dry	5	26-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Metals by ICP-MS	Manganese	600	600	--	0.54	19	mg/Kg-dry-dry	50	26-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Metals by ICP-MS	Manganese	260	260	--	0.17	1.9	mg/Kg-dry-dry	5	16-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Metals by ICP-MS	Manganese	250	250	--	0.19	2.1	mg/Kg-dry-dry	5	14-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Metals by ICP-MS	Manganese	200	200	--	0.19	2.1	mg/Kg-dry-dry	5	14-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Metals by ICP-MS	Nickel	19	19	--	0.005	0.42	mg/Kg-dry-dry	1	25-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Metals by ICP-MS	Nickel	9.9	9.9	--	0.17	1.7	mg/Kg-dry-dry	5	14-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Metals by ICP-MS	Nickel	4.9	4.9	--	0.18	1.8	mg/Kg-dry-dry	5	14-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Metals by ICP-MS	Nickel	41	41	--	0.22	2.2	mg/Kg-dry-dry	5	14-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Metals by ICP-MS	Nickel	7	7.0	--	0.04	0.4	mg/Kg-dry-dry	1	13-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Metals by ICP-MS	Nickel	9.8	9.8	--	0.0043	0.36	mg/Kg-dry-dry	1	25-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Metals by ICP-MS	Nickel	18	18	--	0.0045	0.38	mg/Kg-dry-dry	1	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Metals by ICP-MS	Nickel	11	11	--	0.19	1.9	mg/Kg-dry-dry	5	14-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Metals by ICP-MS	Nickel	62	62	--	0.005	0.42	mg/Kg-dry-dry	1	25-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Metals by ICP-MS	Nickel	60	60	--	0.0046	0.38	mg/Kg-dry-dry	1	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Metals by ICP-MS	Nickel	12	12	--	0.19	1.9	mg/Kg-dry-dry	5	16-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Metals by ICP-MS	Nickel	8.9	8.9	--	0.21	2.1	mg/Kg-dry-dry	5	14-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Metals by ICP-MS	Nickel	7.3	7.3	--	0.21	2.1	mg/Kg-dry-dry	5	14-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Metals by ICP-MS	Selenium	0.58	0.58	--	0.03	0.33	mg/Kg-dry-dry	1	25-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Metals by ICP-MS	Selenium	--	U	U	0.22	1.4	mg/Kg-dry-dry	5	14-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Metals by ICP-MS	Selenium	--	U	U	0.23	1.4	mg/Kg-dry-dry	5	14-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Metals by ICP-MS	Selenium	--	U	U	0.28	1.7	mg/Kg-dry-dry	5	14-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Metals by ICP-MS	Selenium	0.29	0.29	J	0.052	0.32	mg/Kg-dry-dry	1	13-Apr-13

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Region 4 Chemical	CAS	Screening Level (mg/Kg-dry)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/Kg-dry)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Soil Bore	Year
Lead	7439-92-1	11	a	All	11000	0.000636364	0.454545	1	SB-11	2013
Lead	7439-92-1	11	a	All	11000	0.007909091	78.18182	1	SB-12	2013
Lead	7439-92-1	11	a	All	11000	0.000145455	0.709091	1	SB-1A	2013
Lead	7439-92-1	11	a	All	11000	0.000127273	5.818182	1	SB-2	2012
Lead	7439-92-1	11	a	All	11000	0.001363636	9	1	SB-5	2012
Lead	7439-92-1	11	a	All	11000	0.000672727	1.454545	1	SB-5C	2013
Lead	7439-92-1	11	a	All	11000	0.000763636	11.81818	1	SB-6A	2012
Lead	7439-92-1	11	a	All	11000	0.007	70	1	SB-7	2012
Lead	7439-92-1	11	a	All	11000	0.0007	0.863636	1	SB-7E	2013
Lead	7439-92-1	11	a	All	11000	0.000772727	1.909091	1	SB-8	2013
Lead	7439-92-1	11	a	All	11000	0.000772727	1.909091	1	SB-9	2013
Manganese	7439-96-5	220	a	All	220000	0.000545455	1	1	SB-1	2012
Manganese	7439-96-5	220	a	All	220000	0.000681818	1.409091	1	SB-10	2013
Manganese	7439-96-5	220	a	All	220000	0.000681818	0.390909	1	SB-11	2013
Manganese	7439-96-5	220	a	All	220000	0.000863636	2.090909	1	SB-12	2013
Manganese	7439-96-5	220	a	All	220000	0.000818182	1.227273	1	SB-1A	2013
Manganese	7439-96-5	220	a	All	220000	0.000227273	1.636364	1	SB-2	2012
Manganese	7439-96-5	220	a	All	220000	0.0005	2.136364	1	SB-5	2012
Manganese	7439-96-5	220	a	All	220000	0.000727273	1.727273	1	SB-5C	2013
Manganese	7439-96-5	220	a	All	220000	0.000268182	1.090909	1	SB-6A	2012
Manganese	7439-96-5	220	a	All	220000	0.002454545	2.727273	1	SB-7	2012
Manganese	7439-96-5	220	a	All	220000	0.000772727	1.181818	1	SB-7E	2013
Manganese	7439-96-5	220	a	All	220000	0.000863636	1.136364	1	SB-8	2013
Manganese	7439-96-5	220	a	All	220000	0.000863636	0.909091	1	SB-9	2013
Nickel	7440-02-0	38	a	All	38000	0.000131579	0.5	1	SB-1	2012
Nickel	7440-02-0	38	a	All	38000	0.004473684	0.260526	1	SB-10	2013
Nickel	7440-02-0	38	a	All	38000	0.004736842	0.128947	1	SB-11	2013
Nickel	7440-02-0	38	a	All	38000	0.005789474	1.078947	1	SB-12	2013
Nickel	7440-02-0	38	a	All	38000	0.001052632	0.184211	1	SB-1A	2013
Nickel	7440-02-0	38	a	All	38000	0.000113158	0.257895	1	SB-2	2012
Nickel	7440-02-0	38	a	All	38000	0.000118421	0.473684	1	SB-5	2012
Nickel	7440-02-0	38	a	All	38000	0.005	0.289474	1	SB-5C	2013
Nickel	7440-02-0	38	a	All	38000	0.000131579	1.631579	1	SB-6A	2012
Nickel	7440-02-0	38	a	All	38000	0.000121053	1.578947	1	SB-7	2012
Nickel	7440-02-0	38	a	All	38000	0.005	0.315789	1	SB-7E	2013
Nickel	7440-02-0	38	a	All	38000	0.005526316	0.234211	1	SB-8	2013
Nickel	7440-02-0	38	a	All	38000	0.005526316	0.192105	1	SB-9	2013
Selenium	7782-49-2	0.52	a	All	520	0.057692308	1.115385	1	SB-1	2012
Selenium	7782-49-2	0.52	a	All	520	0.423076923	--	0	SB-10	2013
Selenium	7782-49-2	0.52	a	All	520	0.442307692	--	0	SB-11	2013
Selenium	7782-49-2	0.52	a	All	520	0.538461538	--	0	SB-12	2013
Selenium	7782-49-2	0.52	a	All	520	0.1	0.557692	1	SB-1A	2013

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	Runits	Dilution Factor	AnalDate
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Metals by ICP-MS	Selenium	0.32	0.32	--	0.026	0.28	mg/Kg-dry-dry	1	25-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Metals by ICP-MS	Selenium	0.83	0.83	--	0.027	0.3	mg/Kg-dry-dry	1	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Metals by ICP-MS	Selenium	0.32	0.32	J	0.24	1.5	mg/Kg-dry-dry	5	14-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Metals by ICP-MS	Selenium	0.24	0.24	J	0.03	0.33	mg/Kg-dry-dry	1	25-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Metals by ICP-MS	Selenium	0.69	0.69	--	0.028	0.31	mg/Kg-dry-dry	1	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Metals by ICP-MS	Selenium	--	U	U	0.25	1.5	mg/Kg-dry-dry	5	16-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Metals by ICP-MS	Selenium	--	U	U	0.27	1.7	mg/Kg-dry-dry	5	14-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Metals by ICP-MS	Selenium	--	U	U	0.27	1.7	mg/Kg-dry-dry	5	14-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Metals by ICP-MS	Silver	0.5	0.50	J	0.017	1.7	mg/Kg-dry-dry	10	26-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Metals by ICP-MS	Silver	0.11	0.11	J	0.007	0.7	mg/Kg-dry-dry	5	14-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Metals by ICP-MS	Silver	0.008	0.0080	J	0.007	0.7	mg/Kg-dry-dry	5	14-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Metals by ICP-MS	Silver	1.2	1.2	--	0.0087	0.87	mg/Kg-dry-dry	5	14-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Metals by ICP-MS	Silver	0.011	0.011	J	0.0016	0.16	mg/Kg-dry-dry	1	13-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Metals by ICP-MS	Silver	0.39	0.39	J	0.0071	0.71	mg/Kg-dry-dry	5	26-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Metals by ICP-MS	Silver	0.8	0.80	J	0.015	1.5	mg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Metals by ICP-MS	Silver	0.021	0.021	J	0.0074	0.74	mg/Kg-dry-dry	5	14-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Metals by ICP-MS	Silver	0.3	0.30	J	0.0084	0.84	mg/Kg-dry-dry	5	26-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Metals by ICP-MS	Silver	4.2	4.2	J	0.077	7.7	mg/Kg-dry-dry	50	26-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Metals by ICP-MS	Silver	0.038	0.038	J	0.0077	0.77	mg/Kg-dry-dry	5	16-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Metals by ICP-MS	Silver	0.029	0.029	J	0.0085	0.85	mg/Kg-dry-dry	5	14-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Metals by ICP-MS	Silver	0.012	0.012	J	0.0085	0.85	mg/Kg-dry-dry	5	14-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Metals by ICP-MS	Thallium	0.16	0.16	J	0.0067	0.42	mg/Kg-dry-dry	1	25-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Metals by ICP-MS	Thallium	0.12	0.12	J	0.042	1.7	mg/Kg-dry-dry	5	14-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Metals by ICP-MS	Thallium	--	U	U	0.042	1.8	mg/Kg-dry-dry	5	14-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Metals by ICP-MS	Thallium	0.065	0.065	J	0.052	2.2	mg/Kg-dry-dry	5	14-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Metals by ICP-MS	Thallium	0.091	0.091	J	0.0097	0.4	mg/Kg-dry-dry	1	12-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Metals by ICP-MS	Thallium	0.086	0.086	J	0.0057	0.36	mg/Kg-dry-dry	1	25-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Metals by ICP-MS	Thallium	0.21	0.21	J	0.006	0.38	mg/Kg-dry-dry	1	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Metals by ICP-MS	Thallium	0.13	0.13	J	0.044	1.9	mg/Kg-dry-dry	5	14-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Metals by ICP-MS	Thallium	0.075	0.075	J	0.0067	0.42	mg/Kg-dry-dry	1	25-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Metals by ICP-MS	Thallium	0.065	0.065	J	0.0061	0.38	mg/Kg-dry-dry	1	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Metals by ICP-MS	Thallium	0.17	0.17	J	0.046	1.9	mg/Kg-dry-dry	5	16-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Metals by ICP-MS	Thallium	0.068	0.068	J	0.051	2.1	mg/Kg-dry-dry	5	14-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Metals by ICP-MS	Thallium	0.09	0.090	J	0.051	2.1	mg/Kg-dry-dry	5	14-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Metals by ICP-MS	Vanadium	18	18	--	0.022	0.42	mg/Kg-dry-dry	1	25-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Metals by ICP-MS	Vanadium	12	12	--	0.1	1.7	mg/Kg-dry-dry	5	14-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Metals by ICP-MS	Vanadium	11	11	--	0.11	1.8	mg/Kg-dry-dry	5	14-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Metals by ICP-MS	Vanadium	13	13	--	0.13	2.2	mg/Kg-dry-dry	5	14-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Metals by ICP-MS	Vanadium	9.6	9.6	--	0.024	0.4	mg/Kg-dry-dry	1	13-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Metals by ICP-MS	Vanadium	9.1	9.1	--	0.019	0.36	mg/Kg-dry-dry	1	25-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Metals by ICP-MS	Vanadium	17	17	--	0.02	0.38	mg/Kg-dry-dry	1	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Metals by ICP-MS	Vanadium	16	16	--	0.11	1.9	mg/Kg-dry-dry	5	14-Apr-13

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Region 4 Chemical	CAS	Screening Level (mg/Kg-dry)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/Kg-dry)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Soil Bore	Year
Selenium	7782-49-2	0.52	a	All	520	0.05	0.615385	1	SB-2	2012
Selenium	7782-49-2	0.52	a	All	520	0.051923077	1.596154	1	SB-5	2012
Selenium	7782-49-2	0.52	a	All	520	0.461538462	0.615385	1	SB-5C	2013
Selenium	7782-49-2	0.52	a	All	520	0.057692308	0.461538	1	SB-6A	2012
Selenium	7782-49-2	0.52	a	All	520	0.053846154	1.326923	1	SB-7	2012
Selenium	7782-49-2	0.52	a	All	520	0.480769231	--	0	SB-7E	2013
Selenium	7782-49-2	0.52	a	All	520	0.519230769	--	0	SB-8	2013
Selenium	7782-49-2	0.52	a	All	520	0.519230769	--	0	SB-9	2013
Silver	7440-22-4	4.2	a	All	4200	0.004047619	0.119048	1	SB-1	2012
Silver	7440-22-4	4.2	a	All	4200	0.001666667	0.02619	1	SB-10	2013
Silver	7440-22-4	4.2	a	All	4200	0.001666667	0.001905	1	SB-11	2013
Silver	7440-22-4	4.2	a	All	4200	0.002071429	0.285714	1	SB-12	2013
Silver	7440-22-4	4.2	a	All	4200	0.000380952	0.002619	1	SB-1A	2013
Silver	7440-22-4	4.2	a	All	4200	0.001690476	0.092857	1	SB-2	2012
Silver	7440-22-4	4.2	a	All	4200	0.003571429	0.190476	1	SB-5	2012
Silver	7440-22-4	4.2	a	All	4200	0.001761905	0.005	1	SB-5C	2013
Silver	7440-22-4	4.2	a	All	4200	0.002	0.071429	1	SB-6A	2012
Silver	7440-22-4	4.2	a	All	4200	0.018333333	1	1	SB-7	2012
Silver	7440-22-4	4.2	a	All	4200	0.001833333	0.009048	1	SB-7E	2013
Silver	7440-22-4	4.2	a	All	4200	0.00202381	0.006905	1	SB-8	2013
Silver	7440-22-4	4.2	a	All	4200	0.00202381	0.002857	1	SB-9	2013
Thallium	7440-28-0	0.22	c	All	220	0.030454545	0.727273	1	SB-1	2012
Thallium	7440-28-0	0.22	c	All	220	0.190909091	0.545455	1	SB-10	2013
Thallium	7440-28-0	0.22	c	All	220	0.190909091	--	0	SB-11	2013
Thallium	7440-28-0	0.22	c	All	220	0.236363636	0.295455	1	SB-12	2013
Thallium	7440-28-0	0.22	c	All	220	0.044090909	0.413636	1	SB-1A	2013
Thallium	7440-28-0	0.22	c	All	220	0.025909091	0.390909	1	SB-2	2012
Thallium	7440-28-0	0.22	c	All	220	0.027272727	0.954545	1	SB-5	2012
Thallium	7440-28-0	0.22	c	All	220	0.2	0.590909	1	SB-5C	2013
Thallium	7440-28-0	0.22	c	All	220	0.030454545	0.340909	1	SB-6A	2012
Thallium	7440-28-0	0.22	c	All	220	0.027727273	0.295455	1	SB-7	2012
Thallium	7440-28-0	0.22	c	All	220	0.209090909	0.772727	1	SB-7E	2013
Thallium	7440-28-0	0.22	c	All	220	0.231818182	0.309091	1	SB-8	2013
Thallium	7440-28-0	0.22	c	All	220	0.231818182	0.409091	1	SB-9	2013
Vanadium	7440-62-2	7.8	a	All	7800	0.002820513	2.307692	1	SB-1	2012
Vanadium	7440-62-2	7.8	a	All	7800	0.012820513	1.538462	1	SB-10	2013
Vanadium	7440-62-2	7.8	a	All	7800	0.014102564	1.410256	1	SB-11	2013
Vanadium	7440-62-2	7.8	a	All	7800	0.016666667	1.666667	1	SB-12	2013
Vanadium	7440-62-2	7.8	a	All	7800	0.003076923	1.230769	1	SB-1A	2013
Vanadium	7440-62-2	7.8	a	All	7800	0.002435897	1.166667	1	SB-2	2012
Vanadium	7440-62-2	7.8	a	All	7800	0.002564103	2.179487	1	SB-5	2012
Vanadium	7440-62-2	7.8	a	All	7800	0.014102564	2.051282	1	SB-5C	2013

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	Runits	Dilution Factor	AnalDate
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Metals by ICP-MS	Vanadium	12	12	--	0.022	0.42	mg/Kg-dry-dry	1	25-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Metals by ICP-MS	Vanadium	18	18	--	0.02	0.38	mg/Kg-dry-dry	1	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Metals by ICP-MS	Vanadium	18	18	--	0.12	1.9	mg/Kg-dry-dry	5	16-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Metals by ICP-MS	Vanadium	14	14	--	0.13	2.1	mg/Kg-dry-dry	5	14-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Metals by ICP-MS	Vanadium	11	11	--	0.13	2.1	mg/Kg-dry-dry	5	14-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Metals by ICP-MS	Zinc	280	280	--	0.43	8.3	mg/Kg-dry-dry	10	26-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Metals by ICP-MS	Zinc	59	59	--	0.15	3.5	mg/Kg-dry-dry	5	14-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Metals by ICP-MS	Zinc	18	18	--	0.15	3.5	mg/Kg-dry-dry	5	14-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Metals by ICP-MS	Zinc	1,100	1,100	--	1.8	44	mg/Kg-dry-dry	50	16-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Metals by ICP-MS	Zinc	19	19	--	0.034	0.81	mg/Kg-dry-dry	1	13-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Metals by ICP-MS	Zinc	98	98	--	0.037	0.71	mg/Kg-dry-dry	1	25-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Metals by ICP-MS	Zinc	510	510	--	0.39	7.5	mg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Metals by ICP-MS	Zinc	34	34	--	0.16	3.7	mg/Kg-dry-dry	5	14-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Metals by ICP-MS	Zinc	320	320	--	0.22	4.2	mg/Kg-dry-dry	5	26-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Metals by ICP-MS	Zinc	2,400	2,400	--	2	38	mg/Kg-dry-dry	50	26-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Metals by ICP-MS	Zinc	32	32	--	0.16	3.8	mg/Kg-dry-dry	5	16-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Metals by ICP-MS	Zinc	43	43	--	0.18	4.2	mg/Kg-dry-dry	5	14-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Metals by ICP-MS	Zinc	34	34	--	0.18	4.2	mg/Kg-dry-dry	5	14-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Moisture	Moisture	5.9	5.9	--	0.025	0.05	% of sample	1	19-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Moisture	Moisture	8.3	8.3	H	0.025	0.05	% of sample	1	05-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Moisture	Moisture	11	11	H	0.025	0.05	% of sample	1	05-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Moisture	Moisture	17	17	H	0.025	0.05	% of sample	1	05-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Moisture	Moisture	9.4	9.4	H	0.025	0.05	% of sample	1	05-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Moisture	Moisture	2.5	2.5	--	0.025	0.05	% of sample	1	19-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Moisture	Moisture	5.7	5.7	H	0.025	0.05	% of sample	1	19-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Moisture	Moisture	12	12	--	0.025	0.05	% of sample	1	05-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Moisture	Moisture	5.6	5.6	--	0.025	0.05	% of sample	1	19-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Moisture	Moisture	6	6.0	H	0.025	0.05	% of sample	1	19-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Moisture	Moisture	12	12	--	0.025	0.05	% of sample	1	05-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Moisture	Moisture	14	14	H	0.025	0.05	% of sample	1	05-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Moisture	Moisture	9.7	9.7	H	0.025	0.05	% of sample	1	05-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	PCBs	Aroclor 1016	--	U	U	37	41	µg/Kg-dry-dry	1	24-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	PCBs	Aroclor 1016	--	U	U	37	41	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	PCBs	Aroclor 1016	--	U	U	38	42	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	PCBs	Aroclor 1016	--	U	U	43	48	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	PCBs	Aroclor 1016	--	U	U	38	43	µg/Kg-dry-dry	1	09-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	PCBs	Aroclor 1016	--	U	U	35	40	µg/Kg-dry-dry	1	24-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	PCBs	Aroclor 1016	--	U	U	36	40	µg/Kg-dry-dry	1	24-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	PCBs	Aroclor 1016	--	U	U	40	44	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	PCBs	Aroclor 1016	--	U	U	37	41	µg/Kg-dry-dry	1	24-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	PCBs	Aroclor 1016	--	U	U	38	42	µg/Kg-dry-dry	1	24-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	PCBs	Aroclor 1016	--	U	U	39	43	µg/Kg-dry-dry	1	11-Apr-13

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Region 4 Chemical	CAS	Screening Level (mg/Kg-dry)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/Kg-dry)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Soil Bore	Year
Vanadium	7440-62-2	7.8	a	All	7800	0.002820513	1.538462	1	SB-6A	2012
Vanadium	7440-62-2	7.8	a	All	7800	0.002564103	2.307692	1	SB-7	2012
Vanadium	7440-62-2	7.8	a	All	7800	0.015384615	2.307692	1	SB-7E	2013
Vanadium	7440-62-2	7.8	a	All	7800	0.016666667	1.794872	1	SB-8	2013
Vanadium	7440-62-2	7.8	a	All	7800	0.016666667	1.410256	1	SB-9	2013
Zinc	7440-66-6	46	a	All	46000	0.009347826	6.086957	1	SB-1	2012
Zinc	7440-66-6	46	a	All	46000	0.00326087	1.282609	1	SB-10	2013
Zinc	7440-66-6	46	a	All	46000	0.00326087	0.391304	1	SB-11	2013
Zinc	7440-66-6	46	a	All	46000	0.039130435	23.91304	1	SB-12	2013
Zinc	7440-66-6	46	a	All	46000	0.00073913	0.413043	1	SB-1A	2013
Zinc	7440-66-6	46	a	All	46000	0.000804348	2.130435	1	SB-2	2012
Zinc	7440-66-6	46	a	All	46000	0.008478261	11.08696	1	SB-5	2012
Zinc	7440-66-6	46	a	All	46000	0.003478261	0.73913	1	SB-5C	2013
Zinc	7440-66-6	46	a	All	46000	0.004782609	6.956522	1	SB-6A	2012
Zinc	7440-66-6	46	a	All	46000	0.043478261	52.17391	1	SB-7	2012
Zinc	7440-66-6	46	a	All	46000	0.003478261	0.695652	1	SB-7E	2013
Zinc	7440-66-6	46	a	All	46000	0.003913043	0.934783	1	SB-8	2013
Zinc	7440-66-6	46	a	All	46000	0.003913043	0.73913	1	SB-9	2013
--	--	--	--	--	--	--	--	--	SB-1	2012
--	--	--	--	--	--	--	--	--	SB-10	2013
--	--	--	--	--	--	--	--	--	SB-11	2013
--	--	--	--	--	--	--	--	--	SB-12	2013
--	--	--	--	--	--	--	--	--	SB-1A	2013
--	--	--	--	--	--	--	--	--	SB-2	2012
--	--	--	--	--	--	--	--	1	SB-5	2012
--	--	--	--	--	--	--	--	--	SB-5C	2013
--	--	--	--	--	--	--	--	--	SB-6A	2012
--	--	--	--	--	--	--	--	--	SB-7	2012
--	--	--	--	--	--	--	--	--	SB-7E	2013
--	--	--	--	--	--	--	--	--	SB-8	2013
--	--	--	--	--	--	--	--	--	SB-9	2013
Aroclor-1016	12674-11-2	1	c	All	1000	0.037	--	0	SB-1	2012
Aroclor-1016	12674-11-2	1	c	All	1000	0.037	--	0	SB-10	2013
Aroclor-1016	12674-11-2	1	c	All	1000	0.038	--	0	SB-11	2013
Aroclor-1016	12674-11-2	1	c	All	1000	0.043	--	0	SB-12	2013
Aroclor-1016	12674-11-2	1	c	All	1000	0.038	--	0	SB-1A	2013
Aroclor-1016	12674-11-2	1	c	All	1000	0.035	--	0	SB-2	2012
Aroclor-1016	12674-11-2	1	c	All	1000	0.036	--	0	SB-5	2012
Aroclor-1016	12674-11-2	1	c	All	1000	0.04	--	0	SB-5C	2013
Aroclor-1016	12674-11-2	1	c	All	1000	0.037	--	0	SB-6A	2012
Aroclor-1016	12674-11-2	1	c	All	1000	0.038	--	0	SB-7	2012
Aroclor-1016	12674-11-2	1	c	All	1000	0.039	--	0	SB-7E	2013

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	Runits	Dilution Factor	AnalDate
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	PCBs	Aroclor 1016	--	U	U	39	44	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	PCBs	Aroclor 1016	--	U	U	38	43	µg/Kg-dry-dry	1	09-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	PCBs	Aroclor 1221	--	U	U	37	41	µg/Kg-dry-dry	1	24-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	PCBs	Aroclor 1221	--	U	U	37	41	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	PCBs	Aroclor 1221	--	U	U	38	42	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	PCBs	Aroclor 1221	--	U	U	43	48	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	PCBs	Aroclor 1221	--	U	U	38	43	µg/Kg-dry-dry	1	09-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	PCBs	Aroclor 1221	--	U	U	35	40	µg/Kg-dry-dry	1	24-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	PCBs	Aroclor 1221	--	U	U	36	40	µg/Kg-dry-dry	1	24-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	PCBs	Aroclor 1221	--	U	U	40	44	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	PCBs	Aroclor 1221	--	U	U	37	41	µg/Kg-dry-dry	1	24-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	PCBs	Aroclor 1221	--	U	U	38	42	µg/Kg-dry-dry	1	24-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	PCBs	Aroclor 1221	--	U	U	39	43	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	PCBs	Aroclor 1221	--	U	U	39	44	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	PCBs	Aroclor 1221	--	U	U	38	43	µg/Kg-dry-dry	1	09-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	PCBs	Aroclor 1232	--	U	U	37	41	µg/Kg-dry-dry	1	24-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	PCBs	Aroclor 1232	--	U	U	37	41	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	PCBs	Aroclor 1232	--	U	U	38	42	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	PCBs	Aroclor 1232	--	U	U	43	48	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	PCBs	Aroclor 1232	--	U	U	38	43	µg/Kg-dry-dry	1	09-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	PCBs	Aroclor 1232	--	U	U	35	40	µg/Kg-dry-dry	1	24-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	PCBs	Aroclor 1232	--	U	U	36	40	µg/Kg-dry-dry	1	24-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	PCBs	Aroclor 1232	--	U	U	40	44	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	PCBs	Aroclor 1232	--	U	U	37	41	µg/Kg-dry-dry	1	24-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	PCBs	Aroclor 1232	--	U	U	38	42	µg/Kg-dry-dry	1	24-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	PCBs	Aroclor 1232	--	U	U	39	43	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	PCBs	Aroclor 1232	--	U	U	39	44	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	PCBs	Aroclor 1232	--	U	U	38	43	µg/Kg-dry-dry	1	09-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	PCBs	Aroclor 1242	--	U	U	37	41	µg/Kg-dry-dry	1	24-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	PCBs	Aroclor 1242	--	U	U	37	41	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	PCBs	Aroclor 1242	--	U	U	38	42	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	PCBs	Aroclor 1242	--	U	U	43	48	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	PCBs	Aroclor 1242	--	U	U	38	43	µg/Kg-dry-dry	1	09-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	PCBs	Aroclor 1242	--	U	U	35	40	µg/Kg-dry-dry	1	24-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	PCBs	Aroclor 1242	--	U	U	36	40	µg/Kg-dry-dry	1	24-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	PCBs	Aroclor 1242	--	U	U	40	44	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	PCBs	Aroclor 1242	--	U	U	37	41	µg/Kg-dry-dry	1	24-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	PCBs	Aroclor 1242	--	U	U	38	42	µg/Kg-dry-dry	1	24-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	PCBs	Aroclor 1242	--	U	U	39	43	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	PCBs	Aroclor 1242	--	U	U	39	44	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	PCBs	Aroclor 1242	--	U	U	38	43	µg/Kg-dry-dry	1	09-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	PCBs	Aroclor 1248	340	340	--	37	41	µg/Kg-dry-dry	1	24-Jul-12

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Region 4 Chemical	CAS	Screening Level (mg/Kg-dry)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/Kg-dry)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Soil Bore	Year
Aroclor-1016	12674-11-2	1	c	All	1000	0.039	--	0	SB-8	2013
Aroclor-1016	12674-11-2	1	c	All	1000	0.038	--	0	SB-9	2013
--	--	--	--	--	--	--	--	0	SB-1	2012
--	--	--	--	--	--	--	--	0	SB-10	2013
--	--	--	--	--	--	--	--	0	SB-11	2013
--	--	--	--	--	--	--	--	0	SB-12	2013
--	--	--	--	--	--	--	--	0	SB-1A	2013
--	--	--	--	--	--	--	--	0	SB-2	2012
--	--	--	--	--	--	--	--	0	SB-5	2012
--	--	--	--	--	--	--	--	0	SB-5C	2013
--	--	--	--	--	--	--	--	0	SB-6A	2012
--	--	--	--	--	--	--	--	0	SB-7	2012
--	--	--	--	--	--	--	--	0	SB-7E	2013
--	--	--	--	--	--	--	--	0	SB-8	2013
--	--	--	--	--	--	--	--	0	SB-9	2013
--	--	--	--	--	--	--	--	0	SB-1	2012
--	--	--	--	--	--	--	--	0	SB-10	2013
--	--	--	--	--	--	--	--	0	SB-11	2013
--	--	--	--	--	--	--	--	0	SB-12	2013
--	--	--	--	--	--	--	--	0	SB-1A	2013
--	--	--	--	--	--	--	--	0	SB-2	2012
--	--	--	--	--	--	--	--	0	SB-5	2012
--	--	--	--	--	--	--	--	0	SB-5C	2013
--	--	--	--	--	--	--	--	0	SB-6A	2012
--	--	--	--	--	--	--	--	0	SB-7	2012
--	--	--	--	--	--	--	--	0	SB-7E	2013
--	--	--	--	--	--	--	--	0	SB-8	2013
--	--	--	--	--	--	--	--	0	SB-9	2013
Aroclor-1242	53469-21-9	0.041	c	All	41	0.902439024	--	0	SB-1	2012
Aroclor-1242	53469-21-9	0.041	c	All	41	0.902439024	--	0	SB-10	2013
Aroclor-1242	53469-21-9	0.041	c	All	41	0.926829268	--	0	SB-11	2013
Aroclor-1242	53469-21-9	0.041	c	All	41	1.048780488	--	0	SB-12	2013
Aroclor-1242	53469-21-9	0.041	c	All	41	0.926829268	--	0	SB-1A	2013
Aroclor-1242	53469-21-9	0.041	c	All	41	0.853658537	--	0	SB-2	2012
Aroclor-1242	53469-21-9	0.041	c	All	41	0.87804878	--	0	SB-5	2012
Aroclor-1242	53469-21-9	0.041	c	All	41	0.975609756	--	0	SB-5C	2013
Aroclor-1242	53469-21-9	0.041	c	All	41	0.902439024	--	0	SB-6A	2012
Aroclor-1242	53469-21-9	0.041	c	All	41	0.926829268	--	0	SB-7	2012
Aroclor-1242	53469-21-9	0.041	c	All	41	0.951219512	--	0	SB-7E	2013
Aroclor-1242	53469-21-9	0.041	c	All	41	0.951219512	--	0	SB-8	2013
Aroclor-1242	53469-21-9	0.041	c	All	41	0.926829268	--	0	SB-9	2013
Aroclor-1248	12672-29-6	0.0072	c	All	7.2	5.138888889	47.22222	1	SB-1	2012

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	Runits	Dilution Factor	AnalDate
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	PCBs	Aroclor 1248	--	U	U	37	41	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	PCBs	Aroclor 1248	--	U	U	38	42	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	PCBs	Aroclor 1248	--	U	U	43	48	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	PCBs	Aroclor 1248	--	U	U	38	43	µg/Kg-dry-dry	1	09-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	PCBs	Aroclor 1248	--	U	U	35	40	µg/Kg-dry-dry	1	24-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	PCBs	Aroclor 1248	250	250	--	36	40	µg/Kg-dry-dry	1	24-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	PCBs	Aroclor 1248	--	U	U	40	44	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	PCBs	Aroclor 1248	280	280	--	37	41	µg/Kg-dry-dry	1	24-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	PCBs	Aroclor 1248	240	240	--	38	42	µg/Kg-dry-dry	1	24-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	PCBs	Aroclor 1248	--	U	U	39	43	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	PCBs	Aroclor 1248	--	U	U	39	44	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	PCBs	Aroclor 1248	--	U	U	38	43	µg/Kg-dry-dry	1	09-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	PCBs	Aroclor 1254	840	840	--	12	41	µg/Kg-dry-dry	1	24-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	PCBs	Aroclor 1254	--	U	U	11	41	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	PCBs	Aroclor 1254	--	U	U	12	42	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	PCBs	Aroclor 1254	310	310	--	13	48	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	PCBs	Aroclor 1254	--	U	U	12	43	µg/Kg-dry-dry	1	09-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	PCBs	Aroclor 1254	140	140	--	11	40	µg/Kg-dry-dry	1	24-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	PCBs	Aroclor 1254	110	110	--	11	40	µg/Kg-dry-dry	1	24-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	PCBs	Aroclor 1254	--	U	U	12	44	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	PCBs	Aroclor 1254	410	410	--	11	41	µg/Kg-dry-dry	1	24-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	PCBs	Aroclor 1254	270	270	--	12	42	µg/Kg-dry-dry	1	24-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	PCBs	Aroclor 1254	--	U	U	12	43	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	PCBs	Aroclor 1254	--	U	U	12	44	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	PCBs	Aroclor 1254	--	U	U	12	43	µg/Kg-dry-dry	1	09-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	PCBs	Aroclor 1260	--	U	U	12	41	µg/Kg-dry-dry	1	24-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	PCBs	Aroclor 1260	--	U	U	11	41	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	PCBs	Aroclor 1260	--	U	U	12	42	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	PCBs	Aroclor 1260	--	U	U	13	48	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	PCBs	Aroclor 1260	--	U	U	12	43	µg/Kg-dry-dry	1	09-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	PCBs	Aroclor 1260	--	U	U	11	40	µg/Kg-dry-dry	1	24-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	PCBs	Aroclor 1260	--	U	U	11	40	µg/Kg-dry-dry	1	24-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	PCBs	Aroclor 1260	--	U	U	12	44	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	PCBs	Aroclor 1260	--	U	U	11	41	µg/Kg-dry-dry	1	24-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	PCBs	Aroclor 1260	--	U	U	12	42	µg/Kg-dry-dry	1	24-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	PCBs	Aroclor 1260	--	U	U	12	43	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	PCBs	Aroclor 1260	--	U	U	12	44	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	PCBs	Aroclor 1260	--	U	U	12	43	µg/Kg-dry-dry	1	09-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	PCBs	Total, PCBs	1180	--	--	--	--	µg/Kg-dry-dry	--	--
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	PCBs	Total, PCBs	--	--	--	--	--	µg/Kg-dry-dry	--	--
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	PCBs	Total, PCBs	--	--	--	--	--	µg/Kg-dry-dry	--	--
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	PCBs	Total, PCBs	310	--	--	--	--	µg/Kg-dry-dry	--	--

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Region 4 Chemical	CAS	Screening Level (mg/Kg-dry)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/Kg-dry)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Soil Bore	Year
Aroclor-1248	12672-29-6	0.0072	c	All	7.2	5.138888889	--	0	SB-10	2013
Aroclor-1248	12672-29-6	0.0072	c	All	7.2	5.277777778	--	0	SB-11	2013
Aroclor-1248	12672-29-6	0.0072	c	All	7.2	5.972222222	--	0	SB-12	2013
Aroclor-1248	12672-29-6	0.0072	c	All	7.2	5.277777778	--	0	SB-1A	2013
Aroclor-1248	12672-29-6	0.0072	c	All	7.2	4.861111111	#VALUE!	0	SB-2	2012
Aroclor-1248	12672-29-6	0.0072	c	All	7.2	5	34.72222	1	SB-5	2012
Aroclor-1248	12672-29-6	0.0072	c	All	7.2	5.555555556	--	0	SB-5C	2013
Aroclor-1248	12672-29-6	0.0072	c	All	7.2	5.138888889	38.88889	1	SB-6A	2012
Aroclor-1248	12672-29-6	0.0072	c	All	7.2	5.277777778	33.33333	1	SB-7	2012
Aroclor-1248	12672-29-6	0.0072	c	All	7.2	5.416666667	--	0	SB-7E	2013
Aroclor-1248	12672-29-6	0.0072	c	All	7.2	5.416666667	--	0	SB-8	2013
Aroclor-1248	12672-29-6	0.0072	c	All	7.2	5.277777778	--	0	SB-9	2013
Aroclor-1254	11097-69-1	0.014	c	All	14	0.857142857	60	1	SB-1	2012
Aroclor-1254	11097-69-1	0.014	c	All	14	0.785714286	--	0	SB-10	2013
Aroclor-1254	11097-69-1	0.014	c	All	14	0.857142857	--	0	SB-11	2013
Aroclor-1254	11097-69-1	0.014	c	All	14	0.928571429	22.14286	1	SB-12	2013
Aroclor-1254	11097-69-1	0.014	c	All	14	0.857142857	--	0	SB-1A	2013
Aroclor-1254	11097-69-1	0.014	c	All	14	0.785714286	10	1	SB-2	2012
Aroclor-1254	11097-69-1	0.014	c	All	14	0.785714286	7.857143	1	SB-5	2012
Aroclor-1254	11097-69-1	0.014	c	All	14	0.857142857	--	0	SB-5C	2013
Aroclor-1254	11097-69-1	0.014	c	All	14	0.785714286	29.28571	1	SB-6A	2012
Aroclor-1254	11097-69-1	0.014	c	All	14	0.857142857	19.28571	1	SB-7	2012
Aroclor-1254	11097-69-1	0.014	c	All	14	0.857142857	--	0	SB-7E	2013
Aroclor-1254	11097-69-1	0.014	c	All	14	0.857142857	--	0	SB-8	2013
Aroclor-1254	11097-69-1	0.014	c	All	14	0.857142857	--	0	SB-9	2013
Aroclor-1260	11096-82-5	0.88	c	All	880	0.013636364	--	0	SB-1	2012
Aroclor-1260	11096-82-5	0.88	c	All	880	0.0125	--	0	SB-10	2013
Aroclor-1260	11096-82-5	0.88	c	All	880	0.013636364	--	0	SB-11	2013
Aroclor-1260	11096-82-5	0.88	c	All	880	0.014772727	--	0	SB-12	2013
Aroclor-1260	11096-82-5	0.88	c	All	880	0.013636364	--	0	SB-1A	2013
Aroclor-1260	11096-82-5	0.88	c	All	880	0.0125	--	0	SB-2	2012
Aroclor-1260	11096-82-5	0.88	c	All	880	0.0125	--	0	SB-5	2012
Aroclor-1260	11096-82-5	0.88	c	All	880	0.013636364	--	0	SB-5C	2013
Aroclor-1260	11096-82-5	0.88	c	All	880	0.0125	--	0	SB-6A	2012
Aroclor-1260	11096-82-5	0.88	c	All	880	0.013636364	--	0	SB-7	2012
Aroclor-1260	11096-82-5	0.88	c	All	880	0.013636364	--	0	SB-7E	2013
Aroclor-1260	11096-82-5	0.88	c	All	880	0.013636364	--	0	SB-8	2013
Aroclor-1260	11096-82-5	0.88	c	All	880	0.013636364	--	0	SB-9	2013
PCBs (sum) (Wildlife Based)	1336-36-3	0.33	d	All	330	--	3.58	1	SB-1	2012
PCBs (sum) (Wildlife Based)	1336-36-3	0.33	d	All	330	--	--	0	SB-10	2012
PCBs (sum) (Wildlife Based)	1336-36-3	0.33	d	All	330	--	--	0	SB-11	2013
PCBs (sum) (Wildlife Based)	1336-36-3	0.33	d	All	330	--	0.94	1	SB-12	2013

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	Runits	Dilution Factor	AnalDate
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	PCBs	Total, PCBs	--	--	--	--	--	µg/Kg-dry-dry	--	--
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	PCBs	Total, PCBs	140	--	--	--	--	µg/Kg-dry-dry	--	--
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	PCBs	Total, PCBs	360	--	--	--	--	µg/Kg-dry-dry	--	--
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	PCBs	Total, PCBs	--	--	--	--	--	µg/Kg-dry-dry	--	--
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	PCBs	Total, PCBs	690	--	--	--	--	µg/Kg-dry-dry	--	--
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	PCBs	Total, PCBs	510	--	--	--	--	µg/Kg-dry-dry	--	--
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	PCBs	Total, PCBs	--	--	--	--	--	µg/Kg-dry-dry	--	--
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	PCBs	Total, PCBs	--	--	--	--	--	µg/Kg-dry-dry	--	--
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	PCBs	Total, PCBs	--	--	--	--	--	µg/Kg-dry-dry	--	--
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Pesticides	4,4'-DDD	--	U	U	66	210	µg/Kg-dry-dry	20	25-Jul-12
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Pesticides	4,4'-DDD	--	U	U	63	200	µg/Kg-dry-dry	20	25-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Pesticides	4,4'-DDD	--	U	U	32	100	µg/Kg-dry-dry	10	25-Jul-12
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Pesticides	4,4'-DDD	--	U	U	33	100	µg/Kg-dry-dry	10	25-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Pesticides	4,4'-DDD	--	U	U	68	210	µg/Kg-dry-dry	20	25-Jul-12
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Pesticides	4,4'-DDE	--	U	U	41	210	µg/Kg-dry-dry	20	25-Jul-12
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Pesticides	4,4'-DDE	--	U	U	39	200	µg/Kg-dry-dry	20	25-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Pesticides	4,4'-DDE	--	U	U	20	100	µg/Kg-dry-dry	10	25-Jul-12
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Pesticides	4,4'-DDE	--	U	U	20	100	µg/Kg-dry-dry	10	25-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Pesticides	4,4'-DDE	--	U	U	41	210	µg/Kg-dry-dry	20	25-Jul-12
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Pesticides	4,4'-DDT	--	U	U	48	210	µg/Kg-dry-dry	20	25-Jul-12
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Pesticides	4,4'-DDT	--	U	U	46	200	µg/Kg-dry-dry	20	25-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Pesticides	4,4'-DDT	--	U	U	23	100	µg/Kg-dry-dry	10	25-Jul-12
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Pesticides	4,4'-DDT	--	U	U	24	100	µg/Kg-dry-dry	10	25-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Pesticides	4,4'-DDT	--	U	U	49	210	µg/Kg-dry-dry	20	25-Jul-12
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Pesticides	Aldrin	--	U	U	19	210	µg/Kg-dry-dry	20	25-Jul-12
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Pesticides	Aldrin	--	U	U	18	200	µg/Kg-dry-dry	20	25-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Pesticides	Aldrin	--	U	U	9.1	100	µg/Kg-dry-dry	10	25-Jul-12
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Pesticides	Aldrin	--	U	U	9.3	100	µg/Kg-dry-dry	10	25-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Pesticides	Aldrin	--	U	U	19	210	µg/Kg-dry-dry	20	25-Jul-12
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Pesticides	alpha-BHC	--	U	U	67	210	µg/Kg-dry-dry	20	25-Jul-12
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Pesticides	alpha-BHC	--	U	U	64	200	µg/Kg-dry-dry	20	25-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Pesticides	alpha-BHC	--	U	U	32	100	µg/Kg-dry-dry	10	25-Jul-12
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Pesticides	alpha-BHC	--	U	U	33	100	µg/Kg-dry-dry	10	25-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Pesticides	alpha-BHC	--	U	U	68	210	µg/Kg-dry-dry	20	25-Jul-12
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Pesticides	alpha-Chlordane	--	U	U	57	210	µg/Kg-dry-dry	20	25-Jul-12
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Pesticides	alpha-Chlordane	--	U	U	55	200	µg/Kg-dry-dry	20	25-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Pesticides	alpha-Chlordane	--	U	U	28	100	µg/Kg-dry-dry	10	25-Jul-12
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Pesticides	alpha-Chlordane	--	U	U	28	100	µg/Kg-dry-dry	10	25-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Pesticides	alpha-Chlordane	--	U	U	58	210	µg/Kg-dry-dry	20	25-Jul-12
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Pesticides	beta-BHC	--	U	U	78	210	µg/Kg-dry-dry	20	25-Jul-12
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Pesticides	beta-BHC	--	U	U	75	200	µg/Kg-dry-dry	20	25-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Pesticides	beta-BHC	--	U	U	38	100	µg/Kg-dry-dry	10	25-Jul-12

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Region 4 Chemical	CAS	Screening Level (mg/Kg-dry)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/Kg-dry)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Soil Bore	Year
PCBs (sum) (Wildlife Based)	1336-36-3	0.33	d	All	330	--	--	0	SB-1A	2013
PCBs (sum) (Wildlife Based)	1336-36-3	0.33	d	All	330	--	0.42	1	SB-2	2012
PCBs (sum) (Wildlife Based)	1336-36-3	0.33	d	All	330	--	1.09	1	SB-5	2012
PCBs (sum) (Wildlife Based)	1336-36-3	0.33	d	All	330	--	--	0	SB-5C	2013
PCBs (sum) (Wildlife Based)	1336-36-3	0.33	d	All	330	--	2.09	1	SB-6A	2012
PCBs (sum) (Wildlife Based)	1336-36-3	0.33	d	All	330	--	1.55	1	SB-7	2012
PCBs (sum) (Wildlife Based)	1336-36-3	0.33	d	All	330	--	--	0	SB-7E	2013
PCBs (sum) (Wildlife Based)	1336-36-3	0.33	d	All	330	--	--	0	SB-8	2013
PCBs (sum) (Wildlife Based)	1336-36-3	0.33	d	All	330	--	--	0	SB-9	2013
--	--	--	--	--	--	--	--	0	SB-1	2012
--	--	--	--	--	--	--	--	0	SB-2	2012
--	--	--	--	--	--	--	--	0	SB-5	2012
--	--	--	--	--	--	--	--	0	SB-6A	2012
--	--	--	--	--	--	--	--	0	SB-7	2012
DDE (sum 4,4- & 2,4-DDE)	72-55-9	0.11	c	M, A	110	0.372727273	--	0	SB-1	2012
DDE (sum 4,4- & 2,4-DDE)	72-55-9	0.11	c	M, A	110	0.354545455	--	0	SB-2	2012
DDE (sum 4,4- & 2,4-DDE)	72-55-9	0.11	c	M, A	110	0.181818182	--	0	SB-5	2012
DDE (sum 4,4- & 2,4-DDE)	72-55-9	0.11	c	M, A	110	0.181818182	--	0	SB-6A	2012
DDE (sum 4,4- & 2,4-DDE)	72-55-9	0.11	c	M, A	110	0.372727273	--	0	SB-7	2012
DDT (sum 4,4- & 2,4-DDT)	72-54-8	0.044	c	All	44	1.090909091	--	0	SB-1	2012
DDT (sum 4,4- & 2,4-DDT)	72-54-8	0.044	c	All	44	1.045454545	--	0	SB-2	2012
DDT (sum 4,4- & 2,4-DDT)	72-54-8	0.044	c	All	44	0.522727273	--	0	SB-5	2012
DDT (sum 4,4- & 2,4-DDT)	72-54-8	0.044	c	All	44	0.545454545	--	0	SB-6A	2012
DDT (sum 4,4- & 2,4-DDT)	72-54-8	0.044	c	All	44	1.113636364	--	0	SB-7	2012
Aldrin	309-00-2	0.037	c	SI, M	37	0.513513514	--	0	SB-1	2012
Aldrin	309-00-2	0.037	c	SI, M	37	0.486486486	--	0	SB-2	2012
Aldrin	309-00-2	0.037	c	SI, M	37	0.245945946	--	0	SB-5	2012
Aldrin	309-00-2	0.037	c	SI, M	37	0.251351351	--	0	SB-6A	2012
Aldrin	309-00-2	0.037	c	SI, M	37	0.513513514	--	0	SB-7	2012
BHC - alpha	319-84-6	0.34	d	SI, M	340	0.197058824	--	0	SB-1	2012
BHC - alpha	319-84-6	0.34	d	SI, M	340	0.188235294	--	0	SB-2	2012
BHC - alpha	319-84-6	0.34	d	SI, M	340	0.094117647	--	0	SB-5	2012
BHC - alpha	319-84-6	0.34	d	SI, M	340	0.097058824	--	0	SB-6A	2012
BHC - alpha	319-84-6	0.34	d	SI, M	340	0.2	--	0	SB-7	2012
Chlordane - alpha	5103-71-9	0.27	c	P, M, A	270	0.211111111	--	0	SB-1	2012
Chlordane - alpha	5103-71-9	0.27	c	P, M, A	270	0.203703704	--	0	SB-2	2012
Chlordane - alpha	5103-71-9	0.27	c	P, M, A	270	0.103703704	--	0	SB-5	2012
Chlordane - alpha	5103-71-9	0.27	c	P, M, A	270	0.103703704	--	0	SB-6A	2012
Chlordane - alpha	5103-71-9	0.27	c	P, M, A	270	0.214814815	--	0	SB-7	2012
BHC - beta	319-85-7	0.27	c	M, A	270	0.288888889	--	0	SB-1	2012
BHC - beta	319-85-7	0.27	c	M, A	270	0.277777778	--	0	SB-2	2012
BHC - beta	319-85-7	0.27	c	M, A	270	0.140740741	--	0	SB-5	2012

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	Runits	Dilution Factor	AnalDate
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Pesticides	beta-BHC	--	U	U	39	100	µg/Kg-dry-dry	10	25-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Pesticides	beta-BHC	--	U	U	80	210	µg/Kg-dry-dry	20	25-Jul-12
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Pesticides	Chlordane, Technical	--	U	U	210	520	µg/Kg-dry-dry	20	25-Jul-12
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Pesticides	Chlordane, Technical	--	U	U	200	490	µg/Kg-dry-dry	20	25-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Pesticides	Chlordane, Technical	--	U	U	100	250	µg/Kg-dry-dry	10	25-Jul-12
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Pesticides	Chlordane, Technical	--	U	U	100	260	µg/Kg-dry-dry	10	25-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Pesticides	Chlordane, Technical	--	U	U	210	530	µg/Kg-dry-dry	20	25-Jul-12
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Pesticides	delta-BHC	--	U	U	77	210	µg/Kg-dry-dry	20	25-Jul-12
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Pesticides	delta-BHC	--	U	U	73	200	µg/Kg-dry-dry	20	25-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Pesticides	delta-BHC	--	U	U	37	100	µg/Kg-dry-dry	10	25-Jul-12
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Pesticides	delta-BHC	--	U	U	38	100	µg/Kg-dry-dry	10	25-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Pesticides	delta-BHC	--	U	U	78	210	µg/Kg-dry-dry	20	25-Jul-12
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Pesticides	Dieldrin	--	U	U	18	210	µg/Kg-dry-dry	20	25-Jul-12
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Pesticides	Dieldrin	--	U	U	17	200	µg/Kg-dry-dry	20	25-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Pesticides	Dieldrin	--	U	U	8.6	100	µg/Kg-dry-dry	10	25-Jul-12
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Pesticides	Dieldrin	--	U	U	8.7	100	µg/Kg-dry-dry	10	25-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Pesticides	Dieldrin	--	U	U	18	210	µg/Kg-dry-dry	20	25-Jul-12
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Pesticides	Endosulfan I	--	U	U	27	210	µg/Kg-dry-dry	20	25-Jul-12
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Pesticides	Endosulfan I	--	U	U	26	200	µg/Kg-dry-dry	20	25-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Pesticides	Endosulfan I	--	U	U	13	100	µg/Kg-dry-dry	10	25-Jul-12
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Pesticides	Endosulfan I	--	U	U	13	100	µg/Kg-dry-dry	10	25-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Pesticides	Endosulfan I	--	U	U	27	210	µg/Kg-dry-dry	20	25-Jul-12
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Pesticides	Endosulfan II	--	U	U	23	210	µg/Kg-dry-dry	20	25-Jul-12
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Pesticides	Endosulfan II	--	U	U	22	200	µg/Kg-dry-dry	20	25-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Pesticides	Endosulfan II	--	U	U	11	100	µg/Kg-dry-dry	10	25-Jul-12
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Pesticides	Endosulfan II	--	U	U	11	100	µg/Kg-dry-dry	10	25-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Pesticides	Endosulfan II	--	U	U	23	210	µg/Kg-dry-dry	20	25-Jul-12
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Pesticides	Endosulfan sulfate	--	U	U	25	210	µg/Kg-dry-dry	20	25-Jul-12
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Pesticides	Endosulfan sulfate	--	U	U	24	200	µg/Kg-dry-dry	20	25-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Pesticides	Endosulfan sulfate	--	U	U	12	100	µg/Kg-dry-dry	10	25-Jul-12
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Pesticides	Endosulfan sulfate	--	U	U	13	100	µg/Kg-dry-dry	10	25-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Pesticides	Endosulfan sulfate	--	U	U	26	210	µg/Kg-dry-dry	20	25-Jul-12
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Pesticides	Endrin	--	U	U	60	210	µg/Kg-dry-dry	20	25-Jul-12
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Pesticides	Endrin	--	U	U	58	200	µg/Kg-dry-dry	20	25-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Pesticides	Endrin	--	U	U	29	100	µg/Kg-dry-dry	10	25-Jul-12
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Pesticides	Endrin	--	U	U	30	100	µg/Kg-dry-dry	10	25-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Pesticides	Endrin	--	U	U	61	210	µg/Kg-dry-dry	20	25-Jul-12
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Pesticides	Endrin aldehyde	--	U	U	50	210	µg/Kg-dry-dry	20	25-Jul-12
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Pesticides	Endrin aldehyde	--	U	U	48	200	µg/Kg-dry-dry	20	25-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Pesticides	Endrin aldehyde	--	U	U	25	100	µg/Kg-dry-dry	10	25-Jul-12
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Pesticides	Endrin aldehyde	--	U	U	25	100	µg/Kg-dry-dry	10	25-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Pesticides	Endrin aldehyde	--	U	U	51	210	µg/Kg-dry-dry	20	25-Jul-12

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Region 4 Chemical	CAS	Screening Level (mg/Kg-dry)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/Kg-dry)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Soil Bore	Year
BHC - beta	319-85-7	0.27	c	M, A	270	0.144444444	--	0	SB-6A	2012
BHC - beta	319-85-7	0.27	c	M, A	270	0.296296296	--	0	SB-7	2012
BHC - gamma (Lindane)	58-89-9	0.0094	c	P, M, A	9.4	22.34042553	--	0	SB-1	2012
BHC - gamma (Lindane)	58-89-9	0.0094	c	P, M, A	9.4	21.27659574	--	0	SB-2	2012
BHC - gamma (Lindane)	58-89-9	0.0094	c	P, M, A	9.4	10.63829787	--	0	SB-5	2012
BHC - gamma (Lindane)	58-89-9	0.0094	c	P, M, A	9.4	10.63829787	--	0	SB-6A	2012
BHC - gamma (Lindane)	58-89-9	0.0094	c	P, M, A	9.4	22.34042553	--	0	SB-7	2012
--	--	--	--	--	--	--	--	0	SB-1	2012
--	--	--	--	--	--	--	--	0	SB-2	2012
--	--	--	--	--	--	--	--	0	SB-5	2012
--	--	--	--	--	--	--	--	0	SB-6A	2012
--	--	--	--	--	--	--	--	0	SB-7	2012
Dieldrin	60-57-1	0.0049	a	All	4.9	3.673469388	--	0	SB-1	2012
Dieldrin	60-57-1	0.0049	a	All	4.9	3.469387755	--	0	SB-2	2012
Dieldrin	60-57-1	0.0049	a	All	4.9	1.755102041	--	0	SB-5	2012
Dieldrin	60-57-1	0.0049	a	All	4.9	1.775510204	--	0	SB-6A	2012
Dieldrin	60-57-1	0.0049	a	All	4.9	3.673469388	--	0	SB-7	2012
Endosulfan - alpha	959-98-8	0.64	c	M, A	640	0.0421875	--	0	SB-1	2012
Endosulfan - alpha	959-98-8	0.64	c	M, A	640	0.040625	--	0	SB-2	2012
Endosulfan - alpha	959-98-8	0.64	c	M, A	640	0.0203125	--	0	SB-5	2012
Endosulfan - alpha	959-98-8	0.64	c	M, A	640	0.0203125	--	0	SB-6A	2012
Endosulfan - alpha	959-98-8	0.64	c	M, A	640	0.0421875	--	0	SB-7	2012
Endosulfan (alpha and beta)	115-29-7	0.0009	d	All	0.9	25.55555556	--	0	SB-1	2012
Endosulfan (alpha and beta)	115-29-7	0.0009	d	All	0.9	24.44444444	--	0	SB-2	2012
Endosulfan (alpha and beta)	115-29-7	0.0009	d	All	0.9	12.22222222	--	0	SB-5	2012
Endosulfan (alpha and beta)	115-29-7	0.0009	d	All	0.9	12.22222222	--	0	SB-6A	2012
Endosulfan (alpha and beta)	115-29-7	0.0009	d	All	0.9	25.55555556	--	0	SB-7	2012
Endosulfan sulfate	1031-07-8	0.0065	d	All	6.5	3.846153846	--	0	SB-1	2012
Endosulfan sulfate	1031-07-8	0.0065	d	All	6.5	3.692307692	--	0	SB-2	2012
Endosulfan sulfate	1031-07-8	0.0065	d	All	6.5	1.846153846	--	0	SB-5	2012
Endosulfan sulfate	1031-07-8	0.0065	d	All	6.5	2	--	0	SB-6A	2012
Endosulfan sulfate	1031-07-8	0.0065	d	All	6.5	4	--	0	SB-7	2012
Endrin	72-20-8	0.0014	c	All	1.4	42.85714286	--	0	SB-1	2012
Endrin	72-20-8	0.0014	c	All	1.4	41.42857143	--	0	SB-2	2012
Endrin	72-20-8	0.0014	c	All	1.4	20.71428571	--	0	SB-5	2012
Endrin	72-20-8	0.0014	c	All	1.4	21.42857143	--	0	SB-6A	2012
Endrin	72-20-8	0.0014	c	All	1.4	43.57142857	--	0	SB-7	2012
--	--	--	--	--	--	--	--	0	SB-1	2012
--	--	--	--	--	--	--	--	0	SB-2	2012
--	--	--	--	--	--	--	--	0	SB-5	2012
--	--	--	--	--	--	--	--	0	SB-6A	2012
--	--	--	--	--	--	--	--	0	SB-7	2012

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	Runits	Dilution Factor	AnalDate
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Pesticides	Endrin ketone	--	U	U	80	210	µg/Kg-dry-dry	20	25-Jul-12
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Pesticides	Endrin ketone	--	U	U	76	200	µg/Kg-dry-dry	20	25-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Pesticides	Endrin ketone	--	U	U	39	100	µg/Kg-dry-dry	10	25-Jul-12
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Pesticides	Endrin ketone	--	U	U	40	100	µg/Kg-dry-dry	10	25-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Pesticides	Endrin ketone	--	U	U	81	210	µg/Kg-dry-dry	20	25-Jul-12
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Pesticides	gamma-BHC (Lindane)	--	U	U	96	210	µg/Kg-dry-dry	20	25-Jul-12
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Pesticides	gamma-BHC (Lindane)	--	U	U	92	200	µg/Kg-dry-dry	20	25-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Pesticides	gamma-BHC (Lindane)	--	U	U	47	100	µg/Kg-dry-dry	10	25-Jul-12
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Pesticides	gamma-BHC (Lindane)	--	U	U	48	100	µg/Kg-dry-dry	10	25-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Pesticides	gamma-BHC (Lindane)	--	U	U	98	210	µg/Kg-dry-dry	20	25-Jul-12
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Pesticides	gamma-Chlordane	--	U	U	35	210	µg/Kg-dry-dry	20	25-Jul-12
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Pesticides	gamma-Chlordane	--	U	U	33	200	µg/Kg-dry-dry	20	25-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Pesticides	gamma-Chlordane	--	U	U	17	100	µg/Kg-dry-dry	10	25-Jul-12
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Pesticides	gamma-Chlordane	--	U	U	17	100	µg/Kg-dry-dry	10	25-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Pesticides	gamma-Chlordane	--	U	U	35	210	µg/Kg-dry-dry	20	25-Jul-12
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Pesticides	Heptachlor	--	U	U	110	210	µg/Kg-dry-dry	20	25-Jul-12
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Pesticides	Heptachlor	--	U	U	100	200	µg/Kg-dry-dry	20	25-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Pesticides	Heptachlor	--	U	U	52	100	µg/Kg-dry-dry	10	25-Jul-12
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Pesticides	Heptachlor	--	U	U	53	100	µg/Kg-dry-dry	10	25-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Pesticides	Heptachlor	--	U	U	110	210	µg/Kg-dry-dry	20	25-Jul-12
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Pesticides	Heptachlor epoxide	--	U	U	33	210	µg/Kg-dry-dry	20	25-Jul-12
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Pesticides	Heptachlor epoxide	--	U	U	31	200	µg/Kg-dry-dry	20	25-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Pesticides	Heptachlor epoxide	--	U	U	16	100	µg/Kg-dry-dry	10	25-Jul-12
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Pesticides	Heptachlor epoxide	--	U	U	16	100	µg/Kg-dry-dry	10	25-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Pesticides	Heptachlor epoxide	--	U	U	33	210	µg/Kg-dry-dry	20	25-Jul-12
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Pesticides	Methoxychlor	--	U	U	51	210	µg/Kg-dry-dry	20	25-Jul-12
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Pesticides	Methoxychlor	--	U	U	48	200	µg/Kg-dry-dry	20	25-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Pesticides	Methoxychlor	--	U	U	25	100	µg/Kg-dry-dry	10	25-Jul-12
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Pesticides	Methoxychlor	--	U	U	25	100	µg/Kg-dry-dry	10	25-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Pesticides	Methoxychlor	--	U	U	52	210	µg/Kg-dry-dry	20	25-Jul-12
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Pesticides	Toxaphene	--	U	U	240	1,200	µg/Kg-dry-dry	20	25-Jul-12
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Pesticides	Toxaphene	--	U	U	230	1,200	µg/Kg-dry-dry	20	25-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Pesticides	Toxaphene	--	U	U	120	610	µg/Kg-dry-dry	10	25-Jul-12
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Pesticides	Toxaphene	--	U	U	120	620	µg/Kg-dry-dry	10	25-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Pesticides	Toxaphene	--	U	U	250	1,300	µg/Kg-dry-dry	20	25-Jul-12
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	1,1`-Biphenyl	--	U	U	52	3,500	µg/Kg-dry-dry	10	26-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	1,1`-Biphenyl	--	U	U	5.4	360	µg/Kg-dry-dry	1	08-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	1,1`-Biphenyl	--	U	U	5.5	360	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	1,1`-Biphenyl	--	U	U	59	3,900	µg/Kg-dry-dry	10	08-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	1,1`-Biphenyl	--	U	U	5.3	350	µg/Kg-dry-dry	1	08-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	1,1`-Biphenyl	--	U	U	5	330	µg/Kg-dry-dry	1	26-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	1,1`-Biphenyl	--	U	U	51	3,400	µg/Kg-dry-dry	10	25-Jul-12

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Region 4 Chemical	CAS	Screening Level (mg/Kg-dry)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/Kg-dry)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Soil Bore	Year
--	--	--	--	--	--	--	--	0	SB-1	2012
--	--	--	--	--	--	--	--	0	SB-2	2012
--	--	--	--	--	--	--	--	0	SB-5	2012
--	--	--	--	--	--	--	--	0	SB-6A	2012
--	--	--	--	--	--	--	--	0	SB-7	2012
BHC - gamma (Lindane)	58-89-9	0.0094	c	P, M, A	9.4	10.21276596	--	0	SB-1	2012
BHC - gamma (Lindane)	58-89-9	0.0094	c	P, M, A	9.4	9.787234043	--	0	SB-2	2012
BHC - gamma (Lindane)	58-89-9	0.0094	c	P, M, A	9.4	5	--	0	SB-5	2012
BHC - gamma (Lindane)	58-89-9	0.0094	c	P, M, A	9.4	5.106382979	--	0	SB-6A	2012
BHC - gamma (Lindane)	58-89-9	0.0094	c	P, M, A	9.4	10.42553191	--	0	SB-7	2012
Chlordane - gamma	12789-03-6	2.2	c	P, M, A	2200	0.015909091	--	0	SB-1	2012
Chlordane - gamma	12789-03-6	2.2	c	P, M, A	2200	0.015	--	0	SB-2	2012
Chlordane - gamma	12789-03-6	2.2	c	P, M, A	2200	0.007727273	--	0	SB-5	2012
Chlordane - gamma	12789-03-6	2.2	c	P, M, A	2200	0.007727273	--	0	SB-6A	2012
Chlordane - gamma	12789-03-6	2.2	c	P, M, A	2200	0.015909091	--	0	SB-7	2012
Heptachlor	76-44-8	0.059	c	All	59	1.86440678	--	0	SB-1	2012
Heptachlor	76-44-8	0.059	c	All	59	1.694915254	--	0	SB-2	2012
Heptachlor	76-44-8	0.059	c	All	59	0.881355932	--	0	SB-5	2012
Heptachlor	76-44-8	0.059	c	All	59	0.898305085	--	0	SB-6A	2012
Heptachlor	76-44-8	0.059	c	All	59	1.86440678	--	0	SB-7	2012
Heptachlor epoxide	1024-57-3	0.0004	d	All	0.4	82.5	--	0	SB-1	2012
Heptachlor epoxide	1024-57-3	0.0004	d	All	0.4	77.5	--	0	SB-2	2012
Heptachlor epoxide	1024-57-3	0.0004	d	All	0.4	40	--	0	SB-5	2012
Heptachlor epoxide	1024-57-3	0.0004	d	All	0.4	40	--	0	SB-6A	2012
Heptachlor epoxide	1024-57-3	0.0004	d	All	0.4	82.5	--	0	SB-7	2012
Methoxychlor	72-43-5	5	c	M, A	5000	0.0102	--	0	SB-1	2012
Methoxychlor	72-43-5	5	c	M, A	5000	0.0096	--	0	SB-2	2012
Methoxychlor	72-43-5	5	c	M, A	5000	0.005	--	0	SB-5	2012
Methoxychlor	72-43-5	5	c	M, A	5000	0.005	--	0	SB-6A	2012
Methoxychlor	72-43-5	5	c	M, A	5000	0.0104	--	0	SB-7	2012
Toxaphene	8001-35-2	4.1	d	M, A	4100	0.058536585	--	0	SB-1	2012
Toxaphene	8001-35-2	4.1	d	M, A	4100	0.056097561	--	0	SB-2	2012
Toxaphene	8001-35-2	4.1	d	M, A	4100	0.029268293	--	0	SB-5	2012
Toxaphene	8001-35-2	4.1	d	M, A	4100	0.029268293	--	0	SB-6A	2012
Toxaphene	8001-35-2	4.1	d	M, A	4100	0.06097561	--	0	SB-7	2012
1,1'-Biphenyl	92-52-4	0.2	d	All	200	0.26	--	0	SB-1	2012
1,1'-Biphenyl	92-52-4	0.2	d	All	200	0.027	--	0	SB-10	2013
1,1'-Biphenyl	92-52-4	0.2	d	All	200	0.0275	--	0	SB-11	2013
1,1'-Biphenyl	92-52-4	0.2	d	All	200	0.295	--	0	SB-12	2013
1,1'-Biphenyl	92-52-4	0.2	d	All	200	0.0265	--	0	SB-1A	2013
1,1'-Biphenyl	92-52-4	0.2	d	All	200	0.025	--	0	SB-2	2012
1,1'-Biphenyl	92-52-4	0.2	d	All	200	0.255	--	0	SB-5	2012

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	Runits	Dilution Factor	AnalDate
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	1,1`-Biphenyl	--	U	U	5.5	370	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	1,1`-Biphenyl	--	U	U	52	3,500	µg/Kg-dry-dry	10	26-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	1,1`-Biphenyl	--	U	U	52	3,500	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	1,1`-Biphenyl	--	U	U	5.5	370	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	1,1`-Biphenyl	--	U	U	5.7	380	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	1,1`-Biphenyl	--	U	U	5.4	360	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	84	1,700	µg/Kg-dry-dry	10	26-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	8.6	170	µg/Kg-dry-dry	1	08-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	8.8	180	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	95	1,900	µg/Kg-dry-dry	10	08-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	8.6	170	µg/Kg-dry-dry	1	08-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	8	160	µg/Kg-dry-dry	1	26-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	83	1,700	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	8.8	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	83	1,700	µg/Kg-dry-dry	10	26-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	84	1,700	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	8.9	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	9.1	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	8.7	170	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	84	1,700	µg/Kg-dry-dry	10	26-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	8.6	170	µg/Kg-dry-dry	1	08-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	8.8	180	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	95	1,900	µg/Kg-dry-dry	10	08-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	8.6	170	µg/Kg-dry-dry	1	08-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	8	160	µg/Kg-dry-dry	1	26-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	83	1,700	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	8.8	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	83	1,700	µg/Kg-dry-dry	10	26-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	84	1,700	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	8.9	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	9.1	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	8.7	170	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	100	1,700	µg/Kg-dry-dry	10	26-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	10	170	µg/Kg-dry-dry	1	08-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	11	180	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	120	1,900	µg/Kg-dry-dry	10	08-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	10	170	µg/Kg-dry-dry	1	08-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	9.7	160	µg/Kg-dry-dry	1	26-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	100	1,700	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	11	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	100	1,700	µg/Kg-dry-dry	10	26-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	100	1,700	µg/Kg-dry-dry	10	25-Jul-12

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Region 4 Chemical	CAS	Screening Level (mg/Kg-dry)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/Kg-dry)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Soil Bore	Year
1,1'-Biphenyl	92-52-4	0.2	d	All	200	0.0275	--	0	SB-5C	2013
1,1'-Biphenyl	92-52-4	0.2	d	All	200	0.26	--	0	SB-6A	2012
1,1'-Biphenyl	92-52-4	0.2	d	All	200	0.26	--	0	SB-7	2012
1,1'-Biphenyl	92-52-4	0.2	d	All	200	0.0275	--	0	SB-7E	2013
1,1'-Biphenyl	92-52-4	0.2	d	All	200	0.0285	--	0	SB-8	2013
1,1'-Biphenyl	92-52-4	0.2	d	All	200	0.027	--	0	SB-9	2013
2,4,5-Trichlorophenol	95-95-4	0.03	d	All	30	2.8	--	0	SB-1	2012
2,4,5-Trichlorophenol	95-95-4	0.03	d	All	30	0.286666667	--	0	SB-10	2013
2,4,5-Trichlorophenol	95-95-4	0.03	d	All	30	0.293333333	--	0	SB-11	2013
2,4,5-Trichlorophenol	95-95-4	0.03	d	All	30	3.166666667	--	0	SB-12	2013
2,4,5-Trichlorophenol	95-95-4	0.03	d	All	30	0.286666667	--	0	SB-1A	2013
2,4,5-Trichlorophenol	95-95-4	0.03	d	All	30	0.266666667	--	0	SB-2	2012
2,4,5-Trichlorophenol	95-95-4	0.03	d	All	30	2.766666667	--	0	SB-5	2012
2,4,5-Trichlorophenol	95-95-4	0.03	d	All	30	0.293333333	--	0	SB-5C	2013
2,4,5-Trichlorophenol	95-95-4	0.03	d	All	30	2.766666667	--	0	SB-6A	2012
2,4,5-Trichlorophenol	95-95-4	0.03	d	All	30	2.8	--	0	SB-7	2012
2,4,5-Trichlorophenol	95-95-4	0.03	d	All	30	0.296666667	--	0	SB-7E	2013
2,4,5-Trichlorophenol	95-95-4	0.03	d	All	30	0.303333333	--	0	SB-8	2013
2,4,5-Trichlorophenol	95-95-4	0.03	d	All	30	0.29	--	0	SB-9	2013
2,4,6-Trichlorophenol	88-06-2	0.09	d	All	90	0.933333333	--	0	SB-1	2012
2,4,6-Trichlorophenol	88-06-2	0.09	d	All	90	0.095555556	--	0	SB-10	2013
2,4,6-Trichlorophenol	88-06-2	0.09	d	All	90	0.097777778	--	0	SB-11	2013
2,4,6-Trichlorophenol	88-06-2	0.09	d	All	90	1.055555556	--	0	SB-12	2013
2,4,6-Trichlorophenol	88-06-2	0.09	d	All	90	0.095555556	--	0	SB-1A	2013
2,4,6-Trichlorophenol	88-06-2	0.09	d	All	90	0.088888889	--	0	SB-2	2012
2,4,6-Trichlorophenol	88-06-2	0.09	d	All	90	0.922222222	--	0	SB-5	2012
2,4,6-Trichlorophenol	88-06-2	0.09	d	All	90	0.097777778	--	0	SB-5C	2013
2,4,6-Trichlorophenol	88-06-2	0.09	d	All	90	0.922222222	--	0	SB-6A	2012
2,4,6-Trichlorophenol	88-06-2	0.09	d	All	90	0.933333333	--	0	SB-7	2012
2,4,6-Trichlorophenol	88-06-2	0.09	d	All	90	0.098888889	--	0	SB-7E	2013
2,4,6-Trichlorophenol	88-06-2	0.09	d	All	90	0.101111111	--	0	SB-8	2013
2,4,6-Trichlorophenol	88-06-2	0.09	d	All	90	0.096666667	--	0	SB-9	2013
Dichlorophenols ,3-), (2,4-), (2,5-), (2,6-)	120-83-2	0.05	d	All	50	2	--	0	SB-1	2012
Dichlorophenols ,3-), (2,4-), (2,5-), (2,6-)	120-83-2	0.05	d	All	50	0.2	--	0	SB-10	2013
Dichlorophenols ,3-), (2,4-), (2,5-), (2,6-)	120-83-2	0.05	d	All	50	0.22	--	0	SB-11	2013
Dichlorophenols ,3-), (2,4-), (2,5-), (2,6-)	120-83-2	0.05	d	All	50	2.4	--	0	SB-12	2013
Dichlorophenols ,3-), (2,4-), (2,5-), (2,6-)	120-83-2	0.05	d	All	50	0.2	--	0	SB-1A	2013
Dichlorophenols ,3-), (2,4-), (2,5-), (2,6-)	120-83-2	0.05	d	All	50	0.194	--	0	SB-2	2012
Dichlorophenols ,3-), (2,4-), (2,5-), (2,6-)	120-83-2	0.05	d	All	50	2	--	0	SB-5	2012
Dichlorophenols ,3-), (2,4-), (2,5-), (2,6-)	120-83-2	0.05	d	All	50	0.22	--	0	SB-5C	2013
Dichlorophenols ,3-), (2,4-), (2,5-), (2,6-)	120-83-2	0.05	d	All	50	2	--	0	SB-6A	2012
Dichlorophenols ,3-), (2,4-), (2,5-), (2,6-)	120-83-2	0.05	d	All	50	2	--	0	SB-7	2012

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	Runits	Dilution Factor	AnalDate
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	11	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	11	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	11	170	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	430	3,500	µg/Kg-dry-dry	10	26-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	44	360	µg/Kg-dry-dry	1	08-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	45	360	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	480	3,900	µg/Kg-dry-dry	10	08-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	44	350	µg/Kg-dry-dry	1	08-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	41	330	µg/Kg-dry-dry	1	26-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	420	3,400	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	45	370	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	430	3,500	µg/Kg-dry-dry	10	26-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	430	3,500	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	45	370	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	46	380	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	44	360	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	450	6,900	µg/Kg-dry-dry	10	26-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	46	710	µg/Kg-dry-dry	1	08-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	47	730	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	500	7,900	µg/Kg-dry-dry	10	08-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	46	710	µg/Kg-dry-dry	1	08-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	43	660	µg/Kg-dry-dry	1	26-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	440	6,800	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	47	730	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	440	6,900	µg/Kg-dry-dry	10	26-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	450	6,900	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	47	740	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	48	750	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	46	720	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	94	1,700	µg/Kg-dry-dry	10	26-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	9.6	170	µg/Kg-dry-dry	1	08-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	9.8	180	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	110	1,900	µg/Kg-dry-dry	10	08-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	9.6	170	µg/Kg-dry-dry	1	08-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	8.9	160	µg/Kg-dry-dry	1	26-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	93	1,700	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	9.9	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	93	1,700	µg/Kg-dry-dry	10	26-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	94	1,700	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	9.9	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	10	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	9.7	170	µg/Kg-dry-dry	1	11-Apr-13

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Region 4 Chemical	CAS	Screening Level (mg/Kg-dry)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/Kg-dry)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Soil Bore	Year
Dichlorophenols ,3-), (2,4-), (2,5-), (2,6-)	120-83-2	0.05	d	All	50	0.22	--	0	SB-7E	2013
Dichlorophenols ,3-), (2,4-), (2,5-), (2,6-)	120-83-2	0.05	d	All	50	0.22	--	0	SB-8	2013
Dichlorophenols ,3-), (2,4-), (2,5-), (2,6-)	120-83-2	0.05	d	All	50	0.22	--	0	SB-9	2013
2,4-Dimethylphenol	105-67-9	0.04	d	SI	40	10.75	--	0	SB-1	2012
2,4-Dimethylphenol	105-67-9	0.04	d	SI	40	1.1	--	0	SB-10	2013
2,4-Dimethylphenol	105-67-9	0.04	d	SI	40	1.125	--	0	SB-11	2013
2,4-Dimethylphenol	105-67-9	0.04	d	SI	40	12	--	0	SB-12	2013
2,4-Dimethylphenol	105-67-9	0.04	d	SI	40	1.1	--	0	SB-1A	2013
2,4-Dimethylphenol	105-67-9	0.04	d	SI	40	1.025	--	0	SB-2	2012
2,4-Dimethylphenol	105-67-9	0.04	d	SI	40	10.5	--	0	SB-5	2012
2,4-Dimethylphenol	105-67-9	0.04	d	SI	40	1.125	--	0	SB-5C	2013
2,4-Dimethylphenol	105-67-9	0.04	d	SI	40	10.75	--	0	SB-6A	2012
2,4-Dimethylphenol	105-67-9	0.04	d	SI	40	10.75	--	0	SB-7	2012
2,4-Dimethylphenol	105-67-9	0.04	d	SI	40	1.125	--	0	SB-7E	2013
2,4-Dimethylphenol	105-67-9	0.04	d	SI	40	1.15	--	0	SB-8	2013
2,4-Dimethylphenol	105-67-9	0.04	d	SI	40	1.1	--	0	SB-9	2013
2,4-Dinitrophenol	51-28-5	0.15	d	All	150	3	--	0	SB-1	2012
2,4-Dinitrophenol	51-28-5	0.15	d	All	150	0.306666667	--	0	SB-10	2013
2,4-Dinitrophenol	51-28-5	0.15	d	All	150	0.313333333	--	0	SB-11	2013
2,4-Dinitrophenol	51-28-5	0.15	d	All	150	3.333333333	--	0	SB-12	2013
2,4-Dinitrophenol	51-28-5	0.15	d	All	150	0.306666667	--	0	SB-1A	2013
2,4-Dinitrophenol	51-28-5	0.15	d	All	150	0.286666667	--	0	SB-2	2012
2,4-Dinitrophenol	51-28-5	0.15	d	All	150	2.933333333	--	0	SB-5	2012
2,4-Dinitrophenol	51-28-5	0.15	d	All	150	0.313333333	--	0	SB-5C	2013
2,4-Dinitrophenol	51-28-5	0.15	d	All	150	2.933333333	--	0	SB-6A	2012
2,4-Dinitrophenol	51-28-5	0.15	d	All	150	3	--	0	SB-7	2012
2,4-Dinitrophenol	51-28-5	0.15	d	All	150	0.313333333	--	0	SB-7E	2013
2,4-Dinitrophenol	51-28-5	0.15	d	All	150	0.32	--	0	SB-8	2013
2,4-Dinitrophenol	51-28-5	0.15	d	All	150	0.306666667	--	0	SB-9	2013
2,4-Dinitrotoluene	121-14-2	6	c	SI, M, P	6000	0.015666667	--	0	SB-1	2012
2,4-Dinitrotoluene	121-14-2	6	c	SI, M, P	6000	0.0016	--	0	SB-10	2013
2,4-Dinitrotoluene	121-14-2	6	c	SI, M, P	6000	0.001633333	--	0	SB-11	2013
2,4-Dinitrotoluene	121-14-2	6	c	SI, M, P	6000	0.018333333	--	0	SB-12	2013
2,4-Dinitrotoluene	121-14-2	6	c	SI, M, P	6000	0.0016	--	0	SB-1A	2013
2,4-Dinitrotoluene	121-14-2	6	c	SI, M, P	6000	0.001483333	--	0	SB-2	2012
2,4-Dinitrotoluene	121-14-2	6	c	SI, M, P	6000	0.0155	--	0	SB-5	2012
2,4-Dinitrotoluene	121-14-2	6	c	SI, M, P	6000	0.00165	--	0	SB-5C	2013
2,4-Dinitrotoluene	121-14-2	6	c	SI, M, P	6000	0.0155	--	0	SB-6A	2012
2,4-Dinitrotoluene	121-14-2	6	c	SI, M, P	6000	0.015666667	--	0	SB-7	2012
2,4-Dinitrotoluene	121-14-2	6	c	SI, M, P	6000	0.00165	--	0	SB-7E	2013
2,4-Dinitrotoluene	121-14-2	6	c	SI, M, P	6000	0.001666667	--	0	SB-8	2013
2,4-Dinitrotoluene	121-14-2	6	c	SI, M, P	6000	0.001616667	--	0	SB-9	2013

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	Runits	Dilution Factor	AnalDate
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	98	1,700	µg/Kg-dry-dry	10	26-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	10	170	µg/Kg-dry-dry	1	08-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	10	180	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	110	1,900	µg/Kg-dry-dry	10	08-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	10	170	µg/Kg-dry-dry	1	08-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	9.4	160	µg/Kg-dry-dry	1	26-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	97	1,700	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	10	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	98	1,700	µg/Kg-dry-dry	10	26-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	98	1,700	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	10	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	11	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	10	170	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	96	840	µg/Kg-dry-dry	10	26-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	9.9	86	µg/Kg-dry-dry	1	08-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	10	88	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	110	950	µg/Kg-dry-dry	10	08-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	9.8	86	µg/Kg-dry-dry	1	08-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	9.1	80	µg/Kg-dry-dry	1	26-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	95	830	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	10	89	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	95	840	µg/Kg-dry-dry	10	26-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	96	840	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	10	89	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	10	91	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	9.9	87	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	94	1,700	µg/Kg-dry-dry	10	26-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	9.7	170	µg/Kg-dry-dry	1	08-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	9.9	180	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	110	1,900	µg/Kg-dry-dry	10	08-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	9.6	170	µg/Kg-dry-dry	1	08-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	9	160	µg/Kg-dry-dry	1	26-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	93	1,700	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	9.9	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	94	1,700	µg/Kg-dry-dry	10	26-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	94	1,700	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	10	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	10	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	9.7	170	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	--	U	U	100	840	µg/Kg-dry-dry	10	26-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	--	U	U	11	86	µg/Kg-dry-dry	1	08-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	--	U	U	11	88	µg/Kg-dry-dry	1	09-Apr-13

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Region 4 Chemical	CAS	Screening Level (mg/Kg-dry)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/Kg-dry)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Soil Bore	Year
--	--	--	--	--	--	--	--	0	SB-1	2012
--	--	--	--	--	--	--	--	0	SB-10	2013
--	--	--	--	--	--	--	--	0	SB-11	2013
--	--	--	--	--	--	--	--	0	SB-12	2013
--	--	--	--	--	--	--	--	0	SB-1A	2013
--	--	--	--	--	--	--	--	0	SB-2	2012
--	--	--	--	--	--	--	--	0	SB-5	2012
--	--	--	--	--	--	--	--	0	SB-5C	2013
--	--	--	--	--	--	--	--	0	SB-6A	2012
--	--	--	--	--	--	--	--	0	SB-7	2012
--	--	--	--	--	--	--	--	0	SB-7E	2013
--	--	--	--	--	--	--	--	0	SB-8	2013
--	--	--	--	--	--	--	--	0	SB-9	2013
--	--	--	--	--	--	--	--	0	SB-1	2012
--	--	--	--	--	--	--	--	0	SB-10	2013
--	--	--	--	--	--	--	--	0	SB-11	2013
--	--	--	--	--	--	--	--	0	SB-12	2013
--	--	--	--	--	--	--	--	0	SB-1A	2013
--	--	--	--	--	--	--	--	0	SB-2	2012
--	--	--	--	--	--	--	--	0	SB-5	2012
--	--	--	--	--	--	--	--	0	SB-5C	2013
--	--	--	--	--	--	--	--	0	SB-6A	2012
--	--	--	--	--	--	--	--	0	SB-7	2012
--	--	--	--	--	--	--	--	0	SB-7E	2013
--	--	--	--	--	--	--	--	0	SB-8	2013
--	--	--	--	--	--	--	--	0	SB-9	2013
--	--	--	--	--	--	--	--	0	SB-1	2012
--	--	--	--	--	--	--	--	0	SB-10	2013
--	--	--	--	--	--	--	--	0	SB-11	2013
--	--	--	--	--	--	--	--	0	SB-12	2013
--	--	--	--	--	--	--	--	0	SB-1A	2013
--	--	--	--	--	--	--	--	0	SB-2	2012
--	--	--	--	--	--	--	--	0	SB-5	2012
--	--	--	--	--	--	--	--	0	SB-5C	2013
--	--	--	--	--	--	--	--	0	SB-6A	2012
--	--	--	--	--	--	--	--	0	SB-7	2012
--	--	--	--	--	--	--	--	0	SB-7E	2013
--	--	--	--	--	--	--	--	0	SB-8	2013
--	--	--	--	--	--	--	--	0	SB-9	2013
2-Methylnaphthalene	91-57-6	--	--	All, total	29000	0.003448276	--	0	SB-1	2012
2-Methylnaphthalene	91-57-6	--	--	All, total	29000	0.00037931	--	0	SB-10	2013
2-Methylnaphthalene	91-57-6	--	--	All, total	29000	0.00037931	--	0	SB-11	2013

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	Runits	Dilution Factor	AnalDate
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	--	U	U	120	950	µg/Kg-dry-dry	10	08-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	60	60	J	11	86	µg/Kg-dry-dry	1	08-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	--	U	U	9.8	80	µg/Kg-dry-dry	1	26-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	--	U	U	100	830	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	--	U	U	11	89	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	--	U	U	100	840	µg/Kg-dry-dry	10	26-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	--	U	U	100	840	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	--	U	U	11	89	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	--	U	U	11	91	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	--	U	U	11	87	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	100	1,700	µg/Kg-dry-dry	10	26-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	10	170	µg/Kg-dry-dry	1	08-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	11	180	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	110	1,900	µg/Kg-dry-dry	10	08-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	10	170	µg/Kg-dry-dry	1	08-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	9.6	160	µg/Kg-dry-dry	1	26-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	100	1,700	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	11	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	100	1,700	µg/Kg-dry-dry	10	26-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	100	1,700	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	11	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	11	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	10	170	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	80	6,900	µg/Kg-dry-dry	10	26-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	8.2	710	µg/Kg-dry-dry	1	08-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	8.4	730	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	91	7,900	µg/Kg-dry-dry	10	08-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	8.2	710	µg/Kg-dry-dry	1	08-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	7.6	660	µg/Kg-dry-dry	1	26-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	79	6,800	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	8.4	730	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	80	6,900	µg/Kg-dry-dry	10	26-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	80	6,900	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	8.5	740	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	8.7	750	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	8.3	720	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	92	1,700	µg/Kg-dry-dry	10	26-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	9.4	170	µg/Kg-dry-dry	1	08-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	9.6	180	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	100	1,900	µg/Kg-dry-dry	10	08-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	9.4	170	µg/Kg-dry-dry	1	08-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	8.7	160	µg/Kg-dry-dry	1	26-Jul-12

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Region 4 Chemical	CAS	Screening Level (mg/Kg-dry)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/Kg-dry)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Soil Bore	Year
2-Methylnaphthalene	91-57-6	--	--	All, total	29000	0.004137931	--	0	SB-12	2013
2-Methylnaphthalene	91-57-6	--	--	All, total	29000	0.00037931	0.002069	1	SB-1A	2013
2-Methylnaphthalene	91-57-6	--	--	All, total	29000	0.000337931	--	0	SB-2	2012
2-Methylnaphthalene	91-57-6	--	--	All, total	29000	0.003448276	--	0	SB-5	2012
2-Methylnaphthalene	91-57-6	--	--	All, total	29000	0.00037931	--	0	SB-5C	2013
2-Methylnaphthalene	91-57-6	--	--	All, total	29000	0.003448276	--	0	SB-6A	2012
2-Methylnaphthalene	91-57-6	--	--	All, total	29000	0.003448276	--	0	SB-7	2012
2-Methylnaphthalene	91-57-6	--	--	All, total	29000	0.00037931	--	0	SB-7E	2013
2-Methylnaphthalene	91-57-6	--	--	All, total	29000	0.00037931	--	0	SB-8	2013
2-Methylnaphthalene	91-57-6	--	--	All, total	29000	0.00037931	--	0	SB-9	2013
2-Methylphenol (Cresol, o-)	95-48-7	0.1	d	All	100	1	--	0	SB-1	2012
2-Methylphenol (Cresol, o-)	95-48-7	0.1	d	All	100	0.1	--	0	SB-10	2013
2-Methylphenol (Cresol, o-)	95-48-7	0.1	d	All	100	0.11	--	0	SB-11	2013
2-Methylphenol (Cresol, o-)	95-48-7	0.1	d	All	100	1.1	--	0	SB-12	2013
2-Methylphenol (Cresol, o-)	95-48-7	0.1	d	All	100	0.1	--	0	SB-1A	2013
2-Methylphenol (Cresol, o-)	95-48-7	0.1	d	All	100	0.096	--	0	SB-2	2012
2-Methylphenol (Cresol, o-)	95-48-7	0.1	d	All	100	1	--	0	SB-5	2012
2-Methylphenol (Cresol, o-)	95-48-7	0.1	d	All	100	0.11	--	0	SB-5C	2013
2-Methylphenol (Cresol, o-)	95-48-7	0.1	d	All	100	1	--	0	SB-6A	2012
2-Methylphenol (Cresol, o-)	95-48-7	0.1	d	All	100	1	--	0	SB-7	2012
2-Methylphenol (Cresol, o-)	95-48-7	0.1	d	All	100	0.11	--	0	SB-7E	2013
2-Methylphenol (Cresol, o-)	95-48-7	0.1	d	All	100	0.11	--	0	SB-8	2013
2-Methylphenol (Cresol, o-)	95-48-7	0.1	d	All	100	0.1	--	0	SB-9	2013
--	--	--	--	--	--	--	--	0	SB-1	2012
--	--	--	--	--	--	--	--	0	SB-10	2013
--	--	--	--	--	--	--	--	0	SB-11	2013
--	--	--	--	--	--	--	--	0	SB-12	2013
--	--	--	--	--	--	--	--	0	SB-1A	2013
--	--	--	--	--	--	--	--	0	SB-2	2012
--	--	--	--	--	--	--	--	0	SB-5	2012
--	--	--	--	--	--	--	--	0	SB-5C	2013
--	--	--	--	--	--	--	--	0	SB-6A	2012
--	--	--	--	--	--	--	--	0	SB-7	2012
--	--	--	--	--	--	--	--	0	SB-7E	2013
--	--	--	--	--	--	--	--	0	SB-8	2013
--	--	--	--	--	--	--	--	0	SB-9	2013
--	--	--	--	--	--	--	--	0	SB-1	2012
--	--	--	--	--	--	--	--	0	SB-10	2013
--	--	--	--	--	--	--	--	0	SB-11	2013
--	--	--	--	--	--	--	--	0	SB-12	2013
--	--	--	--	--	--	--	--	0	SB-1A	2013
--	--	--	--	--	--	--	--	0	SB-2	2012

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	Runits	Dilution Factor	AnalDate
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	90	1,700	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	9.6	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	91	1,700	µg/Kg-dry-dry	10	26-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	91	1,700	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	9.7	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	9.9	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	9.5	170	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	98	6,900	µg/Kg-dry-dry	10	26-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	10	710	µg/Kg-dry-dry	1	08-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	10	730	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	110	7,900	µg/Kg-dry-dry	10	08-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	10	710	µg/Kg-dry-dry	1	08-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	9.3	660	µg/Kg-dry-dry	1	26-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	97	6,800	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	10	730	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	98	6,900	µg/Kg-dry-dry	10	26-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	98	6,900	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	10	740	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	11	750	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	10	720	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	850	6,900	µg/Kg-dry-dry	10	26-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	88	710	µg/Kg-dry-dry	1	08-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	89	730	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	970	7,900	µg/Kg-dry-dry	10	08-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	87	710	µg/Kg-dry-dry	1	08-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	81	660	µg/Kg-dry-dry	1	26-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	840	6,800	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	90	730	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	850	6,900	µg/Kg-dry-dry	10	26-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	850	6,900	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	90	740	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	93	750	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	88	720	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	510	3,500	µg/Kg-dry-dry	10	26-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	52	360	µg/Kg-dry-dry	1	08-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	53	360	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	570	3,900	µg/Kg-dry-dry	10	08-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	52	350	µg/Kg-dry-dry	1	08-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	48	330	µg/Kg-dry-dry	1	26-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	500	3,400	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	53	370	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	500	3,500	µg/Kg-dry-dry	10	26-Jul-12

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Region 4 Chemical	CAS	Screening Level (mg/Kg-dry)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/Kg-dry)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Soil Bore	Year
--	--	--	--	--	--	--	--	0	SB-5	2012
--	--	--	--	--	--	--	--	0	SB-5C	2013
--	--	--	--	--	--	--	--	0	SB-6A	2012
--	--	--	--	--	--	--	--	0	SB-7	2012
--	--	--	--	--	--	--	--	0	SB-7E	2013
--	--	--	--	--	--	--	--	0	SB-8	2013
--	--	--	--	--	--	--	--	0	SB-9	2013
--	--	--	--	--	--	--	--	0	SB-1	2012
--	--	--	--	--	--	--	--	0	SB-10	2013
--	--	--	--	--	--	--	--	0	SB-11	2013
--	--	--	--	--	--	--	--	0	SB-12	2013
--	--	--	--	--	--	--	--	0	SB-1A	2013
--	--	--	--	--	--	--	--	0	SB-2	2012
--	--	--	--	--	--	--	--	0	SB-5	2012
--	--	--	--	--	--	--	--	0	SB-5C	2013
--	--	--	--	--	--	--	--	0	SB-6A	2012
--	--	--	--	--	--	--	--	0	SB-7	2012
--	--	--	--	--	--	--	--	0	SB-7E	2013
--	--	--	--	--	--	--	--	0	SB-8	2013
--	--	--	--	--	--	--	--	0	SB-9	2013
--	--	--	--	--	--	--	--	0	SB-1	2012
--	--	--	--	--	--	--	--	0	SB-10	2013
--	--	--	--	--	--	--	--	0	SB-11	2013
--	--	--	--	--	--	--	--	0	SB-12	2013
--	--	--	--	--	--	--	--	0	SB-1A	2013
--	--	--	--	--	--	--	--	0	SB-2	2012
--	--	--	--	--	--	--	--	0	SB-5	2012
--	--	--	--	--	--	--	--	0	SB-5C	2013
--	--	--	--	--	--	--	--	0	SB-6A	2012
--	--	--	--	--	--	--	--	0	SB-7	2012
--	--	--	--	--	--	--	--	0	SB-7E	2013
--	--	--	--	--	--	--	--	0	SB-8	2013
--	--	--	--	--	--	--	--	0	SB-9	2013
--	--	--	--	--	--	--	--	0	SB-1	2012
--	--	--	--	--	--	--	--	0	SB-10	2013
--	--	--	--	--	--	--	--	0	SB-11	2013
--	--	--	--	--	--	--	--	0	SB-12	2013
--	--	--	--	--	--	--	--	0	SB-1A	2013
--	--	--	--	--	--	--	--	0	SB-2	2012
--	--	--	--	--	--	--	--	0	SB-5	2012
--	--	--	--	--	--	--	--	0	SB-5C	2013
--	--	--	--	--	--	--	--	0	SB-6A	2012
--	--	--	--	--	--	--	--	0	SB-7	2012
--	--	--	--	--	--	--	--	0	SB-7E	2013
--	--	--	--	--	--	--	--	0	SB-8	2013
--	--	--	--	--	--	--	--	0	SB-9	2013
--	--	--	--	--	--	--	--	0	SB-1	2012
--	--	--	--	--	--	--	--	0	SB-10	2013
--	--	--	--	--	--	--	--	0	SB-11	2013
--	--	--	--	--	--	--	--	0	SB-12	2013
--	--	--	--	--	--	--	--	0	SB-1A	2013
--	--	--	--	--	--	--	--	0	SB-2	2012
--	--	--	--	--	--	--	--	0	SB-5	2012
--	--	--	--	--	--	--	--	0	SB-5C	2013
--	--	--	--	--	--	--	--	0	SB-6A	2012

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	Runits	Dilution Factor	AnalDate
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	510	3,500	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	54	370	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	55	380	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	52	360	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	91	1,700	µg/Kg-dry-dry	10	26-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	9.4	170	µg/Kg-dry-dry	1	08-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	9.6	180	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	100	1,900	µg/Kg-dry-dry	10	08-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	9.3	170	µg/Kg-dry-dry	1	08-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	8.7	160	µg/Kg-dry-dry	1	26-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	90	1,700	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	9.6	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	91	1,700	µg/Kg-dry-dry	10	26-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	91	1,700	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	9.7	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	9.9	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	9.4	170	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	95	1,700	µg/Kg-dry-dry	10	26-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	9.7	170	µg/Kg-dry-dry	1	08-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	10	180	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	110	1,900	µg/Kg-dry-dry	10	08-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	9.7	170	µg/Kg-dry-dry	1	08-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	9	160	µg/Kg-dry-dry	1	26-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	94	1,700	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	10	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	94	1,700	µg/Kg-dry-dry	10	26-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	95	1,700	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	10	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	10	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	9.8	170	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	130	3,500	µg/Kg-dry-dry	10	26-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	14	360	µg/Kg-dry-dry	1	08-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	14	360	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	150	3,900	µg/Kg-dry-dry	10	08-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	14	350	µg/Kg-dry-dry	1	08-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	13	330	µg/Kg-dry-dry	1	26-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	130	3,400	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	14	370	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	130	3,500	µg/Kg-dry-dry	10	26-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	130	3,500	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	14	370	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	15	380	µg/Kg-dry-dry	1	11-Apr-13

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Region 4 Chemical	CAS	Screening Level (mg/Kg-dry)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/Kg-dry)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Soil Bore	Year
--	--	--	--	--	--	--	--	0	SB-7	2012
--	--	--	--	--	--	--	--	0	SB-7E	2013
--	--	--	--	--	--	--	--	0	SB-8	2013
--	--	--	--	--	--	--	--	0	SB-9	2013
--	--	--	--	--	--	--	--	0	SB-1	2012
--	--	--	--	--	--	--	--	0	SB-10	2013
--	--	--	--	--	--	--	--	0	SB-11	2013
--	--	--	--	--	--	--	--	0	SB-12	2013
--	--	--	--	--	--	--	--	0	SB-1A	2013
--	--	--	--	--	--	--	--	0	SB-2	2012
--	--	--	--	--	--	--	--	0	SB-5	2012
--	--	--	--	--	--	--	--	0	SB-5C	2013
--	--	--	--	--	--	--	--	0	SB-6A	2012
--	--	--	--	--	--	--	--	0	SB-7	2012
--	--	--	--	--	--	--	--	0	SB-7E	2013
--	--	--	--	--	--	--	--	0	SB-8	2013
--	--	--	--	--	--	--	--	0	SB-9	2013
--	--	--	--	--	--	--	--	0	SB-1	2012
--	--	--	--	--	--	--	--	0	SB-10	2013
--	--	--	--	--	--	--	--	0	SB-11	2013
--	--	--	--	--	--	--	--	0	SB-12	2013
--	--	--	--	--	--	--	--	0	SB-1A	2013
--	--	--	--	--	--	--	--	0	SB-2	2012
--	--	--	--	--	--	--	--	0	SB-5	2012
--	--	--	--	--	--	--	--	0	SB-5C	2013
--	--	--	--	--	--	--	--	0	SB-6A	2012
--	--	--	--	--	--	--	--	0	SB-7	2012
--	--	--	--	--	--	--	--	0	SB-7E	2013
--	--	--	--	--	--	--	--	0	SB-8	2013
--	--	--	--	--	--	--	--	0	SB-9	2013
4-Chloroaniline	106-47-8	1.0	c	P, SI	1000	0.13	--	0	SB-1	2012
4-Chloroaniline	106-47-8	1.0	c	P, SI	1000	0.014	--	0	SB-10	2013
4-Chloroaniline	106-47-8	1.0	c	P, SI	1000	0.014	--	0	SB-11	2013
4-Chloroaniline	106-47-8	1.0	c	P, SI	1000	0.15	--	0	SB-12	2013
4-Chloroaniline	106-47-8	1.0	c	P, SI	1000	0.014	--	0	SB-1A	2013
4-Chloroaniline	106-47-8	1.0	c	P, SI	1000	0.013	--	0	SB-2	2012
4-Chloroaniline	106-47-8	1.0	c	P, SI	1000	0.13	--	0	SB-5	2012
4-Chloroaniline	106-47-8	1.0	c	P, SI	1000	0.014	--	0	SB-5C	2013
4-Chloroaniline	106-47-8	1.0	c	P, SI	1000	0.13	--	0	SB-6A	2012
4-Chloroaniline	106-47-8	1.0	c	P, SI	1000	0.13	--	0	SB-7	2012
4-Chloroaniline	106-47-8	1.0	c	P, SI	1000	0.014	--	0	SB-7E	2013
4-Chloroaniline	106-47-8	1.0	c	P, SI	1000	0.015	--	0	SB-8	2013

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	Runits	Dilution Factor	AnalDate
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	14	360	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	96	1,700	µg/Kg-dry-dry	10	26-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	9.9	170	µg/Kg-dry-dry	1	08-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	10	180	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	110	1,900	µg/Kg-dry-dry	10	08-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	9.8	170	µg/Kg-dry-dry	1	08-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	9.2	160	µg/Kg-dry-dry	1	26-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	95	1,700	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	10	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	96	1,700	µg/Kg-dry-dry	10	26-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	96	1,700	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	10	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	10	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	9.9	170	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	4-Methylphenol	--	U	U	100	1,700	µg/Kg-dry-dry	10	26-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Methylphenol	--	U	U	11	170	µg/Kg-dry-dry	1	08-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Methylphenol	--	U	U	11	180	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Methylphenol	--	U	U	120	1,900	µg/Kg-dry-dry	10	08-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Methylphenol	--	U	U	11	170	µg/Kg-dry-dry	1	08-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	4-Methylphenol	--	U	U	9.8	160	µg/Kg-dry-dry	1	26-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	4-Methylphenol	--	U	U	100	1,700	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	4-Methylphenol	--	U	U	11	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	4-Methylphenol	--	U	U	100	1,700	µg/Kg-dry-dry	10	26-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	4-Methylphenol	--	U	U	100	1,700	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	4-Methylphenol	--	U	U	11	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Methylphenol	--	U	U	11	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Methylphenol	--	U	U	11	170	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	160	6,900	µg/Kg-dry-dry	10	26-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	16	710	µg/Kg-dry-dry	1	08-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	16	730	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	180	7,900	µg/Kg-dry-dry	10	08-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	16	710	µg/Kg-dry-dry	1	08-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	15	660	µg/Kg-dry-dry	1	26-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	150	6,800	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	16	730	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	150	6,900	µg/Kg-dry-dry	10	26-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	160	6,900	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	16	740	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	17	750	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	16	720	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	430	6,900	µg/Kg-dry-dry	10	26-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	44	710	µg/Kg-dry-dry	1	08-Apr-13

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Region 4 Chemical	CAS	Screening Level (mg/Kg-dry)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/Kg-dry)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Soil Bore	Year
4-Chloroaniline	106-47-8	1.0	c	P, SI	1000	0.014	--	0	SB-9	2013
--	--	--	--	--	--	--	--	0	SB-1	2012
--	--	--	--	--	--	--	--	0	SB-10	2013
--	--	--	--	--	--	--	--	0	SB-11	2013
--	--	--	--	--	--	--	--	0	SB-12	2013
--	--	--	--	--	--	--	--	0	SB-1A	2013
--	--	--	--	--	--	--	--	0	SB-2	2012
--	--	--	--	--	--	--	--	0	SB-5	2012
--	--	--	--	--	--	--	--	0	SB-5C	2013
--	--	--	--	--	--	--	--	0	SB-6A	2012
--	--	--	--	--	--	--	--	0	SB-7	2012
--	--	--	--	--	--	--	--	0	SB-7E	2013
--	--	--	--	--	--	--	--	0	SB-8	2013
--	--	--	--	--	--	--	--	0	SB-9	2013
4-Methylphenol (Cresol, p-)	106-44-5	0.08	d	All	80	1.25	--	0	SB-1	2012
4-Methylphenol (Cresol, p-)	106-44-5	0.08	d	All	80	0.1375	--	0	SB-10	2013
4-Methylphenol (Cresol, p-)	106-44-5	0.08	d	All	80	0.1375	--	0	SB-11	2013
4-Methylphenol (Cresol, p-)	106-44-5	0.08	d	All	80	1.5	--	0	SB-12	2013
4-Methylphenol (Cresol, p-)	106-44-5	0.08	d	All	80	0.1375	--	0	SB-1A	2013
4-Methylphenol (Cresol, p-)	106-44-5	0.08	d	All	80	0.1225	--	0	SB-2	2012
4-Methylphenol (Cresol, p-)	106-44-5	0.08	d	All	80	1.25	--	0	SB-5	2012
4-Methylphenol (Cresol, p-)	106-44-5	0.08	d	All	80	0.1375	--	0	SB-5C	2013
4-Methylphenol (Cresol, p-)	106-44-5	0.08	d	All	80	1.25	--	0	SB-6A	2012
4-Methylphenol (Cresol, p-)	106-44-5	0.08	d	All	80	1.25	--	0	SB-7	2012
4-Methylphenol (Cresol, p-)	106-44-5	0.08	d	All	80	0.1375	--	0	SB-7E	2013
4-Methylphenol (Cresol, p-)	106-44-5	0.08	d	All	80	0.1375	--	0	SB-8	2013
4-Methylphenol (Cresol, p-)	106-44-5	0.08	d	All	80	0.1375	--	0	SB-9	2013
--	--	--	--	--	--	--	--	0	SB-1	2012
--	--	--	--	--	--	--	--	0	SB-10	2013
--	--	--	--	--	--	--	--	0	SB-11	2013
--	--	--	--	--	--	--	--	0	SB-12	2013
--	--	--	--	--	--	--	--	0	SB-1A	2013
--	--	--	--	--	--	--	--	0	SB-2	2012
--	--	--	--	--	--	--	--	0	SB-5	2012
--	--	--	--	--	--	--	--	0	SB-5C	2013
--	--	--	--	--	--	--	--	0	SB-6A	2012
--	--	--	--	--	--	--	--	0	SB-7	2012
--	--	--	--	--	--	--	--	0	SB-7E	2013
--	--	--	--	--	--	--	--	0	SB-8	2013
--	--	--	--	--	--	--	--	0	SB-9	2013
4-Nitrophenol	100-02-7	7	b	SI	7000	0.061428571	--	0	SB-1	2012
4-Nitrophenol	100-02-7	7	b	SI	7000	0.006285714	--	0	SB-10	2013

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	Runits	Dilution Factor	AnalDate
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	45	730	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	480	7,900	µg/Kg-dry-dry	10	08-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	43	710	µg/Kg-dry-dry	1	08-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	41	660	µg/Kg-dry-dry	1	26-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	420	6,800	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	45	730	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	420	6,900	µg/Kg-dry-dry	10	26-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	430	6,900	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	45	740	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	46	750	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	44	720	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Acenaphthene	--	U	U	96	320	µg/Kg-dry-dry	10	26-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Acenaphthene	--	U	U	9.8	32	µg/Kg-dry-dry	1	08-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Acenaphthene	--	U	U	10	33	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Acenaphthene	--	U	U	110	360	µg/Kg-dry-dry	10	08-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Acenaphthene	--	U	U	9.8	32	µg/Kg-dry-dry	1	08-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Acenaphthene	--	U	U	9.1	30	µg/Kg-dry-dry	1	26-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Acenaphthene	--	U	U	95	310	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Acenaphthene	--	U	U	10	33	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Acenaphthene	--	U	U	95	310	µg/Kg-dry-dry	10	26-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Acenaphthene	--	U	U	96	320	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Acenaphthene	--	U	U	10	33	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Acenaphthene	--	U	U	10	34	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Acenaphthene	--	U	U	9.9	33	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	--	U	U	100	320	µg/Kg-dry-dry	10	26-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	--	U	U	10	32	µg/Kg-dry-dry	1	08-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	--	U	U	10	33	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	--	U	U	110	360	µg/Kg-dry-dry	10	08-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	--	U	U	10	32	µg/Kg-dry-dry	1	08-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	--	U	U	9.5	30	µg/Kg-dry-dry	1	26-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	--	U	U	98	310	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	--	U	U	10	33	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	--	U	U	99	310	µg/Kg-dry-dry	10	26-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	--	U	U	99	320	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	--	U	U	11	33	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	--	U	U	11	34	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	24	24	J	10	33	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	52	3,500	µg/Kg-dry-dry	10	26-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	5.4	360	µg/Kg-dry-dry	1	08-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	5.5	360	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	59	3,900	µg/Kg-dry-dry	10	08-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	5.4	350	µg/Kg-dry-dry	1	08-Apr-13

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Region 4 Chemical	CAS	Screening Level (mg/Kg-dry)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/Kg-dry)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Soil Bore	Year
4-Nitrophenol	100-02-7	7	b	SI	7000	0.006428571	--	0	SB-11	2013
4-Nitrophenol	100-02-7	7	b	SI	7000	0.068571429	--	0	SB-12	2013
4-Nitrophenol	100-02-7	7	b	SI	7000	0.006142857	--	0	SB-1A	2013
4-Nitrophenol	100-02-7	7	b	SI	7000	0.005857143	--	0	SB-2	2012
4-Nitrophenol	100-02-7	7	b	SI	7000	0.06	--	0	SB-5	2012
4-Nitrophenol	100-02-7	7	b	SI	7000	0.006428571	--	0	SB-5C	2013
4-Nitrophenol	100-02-7	7	b	SI	7000	0.06	--	0	SB-6A	2012
4-Nitrophenol	100-02-7	7	b	SI	7000	0.061428571	--	0	SB-7	2012
4-Nitrophenol	100-02-7	7	b	SI	7000	0.006428571	--	0	SB-7E	2013
4-Nitrophenol	100-02-7	7	b	SI	7000	0.006571429	--	0	SB-8	2013
4-Nitrophenol	100-02-7	7	b	SI	7000	0.006285714	--	0	SB-9	2013
Acenaphthene	83-32-9	--	--	All, total	29000	0.003310345	--	0	SB-1	2012
Acenaphthene	83-32-9	--	--	All, total	29000	0.000337931	--	0	SB-10	2013
Acenaphthene	83-32-9	--	--	All, total	29000	0.000344828	--	0	SB-11	2013
Acenaphthene	83-32-9	--	--	All, total	29000	0.003793103	--	0	SB-12	2013
Acenaphthene	83-32-9	--	--	All, total	29000	0.000337931	--	0	SB-1A	2013
Acenaphthene	83-32-9	--	--	All, total	29000	0.000313793	--	0	SB-2	2012
Acenaphthene	83-32-9	--	--	All, total	29000	0.003275862	--	0	SB-5	2012
Acenaphthene	83-32-9	--	--	All, total	29000	0.000344828	--	0	SB-5C	2013
Acenaphthene	83-32-9	--	--	All, total	29000	0.003275862	--	0	SB-6A	2012
Acenaphthene	83-32-9	--	--	All, total	29000	0.003310345	--	0	SB-7	2012
Acenaphthene	83-32-9	--	--	All, total	29000	0.000344828	--	0	SB-7E	2013
Acenaphthene	83-32-9	--	--	All, total	29000	0.000344828	--	0	SB-8	2013
Acenaphthene	83-32-9	--	--	All, total	29000	0.000341379	--	0	SB-9	2013
Acenaphthylene	208-96-8	--	--	--	29000	0.003448276	--	0	SB-1	2012
Acenaphthylene	208-96-8	--	--	--	29000	0.000344828	--	0	SB-10	2013
Acenaphthylene	208-96-8	--	--	--	29000	0.000344828	--	0	SB-11	2013
Acenaphthylene	208-96-8	--	--	--	29000	0.003793103	--	0	SB-12	2013
Acenaphthylene	208-96-8	--	--	--	29000	0.000344828	--	0	SB-1A	2013
Acenaphthylene	208-96-8	--	--	--	29000	0.000327586	--	0	SB-2	2012
Acenaphthylene	208-96-8	--	--	--	29000	0.00337931	--	0	SB-5	2012
Acenaphthylene	208-96-8	--	--	--	29000	0.000344828	--	0	SB-5C	2013
Acenaphthylene	208-96-8	--	--	--	29000	0.003413793	--	0	SB-6A	2012
Acenaphthylene	208-96-8	--	--	--	29000	0.003413793	--	0	SB-7	2012
Acenaphthylene	208-96-8	--	--	--	29000	0.00037931	--	0	SB-7E	2013
Acenaphthylene	208-96-8	--	--	--	29000	0.00037931	--	0	SB-8	2013
Acenaphthylene	208-96-8	--	--	--	29000	0.000344828	0.000828	1	SB-9	2013
Acetophenone	--	--	--	--	--	--	--	0	SB-1	2012
Acetophenone	--	--	--	--	--	--	--	0	SB-10	2013
Acetophenone	--	--	--	--	--	--	--	0	SB-11	2013
Acetophenone	--	--	--	--	--	--	--	0	SB-12	2013
Acetophenone	--	--	--	--	--	--	--	0	SB-1A	2013

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	Runits	Dilution Factor	AnalDate
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	5	330	µg/Kg-dry-dry	1	26-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	52	3,400	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	5.5	370	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	52	3,500	µg/Kg-dry-dry	10	26-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	52	3,500	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	5.5	370	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	5.7	380	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	5.4	360	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Anthracene	--	U	U	110	320	µg/Kg-dry-dry	10	26-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Anthracene	--	U	U	11	32	µg/Kg-dry-dry	1	08-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Anthracene	--	U	U	11	33	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Anthracene	280	280	J	120	360	µg/Kg-dry-dry	10	08-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Anthracene	--	U	U	11	32	µg/Kg-dry-dry	1	08-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Anthracene	--	U	U	10	30	µg/Kg-dry-dry	1	26-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Anthracene	--	U	U	110	310	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Anthracene	--	U	U	11	33	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Anthracene	--	U	U	110	310	µg/Kg-dry-dry	10	26-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Anthracene	180	180	J	110	320	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Anthracene	--	U	U	11	33	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Anthracene	--	U	U	12	34	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Anthracene	41	41		11	33	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	110	530	µg/Kg-dry-dry	10	26-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	11	54	µg/Kg-dry-dry	1	08-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	11	55	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	120	590	µg/Kg-dry-dry	10	08-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	11	54	µg/Kg-dry-dry	1	08-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	10	50	µg/Kg-dry-dry	1	26-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	100	520	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	11	55	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	110	520	µg/Kg-dry-dry	10	26-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	110	530	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	11	56	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	12	57	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	11	54	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	--	U	U	130	3,500	µg/Kg-dry-dry	10	26-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	--	U	U	14	360	µg/Kg-dry-dry	1	08-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	--	U	U	14	360	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	--	U	U	150	3,900	µg/Kg-dry-dry	10	08-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	--	U	U	14	350	µg/Kg-dry-dry	1	08-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	16	16	J	13	330	µg/Kg-dry-dry	1	26-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	--	U	U	130	3,400	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	--	U	U	14	370	µg/Kg-dry-dry	1	11-Apr-13

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Region 4 Chemical	CAS	Screening Level (mg/Kg-dry)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/Kg-dry)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Soil Bore	Year
Acetophenone	--	--	--	--	--	--	--	0	SB-2	2012
Acetophenone	--	--	--	--	--	--	--	0	SB-5	2012
Acetophenone	--	--	--	--	--	--	--	0	SB-5C	2013
Acetophenone	--	--	--	--	--	--	--	0	SB-6A	2012
Acetophenone	--	--	--	--	--	--	--	0	SB-7	2012
Acetophenone	--	--	--	--	--	--	--	0	SB-7E	2013
Acetophenone	--	--	--	--	--	--	--	0	SB-8	2013
Acetophenone	--	--	--	--	--	--	--	0	SB-9	2013
Anthracene	120-12-7	--	--	--	29000	0.003793103	--	0	SB-1	2012
Anthracene	120-12-7	--	--	--	29000	0.00037931	--	0	SB-10	2013
Anthracene	120-12-7	--	--	--	29000	0.00037931	--	0	SB-11	2013
Anthracene	120-12-7	--	--	--	29000	0.004137931	0.009655	1	SB-12	2013
Anthracene	120-12-7	--	--	--	29000	0.00037931	--	0	SB-1A	2013
Anthracene	120-12-7	--	--	--	29000	0.000344828	--	0	SB-2	2012
Anthracene	120-12-7	--	--	--	29000	0.003793103	--	0	SB-5	2012
Anthracene	120-12-7	--	--	--	29000	0.00037931	--	0	SB-5C	2013
Anthracene	120-12-7	--	--	--	29000	0.003793103	--	0	SB-6A	2012
Anthracene	120-12-7	--	--	--	29000	0.003793103	0.006207	1	SB-7	2012
Anthracene	120-12-7	--	--	--	29000	0.00037931	--	0	SB-7E	2013
Anthracene	120-12-7	--	--	--	29000	0.000413793	--	0	SB-8	2013
Anthracene	120-12-7	--	--	--	29000	0.00037931	0.001414	1	SB-9	2013
--	--	--	--	--	--	--	--	0	SB-1	2012
--	--	--	--	--	--	--	--	0	SB-10	2013
--	--	--	--	--	--	--	--	0	SB-11	2013
--	--	--	--	--	--	--	--	0	SB-12	2013
--	--	--	--	--	--	--	--	0	SB-1A	2013
--	--	--	--	--	--	--	--	0	SB-2	2012
--	--	--	--	--	--	--	--	0	SB-5	2012
--	--	--	--	--	--	--	--	0	SB-5C	2013
--	--	--	--	--	--	--	--	0	SB-6A	2012
--	--	--	--	--	--	--	--	0	SB-7	2012
--	--	--	--	--	--	--	--	0	SB-7E	2013
--	--	--	--	--	--	--	--	0	SB-8	2013
--	--	--	--	--	--	--	--	0	SB-9	2013
Benzaldehyde	--	--	--	--	--	--	--	0	SB-1	2012
Benzaldehyde	--	--	--	--	--	--	--	0	SB-10	2013
Benzaldehyde	--	--	--	--	--	--	--	0	SB-11	2013
Benzaldehyde	--	--	--	--	--	--	--	0	SB-12	2013
Benzaldehyde	--	--	--	--	--	--	--	0	SB-1A	2013
Benzaldehyde	--	--	--	--	--	--	--	1	SB-2	2012
Benzaldehyde	--	--	--	--	--	--	--	0	SB-5	2012
Benzaldehyde	--	--	--	--	--	--	--	0	SB-5C	2013

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	Runits	Dilution Factor	AnalDate
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	--	U	U	130	3,500	µg/Kg-dry-dry	10	26-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	--	U	U	130	3,500	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	--	U	U	14	370	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	--	U	U	14	380	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	--	U	U	14	360	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	210	210	J	130	320	µg/Kg-dry-dry	10	26-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	--	U	U	13	32	µg/Kg-dry-dry	1	08-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	--	U	U	13	33	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	1,100	1,100	--	140	360	µg/Kg-dry-dry	10	08-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	26	26	J	13	32	µg/Kg-dry-dry	1	08-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	35	35	--	12	30	µg/Kg-dry-dry	1	26-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	230	230	J	130	310	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	30	30	J	13	33	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	--	U	U	130	310	µg/Kg-dry-dry	10	26-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	620	620	--	130	320	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	--	U	U	14	33	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	40	40	--	14	34	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	250	250	--	13	33	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	210	210	J	160	320	µg/Kg-dry-dry	10	26-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	--	U	U	17	32	µg/Kg-dry-dry	1	08-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	--	U	U	17	33	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	800	800	--	180	360	µg/Kg-dry-dry	10	08-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	21	21	J	17	32	µg/Kg-dry-dry	1	08-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	32	32	--	15	30	µg/Kg-dry-dry	1	26-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	500	500	--	160	310	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	25	25	J	17	33	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	--	U	U	160	310	µg/Kg-dry-dry	10	26-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	750	750	--	160	320	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	--	U	U	17	33	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	40	40	--	18	34	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	280	280	--	17	33	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	350	350	--	170	320	µg/Kg-dry-dry	10	26-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	24	24	J	17	32	µg/Kg-dry-dry	1	08-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	--	U	U	18	33	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	1,200	1,200	--	190	360	µg/Kg-dry-dry	10	08-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	43	43	--	17	32	µg/Kg-dry-dry	1	08-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	49	49	--	16	30	µg/Kg-dry-dry	1	26-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	700	700	--	170	310	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	42	42	--	18	33	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	--	U	U	170	310	µg/Kg-dry-dry	10	26-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	940	940	--	170	320	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	--	U	U	18	33	µg/Kg-dry-dry	1	11-Apr-13

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Region 4 Chemical	CAS	Screening Level (mg/Kg-dry)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/Kg-dry)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Soil Bore	Year
Benzaldehyde	--	--	--	--	--	--	--	0	SB-6A	2012
Benzaldehyde	--	--	--	--	--	--	--	0	SB-7	2012
Benzaldehyde	--	--	--	--	--	--	--	0	SB-7E	2013
Benzaldehyde	--	--	--	--	--	--	--	0	SB-8	2013
Benzaldehyde	--	--	--	--	--	--	--	0	SB-9	2013
Benzo(a)anthracene	56-55-3	--	--	--	1100	0.118181818	0.190909	1	SB-1	2012
Benzo(a)anthracene	56-55-3	--	--	--	1100	0.011818182	--	0	SB-10	2013
Benzo(a)anthracene	56-55-3	--	--	--	1100	0.011818182	--	0	SB-11	2013
Benzo(a)anthracene	56-55-3	--	--	--	1100	0.127272727	1	1	SB-12	2013
Benzo(a)anthracene	56-55-3	--	--	--	1100	0.011818182	0.023636	1	SB-1A	2013
Benzo(a)anthracene	56-55-3	--	--	--	1100	0.010909091	0.031818	1	SB-2	2012
Benzo(a)anthracene	56-55-3	--	--	--	1100	0.118181818	0.209091	1	SB-5	2012
Benzo(a)anthracene	56-55-3	--	--	--	1100	0.011818182	0.027273	1	SB-5C	2013
Benzo(a)anthracene	56-55-3	--	--	--	1100	0.118181818	--	0	SB-6A	2012
Benzo(a)anthracene	56-55-3	--	--	--	1100	0.118181818	0.563636	1	SB-7	2012
Benzo(a)anthracene	56-55-3	--	--	--	1100	0.012727273	--	0	SB-7E	2013
Benzo(a)anthracene	56-55-3	--	--	--	1100	0.012727273	0.036364	1	SB-8	2013
Benzo(a)anthracene	56-55-3	--	--	--	1100	0.011818182	0.227273	1	SB-9	2013
Benzo(a)pyrene	50-32-8	--	--	--	1100	0.145454545	0.190909	1	SB-1	2012
Benzo(a)pyrene	50-32-8	--	--	--	1100	0.015454545	--	0	SB-10	2013
Benzo(a)pyrene	50-32-8	--	--	--	1100	0.015454545	--	0	SB-11	2013
Benzo(a)pyrene	50-32-8	--	--	--	1100	0.163636364	0.727273	1	SB-12	2013
Benzo(a)pyrene	50-32-8	--	--	--	1100	0.015454545	0.019091	1	SB-1A	2013
Benzo(a)pyrene	50-32-8	--	--	--	1100	0.013636364	0.029091	1	SB-2	2012
Benzo(a)pyrene	50-32-8	--	--	--	1100	0.145454545	0.454545	1	SB-5	2012
Benzo(a)pyrene	50-32-8	--	--	--	1100	0.015454545	0.022727	1	SB-5C	2013
Benzo(a)pyrene	50-32-8	--	--	--	1100	0.145454545	--	0	SB-6A	2012
Benzo(a)pyrene	50-32-8	--	--	--	1100	0.145454545	0.681818	1	SB-7	2012
Benzo(a)pyrene	50-32-8	--	--	--	1100	0.015454545	--	0	SB-7E	2013
Benzo(a)pyrene	50-32-8	--	--	--	1100	0.016363636	0.036364	1	SB-8	2013
Benzo(a)pyrene	50-32-8	--	--	--	1100	0.015454545	0.254545	1	SB-9	2013
Benzo(b)fluoranthene	205-99-2	--	--	--	1100	0.154545455	0.318182	1	SB-1	2012
Benzo(b)fluoranthene	205-99-2	--	--	--	1100	0.015454545	0.021818	1	SB-10	2013
Benzo(b)fluoranthene	205-99-2	--	--	--	1100	0.016363636	--	0	SB-11	2013
Benzo(b)fluoranthene	205-99-2	--	--	--	1100	0.172727273	1.090909	1	SB-12	2013
Benzo(b)fluoranthene	205-99-2	--	--	--	1100	0.015454545	0.039091	1	SB-1A	2013
Benzo(b)fluoranthene	205-99-2	--	--	--	1100	0.014545455	0.044545	1	SB-2	2012
Benzo(b)fluoranthene	205-99-2	--	--	--	1100	0.154545455	0.636364	1	SB-5	2012
Benzo(b)fluoranthene	205-99-2	--	--	--	1100	0.016363636	0.038182	1	SB-5C	2013
Benzo(b)fluoranthene	205-99-2	--	--	--	1100	0.154545455	--	0	SB-6A	2012
Benzo(b)fluoranthene	205-99-2	--	--	--	1100	0.154545455	0.854545	1	SB-7	2012
Benzo(b)fluoranthene	205-99-2	--	--	--	1100	0.016363636	--	0	SB-7E	2013

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	Runits	Dilution Factor	AnalDate
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	67	67	--	18	34	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	440	440	--	18	33	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	--	U	U	250	320	µg/Kg-dry-dry	10	26-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	--	U	U	25	32	µg/Kg-dry-dry	1	08-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	--	U	U	26	33	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	560	560	--	280	360	µg/Kg-dry-dry	10	08-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	--	U	U	25	32	µg/Kg-dry-dry	1	08-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	--	U	U	24	30	µg/Kg-dry-dry	1	26-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	--	U	U	240	310	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	--	U	U	26	33	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	--	U	U	250	310	µg/Kg-dry-dry	10	26-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	290	290	J	250	320	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	--	U	U	26	33	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	--	U	U	27	34	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	120	120	--	26	33	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	280	280	J	140	320	µg/Kg-dry-dry	10	26-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	--	U	U	15	32	µg/Kg-dry-dry	1	08-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	--	U	U	15	33	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	620	620	--	160	360	µg/Kg-dry-dry	10	08-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	--	U	U	15	32	µg/Kg-dry-dry	1	08-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	34	34	--	14	30	µg/Kg-dry-dry	1	26-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	280	280	J	140	310	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	27	27	J	15	33	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	--	U	U	140	310	µg/Kg-dry-dry	10	26-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	520	520	--	140	320	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	--	U	U	15	33	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	29	29	J	16	34	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	190	190	--	15	33	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	86	1,700	µg/Kg-dry-dry	10	26-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	8.9	170	µg/Kg-dry-dry	1	08-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	9	180	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	98	1,900	µg/Kg-dry-dry	10	08-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	8.8	170	µg/Kg-dry-dry	1	08-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	8.2	160	µg/Kg-dry-dry	1	26-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	85	1,700	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	9.1	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	86	1,700	µg/Kg-dry-dry	10	26-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	86	1,700	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	9.1	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	9.4	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	8.9	170	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	88	1,700	µg/Kg-dry-dry	10	26-Jul-12

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Region 4 Chemical	CAS	Screening Level (mg/Kg-dry)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/Kg-dry)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Soil Bore	Year
Benzo(b)fluoranthene	205-99-2	--	--	--	1100	0.016363636	0.060909	1	SB-8	2013
Benzo(b)fluoranthene	205-99-2	--	--	--	1100	0.016363636	0.4	1	SB-9	2013
Benzo(ghi)perylene	191-24-2	--	--	--	1100	0.227272727	--	0	SB-1	2012
Benzo(ghi)perylene	191-24-2	--	--	--	1100	0.022727273	--	0	SB-10	2013
Benzo(ghi)perylene	191-24-2	--	--	--	1100	0.023636364	--	0	SB-11	2013
Benzo(ghi)perylene	191-24-2	--	--	--	1100	0.254545455	0.509091	1	SB-12	2013
Benzo(ghi)perylene	191-24-2	--	--	--	1100	0.022727273	--	0	SB-1A	2013
Benzo(ghi)perylene	191-24-2	--	--	--	1100	0.021818182	--	0	SB-2	2012
Benzo(ghi)perylene	191-24-2	--	--	--	1100	0.218181818	--	0	SB-5	2012
Benzo(ghi)perylene	191-24-2	--	--	--	1100	0.023636364	--	0	SB-5C	2013
Benzo(ghi)perylene	191-24-2	--	--	--	1100	0.227272727	--	0	SB-6A	2012
Benzo(ghi)perylene	191-24-2	--	--	--	1100	0.227272727	0.263636	1	SB-7	2012
Benzo(ghi)perylene	191-24-2	--	--	--	1100	0.023636364	--	0	SB-7E	2013
Benzo(ghi)perylene	191-24-2	--	--	--	1100	0.024545455	--	0	SB-8	2013
Benzo(ghi)perylene	191-24-2	--	--	--	1100	0.023636364	0.109091	1	SB-9	2013
Benzo(k)fluoranthene	207-08-9	--	--	--	1100	0.127272727	0.254545	1	SB-1	2012
Benzo(k)fluoranthene	207-08-9	--	--	--	1100	0.013636364	--	0	SB-10	2013
Benzo(k)fluoranthene	207-08-9	--	--	--	1100	0.013636364	--	0	SB-11	2013
Benzo(k)fluoranthene	207-08-9	--	--	--	1100	0.145454545	0.563636	1	SB-12	2013
Benzo(k)fluoranthene	207-08-9	--	--	--	1100	0.013636364	--	0	SB-1A	2013
Benzo(k)fluoranthene	207-08-9	--	--	--	1100	0.012727273	0.030909	1	SB-2	2012
Benzo(k)fluoranthene	207-08-9	--	--	--	1100	0.127272727	0.254545	1	SB-5	2012
Benzo(k)fluoranthene	207-08-9	--	--	--	1100	0.013636364	0.024545	1	SB-5C	2013
Benzo(k)fluoranthene	207-08-9	--	--	--	1100	0.127272727	--	0	SB-6A	2012
Benzo(k)fluoranthene	207-08-9	--	--	--	1100	0.127272727	0.472727	1	SB-7	2012
Benzo(k)fluoranthene	207-08-9	--	--	--	1100	0.013636364	--	0	SB-7E	2013
Benzo(k)fluoranthene	207-08-9	--	--	--	1100	0.014545455	0.026364	1	SB-8	2013
Benzo(k)fluoranthene	207-08-9	--	--	--	1100	0.013636364	0.172727	1	SB-9	2013
--	--	--	--	--	--	--	--	0	SB-1	2012
--	--	--	--	--	--	--	--	0	SB-10	2013
--	--	--	--	--	--	--	--	0	SB-11	2013
--	--	--	--	--	--	--	--	0	SB-12	2013
--	--	--	--	--	--	--	--	0	SB-1A	2013
--	--	--	--	--	--	--	--	0	SB-2	2012
--	--	--	--	--	--	--	--	0	SB-5	2012
--	--	--	--	--	--	--	--	0	SB-5C	2013
--	--	--	--	--	--	--	--	0	SB-6A	2012
--	--	--	--	--	--	--	--	0	SB-7	2012
--	--	--	--	--	--	--	--	0	SB-7E	2013
--	--	--	--	--	--	--	--	0	SB-8	2013
--	--	--	--	--	--	--	--	0	SB-9	2013
--	--	--	--	--	--	--	--	0	SB-1	2012

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	Runits	Dilution Factor	AnalDate
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	9	170	µg/Kg-dry-dry	1	08-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	9.2	180	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	99	1,900	µg/Kg-dry-dry	10	08-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	9	170	µg/Kg-dry-dry	1	08-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	8.3	160	µg/Kg-dry-dry	1	26-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	86	1,700	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	9.2	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	87	1,700	µg/Kg-dry-dry	10	26-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	88	1,700	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	9.3	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	9.5	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	9.1	170	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	82	1,700	µg/Kg-dry-dry	10	26-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	8.4	170	µg/Kg-dry-dry	1	08-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	8.6	180	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	93	1,900	µg/Kg-dry-dry	10	08-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	8.4	170	µg/Kg-dry-dry	1	08-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	7.8	160	µg/Kg-dry-dry	1	26-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	81	1,700	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	8.6	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	81	1,700	µg/Kg-dry-dry	10	26-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	82	1,700	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	8.7	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	8.9	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	8.5	170	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	740	740	J	100	3,500	µg/Kg-dry-dry	10	26-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	--	U	U	11	360	µg/Kg-dry-dry	1	08-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	--	U	U	11	360	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	1,800	1,800	J	120	3,900	µg/Kg-dry-dry	10	08-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	78	78	J	11	350	µg/Kg-dry-dry	1	08-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	400	400	--	9.9	330	µg/Kg-dry-dry	1	26-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	420	420	J	100	3,400	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	--	U	U	11	370	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	270	270	J	100	3,500	µg/Kg-dry-dry	10	26-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	7,400	7,400	--	100	3,500	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	27	27	J	11	370	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	--	U	U	11	380	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	--	U	U	11	360	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	--	U	U	150	1,700	µg/Kg-dry-dry	10	26-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	--	U	U	15	170	µg/Kg-dry-dry	1	08-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	--	U	U	15	180	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	--	U	U	160	1,900	µg/Kg-dry-dry	10	08-Apr-13

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Region 4 Chemical	CAS	Screening Level (mg/Kg-dry)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/Kg-dry)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Soil Bore	Year
--	--	--	--	--	--	--	--	0	SB-10	2013
--	--	--	--	--	--	--	--	0	SB-11	2013
--	--	--	--	--	--	--	--	0	SB-12	2013
--	--	--	--	--	--	--	--	0	SB-1A	2013
--	--	--	--	--	--	--	--	0	SB-2	2012
--	--	--	--	--	--	--	--	0	SB-5	2012
--	--	--	--	--	--	--	--	0	SB-5C	2013
--	--	--	--	--	--	--	--	0	SB-6A	2012
--	--	--	--	--	--	--	--	0	SB-7	2012
--	--	--	--	--	--	--	--	0	SB-7E	2013
--	--	--	--	--	--	--	--	0	SB-8	2013
--	--	--	--	--	--	--	--	0	SB-9	2013
--	--	--	--	--	--	--	--	0	SB-1	2012
--	--	--	--	--	--	--	--	0	SB-10	2013
--	--	--	--	--	--	--	--	0	SB-11	2013
--	--	--	--	--	--	--	--	0	SB-12	2013
--	--	--	--	--	--	--	--	0	SB-1A	2013
--	--	--	--	--	--	--	--	0	SB-2	2012
--	--	--	--	--	--	--	--	0	SB-5	2012
--	--	--	--	--	--	--	--	0	SB-5C	2013
--	--	--	--	--	--	--	--	0	SB-6A	2012
--	--	--	--	--	--	--	--	0	SB-7	2012
--	--	--	--	--	--	--	--	0	SB-7E	2013
--	--	--	--	--	--	--	--	0	SB-8	2013
--	--	--	--	--	--	--	--	0	SB-9	2013
Bis(2-ethylhexyl) phthalate	117-81-7	0.02	c	All	20	5	37	1	SB-1	2012
Bis(2-ethylhexyl) phthalate	117-81-7	0.02	c	All	20	0.55	--	0	SB-10	2013
Bis(2-ethylhexyl) phthalate	117-81-7	0.02	c	All	20	0.55	--	0	SB-11	2013
Bis(2-ethylhexyl) phthalate	117-81-7	0.02	c	All	20	6	90	1	SB-12	2013
Bis(2-ethylhexyl) phthalate	117-81-7	0.02	c	All	20	0.55	3.9	1	SB-1A	2013
Bis(2-ethylhexyl) phthalate	117-81-7	0.02	c	All	20	0.495	20	1	SB-2	2012
Bis(2-ethylhexyl) phthalate	117-81-7	0.02	c	All	20	5	21	1	SB-5	2012
Bis(2-ethylhexyl) phthalate	117-81-7	0.02	c	All	20	0.55	--	0	SB-5C	2013
Bis(2-ethylhexyl) phthalate	117-81-7	0.02	c	All	20	5	13.5	1	SB-6A	2012
Bis(2-ethylhexyl) phthalate	117-81-7	0.02	c	All	20	5	370	1	SB-7	2012
Bis(2-ethylhexyl) phthalate	117-81-7	0.02	c	All	20	0.55	1.35	1	SB-7E	2013
Bis(2-ethylhexyl) phthalate	117-81-7	0.02	c	All	20	0.55	--	0	SB-8	2013
Bis(2-ethylhexyl) phthalate	117-81-7	0.02	c	All	20	0.55	--	0	SB-9	2013
Butylbenzyl phthalate	85-68-7	0.59	d	All	590	0.254237288	--	0	SB-1	2012
Butylbenzyl phthalate	85-68-7	0.59	d	All	590	0.025423729	--	0	SB-10	2013
Butylbenzyl phthalate	85-68-7	0.59	d	All	590	0.025423729	--	0	SB-11	2013
Butylbenzyl phthalate	85-68-7	0.59	d	All	590	0.271186441	--	0	SB-12	2013

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	Runits	Dilution Factor	AnalDate
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	--	U	U	15	170	µg/Kg-dry-dry	1	08-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	--	U	U	14	160	µg/Kg-dry-dry	1	26-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	540	540	J	140	1,700	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	--	U	U	15	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	350	350	J	140	1,700	µg/Kg-dry-dry	10	26-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	590	590	J	150	1,700	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	--	U	U	15	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	29	29	J	16	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	--	U	U	15	170	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	150	3,500	µg/Kg-dry-dry	10	26-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Caprolactam	72	72	J	16	360	µg/Kg-dry-dry	1	08-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	16	360	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Caprolactam	520	520	J	170	3,900	µg/Kg-dry-dry	10	08-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Caprolactam	87	87	J	16	350	µg/Kg-dry-dry	1	08-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Caprolactam	35	35	J	15	330	µg/Kg-dry-dry	1	26-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	150	3,400	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	16	370	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	150	3,500	µg/Kg-dry-dry	10	26-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	150	3,500	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	16	370	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	17	380	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	16	360	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Carbazole	--	U	U	120	1,700	µg/Kg-dry-dry	10	26-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Carbazole	--	U	U	12	170	µg/Kg-dry-dry	1	08-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Carbazole	--	U	U	13	180	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Carbazole	--	U	U	140	1,900	µg/Kg-dry-dry	10	08-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Carbazole	--	U	U	12	170	µg/Kg-dry-dry	1	08-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Carbazole	--	U	U	11	160	µg/Kg-dry-dry	1	26-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Carbazole	--	U	U	120	1,700	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Carbazole	--	U	U	13	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Carbazole	--	U	U	120	1,700	µg/Kg-dry-dry	10	26-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Carbazole	--	U	U	120	1,700	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Carbazole	--	U	U	13	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Carbazole	--	U	U	13	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Carbazole	--	U	U	12	170	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Chrysene	270	270	J	120	320	µg/Kg-dry-dry	10	26-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Chrysene	--	U	U	12	32	µg/Kg-dry-dry	1	08-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Chrysene	--	U	U	12	33	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Chrysene	1,200	1,200	--	130	360	µg/Kg-dry-dry	10	08-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Chrysene	44	44	--	12	32	µg/Kg-dry-dry	1	08-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Chrysene	46	46	--	11	30	µg/Kg-dry-dry	1	26-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Chrysene	390	390	--	120	310	µg/Kg-dry-dry	10	25-Jul-12

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Region 4 Chemical	CAS	Screening Level (mg/Kg-dry)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/Kg-dry)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Soil Bore	Year
Butylbenzyl phthalate	85-68-7	0.59	d	All	590	0.025423729	--	0	SB-1A	2013
Butylbenzyl phthalate	85-68-7	0.59	d	All	590	0.023728814	--	0	SB-2	2012
Butylbenzyl phthalate	85-68-7	0.59	d	All	590	0.237288136	0.915254	1	SB-5	2012
Butylbenzyl phthalate	85-68-7	0.59	d	All	590	0.025423729	--	0	SB-5C	2013
Butylbenzyl phthalate	85-68-7	0.59	d	All	590	0.237288136	0.59322	1	SB-6A	2012
Butylbenzyl phthalate	85-68-7	0.59	d	All	590	0.254237288	1	1	SB-7	2012
Butylbenzyl phthalate	85-68-7	0.59	d	All	590	0.025423729	--	0	SB-7E	2013
Butylbenzyl phthalate	85-68-7	0.59	d	All	590	0.027118644	0.049153	1	SB-8	2013
Butylbenzyl phthalate	85-68-7	0.59	d	All	590	0.025423729	--	0	SB-9	2013
Caprolactam	--	--	--	--	--	--	--	0	SB-1	2012
Caprolactam	--	--	--	--	--	--	--	1	SB-10	2013
Caprolactam	--	--	--	--	--	--	--	0	SB-11	2013
Caprolactam	--	--	--	--	--	--	--	1	SB-12	2013
Caprolactam	--	--	--	--	--	--	--	1	SB-1A	2013
Caprolactam	--	--	--	--	--	--	--	1	SB-2	2012
Caprolactam	--	--	--	--	--	--	--	0	SB-5	2012
Caprolactam	--	--	--	--	--	--	--	0	SB-5C	2013
Caprolactam	--	--	--	--	--	--	--	0	SB-6A	2012
Caprolactam	--	--	--	--	--	--	--	0	SB-7	2012
Caprolactam	--	--	--	--	--	--	--	0	SB-7E	2013
Caprolactam	--	--	--	--	--	--	--	0	SB-8	2013
Caprolactam	--	--	--	--	--	--	--	0	SB-9	2013
Carbazole	86-74-8	0.16	d	All	160	0.75	--	0	SB-1	2012
Carbazole	86-74-8	0.16	d	All	160	0.075	--	0	SB-10	2013
Carbazole	86-74-8	0.16	d	All	160	0.08125	--	0	SB-11	2013
Carbazole	86-74-8	0.16	d	All	160	0.875	--	0	SB-12	2013
Carbazole	86-74-8	0.16	d	All	160	0.075	--	0	SB-1A	2013
Carbazole	86-74-8	0.16	d	All	160	0.06875	--	0	SB-2	2012
Carbazole	86-74-8	0.16	d	All	160	0.75	--	0	SB-5	2012
Carbazole	86-74-8	0.16	d	All	160	0.08125	--	0	SB-5C	2013
Carbazole	86-74-8	0.16	d	All	160	0.75	--	0	SB-6A	2012
Carbazole	86-74-8	0.16	d	All	160	0.75	--	0	SB-7	2012
Carbazole	86-74-8	0.16	d	All	160	0.08125	--	0	SB-7E	2013
Carbazole	86-74-8	0.16	d	All	160	0.08125	--	0	SB-8	2013
Carbazole	86-74-8	0.16	d	All	160	0.075	--	0	SB-9	2013
Chrysene	218-01-9	--	--	--	1100	0.109090909	0.245455	1	SB-1	2012
Chrysene	218-01-9	--	--	--	1100	0.010909091	--	0	SB-10	2013
Chrysene	218-01-9	--	--	--	1100	0.010909091	--	0	SB-11	2013
Chrysene	218-01-9	--	--	--	1100	0.118181818	1.090909	1	SB-12	2013
Chrysene	218-01-9	--	--	--	1100	0.010909091	0.04	1	SB-1A	2013
Chrysene	218-01-9	--	--	--	1100	0.01	0.041818	1	SB-2	2012
Chrysene	218-01-9	--	--	--	1100	0.109090909	0.354545	1	SB-5	2012

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	Runits	Dilution Factor	AnalDate
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Chrysene	42	42	--	13	33	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Chrysene	--	U	U	120	310	µg/Kg-dry-dry	10	26-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Chrysene	610	610	--	120	320	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Chrysene	--	U	U	13	33	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Chrysene	51	51	--	13	34	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Chrysene	280	280	--	12	33	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	--	U	U	180	320	µg/Kg-dry-dry	10	26-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	--	U	U	18	32	µg/Kg-dry-dry	1	08-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	--	U	U	19	33	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	--	U	U	200	360	µg/Kg-dry-dry	10	08-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	--	U	U	18	32	µg/Kg-dry-dry	1	08-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	--	U	U	17	30	µg/Kg-dry-dry	1	26-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	--	U	U	180	310	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	--	U	U	19	33	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	--	U	U	180	310	µg/Kg-dry-dry	10	26-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	--	U	U	180	320	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	--	U	U	19	33	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	--	U	U	19	34	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	32	32	--	19	33	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	--	U	U	96	1,700	µg/Kg-dry-dry	10	26-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	--	U	U	9.9	170	µg/Kg-dry-dry	1	08-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	--	U	U	10	180	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	--	U	U	110	1,900	µg/Kg-dry-dry	10	08-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	20	20	J	9.8	170	µg/Kg-dry-dry	1	08-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	--	U	U	9.1	160	µg/Kg-dry-dry	1	26-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	--	U	U	95	1,700	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	--	U	U	10	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	--	U	U	95	1,700	µg/Kg-dry-dry	10	26-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	--	U	U	96	1,700	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	--	U	U	10	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	--	U	U	10	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	--	U	U	9.9	170	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	87	3,500	µg/Kg-dry-dry	10	26-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	9	360	µg/Kg-dry-dry	1	08-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	9.1	360	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	99	3,900	µg/Kg-dry-dry	10	08-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	8.9	350	µg/Kg-dry-dry	1	08-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	8.3	330	µg/Kg-dry-dry	1	26-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	86	3,400	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	9.2	370	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	87	3,500	µg/Kg-dry-dry	10	26-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	87	3,500	µg/Kg-dry-dry	10	25-Jul-12

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Region 4 Chemical	CAS	Screening Level (mg/Kg-dry)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/Kg-dry)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Soil Bore	Year
Chrysene	218-01-9	--	--	--	1100	0.011818182	0.038182	1	SB-5C	2013
Chrysene	218-01-9	--	--	--	1100	0.109090909	--	0	SB-6A	2012
Chrysene	218-01-9	--	--	--	1100	0.109090909	0.554545	1	SB-7	2012
Chrysene	218-01-9	--	--	--	1100	0.011818182	--	0	SB-7E	2013
Chrysene	218-01-9	--	--	--	1100	0.011818182	0.046364	1	SB-8	2013
Chrysene	218-01-9	--	--	--	1100	0.010909091	0.254545	1	SB-9	2013
Dibenzo(a,h)anthracene	53-70-3	--	--	--	1100	0.163636364	--	0	SB-1	2012
Dibenzo(a,h)anthracene	53-70-3	--	--	--	1100	0.016363636	--	0	SB-10	2013
Dibenzo(a,h)anthracene	53-70-3	--	--	--	1100	0.017272727	--	0	SB-11	2013
Dibenzo(a,h)anthracene	53-70-3	--	--	--	1100	0.181818182	--	0	SB-12	2013
Dibenzo(a,h)anthracene	53-70-3	--	--	--	1100	0.016363636	--	0	SB-1A	2013
Dibenzo(a,h)anthracene	53-70-3	--	--	--	1100	0.015454545	--	0	SB-2	2012
Dibenzo(a,h)anthracene	53-70-3	--	--	--	1100	0.163636364	--	0	SB-5	2012
Dibenzo(a,h)anthracene	53-70-3	--	--	--	1100	0.017272727	--	0	SB-5C	2013
Dibenzo(a,h)anthracene	53-70-3	--	--	--	1100	0.163636364	--	0	SB-6A	2012
Dibenzo(a,h)anthracene	53-70-3	--	--	--	1100	0.163636364	--	0	SB-7	2012
Dibenzo(a,h)anthracene	53-70-3	--	--	--	1100	0.017272727	--	0	SB-7E	2013
Dibenzo(a,h)anthracene	53-70-3	--	--	--	1100	0.017272727	--	0	SB-8	2013
Dibenzo(a,h)anthracene	53-70-3	--	--	--	1100	0.017272727	0.029091	1	SB-9	2013
Dibenzofuran	132-64-9	0.15	d	All	150	0.64	--	0	SB-1	2012
Dibenzofuran	132-64-9	0.15	d	All	150	0.066	--	0	SB-10	2013
Dibenzofuran	132-64-9	0.15	d	All	150	0.066666667	--	0	SB-11	2013
Dibenzofuran	132-64-9	0.15	d	All	150	0.733333333	--	0	SB-12	2013
Dibenzofuran	132-64-9	0.15	d	All	150	0.065333333	0.133333	1	SB-1A	2013
Dibenzofuran	132-64-9	0.15	d	All	150	0.060666667	--	0	SB-2	2012
Dibenzofuran	132-64-9	0.15	d	All	150	0.633333333	--	0	SB-5	2012
Dibenzofuran	132-64-9	0.15	d	All	150	0.066666667	--	0	SB-5C	2013
Dibenzofuran	132-64-9	0.15	d	All	150	0.633333333	--	0	SB-6A	2012
Dibenzofuran	132-64-9	0.15	d	All	150	0.64	--	0	SB-7	2012
Dibenzofuran	132-64-9	0.15	d	All	150	0.066666667	--	0	SB-7E	2013
Dibenzofuran	132-64-9	0.15	d	All	150	0.066666667	--	0	SB-8	2013
Dibenzofuran	132-64-9	0.15	d	All	150	0.066	--	0	SB-9	2013
Diethylphthalate	84-66-2	0.23	d	All	230	0.37826087	--	0	SB-1	2012
Diethylphthalate	84-66-2	0.23	d	All	230	0.039130435	--	0	SB-10	2013
Diethylphthalate	84-66-2	0.23	d	All	230	0.039565217	--	0	SB-11	2013
Diethylphthalate	84-66-2	0.23	d	All	230	0.430434783	--	0	SB-12	2013
Diethylphthalate	84-66-2	0.23	d	All	230	0.038695652	--	0	SB-1A	2013
Diethylphthalate	84-66-2	0.23	d	All	230	0.036086957	--	0	SB-2	2012
Diethylphthalate	84-66-2	0.23	d	All	230	0.373913043	--	0	SB-5	2012
Diethylphthalate	84-66-2	0.23	d	All	230	0.04	--	0	SB-5C	2013
Diethylphthalate	84-66-2	0.23	d	All	230	0.37826087	--	0	SB-6A	2012
Diethylphthalate	84-66-2	0.23	d	All	230	0.37826087	--	0	SB-7	2012

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	Runits	Dilution Factor	AnalDate
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	9.2	370	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	9.5	380	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	9	360	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	88	3,500	µg/Kg-dry-dry	10	26-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	9	360	µg/Kg-dry-dry	1	08-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	9.2	360	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	99	3,900	µg/Kg-dry-dry	10	08-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	9	350	µg/Kg-dry-dry	1	08-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	8.3	330	µg/Kg-dry-dry	1	26-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	86	3,400	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	9.2	370	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	87	3,500	µg/Kg-dry-dry	10	26-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	88	3,500	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	9.3	370	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	9.5	380	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	33	33	J	9.1	360	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	200	200	J	110	3,500	µg/Kg-dry-dry	10	26-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U	11	360	µg/Kg-dry-dry	1	08-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U	11	360	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U	120	3,900	µg/Kg-dry-dry	10	08-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	29	29	J	11	350	µg/Kg-dry-dry	1	08-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U	10	330	µg/Kg-dry-dry	1	26-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U	100	3,400	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U	11	370	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U	110	3,500	µg/Kg-dry-dry	10	26-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U	110	3,500	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U	11	370	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U	11	380	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U	11	360	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	130	1,700	µg/Kg-dry-dry	10	26-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	13	170	µg/Kg-dry-dry	1	08-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	14	180	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	730	730	J	150	1,900	µg/Kg-dry-dry	10	08-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	33	33	J	13	170	µg/Kg-dry-dry	1	08-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	12	160	µg/Kg-dry-dry	1	26-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	130	1,700	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	14	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	130	1,700	µg/Kg-dry-dry	10	26-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	440	440	J	130	1,700	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	14	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	14	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	13	170	µg/Kg-dry-dry	1	11-Apr-13

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Region 4 Chemical	CAS	Screening Level (mg/Kg-dry)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/Kg-dry)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Soil Bore	Year
Diethylphthalate	84-66-2	0.23	d	All	230	0.04	--	0	SB-7E	2013
Diethylphthalate	84-66-2	0.23	d	All	230	0.041304348	--	0	SB-8	2013
Diethylphthalate	84-66-2	0.23	d	All	230	0.039130435	--	0	SB-9	2013
Dimethylphthalate	131-11-3	0.35	d	All	350	0.251428571	--	0	SB-1	2012
Dimethylphthalate	131-11-3	0.35	d	All	350	0.025714286	--	0	SB-10	2013
Dimethylphthalate	131-11-3	0.35	d	All	350	0.026285714	--	0	SB-11	2013
Dimethylphthalate	131-11-3	0.35	d	All	350	0.282857143	--	0	SB-12	2013
Dimethylphthalate	131-11-3	0.35	d	All	350	0.025714286	--	0	SB-1A	2013
Dimethylphthalate	131-11-3	0.35	d	All	350	0.023714286	--	0	SB-2	2012
Dimethylphthalate	131-11-3	0.35	d	All	350	0.245714286	--	0	SB-5	2012
Dimethylphthalate	131-11-3	0.35	d	All	350	0.026285714	--	0	SB-5C	2013
Dimethylphthalate	131-11-3	0.35	d	All	350	0.248571429	--	0	SB-6A	2012
Dimethylphthalate	131-11-3	0.35	d	All	350	0.251428571	--	0	SB-7	2012
Dimethylphthalate	131-11-3	0.35	d	All	350	0.026571429	--	0	SB-7E	2013
Dimethylphthalate	131-11-3	0.35	d	All	350	0.027142857	--	0	SB-8	2013
Dimethylphthalate	131-11-3	0.35	d	All	350	0.026	0.094286	1	SB-9	2013
Di-n-butyl phthalate	84-74-2	0.011	c	All	11	10	18.18182	1	SB-1	2012
Di-n-butyl phthalate	84-74-2	0.011	c	All	11	1	--	0	SB-10	2013
Di-n-butyl phthalate	84-74-2	0.011	c	All	11	1	--	0	SB-11	2013
Di-n-butyl phthalate	84-74-2	0.011	c	All	11	10.90909091	--	0	SB-12	2013
Di-n-butyl phthalate	84-74-2	0.011	c	All	11	1	2.636364	1	SB-1A	2013
Di-n-butyl phthalate	84-74-2	0.011	c	All	11	0.909090909	--	0	SB-2	2012
Di-n-butyl phthalate	84-74-2	0.011	c	All	11	9.090909091	--	0	SB-5	2012
Di-n-butyl phthalate	84-74-2	0.011	c	All	11	1	--	0	SB-5C	2013
Di-n-butyl phthalate	84-74-2	0.011	c	All	11	10	--	0	SB-6A	2012
Di-n-butyl phthalate	84-74-2	0.011	c	All	11	10	--	0	SB-7	2012
Di-n-butyl phthalate	84-74-2	0.011	c	All	11	1	--	0	SB-7E	2013
Di-n-butyl phthalate	84-74-2	0.011	c	All	11	1	--	0	SB-8	2013
Di-n-butyl phthalate	84-74-2	0.011	c	All	11	1	--	0	SB-9	2013
Di-n-octyl phthalate	117-84-0	0.21	c	All	210	0.619047619	--	0	SB-1	2012
Di-n-octyl phthalate	117-84-0	0.21	c	All	210	0.061904762	--	0	SB-10	2013
Di-n-octyl phthalate	117-84-0	0.21	c	All	210	0.066666667	--	0	SB-11	2013
Di-n-octyl phthalate	117-84-0	0.21	c	All	210	0.714285714	3.47619	1	SB-12	2013
Di-n-octyl phthalate	117-84-0	0.21	c	All	210	0.061904762	0.157143	1	SB-1A	2013
Di-n-octyl phthalate	117-84-0	0.21	c	All	210	0.057142857	--	0	SB-2	2012
Di-n-octyl phthalate	117-84-0	0.21	c	All	210	0.619047619	--	0	SB-5	2012
Di-n-octyl phthalate	117-84-0	0.21	c	All	210	0.066666667	--	0	SB-5C	2013
Di-n-octyl phthalate	117-84-0	0.21	c	All	210	0.619047619	--	0	SB-6A	2012
Di-n-octyl phthalate	117-84-0	0.21	c	All	210	0.619047619	2.095238	1	SB-7	2012
Di-n-octyl phthalate	117-84-0	0.21	c	All	210	0.066666667	--	0	SB-7E	2013
Di-n-octyl phthalate	117-84-0	0.21	c	All	210	0.066666667	--	0	SB-8	2013
Di-n-octyl phthalate	117-84-0	0.21	c	All	210	0.061904762	--	0	SB-9	2013

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	Runits	Dilution Factor	AnalDate
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Fluoranthene	410	410	--	130	320	µg/Kg-dry-dry	10	26-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Fluoranthene	--	U	U	13	32	µg/Kg-dry-dry	1	08-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Fluoranthene	--	U	U	13	33	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Fluoranthene	1,400	1,400	--	140	360	µg/Kg-dry-dry	10	08-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Fluoranthene	51	51	--	13	32	µg/Kg-dry-dry	1	08-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Fluoranthene	67	67	--	12	30	µg/Kg-dry-dry	1	26-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Fluoranthene	230	230	J	120	310	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Fluoranthene	43	43	--	13	33	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Fluoranthene	180	180	J	120	310	µg/Kg-dry-dry	10	26-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Fluoranthene	1,100	1,100	--	120	320	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Fluoranthene	--	U	U	13	33	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Fluoranthene	86	86	--	14	34	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Fluoranthene	530	530	--	13	33	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Fluorene	--	U	U	92	320	µg/Kg-dry-dry	10	26-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Fluorene	--	U	U	9.4	32	µg/Kg-dry-dry	1	08-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Fluorene	--	U	U	9.6	33	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Fluorene	--	U	U	100	360	µg/Kg-dry-dry	10	08-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Fluorene	--	U	U	9.4	32	µg/Kg-dry-dry	1	08-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Fluorene	--	U	U	8.8	30	µg/Kg-dry-dry	1	26-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Fluorene	--	U	U	91	310	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Fluorene	--	U	U	9.7	33	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Fluorene	--	U	U	91	310	µg/Kg-dry-dry	10	26-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Fluorene	--	U	U	92	320	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Fluorene	--	U	U	9.7	33	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Fluorene	--	U	U	10	34	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Fluorene	--	U	U	9.5	33	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	96	1,700	µg/Kg-dry-dry	10	26-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	9.8	170	µg/Kg-dry-dry	1	08-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	10	180	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	110	1,900	µg/Kg-dry-dry	10	08-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	9.8	170	µg/Kg-dry-dry	1	08-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	9.1	160	µg/Kg-dry-dry	1	26-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	94	1,700	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	10	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	95	1,700	µg/Kg-dry-dry	10	26-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	96	1,700	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	10	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	10	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	9.9	170	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	89	530	µg/Kg-dry-dry	10	26-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	9.1	54	µg/Kg-dry-dry	1	08-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	9.3	55	µg/Kg-dry-dry	1	09-Apr-13

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Region 4 Chemical	CAS	Screening Level (mg/Kg-dry)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/Kg-dry)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Soil Bore	Year
Fluoranthene	206-44-0	--	--	--	1100	0.118181818	0.372727	1	SB-1	2012
Fluoranthene	206-44-0	--	--	--	1100	0.011818182	--	0	SB-10	2013
Fluoranthene	206-44-0	--	--	--	1100	0.011818182	--	0	SB-11	2013
Fluoranthene	206-44-0	--	--	--	1100	0.127272727	1.272727	1	SB-12	2013
Fluoranthene	206-44-0	--	--	--	1100	0.011818182	0.046364	1	SB-1A	2013
Fluoranthene	206-44-0	--	--	--	1100	0.010909091	0.060909	1	SB-2	2012
Fluoranthene	206-44-0	--	--	--	1100	0.109090909	0.209091	1	SB-5	2012
Fluoranthene	206-44-0	--	--	--	1100	0.011818182	0.039091	1	SB-5C	2013
Fluoranthene	206-44-0	--	--	--	1100	0.109090909	0.163636	1	SB-6A	2012
Fluoranthene	206-44-0	--	--	--	1100	0.109090909	1	1	SB-7	2012
Fluoranthene	206-44-0	--	--	--	1100	0.011818182	--	0	SB-7E	2013
Fluoranthene	206-44-0	--	--	--	1100	0.012727273	0.078182	1	SB-8	2013
Fluoranthene	206-44-0	--	--	--	1100	0.011818182	0.481818	1	SB-9	2013
Fluorene	86-73-7	--	--	All, total	29000	0.003172414	--	0	SB-1	2012
Fluorene	86-73-7	--	--	All, total	29000	0.000324138	--	0	SB-10	2013
Fluorene	86-73-7	--	--	All, total	29000	0.000331034	--	0	SB-11	2013
Fluorene	86-73-7	--	--	All, total	29000	0.003448276	--	0	SB-12	2013
Fluorene	86-73-7	--	--	All, total	29000	0.000324138	--	0	SB-1A	2013
Fluorene	86-73-7	--	--	All, total	29000	0.000303448	--	0	SB-2	2012
Fluorene	86-73-7	--	--	All, total	29000	0.003137931	--	0	SB-5	2012
Fluorene	86-73-7	--	--	All, total	29000	0.000334483	--	0	SB-5C	2013
Fluorene	86-73-7	--	--	All, total	29000	0.003137931	--	0	SB-6A	2012
Fluorene	86-73-7	--	--	All, total	29000	0.003172414	--	0	SB-7	2012
Fluorene	86-73-7	--	--	All, total	29000	0.000334483	--	0	SB-7E	2013
Fluorene	86-73-7	--	--	All, total	29000	0.000344828	--	0	SB-8	2013
Fluorene	86-73-7	--	--	All, total	29000	0.000327586	--	0	SB-9	2013
Hexachlorobenzene	118-74-1	0.079	c	All	79	1.215189873	--	0	SB-1	2012
Hexachlorobenzene	118-74-1	0.079	c	All	79	0.124050633	--	0	SB-10	2013
Hexachlorobenzene	118-74-1	0.079	c	All	79	0.126582278	--	0	SB-11	2013
Hexachlorobenzene	118-74-1	0.079	c	All	79	1.392405063	--	0	SB-12	2013
Hexachlorobenzene	118-74-1	0.079	c	All	79	0.124050633	--	0	SB-1A	2013
Hexachlorobenzene	118-74-1	0.079	c	All	79	0.115189873	--	0	SB-2	2012
Hexachlorobenzene	118-74-1	0.079	c	All	79	1.189873418	--	0	SB-5	2012
Hexachlorobenzene	118-74-1	0.079	c	All	79	0.126582278	--	0	SB-5C	2013
Hexachlorobenzene	118-74-1	0.079	c	All	79	1.202531646	--	0	SB-6A	2012
Hexachlorobenzene	118-74-1	0.079	c	All	79	1.215189873	--	0	SB-7	2012
Hexachlorobenzene	118-74-1	0.079	c	All	79	0.126582278	--	0	SB-7E	2013
Hexachlorobenzene	118-74-1	0.079	c	All	79	0.126582278	--	0	SB-8	2013
Hexachlorobenzene	118-74-1	0.079	c	All	79	0.125316456	--	0	SB-9	2013
Hexachlorobutadiene	87-68-3	0.1	d	SI	100	0.89	--	0	SB-1	2012
Hexachlorobutadiene	87-68-3	0.1	d	SI	100	0.091	--	0	SB-10	2013
Hexachlorobutadiene	87-68-3	0.1	d	SI	100	0.093	--	0	SB-11	2013

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	Runits	Dilution Factor	AnalDate
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	100	590	µg/Kg-dry-dry	10	08-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	9.1	54	µg/Kg-dry-dry	1	08-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	8.5	50	µg/Kg-dry-dry	1	26-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	88	520	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	9.3	55	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	88	520	µg/Kg-dry-dry	10	26-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	89	530	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	9.4	56	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	9.6	57	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	9.2	54	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	370	3,500	µg/Kg-dry-dry	10	26-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	38	360	µg/Kg-dry-dry	1	08-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	38	360	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	420	3,900	µg/Kg-dry-dry	10	08-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	37	350	µg/Kg-dry-dry	1	08-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	35	330	µg/Kg-dry-dry	1	26-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	360	3,400	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	39	370	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	360	3,500	µg/Kg-dry-dry	10	26-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	370	3,500	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	39	370	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	40	380	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	38	360	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	92	1,700	µg/Kg-dry-dry	10	26-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	9.4	170	µg/Kg-dry-dry	1	08-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	9.6	180	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	100	1,900	µg/Kg-dry-dry	10	08-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	9.4	170	µg/Kg-dry-dry	1	08-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	8.8	160	µg/Kg-dry-dry	1	26-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	91	1,700	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	9.7	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	91	1,700	µg/Kg-dry-dry	10	26-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	92	1,700	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	9.7	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	10	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	9.5	170	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	2150	--	--	--	--	µg/Kg-dry-dry	--	--
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	24	--	--	--	--	µg/Kg-dry-dry	--	--
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	--	--	--	--	--	µg/Kg-dry-dry	--	--
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	8500	--	--	--	--	µg/Kg-dry-dry	--	--
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	233	--	--	--	--	µg/Kg-dry-dry	--	--
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	315	--	--	--	--	µg/Kg-dry-dry	--	--

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Region 4 Chemical	CAS	Screening Level (mg/Kg-dry)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/Kg-dry)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Soil Bore	Year
Hexachlorobutadiene	87-68-3	0.1	d	SI	100	1	--	0	SB-12	2013
Hexachlorobutadiene	87-68-3	0.1	d	SI	100	0.091	--	0	SB-1A	2013
Hexachlorobutadiene	87-68-3	0.1	d	SI	100	0.085	--	0	SB-2	2012
Hexachlorobutadiene	87-68-3	0.1	d	SI	100	0.88	--	0	SB-5	2012
Hexachlorobutadiene	87-68-3	0.1	d	SI	100	0.093	--	0	SB-5C	2013
Hexachlorobutadiene	87-68-3	0.1	d	SI	100	0.88	--	0	SB-6A	2012
Hexachlorobutadiene	87-68-3	0.1	d	SI	100	0.89	--	0	SB-7	2012
Hexachlorobutadiene	87-68-3	0.1	d	SI	100	0.094	--	0	SB-7E	2013
Hexachlorobutadiene	87-68-3	0.1	d	SI	100	0.096	--	0	SB-8	2013
Hexachlorobutadiene	87-68-3	0.1	d	SI	100	0.092	--	0	SB-9	2013
Hexachlorocyclopentadiene	77-47-4	0.001	d	All	1	370	--	0	SB-1	2012
Hexachlorocyclopentadiene	77-47-4	0.001	d	All	1	38	--	0	SB-10	2013
Hexachlorocyclopentadiene	77-47-4	0.001	d	All	1	38	--	0	SB-11	2013
Hexachlorocyclopentadiene	77-47-4	0.001	d	All	1	420	--	0	SB-12	2013
Hexachlorocyclopentadiene	77-47-4	0.001	d	All	1	37	--	0	SB-1A	2013
Hexachlorocyclopentadiene	77-47-4	0.001	d	All	1	35	--	0	SB-2	2012
Hexachlorocyclopentadiene	77-47-4	0.001	d	All	1	360	--	0	SB-5	2012
Hexachlorocyclopentadiene	77-47-4	0.001	d	All	1	39	--	0	SB-5C	2013
Hexachlorocyclopentadiene	77-47-4	0.001	d	All	1	360	--	0	SB-6A	2012
Hexachlorocyclopentadiene	77-47-4	0.001	d	All	1	370	--	0	SB-7	2012
Hexachlorocyclopentadiene	77-47-4	0.001	d	All	1	39	--	0	SB-7E	2013
Hexachlorocyclopentadiene	77-47-4	0.001	d	All	1	40	--	0	SB-8	2013
Hexachlorocyclopentadiene	77-47-4	0.001	d	All	1	38	--	0	SB-9	2013
--	--	--	--	--	--	--	--	0	SB-1	2012
--	--	--	--	--	--	--	--	0	SB-10	2013
--	--	--	--	--	--	--	--	0	SB-11	2013
--	--	--	--	--	--	--	--	0	SB-12	2013
--	--	--	--	--	--	--	--	0	SB-1A	2013
--	--	--	--	--	--	--	--	0	SB-2	2012
--	--	--	--	--	--	--	--	0	SB-5	2012
--	--	--	--	--	--	--	--	0	SB-5C	2013
--	--	--	--	--	--	--	--	0	SB-6A	2012
--	--	--	--	--	--	--	--	0	SB-7	2012
--	--	--	--	--	--	--	--	0	SB-7E	2013
--	--	--	--	--	--	--	--	0	SB-8	2013
--	--	--	--	--	--	--	--	0	SB-9	2013
High Molecular Weight PAHs	--	--	--	--	1100	--	1.954545	1	SB-1	2012
High Molecular Weight PAHs	--	--	--	--	1100	--	0.021818	1	SB-10	2013
High Molecular Weight PAHs	--	--	--	--	1100	--	--	0	SB-11	2013
High Molecular Weight PAHs	--	--	--	--	1100	--	7.727273	1	SB-12	2013
High Molecular Weight PAHs	--	--	--	--	1100	--	0.211818	1	SB-1A	2013
High Molecular Weight PAHs	--	--	--	--	1100	--	0.286364	1	SB-2	2012

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	Runits	Dilution Factor	AnalDate
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	2500	--	--	--	--	µg/Kg-dry-dry	--	--
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	250	--	--	--	--	µg/Kg-dry-dry	--	--
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	180	--	--	--	--	µg/Kg-dry-dry	--	--
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	5930	--	--	--	--	µg/Kg-dry-dry	--	--
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	--	--	--	--	--	µg/Kg-dry-dry	--	--
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	386	--	--	--	--	µg/Kg-dry-dry	--	--
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	2682	--	--	--	--	µg/Kg-dry-dry	--	--
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	--	U	U	200	320	µg/Kg-dry-dry	10	26-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	--	U	U	20	32	µg/Kg-dry-dry	1	08-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	--	U	U	21	33	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	420	420	--	230	360	µg/Kg-dry-dry	10	08-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	--	U	U	20	32	µg/Kg-dry-dry	1	08-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	--	U	U	19	30	µg/Kg-dry-dry	1	26-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	--	U	U	200	310	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	--	U	U	21	33	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	--	U	U	200	310	µg/Kg-dry-dry	10	26-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	220	220	J	200	320	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	--	U	U	21	33	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	--	U	U	22	34	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	110	110	--	21	33	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	91	1,700	µg/Kg-dry-dry	10	26-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	9.4	170	µg/Kg-dry-dry	1	08-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	9.6	180	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	100	1,900	µg/Kg-dry-dry	10	08-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	9.3	170	µg/Kg-dry-dry	1	08-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Isophorone	20	20	J	8.7	160	µg/Kg-dry-dry	1	26-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	90	1,700	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	9.6	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	91	1,700	µg/Kg-dry-dry	10	26-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	91	1,700	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	9.7	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	9.9	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	9.4	170	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Naphthalene	--	U	U	90	320	µg/Kg-dry-dry	10	26-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Naphthalene	--	U	U	9.2	32	µg/Kg-dry-dry	1	08-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Naphthalene	--	U	U	9.4	33	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Naphthalene	270	270	J	100	360	µg/Kg-dry-dry	10	08-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Naphthalene	43	43	--	9.2	32	µg/Kg-dry-dry	1	08-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Naphthalene	--	U	U	8.5	30	µg/Kg-dry-dry	1	26-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Naphthalene	--	U	U	88	310	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Naphthalene	--	U	U	9.4	33	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Naphthalene	--	U	U	89	310	µg/Kg-dry-dry	10	26-Jul-12

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Region 4 Chemical	CAS	Screening Level (mg/Kg-dry)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/Kg-dry)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Soil Bore	Year
High Molecular Weight PAHs	--	--	--	--	1100	--	2.272727	1	SB-5	2012
High Molecular Weight PAHs	--	--	--	--	1100	--	0.227273	1	SB-5C	2013
High Molecular Weight PAHs	--	--	--	--	1100	--	0.163636	1	SB-6A	2012
High Molecular Weight PAHs	--	--	--	--	1100	--	5.390909	1	SB-7	2012
High Molecular Weight PAHs	--	--	--	--	1100	--	--	0	SB-7E	2013
High Molecular Weight PAHs	--	--	--	--	1100	--	0.350909	1	SB-8	2013
High Molecular Weight PAHs	--	--	--	--	1100	--	2.438182	1	SB-9	2013
Indeno(1,2,3-cd)pyrene	193-39-5	--	--	--	1100	0.181818182	--	0	SB-1	2012
Indeno(1,2,3-cd)pyrene	193-39-5	--	--	--	1100	0.018181818	--	0	SB-10	2013
Indeno(1,2,3-cd)pyrene	193-39-5	--	--	--	1100	0.019090909	--	0	SB-11	2013
Indeno(1,2,3-cd)pyrene	193-39-5	--	--	--	1100	0.209090909	0.381818	1	SB-12	2013
Indeno(1,2,3-cd)pyrene	193-39-5	--	--	--	1100	0.018181818	--	0	SB-1A	2013
Indeno(1,2,3-cd)pyrene	193-39-5	--	--	--	1100	0.017272727	--	0	SB-2	2012
Indeno(1,2,3-cd)pyrene	193-39-5	--	--	--	1100	0.181818182	--	0	SB-5	2012
Indeno(1,2,3-cd)pyrene	193-39-5	--	--	--	1100	0.019090909	--	0	SB-5C	2013
Indeno(1,2,3-cd)pyrene	193-39-5	--	--	--	1100	0.181818182	--	0	SB-6A	2012
Indeno(1,2,3-cd)pyrene	193-39-5	--	--	--	1100	0.181818182	0.2	1	SB-7	2012
Indeno(1,2,3-cd)pyrene	193-39-5	--	--	--	1100	0.019090909	--	0	SB-7E	2013
Indeno(1,2,3-cd)pyrene	193-39-5	--	--	--	1100	0.02	--	0	SB-8	2013
Indeno(1,2,3-cd)pyrene	193-39-5	--	--	--	1100	0.019090909	0.1	1	SB-9	2013
Isophorone	--	--	--	--	--	--	--	0	SB-1	2012
Isophorone	--	--	--	--	--	--	--	0	SB-10	2013
Isophorone	--	--	--	--	--	--	--	0	SB-11	2013
Isophorone	--	--	--	--	--	--	--	0	SB-12	2013
Isophorone	--	--	--	--	--	--	--	0	SB-1A	2013
Isophorone	--	--	--	--	--	--	--	1	SB-2	2012
Isophorone	--	--	--	--	--	--	--	0	SB-5	2012
Isophorone	--	--	--	--	--	--	--	0	SB-5C	2013
Isophorone	--	--	--	--	--	--	--	0	SB-6A	2012
Isophorone	--	--	--	--	--	--	--	0	SB-7	2012
Isophorone	--	--	--	--	--	--	--	0	SB-7E	2013
Isophorone	--	--	--	--	--	--	--	0	SB-8	2013
Isophorone	--	--	--	--	--	--	--	0	SB-9	2013
Naphthalene	91-20-3	--	--	All, total	29000	0.003103448	--	0	SB-1	2012
Naphthalene	91-20-3	--	--	All, total	29000	0.000317241	--	0	SB-10	2013
Naphthalene	91-20-3	--	--	All, total	29000	0.000324138	--	0	SB-11	2013
Naphthalene	91-20-3	--	--	All, total	29000	0.003448276	0.00931	1	SB-12	2013
Naphthalene	91-20-3	--	--	All, total	29000	0.000317241	0.001483	1	SB-1A	2013
Naphthalene	91-20-3	--	--	All, total	29000	0.000293103	--	0	SB-2	2012
Naphthalene	91-20-3	--	--	All, total	29000	0.003034483	--	0	SB-5	2012
Naphthalene	91-20-3	--	--	All, total	29000	0.000324138	--	0	SB-5C	2013
Naphthalene	91-20-3	--	--	All, total	29000	0.003068966	--	0	SB-6A	2012

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	Runits	Dilution Factor	AnalDate
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Naphthalene	--	U	U	90	320	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Naphthalene	--	U	U	9.5	33	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Naphthalene	--	U	U	9.7	34	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Naphthalene	--	U	U	9.3	33	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	91	1,700	µg/Kg-dry-dry	10	26-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	9.3	170	µg/Kg-dry-dry	1	08-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	9.5	180	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	100	1,900	µg/Kg-dry-dry	10	08-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	9.3	170	µg/Kg-dry-dry	1	08-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	8.7	160	µg/Kg-dry-dry	1	26-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	90	1,700	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	9.6	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	90	1,700	µg/Kg-dry-dry	10	26-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	91	1,700	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	9.6	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	9.9	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	9.4	170	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	92	1,700	µg/Kg-dry-dry	10	26-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	9.4	170	µg/Kg-dry-dry	1	08-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	9.6	180	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	100	1,900	µg/Kg-dry-dry	10	08-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	9.4	170	µg/Kg-dry-dry	1	08-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	8.8	160	µg/Kg-dry-dry	1	26-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	91	1,700	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	9.7	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	91	1,700	µg/Kg-dry-dry	10	26-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	92	1,700	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	9.7	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	10	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	9.5	170	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	620	1,700	µg/Kg-dry-dry	10	26-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	64	170	µg/Kg-dry-dry	1	08-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	65	180	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	710	1,900	µg/Kg-dry-dry	10	08-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	64	170	µg/Kg-dry-dry	1	08-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	59	160	µg/Kg-dry-dry	1	26-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	620	1,700	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	66	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	620	1,700	µg/Kg-dry-dry	10	26-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	620	1,700	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	66	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	68	180	µg/Kg-dry-dry	1	11-Apr-13

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Region 4 Chemical	CAS	Screening Level (mg/Kg-dry)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/Kg-dry)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Soil Bore	Year
Naphthalene	91-20-3	--	--	All, total	29000	0.003103448	--	0	SB-7	2012
Naphthalene	91-20-3	--	--	All, total	29000	0.000327586	--	0	SB-7E	2013
Naphthalene	91-20-3	--	--	All, total	29000	0.000334483	--	0	SB-8	2013
Naphthalene	91-20-3	--	--	All, total	29000	0.00032069	--	0	SB-9	2013
Nitrobenzene	98-95-3	2.2	c	SI, M	2200	0.041363636	--	0	SB-1	2012
Nitrobenzene	98-95-3	2.2	c	SI, M	2200	0.004227273	--	0	SB-10	2013
Nitrobenzene	98-95-3	2.2	c	SI, M	2200	0.004318182	--	0	SB-11	2013
Nitrobenzene	98-95-3	2.2	c	SI, M	2200	0.045454545	--	0	SB-12	2013
Nitrobenzene	98-95-3	2.2	c	SI, M	2200	0.004227273	--	0	SB-1A	2013
Nitrobenzene	98-95-3	2.2	c	SI, M	2200	0.003954545	--	0	SB-2	2012
Nitrobenzene	98-95-3	2.2	c	SI, M	2200	0.040909091	--	0	SB-5	2012
Nitrobenzene	98-95-3	2.2	c	SI, M	2200	0.004363636	--	0	SB-5C	2013
Nitrobenzene	98-95-3	2.2	c	SI, M	2200	0.040909091	--	0	SB-6A	2012
Nitrobenzene	98-95-3	2.2	c	SI, M	2200	0.041363636	--	0	SB-7	2012
Nitrobenzene	98-95-3	2.2	c	SI, M	2200	0.004363636	--	0	SB-7E	2013
Nitrobenzene	98-95-3	2.2	c	SI, M	2200	0.0045	--	0	SB-8	2013
Nitrobenzene	98-95-3	2.2	c	SI, M	2200	0.004272727	--	0	SB-9	2013
--	--	--	--	--	--	--	--	0	SB-1	2012
--	--	--	--	--	--	--	--	0	SB-10	2013
--	--	--	--	--	--	--	--	0	SB-11	2013
--	--	--	--	--	--	--	--	0	SB-12	2013
--	--	--	--	--	--	--	--	0	SB-1A	2013
--	--	--	--	--	--	--	--	0	SB-2	2012
--	--	--	--	--	--	--	--	0	SB-5	2012
--	--	--	--	--	--	--	--	0	SB-5C	2013
--	--	--	--	--	--	--	--	0	SB-6A	2012
--	--	--	--	--	--	--	--	0	SB-7	2012
--	--	--	--	--	--	--	--	0	SB-7E	2013
--	--	--	--	--	--	--	--	0	SB-8	2013
--	--	--	--	--	--	--	--	0	SB-9	2013
N-Nitrosodiphenylamine	86-30-6	0.12	d	All	120	5.166666667	--	0	SB-1	2012
N-Nitrosodiphenylamine	86-30-6	0.12	d	All	120	0.533333333	--	0	SB-10	2013
N-Nitrosodiphenylamine	86-30-6	0.12	d	All	120	0.541666667	--	0	SB-11	2013
N-Nitrosodiphenylamine	86-30-6	0.12	d	All	120	5.916666667	--	0	SB-12	2013
N-Nitrosodiphenylamine	86-30-6	0.12	d	All	120	0.533333333	--	0	SB-1A	2013
N-Nitrosodiphenylamine	86-30-6	0.12	d	All	120	0.491666667	--	0	SB-2	2012
N-Nitrosodiphenylamine	86-30-6	0.12	d	All	120	5.166666667	--	0	SB-5	2012
N-Nitrosodiphenylamine	86-30-6	0.12	d	All	120	0.55	--	0	SB-5C	2013
N-Nitrosodiphenylamine	86-30-6	0.12	d	All	120	5.166666667	--	0	SB-6A	2012
N-Nitrosodiphenylamine	86-30-6	0.12	d	All	120	5.166666667	--	0	SB-7	2012
N-Nitrosodiphenylamine	86-30-6	0.12	d	All	120	0.55	--	0	SB-7E	2013
N-Nitrosodiphenylamine	86-30-6	0.12	d	All	120	0.566666667	--	0	SB-8	2013

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	Runits	Dilution Factor	AnalDate
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	65	170	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	160	210	µg/Kg-dry-dry	10	26-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	16	22	µg/Kg-dry-dry	1	08-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	16	22	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	180	240	µg/Kg-dry-dry	10	08-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	16	21	µg/Kg-dry-dry	1	08-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	15	20	µg/Kg-dry-dry	1	26-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	150	210	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	16	22	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	150	210	µg/Kg-dry-dry	10	26-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	160	210	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	16	22	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	17	23	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	16	22	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Phenanthrene	--	U	U	320	320	µg/Kg-dry-dry	10	26-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Phenanthrene	--	U	U	32	32	µg/Kg-dry-dry	1	08-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Phenanthrene	--	U	U	33	33	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Phenanthrene	690	690	--	360	360	µg/Kg-dry-dry	10	08-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Phenanthrene	77	77	--	32	32	µg/Kg-dry-dry	1	08-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Phenanthrene	44	44	--	30	30	µg/Kg-dry-dry	1	26-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Phenanthrene	--	U	U	310	310	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Phenanthrene	--	U	U	33	33	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Phenanthrene	--	U	U	310	310	µg/Kg-dry-dry	10	26-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Phenanthrene	700	700	--	320	320	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Phenanthrene	--	U	U	33	33	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Phenanthrene	43	43	--	34	34	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Phenanthrene	170	170	--	33	33	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	89	1,700	µg/Kg-dry-dry	10	26-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	9.1	170	µg/Kg-dry-dry	1	08-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Phenol	44	44	J	9.3	180	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	100	1,900	µg/Kg-dry-dry	10	08-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	9.1	170	µg/Kg-dry-dry	1	08-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	8.5	160	µg/Kg-dry-dry	1	26-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	88	1,700	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	9.4	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	88	1,700	µg/Kg-dry-dry	10	26-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	89	1,700	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	9.4	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	9.7	180	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	9.2	170	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Pyrene	420	420	--	130	320	µg/Kg-dry-dry	10	26-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Pyrene	--	U	U	13	32	µg/Kg-dry-dry	1	08-Apr-13

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Region 4 Chemical	CAS	Screening Level (mg/Kg-dry)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/Kg-dry)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Soil Bore	Year
N-Nitrosodiphenylamine	86-30-6	0.12	d	All	120	0.541666667	--	0	SB-9	2013
Pentachlorophenol (PCP)	87-86-5	2.1	a	All	2100	0.076190476	--	0	SB-1	2012
Pentachlorophenol (PCP)	87-86-5	2.1	a	All	2100	0.007619048	--	0	SB-10	2013
Pentachlorophenol (PCP)	87-86-5	2.1	a	All	2100	0.007619048	--	0	SB-11	2013
Pentachlorophenol (PCP)	87-86-5	2.1	a	All	2100	0.085714286	--	0	SB-12	2013
Pentachlorophenol (PCP)	87-86-5	2.1	a	All	2100	0.007619048	--	0	SB-1A	2013
Pentachlorophenol (PCP)	87-86-5	2.1	a	All	2100	0.007142857	--	0	SB-2	2012
Pentachlorophenol (PCP)	87-86-5	2.1	a	All	2100	0.071428571	--	0	SB-5	2012
Pentachlorophenol (PCP)	87-86-5	2.1	a	All	2100	0.007619048	--	0	SB-5C	2013
Pentachlorophenol (PCP)	87-86-5	2.1	a	All	2100	0.071428571	--	0	SB-6A	2012
Pentachlorophenol (PCP)	87-86-5	2.1	a	All	2100	0.076190476	--	0	SB-7	2012
Pentachlorophenol (PCP)	87-86-5	2.1	a	All	2100	0.007619048	--	0	SB-7E	2013
Pentachlorophenol (PCP)	87-86-5	2.1	a	All	2100	0.008095238	--	0	SB-8	2013
Pentachlorophenol (PCP)	87-86-5	2.1	a	All	2100	0.007619048	--	0	SB-9	2013
Phenanthrene	67580	--	--	--	29000	0.011034483	--	0	SB-1	2012
Phenanthrene	67580	--	--	--	29000	0.001103448	--	0	SB-10	2013
Phenanthrene	67580	--	--	--	29000	0.001137931	--	0	SB-11	2013
Phenanthrene	67580	--	--	--	29000	0.012413793	0.023793	1	SB-12	2013
Phenanthrene	67580	--	--	--	29000	0.001103448	0.002655	1	SB-1A	2013
Phenanthrene	67580	--	--	--	29000	0.001034483	0.001517	1	SB-2	2012
Phenanthrene	67580	--	--	--	29000	0.010689655	--	0	SB-5	2012
Phenanthrene	67580	--	--	--	29000	0.001137931	--	0	SB-5C	2013
Phenanthrene	67580	--	--	--	29000	0.010689655	--	0	SB-6A	2012
Phenanthrene	67580	--	--	--	29000	0.011034483	0.024138	1	SB-7	2012
Phenanthrene	67580	--	--	--	29000	0.001137931	--	0	SB-7E	2013
Phenanthrene	67580	--	--	--	29000	0.001172414	0.001483	1	SB-8	2013
Phenanthrene	67580	--	--	--	29000	0.001137931	0.005862	1	SB-9	2013
Phenol	108-95-2	0.79	c	All	790	0.112658228	--	0	SB-1	2012
Phenol	108-95-2	0.79	c	All	790	0.011518987	--	0	SB-10	2013
Phenol	108-95-2	0.79	c	All	790	0.011772152	0.055696	1	SB-11	2013
Phenol	108-95-2	0.79	c	All	790	0.126582278	--	0	SB-12	2013
Phenol	108-95-2	0.79	c	All	790	0.011518987	--	0	SB-1A	2013
Phenol	108-95-2	0.79	c	All	790	0.010759494	--	0	SB-2	2012
Phenol	108-95-2	0.79	c	All	790	0.111392405	--	0	SB-5	2012
Phenol	108-95-2	0.79	c	All	790	0.011898734	--	0	SB-5C	2013
Phenol	108-95-2	0.79	c	All	790	0.111392405	--	0	SB-6A	2012
Phenol	108-95-2	0.79	c	All	790	0.112658228	--	0	SB-7	2012
Phenol	108-95-2	0.79	c	All	790	0.011898734	--	0	SB-7E	2013
Phenol	108-95-2	0.79	c	All	790	0.012278481	--	0	SB-8	2013
Phenol	108-95-2	0.79	c	All	790	0.01164557	--	0	SB-9	2013
Pyrene	129-00-0	--	--	--	1100	0.118181818	0.381818	1	SB-1	2012
Pyrene	129-00-0	--	--	--	1100	0.011818182	--	0	SB-10	2013

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	Runits	Dilution Factor	AnalDate
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Pyrene	--	U	U	14	33	µg/Kg-dry-dry	1	09-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Pyrene	1,200	1,200	--	150	360	µg/Kg-dry-dry	10	08-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Semi-Volatile Organic Compounds	Pyrene	48	48	--	13	32	µg/Kg-dry-dry	1	08-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Semi-Volatile Organic Compounds	Pyrene	52	52	--	12	30	µg/Kg-dry-dry	1	26-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Pyrene	170	170	J	130	310	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Pyrene	41	41	--	14	33	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Semi-Volatile Organic Compounds	Pyrene	--	U	U	130	310	µg/Kg-dry-dry	10	26-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Semi-Volatile Organic Compounds	Pyrene	880	880	--	130	320	µg/Kg-dry-dry	10	25-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Semi-Volatile Organic Compounds	Pyrene	--	U	U	14	33	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Semi-Volatile Organic Compounds	Pyrene	73	73	--	14	34	µg/Kg-dry-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Semi-Volatile Organic Compounds	Pyrene	450	450	--	14	33	µg/Kg-dry-dry	1	11-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	1,1,1-Trichloroethane	--	U	U	18	48	µg/Kg-dry	1	23-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	1,1,1-Trichloroethane	--	U	U	16	41	µg/Kg-dry	1	06-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	1,1,1-Trichloroethane	--	U	U	12	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	1,1,1-Trichloroethane	--	U	U	12	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	1,1,1-Trichloroethane	--	U	U	11	30	µg/Kg-dry	1	06-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	1,1,1-Trichloroethane	--	U	U	15	40	µg/Kg-dry	1	23-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	1,1,1-Trichloroethane	--	U	U	13	35	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	1,1,1-Trichloroethane	--	U	U	11	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	1,1,1-Trichloroethane	--	U	U	29	75	µg/Kg-dry	1	24-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	1,1,1-Trichloroethane	--	U	U	14	38	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	1,1,1-Trichloroethane	--	U	U	11	30	µg/Kg-dry	1	05-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	1,1,1-Trichloroethane	--	U	U	13	34	µg/Kg-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	1,1,1-Trichloroethane	--	U	U	11	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	1,1,2,2-Tetrachloroethane	--	U	U	21	48	µg/Kg-dry	1	23-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	1,1,2,2-Tetrachloroethane	--	U	U	18	41	µg/Kg-dry	1	06-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	1,1,2,2-Tetrachloroethane	--	U	U	14	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	1,1,2,2-Tetrachloroethane	--	U	U	14	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	1,1,2,2-Tetrachloroethane	--	U	U	13	30	µg/Kg-dry	1	06-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	1,1,2,2-Tetrachloroethane	--	U	U	18	40	µg/Kg-dry	1	23-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	1,1,2,2-Tetrachloroethane	--	U	U	15	35	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	1,1,2,2-Tetrachloroethane	--	U	U	13	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	1,1,2,2-Tetrachloroethane	--	U	U	33	75	µg/Kg-dry	1	24-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	1,1,2,2-Tetrachloroethane	--	U	U	17	38	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	1,1,2,2-Tetrachloroethane	--	U	U	13	30	µg/Kg-dry	1	05-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	1,1,2,2-Tetrachloroethane	--	U	U	15	34	µg/Kg-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	1,1,2,2-Tetrachloroethane	--	U	U	13	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	1,1,2-Trichloroethane	--	U	U	17	48	µg/Kg-dry	1	23-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	1,1,2-Trichloroethane	--	U	U	15	41	µg/Kg-dry	1	06-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	1,1,2-Trichloroethane	--	U	U	11	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	1,1,2-Trichloroethane	--	U	U	11	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	1,1,2-Trichloroethane	--	U	U	11	30	µg/Kg-dry	1	06-Apr-13

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Region 4 Chemical	CAS	Screening Level (mg/Kg-dry)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/Kg-dry)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Soil Bore	Year
Pyrene	129-00-0	--	--	--	1100	0.012727273	--	0	SB-11	2013
Pyrene	129-00-0	--	--	--	1100	0.136363636	1.090909	1	SB-12	2013
Pyrene	129-00-0	--	--	--	1100	0.011818182	0.043636	1	SB-1A	2013
Pyrene	129-00-0	--	--	--	1100	0.010909091	0.047273	1	SB-2	2012
Pyrene	129-00-0	--	--	--	1100	0.118181818	0.154545	1	SB-5	2012
Pyrene	129-00-0	--	--	--	1100	0.012727273	0.037273	1	SB-5C	2013
Pyrene	129-00-0	--	--	--	1100	0.118181818	--	0	SB-6A	2012
Pyrene	129-00-0	--	--	--	1100	0.118181818	0.8	1	SB-7	2012
Pyrene	129-00-0	--	--	--	1100	0.012727273	--	0	SB-7E	2013
Pyrene	129-00-0	--	--	--	1100	0.012727273	0.066364	1	SB-8	2013
Pyrene	129-00-0	--	--	--	1100	0.012727273	0.409091	1	SB-9	2013
--	--	--	--	--	--	--	--	0	SB-1	2012
--	--	--	--	--	--	--	--	0	SB-10	2013
--	--	--	--	--	--	--	--	0	SB-11	2013
--	--	--	--	--	--	--	--	0	SB-12	2013
--	--	--	--	--	--	--	--	0	SB-1A	2013
--	--	--	--	--	--	--	--	0	SB-2	2012
--	--	--	--	--	--	--	--	0	SB-5	2012
--	--	--	--	--	--	--	--	0	SB-5C	2013
--	--	--	--	--	--	--	--	0	SB-6A	2012
--	--	--	--	--	--	--	--	0	SB-7	2012
--	--	--	--	--	--	--	--	0	SB-7E	2013
--	--	--	--	--	--	--	--	0	SB-8	2013
--	--	--	--	--	--	--	--	0	SB-9	2013
--	--	--	--	--	--	--	--	0	SB-1	2012
--	--	--	--	--	--	--	--	0	SB-10	2013
--	--	--	--	--	--	--	--	0	SB-11	2013
--	--	--	--	--	--	--	--	0	SB-12	2013
--	--	--	--	--	--	--	--	0	SB-1A	2013
--	--	--	--	--	--	--	--	0	SB-2	2012
--	--	--	--	--	--	--	--	0	SB-5	2012
--	--	--	--	--	--	--	--	0	SB-5C	2013
--	--	--	--	--	--	--	--	0	SB-6A	2012
--	--	--	--	--	--	--	--	0	SB-7	2012
--	--	--	--	--	--	--	--	0	SB-7E	2013
--	--	--	--	--	--	--	--	0	SB-8	2013
--	--	--	--	--	--	--	--	0	SB-9	2013
--	--	--	--	--	--	--	--	0	SB-1	2012
--	--	--	--	--	--	--	--	0	SB-10	2013
--	--	--	--	--	--	--	--	0	SB-11	2013
--	--	--	--	--	--	--	--	0	SB-12	2013
--	--	--	--	--	--	--	--	0	SB-1A	2013

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	Runits	Dilution Factor	AnalDate
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	1,1,2-Trichloroethane	--	U	U	14	40	µg/Kg-dry	1	23-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	1,1,2-Trichloroethane	--	U	U	12	35	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	1,1,2-Trichloroethane	--	U	U	11	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	1,1,2-Trichloroethane	--	U	U	27	75	µg/Kg-dry	1	24-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	1,1,2-Trichloroethane	--	U	U	13	38	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	1,1,2-Trichloroethane	--	U	U	11	30	µg/Kg-dry	1	05-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	1,1,2-Trichloroethane	--	U	U	12	34	µg/Kg-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	1,1,2-Trichloroethane	--	U	U	11	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	1,1,2-Trichlorotrifluoroethane	--	U	U	18	48	µg/Kg-dry	1	23-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	1,1,2-Trichlorotrifluoroethane	--	U	U	15	41	µg/Kg-dry	1	06-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	1,1,2-Trichlorotrifluoroethane	--	U	U	12	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	1,1,2-Trichlorotrifluoroethane	--	U	U	12	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	1,1,2-Trichlorotrifluoroethane	--	U	U	11	30	µg/Kg-dry	1	06-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	1,1,2-Trichlorotrifluoroethane	--	U	U	15	40	µg/Kg-dry	1	23-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	1,1,2-Trichlorotrifluoroethane	--	U	U	13	35	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	1,1,2-Trichlorotrifluoroethane	--	U	U	11	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	1,1,2-Trichlorotrifluoroethane	--	U	U	28	75	µg/Kg-dry	1	24-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	1,1,2-Trichlorotrifluoroethane	--	U	U	14	38	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	1,1,2-Trichlorotrifluoroethane	--	U	U	11	30	µg/Kg-dry	1	05-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	1,1,2-Trichlorotrifluoroethane	--	U	U	13	34	µg/Kg-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	1,1,2-Trichlorotrifluoroethane	--	U	U	11	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	1,1-Dichloroethane	--	U	U	17	48	µg/Kg-dry	1	23-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	1,1-Dichloroethane	--	U	U	15	41	µg/Kg-dry	1	06-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	1,1-Dichloroethane	--	U	U	12	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	1,1-Dichloroethane	--	U	U	12	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	1,1-Dichloroethane	--	U	U	11	30	µg/Kg-dry	1	06-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	1,1-Dichloroethane	--	U	U	15	40	µg/Kg-dry	1	23-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	1,1-Dichloroethane	--	U	U	13	35	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	1,1-Dichloroethane	--	U	U	11	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	1,1-Dichloroethane	--	U	U	27	75	µg/Kg-dry	1	24-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	1,1-Dichloroethane	--	U	U	14	38	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	1,1-Dichloroethane	--	U	U	11	30	µg/Kg-dry	1	05-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	1,1-Dichloroethane	--	U	U	12	34	µg/Kg-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	1,1-Dichloroethane	--	U	U	11	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	1,1-Dichloroethene	--	U	U	20	48	µg/Kg-dry	1	23-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	1,1-Dichloroethene	--	U	U	17	41	µg/Kg-dry	1	06-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	1,1-Dichloroethene	--	U	U	14	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	1,1-Dichloroethene	--	U	U	13	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	1,1-Dichloroethene	--	U	U	13	30	µg/Kg-dry	1	06-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	1,1-Dichloroethene	--	U	U	17	40	µg/Kg-dry	1	23-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	1,1-Dichloroethene	--	U	U	15	35	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	1,1-Dichloroethene	--	U	U	13	30	µg/Kg-dry	1	05-Apr-13

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Region 4 Chemical	CAS	Screening Level (mg/Kg-dry)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/Kg-dry)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Soil Bore	Year
--	--	--	--	--	--	--	--	0	SB-2	2012
--	--	--	--	--	--	--	--	0	SB-5	2012
--	--	--	--	--	--	--	--	0	SB-5C	2013
--	--	--	--	--	--	--	--	0	SB-6A	2012
--	--	--	--	--	--	--	--	0	SB-7	2012
--	--	--	--	--	--	--	--	0	SB-7E	2013
--	--	--	--	--	--	--	--	0	SB-8	2013
--	--	--	--	--	--	--	--	0	SB-9	2013
--	--	--	--	--	--	--	--	0	SB-1	2012
--	--	--	--	--	--	--	--	0	SB-10	2013
--	--	--	--	--	--	--	--	0	SB-11	2013
--	--	--	--	--	--	--	--	0	SB-12	2013
--	--	--	--	--	--	--	--	0	SB-1A	2013
--	--	--	--	--	--	--	--	0	SB-2	2012
--	--	--	--	--	--	--	--	0	SB-5	2012
--	--	--	--	--	--	--	--	0	SB-5C	2013
--	--	--	--	--	--	--	--	0	SB-6A	2012
--	--	--	--	--	--	--	--	0	SB-7	2012
--	--	--	--	--	--	--	--	0	SB-7E	2013
--	--	--	--	--	--	--	--	0	SB-8	2013
--	--	--	--	--	--	--	--	0	SB-9	2013
--	--	--	--	--	--	--	--	0	SB-1	2012
--	--	--	--	--	--	--	--	0	SB-10	2013
--	--	--	--	--	--	--	--	0	SB-11	2013
--	--	--	--	--	--	--	--	0	SB-12	2013
--	--	--	--	--	--	--	--	0	SB-1A	2013
--	--	--	--	--	--	--	--	0	SB-2	2012
--	--	--	--	--	--	--	--	0	SB-5	2012
--	--	--	--	--	--	--	--	0	SB-5C	2013
--	--	--	--	--	--	--	--	0	SB-6A	2012
--	--	--	--	--	--	--	--	0	SB-7	2012
--	--	--	--	--	--	--	--	0	SB-7E	2013
--	--	--	--	--	--	--	--	0	SB-8	2013
--	--	--	--	--	--	--	--	0	SB-9	2013
--	--	--	--	--	--	--	--	0	SB-1	2012
--	--	--	--	--	--	--	--	0	SB-10	2013
--	--	--	--	--	--	--	--	0	SB-11	2013
--	--	--	--	--	--	--	--	0	SB-12	2013
--	--	--	--	--	--	--	--	0	SB-1A	2013
--	--	--	--	--	--	--	--	0	SB-2	2012
--	--	--	--	--	--	--	--	0	SB-5	2012
--	--	--	--	--	--	--	--	0	SB-5C	2013
--	--	--	--	--	--	--	--	0	SB-6A	2012
--	--	--	--	--	--	--	--	0	SB-7	2012
--	--	--	--	--	--	--	--	0	SB-7E	2013
--	--	--	--	--	--	--	--	0	SB-8	2013
--	--	--	--	--	--	--	--	0	SB-9	2013
--	--	--	--	--	--	--	--	0	SB-1	2012
--	--	--	--	--	--	--	--	0	SB-10	2013
--	--	--	--	--	--	--	--	0	SB-11	2013
--	--	--	--	--	--	--	--	0	SB-12	2013
--	--	--	--	--	--	--	--	0	SB-1A	2013
--	--	--	--	--	--	--	--	0	SB-2	2012
--	--	--	--	--	--	--	--	0	SB-5	2012
--	--	--	--	--	--	--	--	0	SB-5C	2013

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	Runits	Dilution Factor	AnalDate
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	1,1-Dichloroethene	--	U	U	32	75	µg/Kg-dry	1	24-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	1,1-Dichloroethene	--	U	U	16	38	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	1,1-Dichloroethene	--	U	U	13	30	µg/Kg-dry	1	05-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	1,1-Dichloroethene	--	U	U	14	34	µg/Kg-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	1,1-Dichloroethene	--	U	U	13	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	1,2,4-Trichlorobenzene	--	U	U	25	48	µg/Kg-dry	1	23-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	1,2,4-Trichlorobenzene	--	U	U	21	41	µg/Kg-dry	1	06-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	1,2,4-Trichlorobenzene	--	U	U	17	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	1,2,4-Trichlorobenzene	--	U	U	16	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	1,2,4-Trichlorobenzene	--	U	U	16	30	µg/Kg-dry	1	06-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	1,2,4-Trichlorobenzene	--	U	U	21	40	µg/Kg-dry	1	23-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	1,2,4-Trichlorobenzene	--	U	U	18	35	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	1,2,4-Trichlorobenzene	--	U	U	16	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	1,2,4-Trichlorobenzene	--	U	U	39	75	µg/Kg-dry	1	24-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	1,2,4-Trichlorobenzene	--	U	U	19	38	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	1,2,4-Trichlorobenzene	--	U	U	16	30	µg/Kg-dry	1	05-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	1,2,4-Trichlorobenzene	--	U	U	17	34	µg/Kg-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	1,2,4-Trichlorobenzene	--	U	U	16	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	1,2-Dibromo-3-chloropropane	--	U	U	23	48	µg/Kg-dry	1	23-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	1,2-Dibromo-3-chloropropane	--	U	U	20	41	µg/Kg-dry	1	06-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	1,2-Dibromo-3-chloropropane	--	U	U	16	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	1,2-Dibromo-3-chloropropane	--	U	U	15	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	1,2-Dibromo-3-chloropropane	--	U	U	15	30	µg/Kg-dry	1	06-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	1,2-Dibromo-3-chloropropane	--	U	U	19	40	µg/Kg-dry	1	23-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	1,2-Dibromo-3-chloropropane	--	U	U	17	35	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	1,2-Dibromo-3-chloropropane	--	U	U	15	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	1,2-Dibromo-3-chloropropane	--	U	U	37	75	µg/Kg-dry	1	24-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	1,2-Dibromo-3-chloropropane	--	U	U	18	38	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	1,2-Dibromo-3-chloropropane	--	U	U	15	30	µg/Kg-dry	1	05-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	1,2-Dibromo-3-chloropropane	--	U	U	16	34	µg/Kg-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	1,2-Dibromo-3-chloropropane	--	U	U	15	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	1,2-Dibromoethane	--	U	U	19	48	µg/Kg-dry	1	23-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	1,2-Dibromoethane	--	U	U	16	41	µg/Kg-dry	1	06-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	1,2-Dibromoethane	--	U	U	13	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	1,2-Dibromoethane	--	U	U	13	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	1,2-Dibromoethane	--	U	U	12	30	µg/Kg-dry	1	06-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	1,2-Dibromoethane	--	U	U	16	40	µg/Kg-dry	1	23-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	1,2-Dibromoethane	--	U	U	14	35	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	1,2-Dibromoethane	--	U	U	12	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	1,2-Dibromoethane	--	U	U	30	75	µg/Kg-dry	1	24-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	1,2-Dibromoethane	--	U	U	15	38	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	1,2-Dibromoethane	--	U	U	12	30	µg/Kg-dry	1	05-Apr-13

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Region 4 Chemical	CAS	Screening Level (mg/Kg-dry)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/Kg-dry)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Soil Bore	Year
--	--	--	--	--	--	--	--	0	SB-6A	2012
--	--	--	--	--	--	--	--	0	SB-7	2012
--	--	--	--	--	--	--	--	0	SB-7E	2013
--	--	--	--	--	--	--	--	0	SB-8	2013
--	--	--	--	--	--	--	--	0	SB-9	2013
--	--	--	--	--	--	--	--	0	SB-1	2012
--	--	--	--	--	--	--	--	0	SB-10	2013
--	--	--	--	--	--	--	--	0	SB-11	2013
--	--	--	--	--	--	--	--	0	SB-12	2013
--	--	--	--	--	--	--	--	0	SB-1A	2013
--	--	--	--	--	--	--	--	0	SB-2	2012
--	--	--	--	--	--	--	--	0	SB-5	2012
--	--	--	--	--	--	--	--	0	SB-5C	2013
--	--	--	--	--	--	--	--	0	SB-6A	2012
--	--	--	--	--	--	--	--	0	SB-7	2012
--	--	--	--	--	--	--	--	0	SB-7E	2013
--	--	--	--	--	--	--	--	0	SB-8	2013
--	--	--	--	--	--	--	--	0	SB-9	2013
--	--	--	--	--	--	--	--	0	SB-1	2012
--	--	--	--	--	--	--	--	0	SB-10	2013
--	--	--	--	--	--	--	--	0	SB-11	2013
--	--	--	--	--	--	--	--	0	SB-12	2013
--	--	--	--	--	--	--	--	0	SB-1A	2013
--	--	--	--	--	--	--	--	0	SB-2	2012
--	--	--	--	--	--	--	--	0	SB-5	2012
--	--	--	--	--	--	--	--	0	SB-5C	2013
--	--	--	--	--	--	--	--	0	SB-6A	2012
--	--	--	--	--	--	--	--	0	SB-7	2012
--	--	--	--	--	--	--	--	0	SB-7E	2013
--	--	--	--	--	--	--	--	0	SB-8	2013
--	--	--	--	--	--	--	--	0	SB-9	2013
--	--	--	--	--	--	--	--	0	SB-1	2012
--	--	--	--	--	--	--	--	0	SB-10	2013
--	--	--	--	--	--	--	--	0	SB-11	2013
--	--	--	--	--	--	--	--	0	SB-12	2013
--	--	--	--	--	--	--	--	0	SB-1A	2013
--	--	--	--	--	--	--	--	0	SB-2	2012
--	--	--	--	--	--	--	--	0	SB-5	2012
--	--	--	--	--	--	--	--	0	SB-5C	2013
--	--	--	--	--	--	--	--	0	SB-6A	2012
--	--	--	--	--	--	--	--	0	SB-7	2012
--	--	--	--	--	--	--	--	0	SB-7E	2013
--	--	--	--	--	--	--	--	0	SB-8	2013
--	--	--	--	--	--	--	--	0	SB-9	2013
--	--	--	--	--	--	--	--	0	SB-1	2012
--	--	--	--	--	--	--	--	0	SB-10	2013
--	--	--	--	--	--	--	--	0	SB-11	2013
--	--	--	--	--	--	--	--	0	SB-12	2013
--	--	--	--	--	--	--	--	0	SB-1A	2013
--	--	--	--	--	--	--	--	0	SB-2	2012
--	--	--	--	--	--	--	--	0	SB-5	2012
--	--	--	--	--	--	--	--	0	SB-5C	2013
--	--	--	--	--	--	--	--	0	SB-6A	2012
--	--	--	--	--	--	--	--	0	SB-7	2012
--	--	--	--	--	--	--	--	0	SB-7E	2013

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	Runits	Dilution Factor	AnalDate
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	1,2-Dibromoethane	--	U	U	13	34	µg/Kg-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	1,2-Dibromoethane	--	U	U	12	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	1,2-Dichlorobenzene	--	U	U	19	48	µg/Kg-dry	1	23-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	1,2-Dichlorobenzene	--	U	U	17	41	µg/Kg-dry	1	06-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	1,2-Dichlorobenzene	--	U	U	13	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	1,2-Dichlorobenzene	--	U	U	13	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	1,2-Dichlorobenzene	--	U	U	12	30	µg/Kg-dry	1	06-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	1,2-Dichlorobenzene	--	U	U	16	40	µg/Kg-dry	1	23-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	1,2-Dichlorobenzene	--	U	U	14	35	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	1,2-Dichlorobenzene	--	U	U	12	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	1,2-Dichlorobenzene	--	U	U	30	75	µg/Kg-dry	1	24-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	1,2-Dichlorobenzene	--	U	U	15	38	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	1,2-Dichlorobenzene	--	U	U	12	30	µg/Kg-dry	1	05-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	1,2-Dichlorobenzene	--	U	U	14	34	µg/Kg-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	1,2-Dichlorobenzene	--	U	U	12	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	1,2-Dichloroethane	--	U	U	23	48	µg/Kg-dry	1	23-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	1,2-Dichloroethane	--	U	U	20	41	µg/Kg-dry	1	06-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	1,2-Dichloroethane	--	U	U	15	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	1,2-Dichloroethane	--	U	U	15	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	1,2-Dichloroethane	--	U	U	14	30	µg/Kg-dry	1	06-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	1,2-Dichloroethane	--	U	U	19	40	µg/Kg-dry	1	23-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	1,2-Dichloroethane	--	U	U	17	35	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	1,2-Dichloroethane	--	U	U	14	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	1,2-Dichloroethane	--	U	U	36	75	µg/Kg-dry	1	24-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	1,2-Dichloroethane	--	U	U	18	38	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	1,2-Dichloroethane	--	U	U	14	30	µg/Kg-dry	1	05-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	1,2-Dichloroethane	--	U	U	16	34	µg/Kg-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	1,2-Dichloroethane	--	U	U	14	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	1,2-Dichloropropane	--	U	U	16	48	µg/Kg-dry	1	23-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	1,2-Dichloropropane	--	U	U	14	41	µg/Kg-dry	1	06-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	1,2-Dichloropropane	--	U	U	11	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	1,2-Dichloropropane	--	U	U	11	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	1,2-Dichloropropane	--	U	U	9.9	30	µg/Kg-dry	1	06-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	1,2-Dichloropropane	--	U	U	13	40	µg/Kg-dry	1	23-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	1,2-Dichloropropane	--	U	U	12	35	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	1,2-Dichloropropane	--	U	U	9.9	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	1,2-Dichloropropane	--	U	U	25	75	µg/Kg-dry	1	24-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	1,2-Dichloropropane	--	U	U	12	38	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	1,2-Dichloropropane	--	U	U	9.9	30	µg/Kg-dry	1	05-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	1,2-Dichloropropane	--	U	U	11	34	µg/Kg-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	1,2-Dichloropropane	--	U	U	9.9	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	1,3-Dichlorobenzene	--	U	U	19	48	µg/Kg-dry	1	23-Jul-12

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Region 4 Chemical	CAS	Screening Level (mg/Kg-dry)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/Kg-dry)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Soil Bore	Year
--	--	--	--	--	--	--	--	0	SB-8	2013
--	--	--	--	--	--	--	--	0	SB-9	2013
1,2-Dichlorobenzene	95-50-1	0.09	d	All	90	0.2111111111	--	0	SB-1	2012
1,2-Dichlorobenzene	95-50-1	0.09	d	All	90	0.188888889	--	0	SB-10	2013
1,2-Dichlorobenzene	95-50-1	0.09	d	All	90	0.144444444	--	0	SB-11	2013
1,2-Dichlorobenzene	95-50-1	0.09	d	All	90	0.144444444	--	0	SB-12	2013
1,2-Dichlorobenzene	95-50-1	0.09	d	All	90	0.133333333	--	0	SB-1A	2013
1,2-Dichlorobenzene	95-50-1	0.09	d	All	90	0.177777778	--	0	SB-2	2012
1,2-Dichlorobenzene	95-50-1	0.09	d	All	90	0.155555556	--	0	SB-5	2012
1,2-Dichlorobenzene	95-50-1	0.09	d	All	90	0.133333333	--	0	SB-5C	2013
1,2-Dichlorobenzene	95-50-1	0.09	d	All	90	0.333333333	--	0	SB-6A	2012
1,2-Dichlorobenzene	95-50-1	0.09	d	All	90	0.166666667	--	0	SB-7	2012
1,2-Dichlorobenzene	95-50-1	0.09	d	All	90	0.133333333	--	0	SB-7E	2013
1,2-Dichlorobenzene	95-50-1	0.09	d	All	90	0.155555556	--	0	SB-8	2013
1,2-Dichlorobenzene	95-50-1	0.09	d	All	90	0.133333333	--	0	SB-9	2013
--	--	--	--	--	--	--	--	0	SB-1	2012
--	--	--	--	--	--	--	--	0	SB-10	2013
--	--	--	--	--	--	--	--	0	SB-11	2013
--	--	--	--	--	--	--	--	0	SB-12	2013
--	--	--	--	--	--	--	--	0	SB-1A	2013
--	--	--	--	--	--	--	--	0	SB-2	2012
--	--	--	--	--	--	--	--	0	SB-5	2012
--	--	--	--	--	--	--	--	0	SB-5C	2013
--	--	--	--	--	--	--	--	0	SB-6A	2012
--	--	--	--	--	--	--	--	0	SB-7	2012
--	--	--	--	--	--	--	--	0	SB-7E	2013
--	--	--	--	--	--	--	--	0	SB-8	2013
--	--	--	--	--	--	--	--	0	SB-9	2013
--	--	--	--	--	--	--	--	0	SB-1	2012
--	--	--	--	--	--	--	--	0	SB-10	2013
--	--	--	--	--	--	--	--	0	SB-11	2013
--	--	--	--	--	--	--	--	0	SB-12	2013
--	--	--	--	--	--	--	--	0	SB-1A	2013
--	--	--	--	--	--	--	--	0	SB-2	2012
--	--	--	--	--	--	--	--	0	SB-5	2012
--	--	--	--	--	--	--	--	0	SB-5C	2013
--	--	--	--	--	--	--	--	0	SB-6A	2012
--	--	--	--	--	--	--	--	0	SB-7	2012
--	--	--	--	--	--	--	--	0	SB-7E	2013
--	--	--	--	--	--	--	--	0	SB-8	2013
--	--	--	--	--	--	--	--	0	SB-9	2013
1,3-Dichlorobenzene	99-65-0	0.08	d	All	80	0.2375	--	0	SB-1	2012

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	Runits	Dilution Factor	AnalDate
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	1,3-Dichlorobenzene	--	U	U	17	41	µg/Kg-dry	1	06-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	1,3-Dichlorobenzene	--	U	U	13	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	1,3-Dichlorobenzene	--	U	U	13	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	1,3-Dichlorobenzene	--	U	U	12	30	µg/Kg-dry	1	06-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	1,3-Dichlorobenzene	--	U	U	16	40	µg/Kg-dry	1	23-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	1,3-Dichlorobenzene	--	U	U	14	35	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	1,3-Dichlorobenzene	--	U	U	12	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	1,3-Dichlorobenzene	--	U	U	30	75	µg/Kg-dry	1	24-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	1,3-Dichlorobenzene	--	U	U	15	38	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	1,3-Dichlorobenzene	--	U	U	12	30	µg/Kg-dry	1	05-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	1,3-Dichlorobenzene	--	U	U	14	34	µg/Kg-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	1,3-Dichlorobenzene	--	U	U	12	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	1,4-Dichlorobenzene	--	U	U	18	48	µg/Kg-dry	1	23-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	1,4-Dichlorobenzene	--	U	U	16	41	µg/Kg-dry	1	06-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	1,4-Dichlorobenzene	--	U	U	12	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	1,4-Dichlorobenzene	--	U	U	12	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	1,4-Dichlorobenzene	--	U	U	11	30	µg/Kg-dry	1	06-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	1,4-Dichlorobenzene	--	U	U	15	40	µg/Kg-dry	1	23-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	1,4-Dichlorobenzene	--	U	U	13	35	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	1,4-Dichlorobenzene	--	U	U	11	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	1,4-Dichlorobenzene	--	U	U	29	75	µg/Kg-dry	1	24-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	1,4-Dichlorobenzene	--	U	U	14	38	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	1,4-Dichlorobenzene	--	U	U	11	30	µg/Kg-dry	1	05-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	1,4-Dichlorobenzene	--	U	U	13	34	µg/Kg-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	1,4-Dichlorobenzene	--	U	U	11	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	2-Butanone	--	U	U	120	320	µg/Kg-dry	1	23-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	2-Butanone	--	U	U	100	280	µg/Kg-dry	1	06-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	2-Butanone	--	U	U	80	220	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	2-Butanone	--	U	U	78	210	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	2-Butanone	--	U	U	74	200	µg/Kg-dry	1	06-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	2-Butanone	--	U	U	99	270	µg/Kg-dry	1	23-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	2-Butanone	--	U	U	86	230	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	2-Butanone	--	U	U	74	200	µg/Kg-dry	1	05-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	2-Butanone	--	U	U	190	500	µg/Kg-dry	1	24-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	2-Butanone	--	U	U	93	250	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	2-Butanone	--	U	U	74	200	µg/Kg-dry	1	05-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	2-Butanone	--	U	U	84	230	µg/Kg-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	2-Butanone	--	U	U	74	200	µg/Kg-dry	1	05-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	2-Hexanone	--	U	U	12	48	µg/Kg-dry	1	23-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	2-Hexanone	--	U	U	10	41	µg/Kg-dry	1	06-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	2-Hexanone	--	U	U	7.9	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	2-Hexanone	--	U	U	7.8	32	µg/Kg-dry	1	06-Apr-13

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Region 4 Chemical	CAS	Screening Level (mg/Kg-dry)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/Kg-dry)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Soil Bore	Year
1,3-Dichlorobenzene	99-65-0	0.08	d	All	80	0.2125	--	0	SB-10	2013
1,3-Dichlorobenzene	99-65-0	0.08	d	All	80	0.1625	--	0	SB-11	2013
1,3-Dichlorobenzene	99-65-0	0.08	d	All	80	0.1625	--	0	SB-12	2013
1,3-Dichlorobenzene	99-65-0	0.08	d	All	80	0.15	--	0	SB-1A	2013
1,3-Dichlorobenzene	99-65-0	0.08	d	All	80	0.2	--	0	SB-2	2012
1,3-Dichlorobenzene	99-65-0	0.08	d	All	80	0.175	--	0	SB-5	2012
1,3-Dichlorobenzene	99-65-0	0.08	d	All	80	0.15	--	0	SB-5C	2013
1,3-Dichlorobenzene	99-65-0	0.08	d	All	80	0.375	--	0	SB-6A	2012
1,3-Dichlorobenzene	99-65-0	0.08	d	All	80	0.1875	--	0	SB-7	2012
1,3-Dichlorobenzene	99-65-0	0.08	d	All	80	0.15	--	0	SB-7E	2013
1,3-Dichlorobenzene	99-65-0	0.08	d	All	80	0.175	--	0	SB-8	2013
1,3-Dichlorobenzene	99-65-0	0.08	d	All	80	0.15	--	0	SB-9	2013
1,4-Dichlorobenzene	106-46-7	0.88	c	SI, M	880	0.020454545	--	0	SB-1	2012
1,4-Dichlorobenzene	106-46-7	0.88	c	SI, M	880	0.018181818	--	0	SB-10	2013
1,4-Dichlorobenzene	106-46-7	0.88	c	SI, M	880	0.013636364	--	0	SB-11	2013
1,4-Dichlorobenzene	106-46-7	0.88	c	SI, M	880	0.013636364	--	0	SB-12	2013
1,4-Dichlorobenzene	106-46-7	0.88	c	SI, M	880	0.0125	--	0	SB-1A	2013
1,4-Dichlorobenzene	106-46-7	0.88	c	SI, M	880	0.017045455	--	0	SB-2	2012
1,4-Dichlorobenzene	106-46-7	0.88	c	SI, M	880	0.014772727	--	0	SB-5	2012
1,4-Dichlorobenzene	106-46-7	0.88	c	SI, M	880	0.0125	--	0	SB-5C	2013
1,4-Dichlorobenzene	106-46-7	0.88	c	SI, M	880	0.032954545	--	0	SB-6A	2012
1,4-Dichlorobenzene	106-46-7	0.88	c	SI, M	880	0.015909091	--	0	SB-7	2012
1,4-Dichlorobenzene	106-46-7	0.88	c	SI, M	880	0.0125	--	0	SB-7E	2013
1,4-Dichlorobenzene	106-46-7	0.88	c	SI, M	880	0.014772727	--	0	SB-8	2013
1,4-Dichlorobenzene	106-46-7	0.88	c	SI, M	880	0.0125	--	0	SB-9	2013
2-Butanone (Methyl Ethyl Ketone)	78-93-3	1.0	d	All	1000	0.12	--	0	SB-1	2012
2-Butanone (Methyl Ethyl Ketone)	78-93-3	1.0	d	All	1000	0.1	--	0	SB-10	2013
2-Butanone (Methyl Ethyl Ketone)	78-93-3	1.0	d	All	1000	0.08	--	0	SB-11	2013
2-Butanone (Methyl Ethyl Ketone)	78-93-3	1.0	d	All	1000	0.078	--	0	SB-12	2013
2-Butanone (Methyl Ethyl Ketone)	78-93-3	1.0	d	All	1000	0.074	--	0	SB-1A	2013
2-Butanone (Methyl Ethyl Ketone)	78-93-3	1.0	d	All	1000	0.099	--	0	SB-2	2012
2-Butanone (Methyl Ethyl Ketone)	78-93-3	1.0	d	All	1000	0.086	--	0	SB-5	2012
2-Butanone (Methyl Ethyl Ketone)	78-93-3	1.0	d	All	1000	0.074	--	0	SB-5C	2013
2-Butanone (Methyl Ethyl Ketone)	78-93-3	1.0	d	All	1000	0.19	--	0	SB-6A	2012
2-Butanone (Methyl Ethyl Ketone)	78-93-3	1.0	d	All	1000	0.093	--	0	SB-7	2012
2-Butanone (Methyl Ethyl Ketone)	78-93-3	1.0	d	All	1000	0.074	--	0	SB-7E	2013
2-Butanone (Methyl Ethyl Ketone)	78-93-3	1.0	d	All	1000	0.084	--	0	SB-8	2013
2-Butanone (Methyl Ethyl Ketone)	78-93-3	1.0	d	All	1000	0.074	--	0	SB-9	2013
--	--	--	--	--	--	--	--	0	SB-1	2012
--	--	--	--	--	--	--	--	0	SB-10	2013
--	--	--	--	--	--	--	--	0	SB-11	2013
--	--	--	--	--	--	--	--	0	SB-12	2013

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	Runits	Dilution Factor	AnalDate
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	2-Hexanone	--	U	U	7.4	30	µg/Kg-dry	1	06-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	2-Hexanone	--	U	U	9.8	40	µg/Kg-dry	1	23-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	2-Hexanone	--	U	U	8.5	35	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	2-Hexanone	--	U	U	7.4	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	2-Hexanone	--	U	U	18	75	µg/Kg-dry	1	24-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	2-Hexanone	--	U	U	9.2	38	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	2-Hexanone	--	U	U	7.4	30	µg/Kg-dry	1	05-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	2-Hexanone	--	U	U	8.3	34	µg/Kg-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	2-Hexanone	--	U	U	7.4	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	4-Methyl-2-pentanone	--	U	U	16	48	µg/Kg-dry	1	23-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	4-Methyl-2-pentanone	--	U	U	14	41	µg/Kg-dry	1	06-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	4-Methyl-2-pentanone	--	U	U	11	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	4-Methyl-2-pentanone	--	U	U	11	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	4-Methyl-2-pentanone	--	U	U	10	30	µg/Kg-dry	1	06-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	4-Methyl-2-pentanone	--	U	U	14	40	µg/Kg-dry	1	23-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	4-Methyl-2-pentanone	--	U	U	12	35	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	4-Methyl-2-pentanone	--	U	U	10	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	4-Methyl-2-pentanone	--	U	U	25	75	µg/Kg-dry	1	24-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	4-Methyl-2-pentanone	--	U	U	13	38	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	4-Methyl-2-pentanone	--	U	U	10	30	µg/Kg-dry	1	05-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	4-Methyl-2-pentanone	--	U	U	11	34	µg/Kg-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	4-Methyl-2-pentanone	--	U	U	10	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	Acetone	--	U	U	100	160	µg/Kg-dry	1	23-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	Acetone	--	U	U	87	140	µg/Kg-dry	1	06-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	Acetone	--	U	U	69	110	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	Acetone	--	U	U	67	110	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	Acetone	--	U	U	64	100	µg/Kg-dry	1	06-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	Acetone	--	U	U	85	130	µg/Kg-dry	1	23-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	Acetone	--	U	U	74	120	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	Acetone	--	U	U	64	100	µg/Kg-dry	1	05-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	Acetone	--	U	U	160	250	µg/Kg-dry	1	24-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	Acetone	--	U	U	80	130	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	Acetone	--	U	U	64	100	µg/Kg-dry	1	05-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	Acetone	--	U	U	72	110	µg/Kg-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	Acetone	--	U	U	64	100	µg/Kg-dry	1	05-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	Benzene	--	U	U	19	48	µg/Kg-dry	1	23-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	Benzene	--	U	U	17	41	µg/Kg-dry	1	06-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	Benzene	--	U	U	13	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	Benzene	65	65	--	13	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	Benzene	--	U	U	12	30	µg/Kg-dry	1	06-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	Benzene	--	U	U	16	40	µg/Kg-dry	1	23-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	Benzene	--	U	U	14	35	µg/Kg-dry	1	23-Jul-12

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Region 4 Chemical	CAS	Screening Level (mg/Kg-dry)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/Kg-dry)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Soil Bore	Year
--	--	--	--	--	--	--	--	0	SB-1A	2013
--	--	--	--	--	--	--	--	0	SB-2	2012
--	--	--	--	--	--	--	--	0	SB-5	2012
--	--	--	--	--	--	--	--	0	SB-5C	2013
--	--	--	--	--	--	--	--	0	SB-6A	2012
--	--	--	--	--	--	--	--	0	SB-7	2012
--	--	--	--	--	--	--	--	0	SB-7E	2013
--	--	--	--	--	--	--	--	0	SB-8	2013
--	--	--	--	--	--	--	--	0	SB-9	2013
--	--	--	--	--	--	--	--	0	SB-1	2012
--	--	--	--	--	--	--	--	0	SB-10	2013
--	--	--	--	--	--	--	--	0	SB-11	2013
--	--	--	--	--	--	--	--	0	SB-12	2013
--	--	--	--	--	--	--	--	0	SB-1A	2013
--	--	--	--	--	--	--	--	0	SB-2	2012
--	--	--	--	--	--	--	--	0	SB-5	2012
--	--	--	--	--	--	--	--	0	SB-5C	2013
--	--	--	--	--	--	--	--	0	SB-6A	2012
--	--	--	--	--	--	--	--	0	SB-7	2012
--	--	--	--	--	--	--	--	0	SB-7E	2013
--	--	--	--	--	--	--	--	0	SB-8	2013
--	--	--	--	--	--	--	--	0	SB-9	2013
Acetone	67-64-1	1.2	c	M, A	1200	0.083333333	--	0	SB-1	2012
Acetone	67-64-1	1.2	c	M, A	1200	0.0725	--	0	SB-10	2013
Acetone	67-64-1	1.2	c	M, A	1200	0.0575	--	0	SB-11	2013
Acetone	67-64-1	1.2	c	M, A	1200	0.055833333	--	0	SB-12	2013
Acetone	67-64-1	1.2	c	M, A	1200	0.053333333	--	0	SB-1A	2013
Acetone	67-64-1	1.2	c	M, A	1200	0.070833333	--	0	SB-2	2012
Acetone	67-64-1	1.2	c	M, A	1200	0.061666667	--	0	SB-5	2012
Acetone	67-64-1	1.2	c	M, A	1200	0.053333333	--	0	SB-5C	2013
Acetone	67-64-1	1.2	c	M, A	1200	0.133333333	--	0	SB-6A	2012
Acetone	67-64-1	1.2	c	M, A	1200	0.066666667	--	0	SB-7	2012
Acetone	67-64-1	1.2	c	M, A	1200	0.053333333	--	0	SB-7E	2013
Acetone	67-64-1	1.2	c	M, A	1200	0.06	--	0	SB-8	2013
Acetone	67-64-1	1.2	c	M, A	1200	0.053333333	--	0	SB-9	2013
Benzene	71-43-2	0.12	d	All	120	0.158333333	--	0	SB-1	2012
Benzene	71-43-2	0.12	d	All	120	0.141666667	--	0	SB-10	2013
Benzene	71-43-2	0.12	d	All	120	0.108333333	--	0	SB-11	2013
Benzene	71-43-2	0.12	d	All	120	0.108333333	0.541667	1	SB-12	2013
Benzene	71-43-2	0.12	d	All	120	0.1	--	0	SB-1A	2013
Benzene	71-43-2	0.12	d	All	120	0.133333333	--	0	SB-2	2012
Benzene	71-43-2	0.12	d	All	120	0.116666667	--	0	SB-5	2012

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	Runits	Dilution Factor	AnalDate
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	Benzene	--	U	U	12	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	Benzene	--	U	U	30	75	µg/Kg-dry	1	24-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	Benzene	--	U	U	15	38	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	Benzene	--	U	U	12	30	µg/Kg-dry	1	05-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	Benzene	--	U	U	14	34	µg/Kg-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	Benzene	--	U	U	12	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	Bromodichloromethane	--	U	U	11	48	µg/Kg-dry	1	23-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	Bromodichloromethane	--	U	U	9.3	41	µg/Kg-dry	1	06-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	Bromodichloromethane	--	U	U	7.3	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	Bromodichloromethane	--	U	U	7.1	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	Bromodichloromethane	--	U	U	6.7	30	µg/Kg-dry	1	06-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	Bromodichloromethane	--	U	U	9	40	µg/Kg-dry	1	23-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	Bromodichloromethane	--	U	U	7.8	35	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	Bromodichloromethane	--	U	U	6.7	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	Bromodichloromethane	--	U	U	17	75	µg/Kg-dry	1	24-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	Bromodichloromethane	--	U	U	8.5	38	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	Bromodichloromethane	--	U	U	6.7	30	µg/Kg-dry	1	05-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	Bromodichloromethane	--	U	U	7.6	34	µg/Kg-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	Bromodichloromethane	--	U	U	6.7	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	Bromoform	--	U	U	9.4	48	µg/Kg-dry	1	23-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	Bromoform	--	U	U	8.1	41	µg/Kg-dry	1	06-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	Bromoform	--	U	U	6.4	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	Bromoform	--	U	U	6.2	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	Bromoform	--	U	U	5.9	30	µg/Kg-dry	1	06-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	Bromoform	--	U	U	7.9	40	µg/Kg-dry	1	23-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	Bromoform	--	U	U	6.9	35	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	Bromoform	--	U	U	5.9	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	Bromoform	--	U	U	15	75	µg/Kg-dry	1	24-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	Bromoform	--	U	U	7.4	38	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	Bromoform	--	U	U	5.9	30	µg/Kg-dry	1	05-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	Bromoform	--	U	U	6.7	34	µg/Kg-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	Bromoform	--	U	U	5.9	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	Bromomethane	--	U	U	18	120	µg/Kg-dry	1	23-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	Bromomethane	--	U	U	16	100	µg/Kg-dry	1	06-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	Bromomethane	--	U	U	12	81	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	Bromomethane	--	U	U	12	79	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	Bromomethane	--	U	U	11	75	µg/Kg-dry	1	06-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	Bromomethane	--	U	U	15	100	µg/Kg-dry	1	23-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	Bromomethane	--	U	U	13	87	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	Bromomethane	--	U	U	11	75	µg/Kg-dry	1	05-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	Bromomethane	--	U	U	29	190	µg/Kg-dry	1	24-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	Bromomethane	--	U	U	14	94	µg/Kg-dry	1	23-Jul-12

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Region 4 Chemical	CAS	Screening Level (mg/Kg-dry)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/Kg-dry)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Soil Bore	Year
Benzene	71-43-2	0.12	d	All	120	0.1	--	0	SB-5C	2013
Benzene	71-43-2	0.12	d	All	120	0.25	--	0	SB-6A	2012
Benzene	71-43-2	0.12	d	All	120	0.125	--	0	SB-7	2012
Benzene	71-43-2	0.12	d	All	120	0.1	--	0	SB-7E	2013
Benzene	71-43-2	0.12	d	All	120	0.116666667	--	0	SB-8	2013
Benzene	71-43-2	0.12	d	All	120	0.1	--	0	SB-9	2013
--	--	--	--	--	--	--	--	0	SB-1	2012
--	--	--	--	--	--	--	--	0	SB-10	2013
--	--	--	--	--	--	--	--	0	SB-11	2013
--	--	--	--	--	--	--	--	0	SB-12	2013
--	--	--	--	--	--	--	--	0	SB-1A	2013
--	--	--	--	--	--	--	--	0	SB-2	2012
--	--	--	--	--	--	--	--	0	SB-5	2012
--	--	--	--	--	--	--	--	0	SB-5C	2013
--	--	--	--	--	--	--	--	0	SB-6A	2012
--	--	--	--	--	--	--	--	0	SB-7	2012
--	--	--	--	--	--	--	--	0	SB-7E	2013
--	--	--	--	--	--	--	--	0	SB-8	2013
--	--	--	--	--	--	--	--	0	SB-9	2013
--	--	--	--	--	--	--	--	0	SB-1	2012
--	--	--	--	--	--	--	--	0	SB-10	2013
--	--	--	--	--	--	--	--	0	SB-11	2013
--	--	--	--	--	--	--	--	0	SB-12	2013
--	--	--	--	--	--	--	--	0	SB-1A	2013
--	--	--	--	--	--	--	--	0	SB-2	2012
--	--	--	--	--	--	--	--	0	SB-5	2012
--	--	--	--	--	--	--	--	0	SB-5C	2013
--	--	--	--	--	--	--	--	0	SB-6A	2012
--	--	--	--	--	--	--	--	0	SB-7	2012
--	--	--	--	--	--	--	--	0	SB-7E	2013
--	--	--	--	--	--	--	--	0	SB-8	2013
--	--	--	--	--	--	--	--	0	SB-9	2013
--	--	--	--	--	--	--	--	0	SB-1	2012
--	--	--	--	--	--	--	--	0	SB-10	2013
--	--	--	--	--	--	--	--	0	SB-11	2013
--	--	--	--	--	--	--	--	0	SB-12	2013
--	--	--	--	--	--	--	--	0	SB-1A	2013
--	--	--	--	--	--	--	--	0	SB-2	2012
--	--	--	--	--	--	--	--	0	SB-5	2012
--	--	--	--	--	--	--	--	0	SB-5C	2013
--	--	--	--	--	--	--	--	0	SB-6A	2012
--	--	--	--	--	--	--	--	0	SB-7	2012

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	Runits	Dilution Factor	AnalDate
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	Bromomethane	--	U	U	11	75	µg/Kg-dry	1	05-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	Bromomethane	--	U	U	13	85	µg/Kg-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	Bromomethane	--	U	U	11	75	µg/Kg-dry	1	05-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	Carbon disulfide	--	U	U	24	48	µg/Kg-dry	1	23-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	Carbon disulfide	--	U	U	20	41	µg/Kg-dry	1	06-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	Carbon disulfide	--	U	U	16	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	Carbon disulfide	--	U	U	16	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	Carbon disulfide	--	U	U	15	30	µg/Kg-dry	1	06-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	Carbon disulfide	--	U	U	20	40	µg/Kg-dry	1	23-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	Carbon disulfide	--	U	U	17	35	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	Carbon disulfide	--	U	U	15	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	Carbon disulfide	--	U	U	37	75	µg/Kg-dry	1	24-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	Carbon disulfide	--	U	U	19	38	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	Carbon disulfide	--	U	U	15	30	µg/Kg-dry	1	05-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	Carbon disulfide	--	U	U	17	34	µg/Kg-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	Carbon disulfide	--	U	U	15	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	Carbon tetrachloride	--	U	U	14	48	µg/Kg-dry	1	23-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	Carbon tetrachloride	--	U	U	12	41	µg/Kg-dry	1	06-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	Carbon tetrachloride	--	U	U	9.2	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	Carbon tetrachloride	--	U	U	9	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	Carbon tetrachloride	--	U	U	8.5	30	µg/Kg-dry	1	06-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	Carbon tetrachloride	--	U	U	11	40	µg/Kg-dry	1	23-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	Carbon tetrachloride	--	U	U	9.9	35	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	Carbon tetrachloride	--	U	U	8.5	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	Carbon tetrachloride	--	U	U	21	75	µg/Kg-dry	1	24-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	Carbon tetrachloride	--	U	U	11	38	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	Carbon tetrachloride	--	U	U	8.5	30	µg/Kg-dry	1	05-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	Carbon tetrachloride	--	U	U	9.6	34	µg/Kg-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	Carbon tetrachloride	--	U	U	8.5	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	Chlorobenzene	--	U	U	19	48	µg/Kg-dry	1	23-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	Chlorobenzene	--	U	U	17	41	µg/Kg-dry	1	06-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	Chlorobenzene	--	U	U	13	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	Chlorobenzene	--	U	U	13	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	Chlorobenzene	--	U	U	12	30	µg/Kg-dry	1	06-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	Chlorobenzene	--	U	U	16	40	µg/Kg-dry	1	23-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	Chlorobenzene	--	U	U	14	35	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	Chlorobenzene	--	U	U	12	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	Chlorobenzene	--	U	U	31	75	µg/Kg-dry	1	24-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	Chlorobenzene	--	U	U	15	38	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	Chlorobenzene	--	U	U	12	30	µg/Kg-dry	1	05-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	Chlorobenzene	--	U	U	14	34	µg/Kg-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	Chlorobenzene	--	U	U	12	30	µg/Kg-dry	1	05-Apr-13

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Region 4 Chemical	CAS	Screening Level (mg/Kg-dry)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/Kg-dry)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Soil Bore	Year
--	--	--	--	--	--	--	--	0	SB-7E	2013
--	--	--	--	--	--	--	--	0	SB-8	2013
--	--	--	--	--	--	--	--	0	SB-9	2013
Carbon Disulfide	75-15-0	0.005	d	All	5	4.8	--	0	SB-1	2012
Carbon Disulfide	75-15-0	0.005	d	All	5	4	--	0	SB-10	2013
Carbon Disulfide	75-15-0	0.005	d	All	5	3.2	--	0	SB-11	2013
Carbon Disulfide	75-15-0	0.005	d	All	5	3.2	--	0	SB-12	2013
Carbon Disulfide	75-15-0	0.005	d	All	5	3	--	0	SB-1A	2013
Carbon Disulfide	75-15-0	0.005	d	All	5	4	--	0	SB-2	2012
Carbon Disulfide	75-15-0	0.005	d	All	5	3.4	--	0	SB-5	2012
Carbon Disulfide	75-15-0	0.005	d	All	5	3	--	0	SB-5C	2013
Carbon Disulfide	75-15-0	0.005	d	All	5	7.4	--	0	SB-6A	2012
Carbon Disulfide	75-15-0	0.005	d	All	5	3.8	--	0	SB-7	2012
Carbon Disulfide	75-15-0	0.005	d	All	5	3	--	0	SB-7E	2013
Carbon Disulfide	75-15-0	0.005	d	All	5	3.4	--	0	SB-8	2013
Carbon Disulfide	75-15-0	0.005	d	All	5	3	--	0	SB-9	2013
--	--	--	--	--	--	--	--	0	SB-1	2012
--	--	--	--	--	--	--	--	0	SB-10	2013
--	--	--	--	--	--	--	--	0	SB-11	2013
--	--	--	--	--	--	--	--	0	SB-12	2013
--	--	--	--	--	--	--	--	0	SB-1A	2013
--	--	--	--	--	--	--	--	0	SB-2	2012
--	--	--	--	--	--	--	--	0	SB-5	2012
--	--	--	--	--	--	--	--	0	SB-5C	2013
--	--	--	--	--	--	--	--	0	SB-6A	2012
--	--	--	--	--	--	--	--	0	SB-7	2012
--	--	--	--	--	--	--	--	0	SB-7E	2013
--	--	--	--	--	--	--	--	0	SB-8	2013
--	--	--	--	--	--	--	--	0	SB-9	2013
Chlorobenzene	108-90-7	2.4	c	All	2400	0.007916667	--	0	SB-1	2012
Chlorobenzene	108-90-7	2.4	c	All	2400	0.007083333	--	0	SB-10	2013
Chlorobenzene	108-90-7	2.4	c	All	2400	0.005416667	--	0	SB-11	2013
Chlorobenzene	108-90-7	2.4	c	All	2400	0.005416667	--	0	SB-12	2013
Chlorobenzene	108-90-7	2.4	c	All	2400	0.005	--	0	SB-1A	2013
Chlorobenzene	108-90-7	2.4	c	All	2400	0.006666667	--	0	SB-2	2012
Chlorobenzene	108-90-7	2.4	c	All	2400	0.005833333	--	0	SB-5	2012
Chlorobenzene	108-90-7	2.4	c	All	2400	0.005	--	0	SB-5C	2013
Chlorobenzene	108-90-7	2.4	c	All	2400	0.012916667	--	0	SB-6A	2012
Chlorobenzene	108-90-7	2.4	c	All	2400	0.00625	--	0	SB-7	2012
Chlorobenzene	108-90-7	2.4	c	All	2400	0.005	--	0	SB-7E	2013
Chlorobenzene	108-90-7	2.4	c	All	2400	0.005833333	--	0	SB-8	2013
Chlorobenzene	108-90-7	2.4	c	All	2400	0.005	--	0	SB-9	2013

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	Runits	Dilution Factor	AnalDate
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	Chloroethane	--	U	U	100	160	µg/Kg-dry	1	23-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	Chloroethane	--	U	U	88	140	µg/Kg-dry	1	06-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	Chloroethane	--	U	U	69	110	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	Chloroethane	--	U	U	67	110	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	Chloroethane	--	U	U	64	100	µg/Kg-dry	1	06-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	Chloroethane	--	U	U	85	130	µg/Kg-dry	1	23-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	Chloroethane	--	U	U	74	120	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	Chloroethane	--	U	U	64	100	µg/Kg-dry	1	05-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	Chloroethane	--	U	U	160	250	µg/Kg-dry	1	24-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	Chloroethane	--	U	U	80	130	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	Chloroethane	--	U	U	64	100	µg/Kg-dry	1	05-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	Chloroethane	--	U	U	72	110	µg/Kg-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	Chloroethane	--	U	U	64	100	µg/Kg-dry	1	05-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	Chloroform	--	U	U	20	48	µg/Kg-dry	1	23-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	Chloroform	--	U	U	17	41	µg/Kg-dry	1	06-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	Chloroform	--	U	U	13	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	Chloroform	--	U	U	13	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	Chloroform	--	U	U	12	30	µg/Kg-dry	1	06-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	Chloroform	--	U	U	16	40	µg/Kg-dry	1	23-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	Chloroform	--	U	U	14	35	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	Chloroform	--	U	U	12	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	Chloroform	--	U	U	31	75	µg/Kg-dry	1	24-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	Chloroform	--	U	U	16	38	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	Chloroform	--	U	U	12	30	µg/Kg-dry	1	05-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	Chloroform	--	U	U	14	34	µg/Kg-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	Chloroform	--	U	U	12	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	Chloromethane	--	U	U	27	160	µg/Kg-dry	1	23-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	Chloromethane	--	U	U	23	140	µg/Kg-dry	1	06-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	Chloromethane	--	U	U	18	110	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	Chloromethane	--	U	U	18	110	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	Chloromethane	--	U	U	17	100	µg/Kg-dry	1	06-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	Chloromethane	--	U	U	22	130	µg/Kg-dry	1	23-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	Chloromethane	--	U	U	19	120	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	Chloromethane	--	U	U	17	100	µg/Kg-dry	1	05-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	Chloromethane	--	U	U	42	250	µg/Kg-dry	1	24-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	Chloromethane	--	U	U	21	130	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	Chloromethane	--	U	U	17	100	µg/Kg-dry	1	05-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	Chloromethane	--	U	U	19	110	µg/Kg-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	Chloromethane	--	U	U	17	100	µg/Kg-dry	1	05-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	cis-1,2-Dichloroethene	--	U	U	19	48	µg/Kg-dry	1	23-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	cis-1,2-Dichloroethene	--	U	U	17	41	µg/Kg-dry	1	06-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	cis-1,2-Dichloroethene	--	U	U	13	32	µg/Kg-dry	1	06-Apr-13

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Region 4 Chemical	CAS	Screening Level (mg/Kg-dry)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/Kg-dry)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Soil Bore	Year
--	--	--	--	--	--	--	--	0	SB-1	2012
--	--	--	--	--	--	--	--	0	SB-10	2013
--	--	--	--	--	--	--	--	0	SB-11	2013
--	--	--	--	--	--	--	--	0	SB-12	2013
--	--	--	--	--	--	--	--	0	SB-1A	2013
--	--	--	--	--	--	--	--	0	SB-2	2012
--	--	--	--	--	--	--	--	0	SB-5	2012
--	--	--	--	--	--	--	--	0	SB-5C	2013
--	--	--	--	--	--	--	--	0	SB-6A	2012
--	--	--	--	--	--	--	--	0	SB-7	2012
--	--	--	--	--	--	--	--	0	SB-7E	2013
--	--	--	--	--	--	--	--	0	SB-8	2013
--	--	--	--	--	--	--	--	0	SB-9	2013
--	--	--	--	--	--	--	--	0	SB-1	2012
--	--	--	--	--	--	--	--	0	SB-10	2013
--	--	--	--	--	--	--	--	0	SB-11	2013
--	--	--	--	--	--	--	--	0	SB-12	2013
--	--	--	--	--	--	--	--	0	SB-1A	2013
--	--	--	--	--	--	--	--	0	SB-2	2012
--	--	--	--	--	--	--	--	0	SB-5	2012
--	--	--	--	--	--	--	--	0	SB-5C	2013
--	--	--	--	--	--	--	--	0	SB-6A	2012
--	--	--	--	--	--	--	--	0	SB-7	2012
--	--	--	--	--	--	--	--	0	SB-7E	2013
--	--	--	--	--	--	--	--	0	SB-8	2013
--	--	--	--	--	--	--	--	0	SB-9	2013
Chloromethane	--	--	--	--	--	--	--	0	SB-1	2012
Chloromethane	--	--	--	--	--	--	--	0	SB-10	2013
Chloromethane	--	--	--	--	--	--	--	0	SB-11	2013
Chloromethane	--	--	--	--	--	--	--	0	SB-12	2013
Chloromethane	--	--	--	--	--	--	--	0	SB-1A	2013
Chloromethane	--	--	--	--	--	--	--	0	SB-2	2012
Chloromethane	--	--	--	--	--	--	--	0	SB-5	2012
Chloromethane	--	--	--	--	--	--	--	0	SB-5C	2013
Chloromethane	--	--	--	--	--	--	--	0	SB-6A	2012
Chloromethane	--	--	--	--	--	--	--	0	SB-7	2012
Chloromethane	--	--	--	--	--	--	--	0	SB-7E	2013
Chloromethane	--	--	--	--	--	--	--	0	SB-8	2013
Chloromethane	--	--	--	--	--	--	--	0	SB-9	2013
1,2-Dichloroethene (cis and trans)	540-59-0	0.04	d	All	40	0.475	--	0	SB-1	2012
1,2-Dichloroethene (cis and trans)	540-59-0	0.04	d	All	40	0.425	--	0	SB-10	2013
1,2-Dichloroethene (cis and trans)	540-59-0	0.04	d	All	40	0.325	--	0	SB-11	2013

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	Runits	Dilution Factor	AnalDate
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	cis-1,2-Dichloroethene	--	U	U	13	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	cis-1,2-Dichloroethene	--	U	U	12	30	µg/Kg-dry	1	06-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	cis-1,2-Dichloroethene	--	U	U	16	40	µg/Kg-dry	1	23-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	cis-1,2-Dichloroethene	--	U	U	14	35	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	cis-1,2-Dichloroethene	--	U	U	12	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	cis-1,2-Dichloroethene	--	U	U	30	75	µg/Kg-dry	1	24-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	cis-1,2-Dichloroethene	--	U	U	15	38	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	cis-1,2-Dichloroethene	--	U	U	12	30	µg/Kg-dry	1	05-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	cis-1,2-Dichloroethene	--	U	U	14	34	µg/Kg-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	cis-1,2-Dichloroethene	--	U	U	12	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	cis-1,3-Dichloropropene	--	U	U	16	48	µg/Kg-dry	1	23-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	cis-1,3-Dichloropropene	--	U	U	14	41	µg/Kg-dry	1	06-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	cis-1,3-Dichloropropene	--	U	U	11	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	cis-1,3-Dichloropropene	--	U	U	11	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	cis-1,3-Dichloropropene	--	U	U	10	30	µg/Kg-dry	1	06-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	cis-1,3-Dichloropropene	--	U	U	14	40	µg/Kg-dry	1	23-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	cis-1,3-Dichloropropene	--	U	U	12	35	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	cis-1,3-Dichloropropene	--	U	U	10	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	cis-1,3-Dichloropropene	--	U	U	26	75	µg/Kg-dry	1	24-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	cis-1,3-Dichloropropene	--	U	U	13	38	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	cis-1,3-Dichloropropene	--	U	U	10	30	µg/Kg-dry	1	05-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	cis-1,3-Dichloropropene	--	U	U	12	34	µg/Kg-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	cis-1,3-Dichloropropene	--	U	U	10	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	Cyclohexane	39	39	J	21	48	µg/Kg-dry	1	23-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	Cyclohexane	--	U	U	19	41	µg/Kg-dry	1	06-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	Cyclohexane	--	U	U	15	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	Cyclohexane	--	U	U	14	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	Cyclohexane	--	U	U	13	30	µg/Kg-dry	1	06-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	Cyclohexane	--	U	U	18	40	µg/Kg-dry	1	23-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	Cyclohexane	--	U	U	16	35	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	Cyclohexane	--	U	U	13	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	Cyclohexane	--	U	U	34	75	µg/Kg-dry	1	24-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	Cyclohexane	--	U	U	17	38	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	Cyclohexane	--	U	U	13	30	µg/Kg-dry	1	05-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	Cyclohexane	--	U	U	15	34	µg/Kg-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	Cyclohexane	--	U	U	13	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	Dibromochloromethane	--	U	U	8.8	48	µg/Kg-dry	1	23-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	Dibromochloromethane	--	U	U	7.6	41	µg/Kg-dry	1	06-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	Dibromochloromethane	--	U	U	6	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	Dibromochloromethane	--	U	U	5.9	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	Dibromochloromethane	--	U	U	5.6	30	µg/Kg-dry	1	06-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	Dibromochloromethane	--	U	U	7.4	40	µg/Kg-dry	1	23-Jul-12

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Region 4 Chemical	CAS	Screening Level (mg/Kg-dry)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/Kg-dry)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Soil Bore	Year
1,2-Dichloroethene (cis and trans)	540-59-0	0.04	d	All	40	0.325	--	0	SB-12	2013
1,2-Dichloroethene (cis and trans)	540-59-0	0.04	d	All	40	0.3	--	0	SB-1A	2013
1,2-Dichloroethene (cis and trans)	540-59-0	0.04	d	All	40	0.4	--	0	SB-2	2012
1,2-Dichloroethene (cis and trans)	540-59-0	0.04	d	All	40	0.35	--	0	SB-5	2012
1,2-Dichloroethene (cis and trans)	540-59-0	0.04	d	All	40	0.3	--	0	SB-5C	2013
1,2-Dichloroethene (cis and trans)	540-59-0	0.04	d	All	40	0.75	--	0	SB-6A	2012
1,2-Dichloroethene (cis and trans)	540-59-0	0.04	d	All	40	0.375	--	0	SB-7	2012
1,2-Dichloroethene (cis and trans)	540-59-0	0.04	d	All	40	0.3	--	0	SB-7E	2013
1,2-Dichloroethene (cis and trans)	540-59-0	0.04	d	All	40	0.35	--	0	SB-8	2013
1,2-Dichloroethene (cis and trans)	540-59-0	0.04	d	All	40	0.3	--	0	SB-9	2013
--	--	--	--	--	--	--	--	0	SB-1	2012
--	--	--	--	--	--	--	--	0	SB-10	2013
--	--	--	--	--	--	--	--	0	SB-11	2013
--	--	--	--	--	--	--	--	0	SB-12	2013
--	--	--	--	--	--	--	--	0	SB-1A	2013
--	--	--	--	--	--	--	--	0	SB-2	2012
--	--	--	--	--	--	--	--	0	SB-5	2012
--	--	--	--	--	--	--	--	0	SB-5C	2013
--	--	--	--	--	--	--	--	0	SB-6A	2012
--	--	--	--	--	--	--	--	0	SB-7	2012
--	--	--	--	--	--	--	--	0	SB-7E	2013
--	--	--	--	--	--	--	--	0	SB-8	2013
--	--	--	--	--	--	--	--	0	SB-9	2013
Cyclohexane	--	--	--	--	--	--	--	1	SB-1	2012
Cyclohexane	--	--	--	--	--	--	--	0	SB-10	2013
Cyclohexane	--	--	--	--	--	--	--	0	SB-11	2013
Cyclohexane	--	--	--	--	--	--	--	0	SB-12	2013
Cyclohexane	--	--	--	--	--	--	--	0	SB-1A	2013
Cyclohexane	--	--	--	--	--	--	--	0	SB-2	2012
Cyclohexane	--	--	--	--	--	--	--	0	SB-5	2012
Cyclohexane	--	--	--	--	--	--	--	0	SB-5C	2013
Cyclohexane	--	--	--	--	--	--	--	0	SB-6A	2012
Cyclohexane	--	--	--	--	--	--	--	0	SB-7	2012
Cyclohexane	--	--	--	--	--	--	--	0	SB-7E	2013
Cyclohexane	--	--	--	--	--	--	--	0	SB-8	2013
Cyclohexane	--	--	--	--	--	--	--	0	SB-9	2013
--	--	--	--	--	--	--	--	0	SB-1	2012
--	--	--	--	--	--	--	--	0	SB-10	2013
--	--	--	--	--	--	--	--	0	SB-11	2013
--	--	--	--	--	--	--	--	0	SB-12	2013
--	--	--	--	--	--	--	--	0	SB-1A	2013
--	--	--	--	--	--	--	--	0	SB-2	2012

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	Runits	Dilution Factor	AnalDate
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	Dibromochloromethane	--	U	U	6.4	35	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	Dibromochloromethane	--	U	U	5.6	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	Dibromochloromethane	--	U	U	14	75	µg/Kg-dry	1	24-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	Dibromochloromethane	--	U	U	7	38	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	Dibromochloromethane	--	U	U	5.6	30	µg/Kg-dry	1	05-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	Dibromochloromethane	--	U	U	6.3	34	µg/Kg-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	Dibromochloromethane	--	U	U	5.6	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	Dichlorodifluoromethane	--	U	U	22	48	µg/Kg-dry	1	23-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	Dichlorodifluoromethane	--	U	U	19	41	µg/Kg-dry	1	06-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	Dichlorodifluoromethane	--	U	U	15	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	Dichlorodifluoromethane	--	U	U	14	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	Dichlorodifluoromethane	--	U	U	14	30	µg/Kg-dry	1	06-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	Dichlorodifluoromethane	--	U	U	18	40	µg/Kg-dry	1	23-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	Dichlorodifluoromethane	--	U	U	16	35	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	Dichlorodifluoromethane	--	U	U	14	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	Dichlorodifluoromethane	--	U	U	34	75	µg/Kg-dry	1	24-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	Dichlorodifluoromethane	--	U	U	17	38	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	Dichlorodifluoromethane	--	U	U	14	30	µg/Kg-dry	1	05-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	Dichlorodifluoromethane	--	U	U	15	34	µg/Kg-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	Dichlorodifluoromethane	--	U	U	14	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	Ethylbenzene	63	63	--	18	48	µg/Kg-dry	1	23-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	Ethylbenzene	--	U	U	15	41	µg/Kg-dry	1	06-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	Ethylbenzene	--	U	U	12	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	Ethylbenzene	60	60	--	12	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	Ethylbenzene	--	U	U	11	30	µg/Kg-dry	1	06-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	Ethylbenzene	--	U	U	15	40	µg/Kg-dry	1	23-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	Ethylbenzene	--	U	U	13	35	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	Ethylbenzene	--	U	U	11	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	Ethylbenzene	61	61	J	28	75	µg/Kg-dry	1	24-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	Ethylbenzene	17	17	J	14	38	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	Ethylbenzene	--	U	U	11	30	µg/Kg-dry	1	05-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	Ethylbenzene	--	U	U	13	34	µg/Kg-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	Ethylbenzene	--	U	U	11	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	Isopropylbenzene	--	U	U	21	48	µg/Kg-dry	1	23-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	Isopropylbenzene	--	U	U	18	41	µg/Kg-dry	1	06-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	Isopropylbenzene	--	U	U	14	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	Isopropylbenzene	--	U	U	14	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	Isopropylbenzene	--	U	U	13	30	µg/Kg-dry	1	06-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	Isopropylbenzene	--	U	U	17	40	µg/Kg-dry	1	23-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	Isopropylbenzene	--	U	U	15	35	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	Isopropylbenzene	--	U	U	13	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	Isopropylbenzene	--	U	U	32	75	µg/Kg-dry	1	24-Jul-12

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Region 4 Chemical	CAS	Screening Level (mg/Kg-dry)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/Kg-dry)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Soil Bore	Year
--	--	--	--	--	--	--	--	0	SB-5	2012
--	--	--	--	--	--	--	--	0	SB-5C	2013
--	--	--	--	--	--	--	--	0	SB-6A	2012
--	--	--	--	--	--	--	--	0	SB-7	2012
--	--	--	--	--	--	--	--	0	SB-7E	2013
--	--	--	--	--	--	--	--	0	SB-8	2013
--	--	--	--	--	--	--	--	0	SB-9	2013
--	--	--	--	--	--	--	--	0	SB-1	2012
--	--	--	--	--	--	--	--	0	SB-10	2013
--	--	--	--	--	--	--	--	0	SB-11	2013
--	--	--	--	--	--	--	--	0	SB-12	2013
--	--	--	--	--	--	--	--	0	SB-1A	2013
--	--	--	--	--	--	--	--	0	SB-2	2012
--	--	--	--	--	--	--	--	0	SB-5	2012
--	--	--	--	--	--	--	--	0	SB-5C	2013
--	--	--	--	--	--	--	--	0	SB-6A	2012
--	--	--	--	--	--	--	--	0	SB-7	2012
--	--	--	--	--	--	--	--	0	SB-7E	2013
--	--	--	--	--	--	--	--	0	SB-8	2013
--	--	--	--	--	--	--	--	0	SB-9	2013
Ethylbenzene	100-41-4	0.27	d	All	270	0.066666667	0.233333	1	SB-1	2012
Ethylbenzene	100-41-4	0.27	d	All	270	0.055555556	--	0	SB-10	2013
Ethylbenzene	100-41-4	0.27	d	All	270	0.044444444	--	0	SB-11	2013
Ethylbenzene	100-41-4	0.27	d	All	270	0.044444444	0.222222	1	SB-12	2013
Ethylbenzene	100-41-4	0.27	d	All	270	0.040740741	--	0	SB-1A	2013
Ethylbenzene	100-41-4	0.27	d	All	270	0.055555556	--	0	SB-2	2012
Ethylbenzene	100-41-4	0.27	d	All	270	0.048148148	--	0	SB-5	2012
Ethylbenzene	100-41-4	0.27	d	All	270	0.040740741	--	0	SB-5C	2013
Ethylbenzene	100-41-4	0.27	d	All	270	0.103703704	0.225926	1	SB-6A	2012
Ethylbenzene	100-41-4	0.27	d	All	270	0.051851852	0.062963	1	SB-7	2012
Ethylbenzene	100-41-4	0.27	d	All	270	0.040740741	--	0	SB-7E	2013
Ethylbenzene	100-41-4	0.27	d	All	270	0.048148148	--	0	SB-8	2013
Ethylbenzene	100-41-4	0.27	d	All	270	0.040740741	--	0	SB-9	2013
Isopropylbenzene (Cumene)	98-82-8	0.04	d	All	40	0.525	--	0	SB-1	2012
Isopropylbenzene (Cumene)	98-82-8	0.04	d	All	40	0.45	--	0	SB-10	2013
Isopropylbenzene (Cumene)	98-82-8	0.04	d	All	40	0.35	--	0	SB-11	2013
Isopropylbenzene (Cumene)	98-82-8	0.04	d	All	40	0.35	--	0	SB-12	2013
Isopropylbenzene (Cumene)	98-82-8	0.04	d	All	40	0.325	--	0	SB-1A	2013
Isopropylbenzene (Cumene)	98-82-8	0.04	d	All	40	0.425	--	0	SB-2	2012
Isopropylbenzene (Cumene)	98-82-8	0.04	d	All	40	0.375	--	0	SB-5	2012
Isopropylbenzene (Cumene)	98-82-8	0.04	d	All	40	0.325	--	0	SB-5C	2013
Isopropylbenzene (Cumene)	98-82-8	0.04	d	All	40	0.8	--	0	SB-6A	2012

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	Runits	Dilution Factor	AnalDate
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	Isopropylbenzene	--	U	U	16	38	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	Isopropylbenzene	--	U	U	13	30	µg/Kg-dry	1	05-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	Isopropylbenzene	--	U	U	15	34	µg/Kg-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	Isopropylbenzene	--	U	U	13	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	Methyl acetate	--	U	U	64	320	µg/Kg-dry	1	23-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	Methyl acetate	130	130	J	55	280	µg/Kg-dry	1	06-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	Methyl acetate	--	U	U	43	220	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	Methyl acetate	110	110	J	43	210	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	Methyl acetate	--	U	U	40	200	µg/Kg-dry	1	06-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	Methyl acetate	--	U	U	54	270	µg/Kg-dry	1	23-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	Methyl acetate	--	U	U	47	230	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	Methyl acetate	--	U	U	40	200	µg/Kg-dry	1	05-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	Methyl acetate	--	U	U	100	500	µg/Kg-dry	1	24-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	Methyl acetate	--	U	U	51	250	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	Methyl acetate	--	U	U	40	200	µg/Kg-dry	1	05-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	Methyl acetate	510	510	--	45	230	µg/Kg-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	Methyl acetate	--	U	U	40	200	µg/Kg-dry	1	05-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	Methyl tert-butyl ether	--	U	U	20	48	µg/Kg-dry	1	23-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	Methyl tert-butyl ether	--	U	U	17	41	µg/Kg-dry	1	06-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	Methyl tert-butyl ether	--	U	U	14	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	Methyl tert-butyl ether	--	U	U	13	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	Methyl tert-butyl ether	--	U	U	13	30	µg/Kg-dry	1	06-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	Methyl tert-butyl ether	--	U	U	17	40	µg/Kg-dry	1	23-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	Methyl tert-butyl ether	--	U	U	15	35	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	Methyl tert-butyl ether	--	U	U	13	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	Methyl tert-butyl ether	--	U	U	32	75	µg/Kg-dry	1	24-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	Methyl tert-butyl ether	--	U	U	16	38	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	Methyl tert-butyl ether	--	U	U	13	30	µg/Kg-dry	1	05-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	Methyl tert-butyl ether	--	U	U	14	34	µg/Kg-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	Methyl tert-butyl ether	--	U	U	13	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	Methylcyclohexane	120	120	--	22	48	µg/Kg-dry	1	23-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	Methylcyclohexane	--	U	U	19	41	µg/Kg-dry	1	06-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	Methylcyclohexane	130	130	--	15	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	Methylcyclohexane	--	U	U	15	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	Methylcyclohexane	--	U	U	14	30	µg/Kg-dry	1	06-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	Methylcyclohexane	--	U	U	19	40	µg/Kg-dry	1	23-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	Methylcyclohexane	260	260	--	16	35	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	Methylcyclohexane	--	U	U	14	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	Methylcyclohexane	--	U	U	35	75	µg/Kg-dry	1	24-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	Methylcyclohexane	--	U	U	17	38	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	Methylcyclohexane	--	U	U	14	30	µg/Kg-dry	1	05-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	Methylcyclohexane	--	U	U	16	34	µg/Kg-dry	1	11-Apr-13

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Region 4 Chemical	CAS	Screening Level (mg/Kg-dry)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/Kg-dry)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Soil Bore	Year
Isopropylbenzene (Cumene)	98-82-8	0.04	d	All	40	0.4	--	0	SB-7	2012
Isopropylbenzene (Cumene)	98-82-8	0.04	d	All	40	0.325	--	0	SB-7E	2013
Isopropylbenzene (Cumene)	98-82-8	0.04	d	All	40	0.375	--	0	SB-8	2013
Isopropylbenzene (Cumene)	98-82-8	0.04	d	All	40	0.325	--	0	SB-9	2013
Methyl Acetate	--	--	--	--	--	--	--	0	SB-1	2012
Methyl Acetate	--	--	--	--	--	--	--	1	SB-10	2013
Methyl Acetate	--	--	--	--	--	--	--	0	SB-11	2013
Methyl Acetate	--	--	--	--	--	--	--	1	SB-12	2013
Methyl Acetate	--	--	--	--	--	--	--	0	SB-1A	2013
Methyl Acetate	--	--	--	--	--	--	--	0	SB-2	2012
Methyl Acetate	--	--	--	--	--	--	--	0	SB-5	2012
Methyl Acetate	--	--	--	--	--	--	--	0	SB-5C	2013
Methyl Acetate	--	--	--	--	--	--	--	0	SB-6A	2012
Methyl Acetate	--	--	--	--	--	--	--	0	SB-7	2012
Methyl Acetate	--	--	--	--	--	--	--	0	SB-7E	2013
Methyl Acetate	--	--	--	--	--	--	--	1	SB-8	2013
Methyl Acetate	--	--	--	--	--	--	--	0	SB-9	2013
--	--	--	--	--	--	--	--	0	SB-1	2012
--	--	--	--	--	--	--	--	0	SB-10	2013
--	--	--	--	--	--	--	--	0	SB-11	2013
--	--	--	--	--	--	--	--	0	SB-12	2013
--	--	--	--	--	--	--	--	0	SB-1A	2013
--	--	--	--	--	--	--	--	0	SB-2	2012
--	--	--	--	--	--	--	--	0	SB-5	2012
--	--	--	--	--	--	--	--	0	SB-5C	2013
--	--	--	--	--	--	--	--	0	SB-6A	2012
--	--	--	--	--	--	--	--	0	SB-7	2012
--	--	--	--	--	--	--	--	0	SB-7E	2013
--	--	--	--	--	--	--	--	0	SB-8	2013
--	--	--	--	--	--	--	--	0	SB-9	2013
Methylcyclohexane	--	--	--	--	--	--	--	1	SB-1	2012
Methylcyclohexane	--	--	--	--	--	--	--	0	SB-10	2013
Methylcyclohexane	--	--	--	--	--	--	--	1	SB-11	2013
Methylcyclohexane	--	--	--	--	--	--	--	0	SB-12	2013
Methylcyclohexane	--	--	--	--	--	--	--	0	SB-1A	2013
Methylcyclohexane	--	--	--	--	--	--	--	0	SB-2	2012
Methylcyclohexane	--	--	--	--	--	--	--	1	SB-5	2012
Methylcyclohexane	--	--	--	--	--	--	--	0	SB-5C	2013
Methylcyclohexane	--	--	--	--	--	--	--	0	SB-6A	2012
Methylcyclohexane	--	--	--	--	--	--	--	0	SB-7	2012
Methylcyclohexane	--	--	--	--	--	--	--	0	SB-7E	2013
Methylcyclohexane	--	--	--	--	--	--	--	0	SB-8	2013

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	Runits	Dilution Factor	AnalDate
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	Methylcyclohexane	--	U	U	14	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	Methylene chloride	--	U	U	19	48	µg/Kg-dry	1	23-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	Methylene chloride	--	U	U	16	41	µg/Kg-dry	1	06-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	Methylene chloride	--	U	U	13	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	Methylene chloride	--	U	U	12	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	Methylene chloride	--	U	U	12	30	µg/Kg-dry	1	06-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	Methylene chloride	--	U	U	16	40	µg/Kg-dry	1	23-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	Methylene chloride	--	U	U	14	35	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	Methylene chloride	--	U	U	12	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	Methylene chloride	--	U	U	29	75	µg/Kg-dry	1	24-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	Methylene chloride	--	U	U	15	38	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	Methylene chloride	--	U	U	12	30	µg/Kg-dry	1	05-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	Methylene chloride	--	U	U	13	34	µg/Kg-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	Methylene chloride	--	U	U	12	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	Styrene	--	U	U	18	48	µg/Kg-dry	1	23-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	Styrene	--	U	U	15	41	µg/Kg-dry	1	06-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	Styrene	--	U	U	12	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	Styrene	--	U	U	12	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	Styrene	--	U	U	11	30	µg/Kg-dry	1	06-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	Styrene	--	U	U	15	40	µg/Kg-dry	1	23-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	Styrene	--	U	U	13	35	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	Styrene	--	U	U	11	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	Styrene	--	U	U	28	75	µg/Kg-dry	1	24-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	Styrene	--	U	U	14	38	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	Styrene	--	U	U	11	30	µg/Kg-dry	1	05-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	Styrene	--	U	U	13	34	µg/Kg-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	Styrene	--	U	U	11	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	Tetrachloroethene	--	U	U	21	48	µg/Kg-dry	1	23-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	Tetrachloroethene	--	U	U	18	41	µg/Kg-dry	1	06-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	Tetrachloroethene	--	U	U	14	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	Tetrachloroethene	--	U	U	14	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	Tetrachloroethene	--	U	U	13	30	µg/Kg-dry	1	06-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	Tetrachloroethene	--	U	U	18	40	µg/Kg-dry	1	23-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	Tetrachloroethene	--	U	U	15	35	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	Tetrachloroethene	--	U	U	13	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	Tetrachloroethene	--	U	U	33	75	µg/Kg-dry	1	24-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	Tetrachloroethene	--	U	U	17	38	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	Tetrachloroethene	--	U	U	13	30	µg/Kg-dry	1	05-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	Tetrachloroethene	--	U	U	15	34	µg/Kg-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	Tetrachloroethene	--	U	U	13	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	Toluene	73	73	--	18	48	µg/Kg-dry	1	23-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	Toluene	--	U	U	15	41	µg/Kg-dry	1	06-Apr-13

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Region 4 Chemical	CAS	Screening Level (mg/Kg-dry)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/Kg-dry)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Soil Bore	Year
Methylcyclohexane	--	--	--	--	--	--	--	0	SB-9	2013
Dichloromethane (Methylene chloride)	75-09-2	0.21	d	All	210	0.09047619	--	0	SB-1	2012
Dichloromethane (Methylene chloride)	75-09-2	0.21	d	All	210	0.076190476	--	0	SB-10	2013
Dichloromethane (Methylene chloride)	75-09-2	0.21	d	All	210	0.061904762	--	0	SB-11	2013
Dichloromethane (Methylene chloride)	75-09-2	0.21	d	All	210	0.057142857	--	0	SB-12	2013
Dichloromethane (Methylene chloride)	75-09-2	0.21	d	All	210	0.057142857	--	0	SB-1A	2013
Dichloromethane (Methylene chloride)	75-09-2	0.21	d	All	210	0.076190476	--	0	SB-2	2012
Dichloromethane (Methylene chloride)	75-09-2	0.21	d	All	210	0.066666667	--	0	SB-5	2012
Dichloromethane (Methylene chloride)	75-09-2	0.21	d	All	210	0.057142857	--	0	SB-5C	2013
Dichloromethane (Methylene chloride)	75-09-2	0.21	d	All	210	0.138095238	--	0	SB-6A	2012
Dichloromethane (Methylene chloride)	75-09-2	0.21	d	All	210	0.071428571	--	0	SB-7	2012
Dichloromethane (Methylene chloride)	75-09-2	0.21	d	All	210	0.057142857	--	0	SB-7E	2013
Dichloromethane (Methylene chloride)	75-09-2	0.21	d	All	210	0.061904762	--	0	SB-8	2013
Dichloromethane (Methylene chloride)	75-09-2	0.21	d	All	210	0.057142857	--	0	SB-9	2013
--	--	--	--	--	--	--	--	0	SB-1	2012
--	--	--	--	--	--	--	--	0	SB-10	2013
--	--	--	--	--	--	--	--	0	SB-11	2013
--	--	--	--	--	--	--	--	0	SB-12	2013
--	--	--	--	--	--	--	--	0	SB-1A	2013
--	--	--	--	--	--	--	--	0	SB-2	2012
--	--	--	--	--	--	--	--	0	SB-5	2012
--	--	--	--	--	--	--	--	0	SB-5C	2013
--	--	--	--	--	--	--	--	0	SB-6A	2012
--	--	--	--	--	--	--	--	0	SB-7	2012
--	--	--	--	--	--	--	--	0	SB-7E	2013
--	--	--	--	--	--	--	--	0	SB-8	2013
--	--	--	--	--	--	--	--	0	SB-9	2013
Tetrachloroethene	127-18-4	0.06	d	All	60	0.35	--	0	SB-1	2012
Tetrachloroethene	127-18-4	0.06	d	All	60	0.3	--	0	SB-10	2013
Tetrachloroethene	127-18-4	0.06	d	All	60	0.233333333	--	0	SB-11	2013
Tetrachloroethene	127-18-4	0.06	d	All	60	0.233333333	--	0	SB-12	2013
Tetrachloroethene	127-18-4	0.06	d	All	60	0.216666667	--	0	SB-1A	2013
Tetrachloroethene	127-18-4	0.06	d	All	60	0.3	--	0	SB-2	2012
Tetrachloroethene	127-18-4	0.06	d	All	60	0.25	--	0	SB-5	2012
Tetrachloroethene	127-18-4	0.06	d	All	60	0.216666667	--	0	SB-5C	2013
Tetrachloroethene	127-18-4	0.06	d	All	60	0.55	--	0	SB-6A	2012
Tetrachloroethene	127-18-4	0.06	d	All	60	0.283333333	--	0	SB-7	2012
Tetrachloroethene	127-18-4	0.06	d	All	60	0.216666667	--	0	SB-7E	2013
Tetrachloroethene	127-18-4	0.06	d	All	60	0.25	--	0	SB-8	2013
Tetrachloroethene	127-18-4	0.06	d	All	60	0.216666667	--	0	SB-9	2013
Toluene	108-88-3	0.15	d	All	150	0.12	0.486667	1	SB-1	2012
Toluene	108-88-3	0.15	d	All	150	0.1	--	0	SB-10	2013

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	Runits	Dilution Factor	AnalDate
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	Toluene	--	U	U	12	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	Toluene	270	270	--	12	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	Toluene	--	U	U	11	30	µg/Kg-dry	1	06-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	Toluene	--	U	U	15	40	µg/Kg-dry	1	23-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	Toluene	32	32	J	13	35	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	Toluene	--	U	U	11	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	Toluene	390	390	--	28	75	µg/Kg-dry	1	24-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	Toluene	22	22	J	14	38	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	Toluene	--	U	U	11	30	µg/Kg-dry	1	05-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	Toluene	--	U	U	13	34	µg/Kg-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	Toluene	--	U	U	11	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	trans-1,2-Dichloroethene	--	U	U	15	48	µg/Kg-dry	1	23-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	trans-1,2-Dichloroethene	--	U	U	13	41	µg/Kg-dry	1	06-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	trans-1,2-Dichloroethene	--	U	U	10	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	trans-1,2-Dichloroethene	--	U	U	9.8	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	trans-1,2-Dichloroethene	--	U	U	9.2	30	µg/Kg-dry	1	06-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	trans-1,2-Dichloroethene	--	U	U	12	40	µg/Kg-dry	1	23-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	trans-1,2-Dichloroethene	--	U	U	11	35	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	trans-1,2-Dichloroethene	--	U	U	9.2	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	trans-1,2-Dichloroethene	--	U	U	23	75	µg/Kg-dry	1	24-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	trans-1,2-Dichloroethene	--	U	U	12	38	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	trans-1,2-Dichloroethene	--	U	U	9.2	30	µg/Kg-dry	1	05-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	trans-1,2-Dichloroethene	--	U	U	10	34	µg/Kg-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	trans-1,2-Dichloroethene	--	U	U	9.2	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	trans-1,3-Dichloropropene	--	U	U	16	48	µg/Kg-dry	1	23-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	trans-1,3-Dichloropropene	--	U	U	14	41	µg/Kg-dry	1	06-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	trans-1,3-Dichloropropene	--	U	U	11	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	trans-1,3-Dichloropropene	--	U	U	11	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	trans-1,3-Dichloropropene	--	U	U	10	30	µg/Kg-dry	1	06-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	trans-1,3-Dichloropropene	--	U	U	13	40	µg/Kg-dry	1	23-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	trans-1,3-Dichloropropene	--	U	U	12	35	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	trans-1,3-Dichloropropene	--	U	U	10	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	trans-1,3-Dichloropropene	--	U	U	25	75	µg/Kg-dry	1	24-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	trans-1,3-Dichloropropene	--	U	U	13	38	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	trans-1,3-Dichloropropene	--	U	U	10	30	µg/Kg-dry	1	05-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	trans-1,3-Dichloropropene	--	U	U	11	34	µg/Kg-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	trans-1,3-Dichloropropene	--	U	U	10	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	Trichloroethene	--	U	U	22	48	µg/Kg-dry	1	23-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	Trichloroethene	--	U	U	19	41	µg/Kg-dry	1	06-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	Trichloroethene	--	U	U	15	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	Trichloroethene	--	U	U	15	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	Trichloroethene	--	U	U	14	30	µg/Kg-dry	1	06-Apr-13

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Region 4 Chemical	CAS	Screening Level (mg/Kg-dry)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/Kg-dry)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Soil Bore	Year
Toluene	108-88-3	0.15	d	All	150	0.08	--	0	SB-11	2013
Toluene	108-88-3	0.15	d	All	150	0.08	1.8	1	SB-12	2013
Toluene	108-88-3	0.15	d	All	150	0.073333333	--	0	SB-1A	2013
Toluene	108-88-3	0.15	d	All	150	0.1	#VALUE!	0	SB-2	2012
Toluene	108-88-3	0.15	d	All	150	0.086666667	0.213333	1	SB-5	2012
Toluene	108-88-3	0.15	d	All	150	0.073333333	--	0	SB-5C	2013
Toluene	108-88-3	0.15	d	All	150	0.186666667	2.6	1	SB-6A	2012
Toluene	108-88-3	0.15	d	All	150	0.093333333	0.146667	1	SB-7	2012
Toluene	108-88-3	0.15	d	All	150	0.073333333	--	0	SB-7E	2013
Toluene	108-88-3	0.15	d	All	150	0.086666667	--	0	SB-8	2013
Toluene	108-88-3	0.15	d	All	150	0.073333333	--	0	SB-9	2013
--	--	--	--	--	--	--	--	0	SB-1	2012
--	--	--	--	--	--	--	--	0	SB-10	2013
--	--	--	--	--	--	--	--	0	SB-11	2013
--	--	--	--	--	--	--	--	0	SB-12	2013
--	--	--	--	--	--	--	--	0	SB-1A	2013
--	--	--	--	--	--	--	--	0	SB-2	2012
--	--	--	--	--	--	--	--	0	SB-5	2012
--	--	--	--	--	--	--	--	0	SB-5C	2013
--	--	--	--	--	--	--	--	0	SB-6A	2012
--	--	--	--	--	--	--	--	0	SB-7	2012
--	--	--	--	--	--	--	--	0	SB-7E	2013
--	--	--	--	--	--	--	--	0	SB-8	2013
--	--	--	--	--	--	--	--	0	SB-9	2013
--	--	--	--	--	--	--	--	0	SB-1	2012
--	--	--	--	--	--	--	--	0	SB-10	2013
--	--	--	--	--	--	--	--	0	SB-11	2013
--	--	--	--	--	--	--	--	0	SB-12	2013
--	--	--	--	--	--	--	--	0	SB-1A	2013
--	--	--	--	--	--	--	--	0	SB-2	2012
--	--	--	--	--	--	--	--	0	SB-5	2012
--	--	--	--	--	--	--	--	0	SB-5C	2013
--	--	--	--	--	--	--	--	0	SB-6A	2012
--	--	--	--	--	--	--	--	0	SB-7	2012
--	--	--	--	--	--	--	--	0	SB-7E	2013
--	--	--	--	--	--	--	--	0	SB-8	2013
--	--	--	--	--	--	--	--	0	SB-9	2013
--	--	--	--	--	--	--	--	0	SB-1	2012
--	--	--	--	--	--	--	--	0	SB-10	2013
--	--	--	--	--	--	--	--	0	SB-11	2013
--	--	--	--	--	--	--	--	0	SB-12	2013
--	--	--	--	--	--	--	--	0	SB-1A	2013

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	Runits	Dilution Factor	AnalDate
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	Trichloroethene	--	U	U	19	40	µg/Kg-dry	1	23-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	Trichloroethene	--	U	U	16	35	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	Trichloroethene	--	U	U	14	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	Trichloroethene	--	U	U	35	75	µg/Kg-dry	1	24-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	Trichloroethene	--	U	U	18	38	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	Trichloroethene	--	U	U	14	30	µg/Kg-dry	1	05-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	Trichloroethene	--	U	U	16	34	µg/Kg-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	Trichloroethene	--	U	U	14	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	Trichlorofluoromethane	--	U	U	13	48	µg/Kg-dry	1	23-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	Trichlorofluoromethane	--	U	U	11	41	µg/Kg-dry	1	06-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	Trichlorofluoromethane	--	U	U	8.9	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	Trichlorofluoromethane	--	U	U	8.7	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	Trichlorofluoromethane	--	U	U	8.3	30	µg/Kg-dry	1	06-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	Trichlorofluoromethane	--	U	U	11	40	µg/Kg-dry	1	23-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	Trichlorofluoromethane	--	U	U	9.6	35	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	Trichlorofluoromethane	--	U	U	8.3	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	Trichlorofluoromethane	--	U	U	21	75	µg/Kg-dry	1	24-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	Trichlorofluoromethane	--	U	U	10	38	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	Trichlorofluoromethane	--	U	U	8.3	30	µg/Kg-dry	1	05-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	Trichlorofluoromethane	--	U	U	9.3	34	µg/Kg-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	Trichlorofluoromethane	--	U	U	8.3	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	Vinyl chloride	--	U	U	21	48	µg/Kg-dry	1	23-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	Vinyl chloride	--	U	U	19	41	µg/Kg-dry	1	06-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	Vinyl chloride	--	U	U	15	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	Vinyl chloride	--	U	U	14	32	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	Vinyl chloride	--	U	U	14	30	µg/Kg-dry	1	06-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	Vinyl chloride	--	U	U	18	40	µg/Kg-dry	1	23-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	Vinyl chloride	--	U	U	16	35	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	Vinyl chloride	--	U	U	14	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	Vinyl chloride	--	U	U	34	75	µg/Kg-dry	1	24-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	Vinyl chloride	--	U	U	17	38	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	Vinyl chloride	--	U	U	14	30	µg/Kg-dry	1	05-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	Vinyl chloride	--	U	U	15	34	µg/Kg-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	Vinyl chloride	--	U	U	14	30	µg/Kg-dry	1	05-Apr-13
S-R2330004-071212-MF-006	1207530-06	12-Jul-12	Soil	Volatile Organic Compounds	Xylenes, Total	250	250	--	56	140	µg/Kg-dry	1	23-Jul-12
S-R2330009-032513-MJF-014	1304246-14	25-Mar-13	Soil	Volatile Organic Compounds	Xylenes, Total	--	U	U	49	120	µg/Kg-dry	1	06-Apr-13
S-R2330009-032613-MJF-016	1304246-16	26-Mar-13	Soil	Volatile Organic Compounds	Xylenes, Total	90	90	J	38	97	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-018	1304246-18	25-Mar-13	Soil	Volatile Organic Compounds	Xylenes, Total	300	300	--	37	95	µg/Kg-dry	1	06-Apr-13
S-R2330009-032513-MJF-001	1304246-01	25-Mar-13	Soil	Volatile Organic Compounds	Xylenes, Total	--	U	U	35	90	µg/Kg-dry	1	06-Apr-13
S-R2330004-071212-MF-010	1207530-10	12-Jul-12	Soil	Volatile Organic Compounds	Xylenes, Total	--	U	U	47	120	µg/Kg-dry	1	23-Jul-12
S-R2330004-071112-MF-001	1207530-01	11-Jul-12	Soil	Volatile Organic Compounds	Xylenes, Total	210	210	--	41	100	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-005	1304246-05	02-Apr-13	Soil	Volatile Organic Compounds	Xylenes, Total	--	U	U	35	90	µg/Kg-dry	1	05-Apr-13

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Region 4 Chemical	CAS	Screening Level (mg/Kg-dry)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/Kg-dry)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Soil Bore	Year
--	--	--	--	--	--	--	--	0	SB-2	2012
--	--	--	--	--	--	--	--	0	SB-5	2012
--	--	--	--	--	--	--	--	0	SB-5C	2013
--	--	--	--	--	--	--	--	0	SB-6A	2012
--	--	--	--	--	--	--	--	0	SB-7	2012
--	--	--	--	--	--	--	--	0	SB-7E	2013
--	--	--	--	--	--	--	--	0	SB-8	2013
--	--	--	--	--	--	--	--	0	SB-9	2013
--	--	--	--	--	--	--	--	0	SB-1	2012
--	--	--	--	--	--	--	--	0	SB-10	2013
--	--	--	--	--	--	--	--	0	SB-11	2013
--	--	--	--	--	--	--	--	0	SB-12	2013
--	--	--	--	--	--	--	--	0	SB-1A	2013
--	--	--	--	--	--	--	--	0	SB-2	2012
--	--	--	--	--	--	--	--	0	SB-5	2012
--	--	--	--	--	--	--	--	0	SB-5C	2013
--	--	--	--	--	--	--	--	0	SB-6A	2012
--	--	--	--	--	--	--	--	0	SB-7	2012
--	--	--	--	--	--	--	--	0	SB-7E	2013
--	--	--	--	--	--	--	--	0	SB-8	2013
--	--	--	--	--	--	--	--	0	SB-9	2013
--	--	--	--	--	--	--	--	0	SB-1	2012
--	--	--	--	--	--	--	--	0	SB-10	2013
--	--	--	--	--	--	--	--	0	SB-11	2013
--	--	--	--	--	--	--	--	0	SB-12	2013
--	--	--	--	--	--	--	--	0	SB-1A	2013
--	--	--	--	--	--	--	--	0	SB-2	2012
--	--	--	--	--	--	--	--	0	SB-5	2012
--	--	--	--	--	--	--	--	0	SB-5C	2013
--	--	--	--	--	--	--	--	0	SB-6A	2012
--	--	--	--	--	--	--	--	0	SB-7	2012
--	--	--	--	--	--	--	--	0	SB-7E	2013
--	--	--	--	--	--	--	--	0	SB-8	2013
--	--	--	--	--	--	--	--	0	SB-9	2013
Xylenes (total)	1330-20-7	0.1	d	All	100	0.56	2.5	1	SB-1	2012
Xylenes (total)	1330-20-7	0.1	d	All	100	0.49	--	0	SB-10	2013
Xylenes (total)	1330-20-7	0.1	d	All	100	0.38	0.9	1	SB-11	2013
Xylenes (total)	1330-20-7	0.1	d	All	100	0.37	3	1	SB-12	2013
Xylenes (total)	1330-20-7	0.1	d	All	100	0.35	--	0	SB-1A	2013
Xylenes (total)	1330-20-7	0.1	d	All	100	0.47	--	0	SB-2	2012
Xylenes (total)	1330-20-7	0.1	d	All	100	0.41	2.1	1	SB-5	2012
Xylenes (total)	1330-20-7	0.1	d	All	100	0.35	--	0	SB-5C	2013

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	Runits	Dilution Factor	AnalDate
S-R2330004-071612-MF-015	1207530-15	16-Jul-12	Soil	Volatile Organic Compounds	Xylenes, Total	340	340	--	89	220	µg/Kg-dry	1	24-Jul-12
S-R2330004-071112-MF-003	1207530-03	11-Jul-12	Soil	Volatile Organic Compounds	Xylenes, Total	130	130	--	45	110	µg/Kg-dry	1	23-Jul-12
S-R2330009-040213-MJF-009	1304246-09	02-Apr-13	Soil	Volatile Organic Compounds	Xylenes, Total	--	U	U	35	90	µg/Kg-dry	1	05-Apr-13
S-R2330009-032813-MJF-011	1304246-11	28-Mar-13	Soil	Volatile Organic Compounds	Xylenes, Total	--	U	U	40	100	µg/Kg-dry	1	11-Apr-13
S-R2330009-032613-MJF-012	1304246-12	26-Mar-13	Soil	Volatile Organic Compounds	Xylenes, Total	--	U	U	35	90	µg/Kg-dry	1	05-Apr-13

Table A-10
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Soil Bore Samples

Region 4 Chemical	CAS	Screening Level (mg/Kg-dry)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/Kg-dry)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Soil Bore	Year
Xylenes (total)	1330-20-7	0.1	d	All	100	0.89	3.4	1	SB-6A	2012
Xylenes (total)	1330-20-7	0.1	d	All	100	0.45	1.3	1	SB-7	2012
Xylenes (total)	1330-20-7	0.1	d	All	100	0.35	--	0	SB-7E	2013
Xylenes (total)	1330-20-7	0.1	d	All	100	0.4	--	0	SB-8	2013
Xylenes (total)	1330-20-7	0.1	d	All	100	0.35	--	0	SB-9	2013

Notes

Detection Flags

1= Detected
0 = Not detected

Region 4, Receptor

All - ESV for protection of all receptors; A - ESV for protection of avians
M - ESV for protection of mammals; P - ESV for protection of plants
SI - ESV for protection of soil invertebrates
LMWPAHs have less than 4 rings HMWPAHs have 4 or more rings

Region 4, Reference

a - USEPA (2007): Ecological Soil Screening Levels. <http://www.epa.gov/ecotox/ecossl/>
b - Oak Ridge National Laboratory
c - Los Alamos National Laboratory (LANL). 2012. ECORISK Database Release 3.2. Environmental Programs, Engineering and Technology Division. September 2013. <http://www.lanl.gov/community-environment/environmental->
d - ECOSAR & Region 4 soil model. See text Section 6.3 of USEPA 2015

Status of SL

Original = Evaluated n Original SLERA
New = Not evaluated n Original SLERA

Table A-11
Sitewide, MDL and HQ Evaluation for Soil Bore Samples

Van Buren Analyte	Test Name	Region 4 Chemical	Region 4, Reference	Region 4, Receptor	Units	Max of Result	Max of RMDL	Region 4 (2015), Screening Level (mg/Kg-dry)	Region 4, Screening Level (µg/Kg-dry)	Max of MDL/SL Ratio	Max of HQ for Detected Result	Detection_Flag	Flag	Set
Cyanide, Total	Cyanide, Total	Cyanide (free)	c	SI, A	mg/Kg-dry-dry	0.31	0.031	0.1	100	0.3100	3.10	1	a	Detected HQ >= 1.0
Mercury	Mercury by CVAA	Mercury (total)	b	All	mg/Kg-dry-dry	0.62	0.0089	0.1	100	0.0890	6.20	1	a	Detected HQ >= 1.0
Antimony	Metals by ICP-MS	Antimony	a	All	mg/Kg-dry-dry	18	0.01	0.27	0.27	0.0370	66.67	1	a	Detected HQ >= 1.0
Barium	Metals by ICP-MS	Barium	a	All	mg/Kg-dry-dry	540	0.69	330	330000	0.00209	1.64	1	a	Detected HQ >= 1.0
Cadmium	Metals by ICP-MS	Cadmium	a	All	mg/Kg-dry-dry	9.9	0.0087	0.36	360	0.0242	27.50	1	a	Detected HQ >= 1.0
Chromium	Metals by ICP-MS	Chromium III	a	All	mg/Kg-dry-dry	53	0.36	18	18000	0.0200	2.94	1	a	Detected HQ >= 1.0
Copper	Metals by ICP-MS	Copper	a	All	mg/Kg-dry-dry	1500	0.54	28	28000	0.0193	53.57	1	a	Detected HQ >= 1.0
Lead	Metals by ICP-MS	Lead	a	All	mg/Kg-dry-dry	860	0.087	11	11000	0.00791	78.18	1	a	Detected HQ >= 1.0
Manganese	Metals by ICP-MS	Manganese	a	All	mg/Kg-dry-dry	600	0.54	220	220000	0.00245	2.73	1	a	Detected HQ >= 1.0
Nickel	Metals by ICP-MS	Nickel	a	All	mg/Kg-dry-dry	62	0.22	38	38000	0.00579	1.63	1	a	Detected HQ >= 1.0
Selenium	Metals by ICP-MS	Selenium	a	All	mg/Kg-dry-dry	0.83	0.28	0.52	520	0.5385	1.60	1	a	Detected HQ >= 1.0
Silver	Metals by ICP-MS	Silver	a	All	mg/Kg-dry-dry	4.2	0.077	4.2	4200	0.0183	1.00	1	a	Detected HQ >= 1.0
Vanadium	Metals by ICP-MS	Vanadium	a	All	mg/Kg-dry-dry	18	0.13	7.8	7800	0.0167	2.31	1	a	Detected HQ >= 1.0
Zinc	Metals by ICP-MS	Zinc	a	All	mg/Kg-dry-dry	2400	2	46	46000	0.0435	52.17	1	a	Detected HQ >= 1.0
Aroclor 1248	PCBs	Aroclor-1248	c	All	µg/Kg-dry-dry	340	43	0.0072	7.2	5.97	47.22	1	a	Detected HQ >= 1.0
Aroclor 1254	PCBs	Aroclor-1254	c	All	µg/Kg-dry-dry	840	13	0.014	14	0.9286	60.00	1	a	Detected HQ >= 1.0
Total, PCBs	PCBs	PCBs (sum) (Wildlife Based)	d	All	µg/Kg-dry-dry	1180	--	0.33	330	--	3.58	1	a	Detected HQ >= 1.0
Benzo(a)anthracene	Semi-Volatile Organic Compounds	Benzo(a)anthracene	(blank)	(blank)	µg/Kg-dry-dry	1100	140	--	1100	0.1273	1.00	1	a	Detected HQ >= 1.0
Benzo(b)fluoranthene	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	(blank)	(blank)	µg/Kg-dry-dry	1200	190	--	1100	0.1727	1.09	1	a	Detected HQ >= 1.0
Bis(2-ethylhexyl)phthalate	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl) phthalate	c	All	µg/Kg-dry-dry	7400	120	0.02	20	6.00	370	1	a	Detected HQ >= 1.0
Butyl benzyl phthalate	Semi-Volatile Organic Compounds	Butylbenzyl phthalate	d	All	µg/Kg-dry-dry	590	160	0.59	590	0.2712	1.00	1	a	Detected HQ >= 1.0
Chrysene	Semi-Volatile Organic Compounds	Chrysene	(blank)	(blank)	µg/Kg-dry-dry	1200	130	--	1100	0.1182	1.09	1	a	Detected HQ >= 1.0
Di-n-butyl phthalate	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	c	All	µg/Kg-dry-dry	200	120	0.011	11	10.91	18.18	1	a	Detected HQ >= 1.0
Di-n-octyl phthalate	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	c	All	µg/Kg-dry-dry	730	150	0.21	210	0.7143	3.48	1	a	Detected HQ >= 1.0
Fluoranthene	Semi-Volatile Organic Compounds	Fluoranthene	(blank)	(blank)	µg/Kg-dry-dry	1400	140	--	1100	0.1273	1.27	1	a	Detected HQ >= 1.0
Pyrene	Semi-Volatile Organic Compounds	Pyrene	(blank)	(blank)	µg/Kg-dry-dry	1200	150	--	1100	0.1364	1.09	1	a	Detected HQ >= 1.0
High Molecular Weight PAHs	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	--	--	µg/Kg-dry-dry	8500	--	--	1100	--	7.73	1	a	Detected HQ >= 1.0
Toluene	Volatile Organic Compounds	Toluene	d	All	µg/Kg-dry	390	28	0.15	150	0.1867	2.60	1	a	Detected HQ >= 1.0
Xylenes, Total	Volatile Organic Compounds	Xylenes (total)	d	All	µg/Kg-dry	340	89	0.1	100	0.8900	3.40	1	a	Detected HQ >= 1.0
Aroclor 1242	PCBs	Aroclor-1242	c	All	µg/Kg-dry-dry	--	43	0.041	41	1.05	--	0	b	Not Detected MDL 0.2 High
4,4'-DDE	Pesticides	DDE (sum 4,4- & 2,4-DDE)	c	M, A	µg/Kg-dry-dry	--	41	0.11	110	0.3727	--	0	b	Not Detected MDL 0.2 High
4,4'-DDT	Pesticides	DDT (sum 4,4- & 2,4-DDT)	c	All	µg/Kg-dry-dry	--	49	0.044	44	1.11	--	0	b	Not Detected MDL 0.2 High
Aldrin	Pesticides	Aldrin	c	SI, M	µg/Kg-dry-dry	--	19	0.037	37	0.5135	--	0	b	Not Detected MDL 0.2 High
alpha-Chlordane	Pesticides	Chlordane - alpha	c	P, M, A	µg/Kg-dry-dry	--	58	0.27	270	0.2148	--	0	b	Not Detected MDL 0.2 High
beta-BHC	Pesticides	BHC - beta	c	M, A	µg/Kg-dry-dry	--	80	0.27	270	0.2963	--	0	b	Not Detected MDL 0.2 High
Chlordane, Technical	Pesticides	BHC - gamma (Lindane)	c	P, M, A	µg/Kg-dry-dry	--	210	0.0094	9.4	22.34	--	0	b	Not Detected MDL 0.2 High
Dieldrin	Pesticides	Dieldrin	a	All	µg/Kg-dry-dry	--	18	0.0049	4.9	3.67	--	0	b	Not Detected MDL 0.2 High
Endosulfan II	Pesticides	Endosulfan (alpha and beta)	d	All	µg/Kg-dry-dry	--	23	0.0009	0.9	25.56	--	0	b	Not Detected MDL 0.2 High
Endosulfan sulfate	Pesticides	Endosulfan sulfate	d	All	µg/Kg-dry-dry	--	26	0.0065	6.5	4.00	--	0	b	Not Detected MDL 0.2 High
Endrin	Pesticides	Endrin	c	All	µg/Kg-dry-dry	--	61	0.0014	1.4	43.57	--	0	b	Not Detected MDL 0.2 High
gamma-BHC (Lindane)	Pesticides	BHC - gamma (Lindane)	c	P, M, A	µg/Kg-dry-dry	--	98	0.0094	9.4	10.43	--	0	b	Not Detected MDL 0.2 High
Heptachlor	Pesticides	Heptachlor	c	All	µg/Kg-dry-dry	--	110	0.059	59	1.86	--	0	b	Not Detected MDL 0.2 High
Heptachlor epoxide	Pesticides	Heptachlor epoxide	d	All	µg/Kg-dry-dry	--	33	0.0004	0.4	82.50	--	0	b	Not Detected MDL 0.2 High
1,1'-Biphenyl	Semi-Volatile Organic Compounds	1,1'-Biphenyl	d	All	µg/Kg-dry-dry	--	59	0.2	200	0.2950	--	0	b	Not Detected MDL 0.2 High
2,4,5-Trichlorophenol	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	d	All	µg/Kg-dry-dry	--	95	0.03	30	3.17	--	0	b	Not Detected MDL 0.2 High
2,4,6-Trichlorophenol	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	d	All	µg/Kg-dry-dry	--	95	0.09	90	1.06	--	0	b	Not Detected MDL 0.2 High
2,4-Dichlorophenol	Semi-Volatile Organic Compounds	Dichlorophenols 3-), (2,4-), (2,5-), (2,6-)	d	All	µg/Kg-dry-dry	--	120	0.05	50	2.40	--	0	b	Not Detected MDL 0.2 High
2,4-Dimethylphenol	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	d	SI	µg/Kg-dry-dry	--	480	0.04	40	12.00	--	0	b	Not Detected MDL 0.2 High
2,4-Dinitrophenol	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	d	All	µg/Kg-dry-dry	--	500	0.15	150	3.33	--	0	b	Not Detected MDL 0.2 High
2-Methylphenol	Semi-Volatile Organic Compounds	2-Methylphenol (Cresol, o-)	d	All	µg/Kg-dry-dry	--	110	0.1	100	1.10	--	0	b	Not Detected MDL 0.2 High
4-Methylphenol	Semi-Volatile Organic Compounds	4-Methylphenol (Cresol, p-)	d	All	µg/Kg-dry-dry	--	120	0.08	80	1.50	--	0	b	Not Detected MDL 0.2 High
Carbazole	Semi-Volatile Organic Compounds	Carbazole	d	All	µg/Kg-dry-dry	--	140	0.16	160	0.8750	--	0	b	Not Detected MDL 0.2 High
Diethyl phthalate	Semi-Volatile Organic Compounds	Diethylphthalate	d	All	µg/Kg-dry-dry	--	99	0.23	230	0.4304	--	0	b	Not Detected MDL 0.2 High
Hexachlorobenzene	Semi-Volatile Organic Compounds	Hexachlorobenzene	c	All	µg/Kg-dry-dry	--	110	0.079	79	1.39	--	0	b	Not Detected MDL 0.2 High
Hexachlorobutadiene	Semi-Volatile Organic Compounds	Hexachlorobutadiene	d	SI	µg/Kg-dry-dry	--	100	0.1	100	1.00	--	0	b	Not Detected MDL 0.2 High
Hexachlorocyclopentadiene	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	d	All	µg/Kg-dry-dry	--	420	0.001	1	420	--	0	b	Not Detected MDL 0.2 High
N-Nitrosodiphenylamine	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	d	All	µg/Kg-dry-dry	--	710	0.12	120	5.92	--	0	b	Not Detected MDL 0.2 High

Table A-11
Sitewide, MDL and HQ Evaluation for Soil Bore Samples

Van Buren Analyte	Test Name	Region 4 Chemical	Region 4, Reference	Region 4, Receptor	Units	Max of Result	Max of RMDL	Region 4 (2015), Screening Level (mg/Kg-dry)	Region 4, Screening Level (µg/Kg-dry)	Max of MDL/SL Ratio	Max of HQ for Detected Result	Detection_Flag	Flag	Set
1,2-Dichlorobenzene	Volatile Organic Compounds	1,2-Dichlorobenzene	d	All	µg/Kg-dry	--	30	0.09	90	0.3333	--	0	b	Not Detected MDL 0.2 High
1,3-Dichlorobenzene	Volatile Organic Compounds	1,3-Dichlorobenzene	d	All	µg/Kg-dry	--	30	0.08	80	0.3750	--	0	b	Not Detected MDL 0.2 High
Carbon disulfide	Volatile Organic Compounds	Carbon Disulfide	d	All	µg/Kg-dry	--	37	0.005	5	7.40	--	0	b	Not Detected MDL 0.2 High
cis-1,2-Dichloroethene	Volatile Organic Compounds	1,2-Dichloroethene (cis and trans)	d	All	µg/Kg-dry	--	30	0.04	40	0.7500	--	0	b	Not Detected MDL 0.2 High
Isopropylbenzene	Volatile Organic Compounds	Isopropylbenzene (Cumene)	d	All	µg/Kg-dry	--	32	0.04	40	0.8000	--	0	b	Not Detected MDL 0.2 High
Tetrachloroethene	Volatile Organic Compounds	Tetrachloroethene	d	All	µg/Kg-dry	--	33	0.06	60	0.5500	--	0	b	Not Detected MDL 0.2 High
2,4,5-T	Herbicides	(blank)	(blank)	(blank)	µg/Kg-dry-dry	--	0.1	--	--	--	--	0	c	Not Detected and no SL
2,4-D	Herbicides	(blank)	(blank)	(blank)	µg/Kg-dry-dry	--	0.076	--	--	--	--	0	c	Not Detected and no SL
Moisture	Moisture	(blank)	(blank)	(blank)	% of sample	17	0.025	--	--	--	--	1	c	Detected No SL
Aroclor 1221	PCBs	(blank)	(blank)	(blank)	µg/Kg-dry-dry	--	43	--	--	--	--	0	c	Not Detected and no SL
Aroclor 1232	PCBs	(blank)	(blank)	(blank)	µg/Kg-dry-dry	--	43	--	--	--	--	0	c	Not Detected and no SL
4,4'-DDD	Pesticides	(blank)	(blank)	(blank)	µg/Kg-dry-dry	--	68	--	--	--	--	0	c	Not Detected and no SL
delta-BHC	Pesticides	(blank)	(blank)	(blank)	µg/Kg-dry-dry	--	78	--	--	--	--	0	c	Not Detected and no SL
Endrin aldehyde	Pesticides	(blank)	(blank)	(blank)	µg/Kg-dry-dry	--	51	--	--	--	--	0	c	Not Detected and no SL
Endrin ketone	Pesticides	(blank)	(blank)	(blank)	µg/Kg-dry-dry	--	81	--	--	--	--	0	c	Not Detected and no SL
2,6-Dinitrotoluene	Semi-Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry-dry	--	110	--	--	--	--	0	c	Not Detected and no SL
2-Chloronaphthalene	Semi-Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry-dry	--	110	--	--	--	--	0	c	Not Detected and no SL
2-Chlorophenol	Semi-Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry-dry	--	110	--	--	--	--	0	c	Not Detected and no SL
2-Nitroaniline	Semi-Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry-dry	--	91	--	--	--	--	0	c	Not Detected and no SL
2-Nitrophenol	Semi-Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry-dry	--	100	--	--	--	--	0	c	Not Detected and no SL
3,3'-Dichlorobenzidine	Semi-Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry-dry	--	110	--	--	--	--	0	c	Not Detected and no SL
3-Nitroaniline	Semi-Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry-dry	--	970	--	--	--	--	0	c	Not Detected and no SL
4,6-Dinitro-2-methylphenol	Semi-Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry-dry	--	570	--	--	--	--	0	c	Not Detected and no SL
4-Bromophenyl phenyl ether	Semi-Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry-dry	--	100	--	--	--	--	0	c	Not Detected and no SL
4-Chloro-3-methylphenol	Semi-Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry-dry	--	110	--	--	--	--	0	c	Not Detected and no SL
4-Chlorophenyl phenyl ether	Semi-Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry-dry	--	110	--	--	--	--	0	c	Not Detected and no SL
4-Nitroaniline	Semi-Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry-dry	--	180	--	--	--	--	0	c	Not Detected and no SL
Acetophenone	Semi-Volatile Organic Compounds	Acetophenone	(blank)	(blank)	µg/Kg-dry-dry	--	59	--	--	--	--	0	c	Not Detected and no SL
Atrazine	Semi-Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry-dry	--	120	--	--	--	--	0	c	Not Detected and no SL
Benzaldehyde	Semi-Volatile Organic Compounds	Benzaldehyde	(blank)	(blank)	µg/Kg-dry-dry	16	150	--	--	--	--	1	c	Detected No SL
Bis(2-chloroethoxy)methane	Semi-Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry-dry	--	98	--	--	--	--	0	c	Detected No SL
Bis(2-chloroethyl)ether	Semi-Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry-dry	--	99	--	--	--	--	0	c	Detected No SL
Bis(2-chloroisopropyl)ether	Semi-Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry-dry	--	93	--	--	--	--	0	c	Detected No SL
Caprolactam	Semi-Volatile Organic Compounds	Caprolactam	(blank)	(blank)	µg/Kg-dry-dry	520	170	--	--	--	--	1	c	Detected No SL
Hexachloroethane	Semi-Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry-dry	--	100	--	--	--	--	0	c	Not Detected and no SL
Isophorone	Semi-Volatile Organic Compounds	Isophorone	(blank)	(blank)	µg/Kg-dry-dry	20	100	--	--	--	--	1	c	Detected No SL
N-Nitrosodi-n-propylamine	Semi-Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry-dry	--	100	--	--	--	--	0	c	Not Detected and no SL
1,1,1-Trichloroethane	Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	29	--	--	--	--	0	c	Not Detected and no SL
1,1,2,2-Tetrachloroethane	Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	33	--	--	--	--	0	c	Not Detected and no SL
1,1,2-Trichloroethane	Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	27	--	--	--	--	0	c	Not Detected and no SL
1,1,2-Trichlorotrifluoroethane	Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	28	--	--	--	--	0	c	Not Detected and no SL
1,1-Dichloroethane	Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	27	--	--	--	--	0	c	Not Detected and no SL
1,1-Dichloroethene	Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	32	--	--	--	--	0	c	Not Detected and no SL
1,2,4-Trichlorobenzene	Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	39	--	--	--	--	0	c	Not Detected and no SL
1,2-Dibromo-3-chloropropane	Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	37	--	--	--	--	0	c	Not Detected and no SL
1,2-Dibromoethane	Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	30	--	--	--	--	0	c	Not Detected and no SL
1,2-Dichloroethane	Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	36	--	--	--	--	0	c	Not Detected and no SL
1,2-Dichloropropane	Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	25	--	--	--	--	0	c	Not Detected and no SL
2-Hexanone	Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	18	--	--	--	--	0	c	Not Detected and no SL
4-Methyl-2-pentanone	Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	25	--	--	--	--	0	c	Not Detected and no SL
Bromodichloromethane	Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	17	--	--	--	--	0	c	Not Detected and no SL
Bromoform	Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	15	--	--	--	--	0	c	Not Detected and no SL
Bromomethane	Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	29	--	--	--	--	0	c	Not Detected and no SL
Carbon tetrachloride	Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	21	--	--	--	--	0	c	Not Detected and no SL
Chloroethane	Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	160	--	--	--	--	0	c	Not Detected and no SL
Chloroform	Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	31	--	--	--	--	0	c	Not Detected and no SL
Chloromethane	Volatile Organic Compounds	Chloromethane	(blank)	(blank)	µg/Kg-dry	--	42	--	--	--	--	0	c	Not Detected and no SL

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Van Buren Analyte	Test Name	Region 4 Chemical	Region 4, Reference	Region 4, Receptor	Units	Max of Result	Max of RMDL	Region 4 (2015), Screening Level (mg/Kg-dry)	Region 4, Screening Level (µg/Kg-dry)	Max of MDL/SL Ratio	Max of HQ for Detected Result	Detection_Flag	Flag	Set
cis-1,3-Dichloropropene	Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	26	--	--	--	--	0	c	Not Detected and no SL
Cyclohexane	Volatile Organic Compounds	Cyclohexane	(blank)	(blank)	µg/Kg-dry	39	34	--	--	--	--	1	c	Detected No SL
Dibromochloromethane	Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	14	--	--	--	--	0	c	Not Detected and no SL
Dichlorodifluoromethane	Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	34	--	--	--	--	0	c	Not Detected and no SL
Methyl acetate	Volatile Organic Compounds	Methyl Acetate	(blank)	(blank)	µg/Kg-dry	510	100	--	--	--	--	1	c	Detected No SL
Methyl tert-butyl ether	Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	32	--	--	--	--	0	c	Not Detected and no SL
Methylcyclohexane	Volatile Organic Compounds	Methylcyclohexane	(blank)	(blank)	µg/Kg-dry	260	35	--	--	--	--	1	c	Detected No SL
Styrene	Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	28	--	--	--	--	0	c	Not Detected and no SL
trans-1,2-Dichloroethene	Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	23	--	--	--	--	0	c	Not Detected and no SL
trans-1,3-Dichloropropene	Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	25	--	--	--	--	0	c	Not Detected and no SL
Trichloroethene	Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	35	--	--	--	--	0	c	Not Detected and no SL
Trichlorofluoromethane	Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	21	--	--	--	--	0	c	Not Detected and no SL
Vinyl chloride	Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	34	--	--	--	--	0	c	Not Detected and no SL
Aluminum	Metals by ICP-MS	Aluminum	a	All	mg/Kg-dry-dry	14000	2.8	--	--	--	--	1	d	Detected No SL
Iron	Metals by ICP-MS	Iron	a	All	mg/Kg-dry-dry	74000	65	--	--	--	--	1	d	Detected No SL
2,4,5-TP (Silvex)	Herbicides	2,4,5-TP (Silvex)	d	SI	µg/Kg-dry-dry	--	0.071	12	12000	5.91667E-06	--	0	e	Not Detected MDL 0.2 Low
Arsenic	Metals by ICP-MS	Arsenic	a	All	mg/Kg-dry-dry	12	0.3	18	18000	0.0167	0.6667	1	e	Detected HQ < 1.0
Beryllium	Metals by ICP-MS	Beryllium	b	All	mg/Kg-dry-dry	0.5	0.05	10	10000	0.00500	0.0500	1	e	Detected HQ < 1.0
Cobalt	Metals by ICP-MS	Cobalt	a	All	mg/Kg-dry-dry	8.2	0.0087	13	13000	0.00067	0.6308	1	e	Detected HQ < 1.0
Thallium	Metals by ICP-MS	Thallium	c	All	mg/Kg-dry-dry	0.21	0.052	0.22	220	0.2364	0.9545	1	e	Detected HQ < 1.0
Aroclor 1016	PCBs	Aroclor-1016	c	All	µg/Kg-dry-dry	--	43	1	1000	0.0430	--	0	e	Not Detected MDL 0.2 Low
Aroclor 1260	PCBs	Aroclor-1260	c	All	µg/Kg-dry-dry	--	13	0.88	880	0.0148	--	0	e	Not Detected MDL 0.2 Low
alpha-BHC	Pesticides	BHC - alpha	d	SI, M	µg/Kg-dry-dry	--	68	0.34	340	0.2000	--	0	e	Not Detected MDL 0.2 Low
Endosulfan I	Pesticides	Endosulfan - alpha	c	M, A	µg/Kg-dry-dry	--	27	0.64	640	0.0422	--	0	e	Not Detected MDL 0.2 Low
gamma-Chlordane	Pesticides	Chlordane - gamma	c	P, M, A	µg/Kg-dry-dry	--	35	2.2	2200	0.0159	--	0	e	Not Detected MDL 0.2 Low
Methoxychlor	Pesticides	Methoxychlor	c	M, A	µg/Kg-dry-dry	--	52	5	5000	0.0104	--	0	e	Not Detected MDL 0.2 Low
Toxaphene	Pesticides	Toxaphene	d	M, A	µg/Kg-dry-dry	--	250	4.1	4100	0.0610	--	0	e	Not Detected MDL 0.2 Low
2,4-Dinitrotoluene	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	c	SI, M, P	µg/Kg-dry-dry	--	110	6	6000	0.0183	--	0	e	Not Detected MDL 0.2 Low
2-Methylnaphthalene	Semi-Volatile Organic Compounds	2-Methylnaphthalene	(blank)	All, total	µg/Kg-dry-dry	60	120	--	29000	0.00414	0.00207	1	e	Detected HQ < 1.0
4-Chloroaniline	Semi-Volatile Organic Compounds	4-Chloroaniline	c	P, SI	µg/Kg-dry-dry	--	150	1	1000	0.1500	--	0	e	Not Detected MDL 0.2 Low
4-Nitrophenol	Semi-Volatile Organic Compounds	4-Nitrophenol	b	SI	µg/Kg-dry-dry	--	480	7	7000	0.0686	--	0	e	Not Detected MDL 0.2 Low
Acenaphthene	Semi-Volatile Organic Compounds	Acenaphthene	(blank)	All, total	µg/Kg-dry-dry	--	110	--	29000	0.00379	--	0	e	Not Detected MDL 0.2 Low
Acenaphthylene	Semi-Volatile Organic Compounds	Acenaphthylene	(blank)	(blank)	µg/Kg-dry-dry	24	110	--	29000	0.00379	0.00083	1	e	Detected HQ < 1.0
Anthracene	Semi-Volatile Organic Compounds	Anthracene	(blank)	(blank)	µg/Kg-dry-dry	280	120	--	29000	0.00414	0.00966	1	e	Detected HQ < 1.0
Benzo(a)pyrene	Semi-Volatile Organic Compounds	Benzo(a)pyrene	(blank)	(blank)	µg/Kg-dry-dry	800	180	--	1100	0.1636	0.7273	1	e	Detected HQ < 1.0
Benzo(g,h,i)perylene	Semi-Volatile Organic Compounds	Benzo(ghi)perylene	(blank)	(blank)	µg/Kg-dry-dry	560	280	--	1100	0.2545	0.5091	1	e	Detected HQ < 1.0
Benzo(k)fluoranthene	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	(blank)	(blank)	µg/Kg-dry-dry	620	160	--	1100	0.1455	0.5636	1	e	Detected HQ < 1.0
Dibenzo(a,h)anthracene	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	(blank)	(blank)	µg/Kg-dry-dry	32	200	--	1100	0.1818	0.0291	1	e	Detected HQ < 1.0
Dibenzofuran	Semi-Volatile Organic Compounds	Dibenzofuran	d	All	µg/Kg-dry-dry	20	110	0.15	150	0.7333	0.1333	1	e	Detected HQ < 1.0
Dimethyl phthalate	Semi-Volatile Organic Compounds	Dimethylphthalate	d	All	µg/Kg-dry-dry	33	99	0.35	350	0.2829	0.0943	1	e	Detected HQ < 1.0
Fluorene	Semi-Volatile Organic Compounds	Fluorene	(blank)	All, total	µg/Kg-dry-dry	--	100	--	29000	0.00345	--	0	e	Not Detected MDL 0.2 Low
Indeno(1,2,3-cd)pyrene	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	(blank)	(blank)	µg/Kg-dry-dry	420	230	--	1100	0.2091	0.3818	1	e	Detected HQ < 1.0
Naphthalene	Semi-Volatile Organic Compounds	Naphthalene	(blank)	All, total	µg/Kg-dry-dry	270	100	--	29000	0.00345	0.00931	1	e	Detected HQ < 1.0
Nitrobenzene	Semi-Volatile Organic Compounds	Nitrobenzene	c	SI, M	µg/Kg-dry-dry	--	100	2.2	2200	0.0455	--	0	e	Not Detected MDL 0.2 Low
Pentachlorophenol	Semi-Volatile Organic Compounds	Pentachlorophenol (PCP)	a	All	µg/Kg-dry-dry	--	180	2.1	2100	0.0857	--	0	e	Not Detected MDL 0.2 Low
Phenanthrene	Semi-Volatile Organic Compounds	Phenanthrene	(blank)	(blank)	µg/Kg-dry-dry	700	360	--	29000	0.0124	0.0241	1	e	Detected HQ < 1.0
Phenol	Semi-Volatile Organic Compounds	Phenol	c	All	µg/Kg-dry-dry	44	100	0.79	790	0.1266	0.0557	1	e	Detected HQ < 1.0
1,4-Dichlorobenzene	Volatile Organic Compounds	1,4-Dichlorobenzene	c	SI, M	µg/Kg-dry	--	29	0.88	880	0.0330	--	0	e	Not Detected MDL 0.2 Low
2-Butanone	Volatile Organic Compounds	2-Butanone (Methyl Ethyl Ketone)	d	All	µg/Kg-dry	--	190	1	1000	0.1900	--	0	e	Not Detected MDL 0.2 Low

Table A-11
Sitewide, MDL and HQ Evaluation for Soil Bore Samples

Van Buren Analyte	Test Name	Region 4 Chemical	Region 4, Reference	Region 4, Receptor	Units	Max of Result	Max of RMDL	Region 4 (2015), Screening Level (mg/Kg-dry)	Region 4, Screening Level (µg/Kg-dry)	Max of MDL/SL Ratio	Max of HQ for Detected Result	Detection_Flag	Flag	Set
Acetone	Volatile Organic Compounds	Acetone	c	M, A	µg/Kg-dry	--	160	1.2	1200	0.1333	--	0	e	Not Detected MDL 0.2 Low
Benzene	Volatile Organic Compounds	Benzene	d	All	µg/Kg-dry	65	30	0.12	120	0.2500	0.5417	1	e	Detected HQ < 1.0
Chlorobenzene	Volatile Organic Compounds	Chlorobenzene	c	All	µg/Kg-dry	--	31	2.4	2400	0.0129	--	0	e	Not Detected MDL 0.2 Low
Ethylbenzene	Volatile Organic Compounds	Ethylbenzene	d	All	µg/Kg-dry	63	28	0.27	270	0.1037	0.2333	1	e	Detected HQ < 1.0
Methylene chloride	Volatile Organic Compounds	Dichloromethane (Methylene chloride)	d	All	µg/Kg-dry	--	29	0.21	210	0.1381	--	0	e	Not Detected MDL 0.2 Low

Notes

Detection Flags

1= Detected

Flag descriptions

- a: Exceeds screening level benchmark, chemical is a COPEC
b: Could exceed screening level benchmark, , chemical is an uncertain COPEC
c: No screening level benchmark, chemical is an uncertain COPEC
d: Soil pH not provided
e: Not chemical of concern

Region 4, Receptor

All - ESV for protection of all receptors; A - ESV for protection of avians
M - ESV for protection of mammals; P - ESV for protection of plants
SI - ESV for protection of soil invertebrates
LMWPAHs have less than 4 rings HMWPAHs have 4 or more rings

Region 4, Reference

- a - USEPA (2007): Ecological Soil Screening Levels. <http://www.epa.gov/ecotox/ecossl/>
b - Oak Ridge National Laboratory:
c - Los Alamos National Laboratory (LANL). 2012. ECORISK Database Release 3.2. Environmental Programs, Engineering and Technology Division. September 2013. <http://www.lanl.gov/community-environment/environmental->
d - ECOSAR & Region 4 soil model. See text Section 6.3 of USEPA 2015

Status of SL

Original = Evaluated n Original SLERA
New = Not evaluated n Original SLERA

Acronyms

COPEC = constituent of potential ecological concern
ESV = ecological screening volume
HMWPAH = high molecular weight polycyclic aromatic hydrocarbon
ICP-MS = Inductively Coupled Plasma-Mass Spectrometry
LMWPAH = low molecular weight polycyclic aromatic hydrocarbon
mg/Kg-dry = milligrams per kilogram-dry weight
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
SL = screening level
SLERA = Screening-Level Ecological Risk Assessment
SVOC = semi-volatile organic compound

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Mercury by CVAA	Mercury	0.17	0.17	--	0.00078	0.013	mg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Metals by ICP-MS	Aluminum	7,500	7,500	--	1.1	3.2	mg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Metals by ICP-MS	Antimony	13	13	--	0.42	1.6	mg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Metals by ICP-MS	Arsenic	7.5	7.5	--	0.33	0.63	mg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Metals by ICP-MS	Barium	220	220	--	0.019	1.6	mg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Metals by ICP-MS	Beryllium	0.26	0.26	J	0.16	0.63	mg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Metals by ICP-MS	Cadmium	14	14	--	0.063	0.63	mg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Metals by ICP-MS	Chromium	30	30	--	0.35	1.6	mg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Metals by ICP-MS	Cobalt	6.5	6.5	--	0.19	1.6	mg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Metals by ICP-MS	Copper	520	520	--	0.18	1.6	mg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Metals by ICP-MS	Iron	30,000	30,000	--	4.7	25	mg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Metals by ICP-MS	Lead	1,000	1,000	--	1.6	16	mg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Metals by ICP-MS	Manganese	340	340	--	0.25	1.6	mg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Metals by ICP-MS	Nickel	35	35	--	0.85	1.6	mg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Metals by ICP-MS	Selenium	0.92	0.92	J	0.33	1.3	mg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Metals by ICP-MS	Silver	2.3	2.3	--	0.0063	0.63	mg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Metals by ICP-MS	Thallium	--	U	U	0.17	1.6	mg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Metals by ICP-MS	Vanadium	11	11	--	0.26	1.6	mg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Metals by ICP-MS	Zinc	960	960	--	11	32	mg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Moisture	Moisture	0.37	0.37	--	0.025	0.05	% of sample
ISM-10-Z7	1501301-10	08-Jan-15	Soil	PCBs	Aroclor 1016	--	U	U	26	81	µg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	PCBs	Aroclor 1221	--	U	U	26	81	µg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	PCBs	Aroclor 1232	--	U	U	26	81	µg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	PCBs	Aroclor 1242	--	U	U	26	81	µg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	PCBs	Aroclor 1248	230	230	--	26	81	µg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	PCBs	Aroclor 1254	240	240	--	31	81	µg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	PCBs	Aroclor 1260	--	U	U	31	81	µg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	PCBs	PCBs, Total	470	--	--	--	--	µg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	1,1'-Biphenyl	--	U	U	49	3,300	µg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	82	1,600	µg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	55	1,600	µg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	96	1,600	µg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	530	3,300	µg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	300	6,500	µg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	110	1,600	µg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	170	1,600	µg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	15	790	µg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	99	1,600	µg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	330	330	J	27	790	µg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	130	1,600	µg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
1	12-Jan-15	Mercury (total)	7439-97-6	0.1	b	All	100	0.0078	1.7	1	2015	10	Z7
4	12-Jan-15	Aluminum	7429-90-5	--	a	All	--	--	--	1	2015	10	Z7
4	12-Jan-15	Antimony	7440-36-0	0.27	a	All	0.27	1.555555556	48.14814815	1	2015	10	Z7
4	12-Jan-15	Arsenic	7440-38-2	18	a	All	18000	0.018333333	0.416666667	1	2015	10	Z7
4	12-Jan-15	Barium	7440-39-3	330	a	All	330000	5.75758E-05	0.666666667	1	2015	10	Z7
4	12-Jan-15	Beryllium	7440-41-7	10	b	All	10000	0.016	0.026	1	2015	10	Z7
4	12-Jan-15	Cadmium	7440-43-9	0.36	a	All	360	0.175	38.88888889	1	2015	10	Z7
4	12-Jan-15	Chromium III	16065-83-1	18	a	All	18000	0.019444444	1.666666667	1	2015	10	Z7
4	12-Jan-15	Cobalt	7440-48-4	13	a	All	13000	0.014615385	0.5	1	2015	10	Z7
4	12-Jan-15	Copper	7440-50-8	28	a	All	28000	0.006428571	18.57142857	1	2015	10	Z7
4	12-Jan-15	Iron	7439-89-6	--	a	All	--	--	--	1	2015	10	Z7
40	13-Jan-15	Lead	7439-92-1	11	a	All	11000	0.145454545	90.90909091	1	2015	10	Z7
4	12-Jan-15	Manganese	7439-96-5	220	a	All	220000	0.001136364	1.545454545	1	2015	10	Z7
4	12-Jan-15	Nickel	7440-02-0	38	a	All	38000	0.022368421	0.921052632	1	2015	10	Z7
4	12-Jan-15	Selenium	7782-49-2	0.52	a	All	520	0.634615385	1.769230769	1	2015	10	Z7
4	12-Jan-15	Silver	7440-22-4	4.2	a	All	4200	0.0015	0.547619048	1	2015	10	Z7
4	12-Jan-15	Thallium	7440-28-0	0.22	c	All	220	0.772727273	--	0	2015	10	Z7
4	12-Jan-15	Vanadium	7440-62-2	7.8	a	All	7800	0.033333333	1.41025641	1	2015	10	Z7
40	13-Jan-15	Zinc	7440-66-6	46	a	All	46000	0.239130435	20.86956522	1	2015	10	Z7
1	12-Jan-15	--	--	--	--	--	--	--	--	--	2015	10	Z7
1	15-Jan-15	Aroclor-1016	12674-11-2	1	c	All	1000	0.026	--	0	2015	10	Z7
1	15-Jan-15	--	--	--	--	--	--	--	--	0	2015	10	Z7
1	15-Jan-15	--	--	--	--	--	--	--	--	0	2015	10	Z7
1	15-Jan-15	Aroclor-1242	53469-21-9	0.041	c	All	41	0.634146341	--	0	2015	10	Z7
1	15-Jan-15	Aroclor-1248	12672-29-6	0.0072	c	All	7.2	3.611111111	31.94444444	1	2015	10	Z7
1	15-Jan-15	Aroclor-1254	11097-69-1	0.014	c	All	14	2.214285714	17.14285714	1	2015	10	Z7
1	15-Jan-15	Aroclor-1260	11096-82-5	0.88	c	All	880	0.035227273	--	0	2015	10	Z7
--	--	PCBs (sum) (Wildlife Based)	1336-36-3	0.33	d	All	330	0	1.424242424	1	2015	10	Z7
10	12-Jan-15	1,1'-Biphenyl	92-52-4	0.2	d	All	200	0.245	--	0	2015	10	Z7
10	12-Jan-15	2,4,5-Trichlorophenol	95-95-4	0.03	d	All	30	2.733333333	--	0	2015	10	Z7
10	12-Jan-15	2,4,6-Trichlorophenol	88-06-2	0.09	d	All	90	0.611111111	--	0	2015	10	Z7
10	12-Jan-15	Dichlorophenols ,3-), (2,4-), (2,5-), (2,6-)	120-83-2	0.05	d	All	50	1.92	--	0	2015	10	Z7
10	12-Jan-15	2,4-Dimethylphenol	105-67-9	0.04	d	SI	40	13.25	--	0	2015	10	Z7
10	12-Jan-15	2,4-Dinitrophenol	51-28-5	0.15	d	All	150	2	--	0	2015	10	Z7
10	12-Jan-15	2,4-Dinitrotoluene	121-14-2	6	c	SI, M, P	6000	0.018333333	--	0	2015	10	Z7
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	10	Z7
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	10	Z7
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	10	Z7
10	12-Jan-15	2-Methylnaphthalene	91-57-6	--	--	All, total	29000	0.000931034	0.01137931	1	2015	10	Z7
10	12-Jan-15	2-Methylphenol (Cresol, o-)	95-48-7	0.1	d	All	100	1.3	--	0	2015	10	Z7

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	130	6,500	µg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	110	1,600	µg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	3&4-Methylphenol	--	U	U	160	--	µg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	4,100	6,500	µg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	110	6,500	µg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	270	3,300	µg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	89	1,600	µg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	76	1,600	µg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	98	3,300	µg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	96	1,600	µg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	91	6,500	µg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	65	6,500	µg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthene	370	370	--	9.8	300	µg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	180	180	J	12	300	µg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	49	3,300	µg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Anthracene	2,100	2,100	--	13	300	µg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	100	490	µg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	420	420	J	130	3,300	µg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	5,000	5,000	--	13	300	µg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	3,600	3,600	--	21	300	µg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	5,400	5,400	--	19	300	µg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	2,900	2,900	--	26	300	µg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	2,200	2,200	--	14	300	µg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	100	1,600	µg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	100	1,600	µg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	140	1,600	µg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	6,100	6,100	--	110	3,300	µg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	2,800	2,800	--	120	1,600	µg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	140	3,300	µg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Carbazole	1,300	1,300	J	98	1,600	µg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Chrysene	5,900	5,900	--	16	300	µg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	880	880	--	25	300	µg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	1,800	1,800	--	100	1,600	µg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	100	3,300	µg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	110	3,300	µg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U	48	3,300	µg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	110	1,600	µg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluoranthene	15,000	15,000	--	23	300	µg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluorene	330	330	--	22	300	µg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	92	1,600	µg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	110	490	µg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	10	Z7
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	10	Z7
10	12-Jan-15	4-Methylphenol (Cresol, p-)	106-44-5	0.08	d	All	80	2	--	0	2015	10	Z7
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	10	Z7
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	10	Z7
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	10	Z7
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	10	Z7
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	10	Z7
10	12-Jan-15	4-Chloroaniline	106-47-8	1.0	c	P, SI	1000	0.098	--	0	2015	10	Z7
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	10	Z7
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	10	Z7
10	12-Jan-15	4-Nitrophenol	100-02-7	7	b	SI	7000	0.009285714	--	0	2015	10	Z7
10	12-Jan-15	Acenaphthene	83-32-9	--	--	All, total	29000	0.000337931	0.012758621	1	2015	10	Z7
10	12-Jan-15	Acenaphthylene	208-96-8	--	--	--	29000	0.000413793	0.006206897	1	2015	10	Z7
10	12-Jan-15	Acetophenone	--	--	--	--	--	--	--	0	2015	10	Z7
10	12-Jan-15	Anthracene	120-12-7	--	--	--	29000	0.000448276	0.072413793	1	2015	10	Z7
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	10	Z7
10	12-Jan-15	Benzaldehyde	--	--	--	--	--	--	--	1	2015	10	Z7
10	12-Jan-15	Benzo(a)anthracene	56-55-3	--	--	--	1100	0.011818182	4.545454545	1	2015	10	Z7
10	12-Jan-15	Benzo(a)pyrene	50-32-8	--	--	--	1100	0.019090909	3.272727273	1	2015	10	Z7
10	12-Jan-15	Benzo(b)fluoranthene	205-99-2	--	--	--	1100	0.017272727	4.909090909	1	2015	10	Z7
10	12-Jan-15	Benzo(ghi)perylene	191-24-2	--	--	--	1100	0.023636364	2.636363636	1	2015	10	Z7
10	12-Jan-15	Benzo(k)fluoranthene	207-08-9	--	--	--	1100	0.012727273	2	1	2015	10	Z7
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	10	Z7
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	10	Z7
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	10	Z7
10	12-Jan-15	Bis(2-ethylhexyl) phthalate	117-81-7	0.02	c	All	20	5.5	305	1	2015	10	Z7
10	12-Jan-15	Butylbenzyl phthalate	85-68-7	0.59	d	All	590	0.203389831	4.745762712	1	2015	10	Z7
10	12-Jan-15	Caprolactam	--	--	--	--	--	--	--	0	2015	10	Z7
10	12-Jan-15	Carbazole	86-74-8	0.16	d	All	160	0.6125	8.125	1	2015	10	Z7
10	12-Jan-15	Chrysene	218-01-9	--	--	--	1100	0.014545455	5.363636364	1	2015	10	Z7
10	12-Jan-15	Dibenzo(a,h)anthracene	53-70-3	--	--	--	1100	0.022727273	0.8	1	2015	10	Z7
10	12-Jan-15	Dibenzofuran	132-64-9	0.15	d	All	150	0.666666667	12	1	2015	10	Z7
10	12-Jan-15	Diethylphthalate	84-66-2	0.23	d	All	230	0.434782609	--	0	2015	10	Z7
10	12-Jan-15	Dimethylphthalate	131-11-3	0.35	d	All	350	0.314285714	--	0	2015	10	Z7
10	12-Jan-15	Di-n-butyl phthalate	84-74-2	0.011	c	All	11	4.363636364	--	0	2015	10	Z7
10	12-Jan-15	Di-n-octyl phthalate	117-84-0	0.21	c	All	210	0.523809524	--	0	2015	10	Z7
10	12-Jan-15	Fluoranthene	206-44-0	--	--	--	1100	0.020909091	13.63636364	1	2015	10	Z7
10	12-Jan-15	Fluorene	86-73-7	--	--	All, total	29000	0.000758621	0.01137931	1	2015	10	Z7
10	12-Jan-15	Hexachlorobenzene	118-74-1	0.079	c	All	79	1.164556962	--	0	2015	10	Z7
10	12-Jan-15	Hexachlorobutadiene	87-68-3	0.1	d	SI	100	1.1	--	0	2015	10	Z7

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	100	3,300	µg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	150	1,600	µg/Kg-dry
ISM-10-Z7	1501301-10	8-Jan-15	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	56280	--	--	--	--	µg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	3,400	3,400	--	22	300	µg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	110	1,600	µg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Naphthalene	1,100	1,100	--	24	300	µg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	130	1,600	µg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	130	1,600	µg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	590	1,600	µg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	63	200	µg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenanthrene	18,000	18,000	--	13	300	µg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	110	1,600	µg/Kg-dry
ISM-10-Z7	1501301-10	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Pyrene	12,000	12,000	--	22	300	µg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Mercury by CVAA	Mercury	0.21	0.21	--	0.00077	0.013	mg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Metals by ICP-MS	Aluminum	6,800	6,800	--	1	3	mg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Metals by ICP-MS	Antimony	12	12	--	0.39	1.5	mg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Metals by ICP-MS	Arsenic	8.1	8.1	--	0.31	0.59	mg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Metals by ICP-MS	Barium	280	280	--	0.018	1.5	mg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Metals by ICP-MS	Beryllium	0.3	0.30	J	0.15	0.59	mg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Metals by ICP-MS	Cadmium	5.6	5.6	--	0.059	0.59	mg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Metals by ICP-MS	Chromium	30	30	--	0.33	1.5	mg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Metals by ICP-MS	Cobalt	7.3	7.3	--	0.18	1.5	mg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Metals by ICP-MS	Copper	2,900	2,900	--	1.7	15	mg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Metals by ICP-MS	Iron	43,000	43,000	--	4.3	24	mg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Metals by ICP-MS	Lead	560	560	--	1.5	15	mg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Metals by ICP-MS	Manganese	470	470	--	0.24	1.5	mg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Metals by ICP-MS	Nickel	40	40	--	0.8	1.5	mg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Metals by ICP-MS	Selenium	1.3	1.3	--	0.31	1.2	mg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Metals by ICP-MS	Silver	2.6	2.6	--	0.0059	0.59	mg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Metals by ICP-MS	Thallium	--	U	U	0.16	1.5	mg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Metals by ICP-MS	Vanadium	13	13	--	0.24	1.5	mg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Metals by ICP-MS	Zinc	1,500	1,500	--	11	30	mg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Moisture	Moisture	0.32	0.32	--	0.025	0.05	% of sample
ISM-11-Z7	1501301-11	08-Jan-15	Soil	PCBs	Aroclor 1016	--	U	U	26	81	µg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	PCBs	Aroclor 1221	--	U	U	26	81	µg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	PCBs	Aroclor 1232	--	U	U	26	81	µg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	PCBs	Aroclor 1242	--	U	U	26	81	µg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	PCBs	Aroclor 1248	260	260	--	26	81	µg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	PCBs	Aroclor 1254	450	450	--	30	81	µg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	PCBs	Aroclor 1260	--	U	U	30	81	µg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	PCBs	PCBs, Total	710	--	--	--	--	µg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
10	12-Jan-15	Hexachlorocyclopentadiene	77-47-4	0.001	d	All	1	100	--	0	2015	10	Z7
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	10	Z7
--	12-Jan-15	High Molecular Weight PAHs	--	--	--	--	1100	--	51.16363636	1	2015	10	Z7
10	12-Jan-15	Indeno(1,2,3-cd)pyrene	193-39-5	--	--	--	1100	0.02	3.090909091	1	2015	10	Z7
10	12-Jan-15	Isophorone	--	--	--	--	--	--	--	0	2015	10	Z7
10	12-Jan-15	Naphthalene	91-20-3	--	--	All, total	29000	0.000827586	0.037931034	1	2015	10	Z7
10	12-Jan-15	Nitrobenzene	98-95-3	2.2	c	SI, M	2200	0.059090909	--	0	2015	10	Z7
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	10	Z7
10	12-Jan-15	N-Nitrosodiphenylamine	86-30-6	0.12	d	All	120	4.916666667	--	0	2015	10	Z7
10	12-Jan-15	Pentachlorophenol (PCP)	87-86-5	2.1	a	All	2100	0.03	--	0	2015	10	Z7
10	12-Jan-15	Phenanthrene	67580	--	--	--	29000	0.000448276	0.620689655	1	2015	10	Z7
10	12-Jan-15	Phenol	108-95-2	0.79	c	All	790	0.139240506	--	0	2015	10	Z7
10	12-Jan-15	Pyrene	129-00-0	--	--	--	1100	0.02	10.90909091	1	2015	10	Z7
1	12-Jan-15	Mercury (total)	7439-97-6	0.1	b	All	100	0.0077	2.1	1	2015	11	Z7
4	12-Jan-15	Aluminum	7429-90-5	--	a	All	--	--	--	1	2015	11	Z7
4	12-Jan-15	Antimony	7440-36-0	0.27	a	All	0.27	1.444444444	44.44444444	1	2015	11	Z7
4	12-Jan-15	Arsenic	7440-38-2	18	a	All	18000	0.017222222	0.45	1	2015	11	Z7
4	12-Jan-15	Barium	7440-39-3	330	a	All	330000	5.45455E-05	0.848484848	1	2015	11	Z7
4	12-Jan-15	Beryllium	7440-41-7	10	b	All	10000	0.015	0.03	1	2015	11	Z7
4	12-Jan-15	Cadmium	7440-43-9	0.36	a	All	360	0.163888889	15.55555556	1	2015	11	Z7
4	12-Jan-15	Chromium III	16065-83-1	18	a	All	18000	0.018333333	1.666666667	1	2015	11	Z7
4	12-Jan-15	Cobalt	7440-48-4	13	a	All	13000	0.013846154	0.561538462	1	2015	11	Z7
40	13-Jan-15	Copper	7440-50-8	28	a	All	28000	0.060714286	103.5714286	1	2015	11	Z7
4	12-Jan-15	Iron	7439-89-6	--	a	All	--	--	--	1	2015	11	Z7
40	13-Jan-15	Lead	7439-92-1	11	a	All	11000	0.136363636	50.90909091	1	2015	11	Z7
4	12-Jan-15	Manganese	7439-96-5	220	a	All	220000	0.001090909	2.136363636	1	2015	11	Z7
4	12-Jan-15	Nickel	7440-02-0	38	a	All	38000	0.021052632	1.052631579	1	2015	11	Z7
4	12-Jan-15	Selenium	7782-49-2	0.52	a	All	520	0.596153846	2.5	1	2015	11	Z7
4	12-Jan-15	Silver	7440-22-4	4.2	a	All	4200	0.001404762	0.619047619	1	2015	11	Z7
4	12-Jan-15	Thallium	7440-28-0	0.22	c	All	220	0.727272727	--	0	2015	11	Z7
4	12-Jan-15	Vanadium	7440-62-2	7.8	a	All	7800	0.030769231	1.666666667	1	2015	11	Z7
40	13-Jan-15	Zinc	7440-66-6	46	a	All	46000	0.239130435	32.60869565	1	2015	11	Z7
1	12-Jan-15	--	--	--	--	--	--	--	--	--	2015	11	Z7
1	15-Jan-15	Aroclor-1016	12674-11-2	1	c	All	1000	0.026	--	0	2015	11	Z7
1	15-Jan-15	--	--	--	--	--	--	--	--	0	2015	11	Z7
1	15-Jan-15	--	--	--	--	--	--	--	--	0	2015	11	Z7
1	15-Jan-15	Aroclor-1242	53469-21-9	0.041	c	All	41	0.634146341	--	0	2015	11	Z7
1	15-Jan-15	Aroclor-1248	12672-29-6	0.0072	c	All	7.2	3.611111111	36.11111111	1	2015	11	Z7
1	15-Jan-15	Aroclor-1254	11097-69-1	0.014	c	All	14	2.142857143	32.14285714	1	2015	11	Z7
1	15-Jan-15	Aroclor-1260	11096-82-5	0.88	c	All	880	0.034090909	--	0	2015	11	Z7
--	--	PCBs (sum) (Wildlife Based)	1336-36-3	0.33	d	All	330	0	2.151515152	1	2015	11	Z7

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	1,1'-Biphenyl	--	U	U	49	3,200	µg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	81	1,600	µg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	55	1,600	µg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	95	1,600	µg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	520	3,200	µg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	290	6,500	µg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	100	1,600	µg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	170	1,600	µg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	15	780	µg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	98	1,600	µg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	200	200	J	27	780	µg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	130	1,600	µg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	130	6,500	µg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	110	1,600	µg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	3&4-Methylphenol	--	U	U	160	--	µg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	4,000	6,500	µg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	110	6,500	µg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	270	3,200	µg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	88	1,600	µg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	75	1,600	µg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	97	3,200	µg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	96	1,600	µg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	90	6,500	µg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	65	6,500	µg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthene	720	720	--	9.8	290	µg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	190	190	J	12	290	µg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	49	3,200	µg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Anthracene	2,500	2,500	--	13	290	µg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	99	490	µg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	--	U	U	120	3,200	µg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	7,400	7,400	--	13	290	µg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	5,800	5,800	--	21	290	µg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	7,600	7,600	--	19	290	µg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	4,100	4,100	--	26	290	µg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	3,200	3,200	--	14	290	µg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	100	1,600	µg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	100	1,600	µg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	140	1,600	µg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	1,300	1,300	J	110	3,200	µg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	--	U	U	120	1,600	µg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
10	13-Jan-15	1,1'-Biphenyl	92-52-4	0.2	d	All	200	0.245	--	0	2015	11	Z7
10	13-Jan-15	2,4,5-Trichlorophenol	95-95-4	0.03	d	All	30	2.7	--	0	2015	11	Z7
10	13-Jan-15	2,4,6-Trichlorophenol	88-06-2	0.09	d	All	90	0.611111111	--	0	2015	11	Z7
10	13-Jan-15	Dichlorophenols ,3-), (2,4-), (2,5-), (2,6-)	120-83-2	0.05	d	All	50	1.9	--	0	2015	11	Z7
10	13-Jan-15	2,4-Dimethylphenol	105-67-9	0.04	d	SI	40	13	--	0	2015	11	Z7
10	13-Jan-15	2,4-Dinitrophenol	51-28-5	0.15	d	All	150	1.933333333	--	0	2015	11	Z7
10	13-Jan-15	2,4-Dinitrotoluene	121-14-2	6	c	SI, M, P	6000	0.016666667	--	0	2015	11	Z7
10	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	11	Z7
10	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	11	Z7
10	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	11	Z7
10	13-Jan-15	2-Methylnaphthalene	91-57-6	--	--	All, total	29000	0.000931034	0.006896552	1	2015	11	Z7
10	13-Jan-15	2-Methylphenol (Cresol, o-)	95-48-7	0.1	d	All	100	1.3	--	0	2015	11	Z7
10	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	11	Z7
10	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	11	Z7
10	13-Jan-15	4-Methylphenol (Cresol, p-)	106-44-5	0.08	d	All	80	2	--	0	2015	11	Z7
10	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	11	Z7
10	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	11	Z7
10	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	11	Z7
10	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	11	Z7
10	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	11	Z7
10	13-Jan-15	4-Chloroaniline	106-47-8	1.0	c	P, SI	1000	0.097	--	0	2015	11	Z7
10	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	11	Z7
10	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	11	Z7
10	13-Jan-15	4-Nitrophenol	100-02-7	7	b	SI	7000	0.009285714	--	0	2015	11	Z7
10	13-Jan-15	Acenaphthene	83-32-9	--	--	All, total	29000	0.000337931	0.024827586	1	2015	11	Z7
10	13-Jan-15	Acenaphthylene	208-96-8	--	--	--	29000	0.000413793	0.006551724	1	2015	11	Z7
10	13-Jan-15	Acetophenone	--	--	--	--	--	--	--	0	2015	11	Z7
10	13-Jan-15	Anthracene	120-12-7	--	--	--	29000	0.000448276	0.086206897	1	2015	11	Z7
10	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	11	Z7
10	13-Jan-15	Benzaldehyde	--	--	--	--	--	--	--	0	2015	11	Z7
10	13-Jan-15	Benzo(a)anthracene	56-55-3	--	--	--	1100	0.011818182	6.727272727	1	2015	11	Z7
10	13-Jan-15	Benzo(a)pyrene	50-32-8	--	--	--	1100	0.019090909	5.272727273	1	2015	11	Z7
10	13-Jan-15	Benzo(b)fluoranthene	205-99-2	--	--	--	1100	0.017272727	6.909090909	1	2015	11	Z7
10	13-Jan-15	Benzo(ghi)perylene	191-24-2	--	--	--	1100	0.023636364	3.727272727	1	2015	11	Z7
10	13-Jan-15	Benzo(k)fluoranthene	207-08-9	--	--	--	1100	0.012727273	2.909090909	1	2015	11	Z7
10	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	11	Z7
10	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	11	Z7
10	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	11	Z7
10	13-Jan-15	Bis(2-ethylhexyl) phthalate	117-81-7	0.02	c	All	20	5.5	65	1	2015	11	Z7
10	13-Jan-15	Butylbenzyl phthalate	85-68-7	0.59	d	All	590	0.203389831	--	0	2015	11	Z7

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	140	3,200	µg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Carbazole	1,900	1,900	--	97	1,600	µg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Chrysene	7,300	7,300	--	16	290	µg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	1,300	1,300	--	24	290	µg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	1,200	1,200	J	100	1,600	µg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	100	3,200	µg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	110	3,200	µg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U	47	3,200	µg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	110	1,600	µg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluoranthene	19,000	19,000	--	23	290	µg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluorene	570	570	--	22	290	µg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	91	1,600	µg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	110	490	µg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	100	3,200	µg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	150	1,600	µg/Kg-dry
ISM-11-Z7	1501301-11	8-Jan-15	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	73300	--	--	--	--	µg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	4,600	4,600	--	22	290	µg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	110	1,600	µg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Naphthalene	780	780	--	24	290	µg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	130	1,600	µg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	120	1,600	µg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	580	1,600	µg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	63	200	µg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenanthrene	18,000	18,000	--	13	290	µg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	110	1,600	µg/Kg-dry
ISM-11-Z7	1501301-11	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Pyrene	13,000	13,000	--	22	290	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Mercury by CVAA	Mercury	0.2	0.20	--	0.00078	0.013	mg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Metals by ICP-MS	Aluminum	6,900	6,900	--	0.92	2.7	mg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Metals by ICP-MS	Antimony	11	11	--	0.36	1.4	mg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Metals by ICP-MS	Arsenic	7.6	7.6	--	0.28	0.54	mg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Metals by ICP-MS	Barium	300	300	--	0.016	1.4	mg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Metals by ICP-MS	Beryllium	0.28	0.28	J	0.14	0.54	mg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Metals by ICP-MS	Cadmium	6.2	6.2	--	0.054	0.54	mg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Metals by ICP-MS	Chromium	35	35	--	0.3	1.4	mg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Metals by ICP-MS	Cobalt	9.1	9.1	--	0.16	1.4	mg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Metals by ICP-MS	Copper	300	300	--	0.15	1.4	mg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Metals by ICP-MS	Iron	38,000	38,000	--	4	22	mg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Metals by ICP-MS	Lead	500	500	--	1.4	14	mg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Metals by ICP-MS	Manganese	420	420	--	0.22	1.4	mg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Metals by ICP-MS	Nickel	51	51	--	0.73	1.4	mg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Metals by ICP-MS	Selenium	1	1.0	J	0.28	1.1	mg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
10	13-Jan-15	Caprolactam	--	--	--	--	--	--	--	0	2015	11	Z7
10	13-Jan-15	Carbazole	86-74-8	0.16	d	All	160	0.60625	11.875	1	2015	11	Z7
10	13-Jan-15	Chrysene	218-01-9	--	--	--	1100	0.014545455	6.636363636	1	2015	11	Z7
10	13-Jan-15	Dibenzo(a,h)anthracene	53-70-3	--	--	--	1100	0.021818182	1.181818182	1	2015	11	Z7
10	13-Jan-15	Dibenzofuran	132-64-9	0.15	d	All	150	0.666666667	8	1	2015	11	Z7
10	13-Jan-15	Diethylphthalate	84-66-2	0.23	d	All	230	0.434782609	--	0	2015	11	Z7
10	13-Jan-15	Dimethylphthalate	131-11-3	0.35	d	All	350	0.314285714	--	0	2015	11	Z7
10	13-Jan-15	Di-n-butyl phthalate	84-74-2	0.011	c	All	11	4.272727273	--	0	2015	11	Z7
10	13-Jan-15	Di-n-octyl phthalate	117-84-0	0.21	c	All	210	0.523809524	--	0	2015	11	Z7
10	13-Jan-15	Fluoranthene	206-44-0	--	--	--	1100	0.020909091	17.27272727	1	2015	11	Z7
10	13-Jan-15	Fluorene	86-73-7	--	--	All, total	29000	0.000758621	0.019655172	1	2015	11	Z7
10	13-Jan-15	Hexachlorobenzene	118-74-1	0.079	c	All	79	1.151898734	--	0	2015	11	Z7
10	13-Jan-15	Hexachlorobutadiene	87-68-3	0.1	d	SI	100	1.1	--	0	2015	11	Z7
10	13-Jan-15	Hexachlorocyclopentadiene	77-47-4	0.001	d	All	1	100	--	0	2015	11	Z7
10	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	11	Z7
--	13-Jan-15	High Molecular Weight PAHs	--	--	--	--	1100	--	66.63636364	1	2015	11	Z7
10	13-Jan-15	Indeno(1,2,3-cd)pyrene	193-39-5	--	--	--	1100	0.02	4.181818182	1	2015	11	Z7
10	13-Jan-15	Isophorone	--	--	--	--	--	--	--	0	2015	11	Z7
10	13-Jan-15	Naphthalene	91-20-3	--	--	All, total	29000	0.000827586	0.026896552	1	2015	11	Z7
10	13-Jan-15	Nitrobenzene	98-95-3	2.2	c	SI, M	2200	0.059090909	--	0	2015	11	Z7
10	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	11	Z7
10	13-Jan-15	N-Nitrosodiphenylamine	86-30-6	0.12	d	All	120	4.833333333	--	0	2015	11	Z7
10	13-Jan-15	Pentachlorophenol (PCP)	87-86-5	2.1	a	All	2100	0.03	--	0	2015	11	Z7
10	13-Jan-15	Phenanthrene	67580	--	--	--	29000	0.000448276	0.620689655	1	2015	11	Z7
10	13-Jan-15	Phenol	108-95-2	0.79	c	All	790	0.139240506	--	0	2015	11	Z7
10	13-Jan-15	Pyrene	129-00-0	--	--	--	1100	0.02	11.81818182	1	2015	11	Z7
1	12-Jan-15	Mercury (total)	7439-97-6	0.1	b	All	100	0.0078	2	1	2015	12	Z7
4	12-Jan-15	Aluminum	7429-90-5	--	a	All	--	--	--	1	2015	12	Z7
4	12-Jan-15	Antimony	7440-36-0	0.27	a	All	0.27	1.333333333	40.74074074	1	2015	12	Z7
4	12-Jan-15	Arsenic	7440-38-2	18	a	All	18000	0.015555556	0.422222222	1	2015	12	Z7
4	12-Jan-15	Barium	7440-39-3	330	a	All	330000	4.84848E-05	0.909090909	1	2015	12	Z7
4	12-Jan-15	Beryllium	7440-41-7	10	b	All	10000	0.014	0.028	1	2015	12	Z7
4	12-Jan-15	Cadmium	7440-43-9	0.36	a	All	360	0.15	17.22222222	1	2015	12	Z7
4	12-Jan-15	Chromium III	16065-83-1	18	a	All	18000	0.016666667	1.944444444	1	2015	12	Z7
4	12-Jan-15	Cobalt	7440-48-4	13	a	All	13000	0.012307692	0.7	1	2015	12	Z7
4	12-Jan-15	Copper	7440-50-8	28	a	All	28000	0.005357143	10.71428571	1	2015	12	Z7
4	12-Jan-15	Iron	7439-89-6	--	a	All	--	--	--	1	2015	12	Z7
40	13-Jan-15	Lead	7439-92-1	11	a	All	11000	0.127272727	45.45454545	1	2015	12	Z7
4	12-Jan-15	Manganese	7439-96-5	220	a	All	220000	0.001	1.909090909	1	2015	12	Z7
4	12-Jan-15	Nickel	7440-02-0	38	a	All	38000	0.019210526	1.342105263	1	2015	12	Z7
4	12-Jan-15	Selenium	7782-49-2	0.52	a	All	520	0.538461538	1.923076923	1	2015	12	Z7

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Metals by ICP-MS	Silver	2.4	2.4	--	0.0054	0.54	mg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Metals by ICP-MS	Thallium	--	U	U	0.15	1.4	mg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Metals by ICP-MS	Vanadium	8.7	8.7	--	0.22	1.4	mg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Metals by ICP-MS	Zinc	1,100	1,100	--	9.7	27	mg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Moisture	Moisture	0.33	0.33	--	0.025	0.05	% of sample
ISM-12-Z7	1501301-12	08-Jan-15	Soil	PCBs	Aroclor 1016	--	U	U	26	81	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	PCBs	Aroclor 1221	--	U	U	26	81	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	PCBs	Aroclor 1232	--	U	U	26	81	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	PCBs	Aroclor 1242	--	U	U	26	81	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	PCBs	Aroclor 1248	290	290	--	26	81	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	PCBs	Aroclor 1254	250	250	--	30	81	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	PCBs	Aroclor 1260	--	U	U	30	81	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	PCBs	PCBs, Total	540	--	--	--	--	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	1,1'-Biphenyl	--	U	U	50	3,300	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	83	1,600	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	56	1,600	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	97	1,600	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	530	3,300	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	300	6,600	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	110	1,600	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	170	1,600	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	16	800	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	100	1,600	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	590	590	J	28	800	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	140	1,600	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	130	6,600	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	110	1,600	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	3&4-Methylphenol	--	U	U	160	--	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	4,100	6,600	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	110	6,600	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	280	3,300	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	90	1,600	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	77	1,600	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	99	3,300	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	98	1,600	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	92	6,600	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	66	6,600	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthene	940	940	--	10	300	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	270	270	J	12	300	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	50	3,300	µg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
4	12-Jan-15	Silver	7440-22-4	4.2	a	All	4200	0.001285714	0.571428571	1	2015	12	Z7
4	12-Jan-15	Thallium	7440-28-0	0.22	c	All	220	0.681818182	--	0	2015	12	Z7
4	12-Jan-15	Vanadium	7440-62-2	7.8	a	All	7800	0.028205128	1.115384615	1	2015	12	Z7
40	13-Jan-15	Zinc	7440-66-6	46	a	All	46000	0.210869565	23.91304348	1	2015	12	Z7
1	12-Jan-15	--	--	--	--	--	--	--	--	--	2015	12	Z7
1	15-Jan-15	Aroclor-1016	12674-11-2	1	c	All	1000	0.026	--	0	2015	12	Z7
1	15-Jan-15	--	--	--	--	--	--	--	--	0	2015	12	Z7
1	15-Jan-15	--	--	--	--	--	--	--	--	0	2015	12	Z7
1	15-Jan-15	Aroclor-1242	53469-21-9	0.041	c	All	41	0.634146341	--	0	2015	12	Z7
1	15-Jan-15	Aroclor-1248	12672-29-6	0.0072	c	All	7.2	3.611111111	40.27777778	1	2015	12	Z7
1	15-Jan-15	Aroclor-1254	11097-69-1	0.014	c	All	14	2.142857143	17.85714286	1	2015	12	Z7
1	15-Jan-15	Aroclor-1260	11096-82-5	0.88	c	All	880	0.034090909	--	0	2015	12	Z7
--	--	PCBs (sum) (Wildlife Based)	1336-36-3	0.33	d	All	330	0	1.636363636	1	2015	12	Z7
10	12-Jan-15	1,1'-Biphenyl	92-52-4	0.2	d	All	200	0.25	--	0	2015	12	Z7
10	12-Jan-15	2,4,5-Trichlorophenol	95-95-4	0.03	d	All	30	2.766666667	--	0	2015	12	Z7
10	12-Jan-15	2,4,6-Trichlorophenol	88-06-2	0.09	d	All	90	0.622222222	--	0	2015	12	Z7
10	12-Jan-15	Dichlorophenols ,3-), (2,4-), (2,5-), (2,6-)	120-83-2	0.05	d	All	50	1.94	--	0	2015	12	Z7
10	12-Jan-15	2,4-Dimethylphenol	105-67-9	0.04	d	SI	40	13.25	--	0	2015	12	Z7
10	12-Jan-15	2,4-Dinitrophenol	51-28-5	0.15	d	All	150	2	--	0	2015	12	Z7
10	12-Jan-15	2,4-Dinitrotoluene	121-14-2	6	c	SI, M, P	6000	0.018333333	--	0	2015	12	Z7
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	12	Z7
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	12	Z7
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	12	Z7
10	12-Jan-15	2-Methylnaphthalene	91-57-6	--	--	All, total	29000	0.000965517	0.020344828	1	2015	12	Z7
10	12-Jan-15	2-Methylphenol (Cresol, o-)	95-48-7	0.1	d	All	100	1.4	--	0	2015	12	Z7
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	12	Z7
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	12	Z7
10	12-Jan-15	4-Methylphenol (Cresol, p-)	106-44-5	0.08	d	All	80	2	--	0	2015	12	Z7
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	12	Z7
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	12	Z7
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	12	Z7
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	12	Z7
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	12	Z7
10	12-Jan-15	4-Chloroaniline	106-47-8	1.0	c	P, SI	1000	0.099	--	0	2015	12	Z7
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	12	Z7
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	12	Z7
10	12-Jan-15	4-Nitrophenol	100-02-7	7	b	SI	7000	0.009428571	--	0	2015	12	Z7
10	12-Jan-15	Acenaphthene	83-32-9	--	--	All, total	29000	0.000344828	0.032413793	1	2015	12	Z7
10	12-Jan-15	Acenaphthylene	208-96-8	--	--	--	29000	0.000413793	0.009310345	1	2015	12	Z7
10	12-Jan-15	Acetophenone	--	--	--	--	--	--	--	0	2015	12	Z7

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Anthracene	2,200	2,200	--	13	300	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	100	500	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	410	410	J	130	3,300	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	4,800	4,800	--	13	300	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	4,000	4,000	--	22	300	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	5,300	5,300	--	20	300	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	3,000	3,000	--	26	300	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	2,100	2,100	--	14	300	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	100	1,600	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	100	1,600	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	140	1,600	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	--	U	U	110	3,300	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	--	U	U	120	1,600	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	150	3,300	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Carbazole	1,200	1,200	J	99	1,600	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Chrysene	4,800	4,800	--	16	300	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	890	890	--	25	300	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	1,500	1,500	J	100	1,600	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	110	3,300	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	110	3,300	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U	48	3,300	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	110	1,600	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluoranthene	13,000	13,000	--	23	300	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluorene	670	670	--	22	300	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	93	1,600	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	110	500	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	100	3,300	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	160	1,600	µg/Kg-dry
ISM-12-Z7	1501301-12	8-Jan-15	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	50790	--	--	--	--	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	3,300	3,300	--	22	300	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	110	1,600	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Naphthalene	1,800	1,800	--	25	300	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	130	1,600	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	130	1,600	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	590	1,600	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	64	200	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenanthrene	12,000	12,000	--	13	300	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	110	1,600	µg/Kg-dry
ISM-12-Z7	1501301-12	08-Jan-15	Soil	Semi-Volatile Organic Compounds	Pyrene	9,600	9,600	--	23	300	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Mercury by CVAA	Mercury	0.12	0.12	--	0.00081	0.013	mg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Metals by ICP-MS	Aluminum	7,300	7,300	--	1.1	3.2	mg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
10	12-Jan-15	Anthracene	120-12-7	--	--	--	29000	0.000448276	0.075862069	1	2015	12	Z7
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	12	Z7
10	12-Jan-15	Benzaldehyde	--	--	--	--	--	--	--	1	2015	12	Z7
10	12-Jan-15	Benzo(a)anthracene	56-55-3	--	--	--	1100	0.011818182	4.363636364	1	2015	12	Z7
10	12-Jan-15	Benzo(a)pyrene	50-32-8	--	--	--	1100	0.02	3.636363636	1	2015	12	Z7
10	12-Jan-15	Benzo(b)fluoranthene	205-99-2	--	--	--	1100	0.018181818	4.818181818	1	2015	12	Z7
10	12-Jan-15	Benzo(ghi)perylene	191-24-2	--	--	--	1100	0.023636364	2.727272727	1	2015	12	Z7
10	12-Jan-15	Benzo(k)fluoranthene	207-08-9	--	--	--	1100	0.012727273	1.909090909	1	2015	12	Z7
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	12	Z7
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	12	Z7
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	12	Z7
10	12-Jan-15	Bis(2-ethylhexyl) phthalate	117-81-7	0.02	c	All	20	5.5	--	0	2015	12	Z7
10	12-Jan-15	Butylbenzyl phthalate	85-68-7	0.59	d	All	590	0.203389831	--	0	2015	12	Z7
10	12-Jan-15	Caprolactam	--	--	--	--	--	--	--	0	2015	12	Z7
10	12-Jan-15	Carbazole	86-74-8	0.16	d	All	160	0.61875	7.5	1	2015	12	Z7
10	12-Jan-15	Chrysene	218-01-9	--	--	--	1100	0.014545455	4.363636364	1	2015	12	Z7
10	12-Jan-15	Dibenzo(a,h)anthracene	53-70-3	--	--	--	1100	0.022727273	0.809090909	1	2015	12	Z7
10	12-Jan-15	Dibenzofuran	132-64-9	0.15	d	All	150	0.666666667	10	1	2015	12	Z7
10	12-Jan-15	Diethylphthalate	84-66-2	0.23	d	All	230	0.47826087	--	0	2015	12	Z7
10	12-Jan-15	Dimethylphthalate	131-11-3	0.35	d	All	350	0.314285714	--	0	2015	12	Z7
10	12-Jan-15	Di-n-butyl phthalate	84-74-2	0.011	c	All	11	4.363636364	--	0	2015	12	Z7
10	12-Jan-15	Di-n-octyl phthalate	117-84-0	0.21	c	All	210	0.523809524	--	0	2015	12	Z7
10	12-Jan-15	Fluoranthene	206-44-0	--	--	--	1100	0.020909091	11.81818182	1	2015	12	Z7
10	12-Jan-15	Fluorene	86-73-7	--	--	All, total	29000	0.000758621	0.023103448	1	2015	12	Z7
10	12-Jan-15	Hexachlorobenzene	118-74-1	0.079	c	All	79	1.17721519	--	0	2015	12	Z7
10	12-Jan-15	Hexachlorobutadiene	87-68-3	0.1	d	SI	100	1.1	--	0	2015	12	Z7
10	12-Jan-15	Hexachlorocyclopentadiene	77-47-4	0.001	d	All	1	100	--	0	2015	12	Z7
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	12	Z7
--	12-Jan-15	High Molecular Weight PAHs	--	--	--	--	1100	--	46.17272727	1	2015	12	Z7
10	12-Jan-15	Indeno(1,2,3-cd)pyrene	193-39-5	--	--	--	1100	0.02	3	1	2015	12	Z7
10	12-Jan-15	Isophorone	--	--	--	--	--	--	--	0	2015	12	Z7
10	12-Jan-15	Naphthalene	91-20-3	--	--	All, total	29000	0.000862069	0.062068966	1	2015	12	Z7
10	12-Jan-15	Nitrobenzene	98-95-3	2.2	c	SI, M	2200	0.059090909	--	0	2015	12	Z7
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	12	Z7
10	12-Jan-15	N-Nitrosodiphenylamine	86-30-6	0.12	d	All	120	4.916666667	--	0	2015	12	Z7
10	12-Jan-15	Pentachlorophenol (PCP)	87-86-5	2.1	a	All	2100	0.03047619	--	0	2015	12	Z7
10	12-Jan-15	Phenanthrene	67580	--	--	--	29000	0.000448276	0.413793103	1	2015	12	Z7
10	12-Jan-15	Phenol	108-95-2	0.79	c	All	790	0.139240506	--	0	2015	12	Z7
10	12-Jan-15	Pyrene	129-00-0	--	--	--	1100	0.020909091	8.727272727	1	2015	12	Z7
1	04-Feb-15	Mercury (total)	7439-97-6	0.1	b	All	100	0.0081	1.2	1	2015	13	Z8
4	03-Feb-15	Aluminum	7429-90-5	--	a	All	--	--	--	1	2015	13	Z8

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Metals by ICP-MS	Antimony	20	20	--	0.42	1.6	mg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Metals by ICP-MS	Arsenic	6.5	6.5	--	0.33	1.6	mg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Metals by ICP-MS	Barium	400	400	--	0.019	1.6	mg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Metals by ICP-MS	Beryllium	0.32	0.32	J	0.16	0.63	mg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Metals by ICP-MS	Cadmium	16	16	--	0.063	0.63	mg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Metals by ICP-MS	Chromium	29	29	--	0.35	1.6	mg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Metals by ICP-MS	Cobalt	7.5	7.5	--	0.19	1.6	mg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Metals by ICP-MS	Copper	230	230	--	0.18	1.6	mg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Metals by ICP-MS	Iron	23,000	23,000	--	4.7	25	mg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Metals by ICP-MS	Lead	960	960	--	1.6	16	mg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Metals by ICP-MS	Manganese	450	450	--	0.25	1.6	mg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Metals by ICP-MS	Nickel	40	40	--	0.85	1.6	mg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Metals by ICP-MS	Selenium	1.2	1.2	J	0.33	1.6	mg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Metals by ICP-MS	Silver	4.4	4.4	--	0.0063	1.6	mg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Metals by ICP-MS	Thallium	--	U	U	0.17	1.6	mg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Metals by ICP-MS	Vanadium	14	14	--	0.26	1.6	mg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Metals by ICP-MS	Zinc	810	810	--	11	32	mg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Moisture	Moisture	0.36	0.36	--	0.025	0.05	% of sample
ISM-13-Z8	1502016-01	23-Jan-15	Soil	PCBs	Aroclor 1016	--	U	U	26	81	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	PCBs	Aroclor 1221	--	U	U	26	81	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	PCBs	Aroclor 1232	--	U	U	26	81	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	PCBs	Aroclor 1242	--	U	U	26	81	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	PCBs	Aroclor 1248	--	U	U	26	81	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	PCBs	Aroclor 1254	110	110	--	30	81	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	PCBs	Aroclor 1260	--	U	U	30	81	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	PCBs	PCBs, Total	110	110	--	--	--	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	1,1'-Biphenyl	--	U	U	24	1,600	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	41	780	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	27	780	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	48	780	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	260	1,600	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	150	3,200	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	52	780	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	85	780	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	7.7	33	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	49	780	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	36	36	--	14	33	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	66	780	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	63	3,200	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	55	780	µg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
4	03-Feb-15	Antimony	7440-36-0	0.27	a	All	0.27	1.555555556	74.07407407	1	2015	13	Z8
4	03-Feb-15	Arsenic	7440-38-2	18	a	All	18000	0.018333333	0.361111111	1	2015	13	Z8
4	03-Feb-15	Barium	7440-39-3	330	a	All	330000	5.75758E-05	1.212121212	1	2015	13	Z8
4	03-Feb-15	Beryllium	7440-41-7	10	b	All	10000	0.016	0.032	1	2015	13	Z8
4	03-Feb-15	Cadmium	7440-43-9	0.36	a	All	360	0.175	44.44444444	1	2015	13	Z8
4	03-Feb-15	Chromium III	16065-83-1	18	a	All	18000	0.019444444	1.611111111	1	2015	13	Z8
4	03-Feb-15	Cobalt	7440-48-4	13	a	All	13000	0.014615385	0.576923077	1	2015	13	Z8
4	03-Feb-15	Copper	7440-50-8	28	a	All	28000	0.006428571	8.214285714	1	2015	13	Z8
4	03-Feb-15	Iron	7439-89-6	--	a	All	--	--	--	1	2015	13	Z8
40	03-Feb-15	Lead	7439-92-1	11	a	All	11000	0.145454545	87.27272727	1	2015	13	Z8
4	03-Feb-15	Manganese	7439-96-5	220	a	All	220000	0.001136364	2.045454545	1	2015	13	Z8
4	03-Feb-15	Nickel	7440-02-0	38	a	All	38000	0.022368421	1.052631579	1	2015	13	Z8
4	03-Feb-15	Selenium	7782-49-2	0.52	a	All	520	0.634615385	2.307692308	1	2015	13	Z8
4	03-Feb-15	Silver	7440-22-4	4.2	a	All	4200	0.0015	1.047619048	1	2015	13	Z8
4	03-Feb-15	Thallium	7440-28-0	0.22	c	All	220	0.772727273	--	0	2015	13	Z8
4	03-Feb-15	Vanadium	7440-62-2	7.8	a	All	7800	0.033333333	1.794871795	1	2015	13	Z8
40	03-Feb-15	Zinc	7440-66-6	46	a	All	46000	0.239130435	17.60869565	1	2015	13	Z8
1	05-Feb-15	--	--	--	--	--	--	--	--	--	2015	13	Z8
1	04-Feb-15	Aroclor-1016	12674-11-2	1	c	All	1000	0.026	--	0	2015	13	Z8
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	13	Z8
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	13	Z8
1	04-Feb-15	Aroclor-1242	53469-21-9	0.041	c	All	41	0.634146341	--	0	2015	13	Z8
1	04-Feb-15	Aroclor-1248	12672-29-6	0.0072	c	All	7.2	3.611111111	--	0	2015	13	Z8
1	04-Feb-15	Aroclor-1254	11097-69-1	0.014	c	All	14	2.142857143	7.857142857	1	2015	13	Z8
1	04-Feb-15	Aroclor-1260	11096-82-5	0.88	c	All	880	0.034090909	--	0	2015	13	Z8
1	04-Feb-15	PCBs (sum) (Wildlife Based)	1336-36-3	0.33	d	All	330	0	0.333333333	1	2015	13	Z8
5	06-Feb-15	1,1'-Biphenyl	92-52-4	0.2	d	All	200	0.12	--	0	2015	13	Z8
5	06-Feb-15	2,4,5-Trichlorophenol	95-95-4	0.03	d	All	30	1.366666667	--	0	2015	13	Z8
5	06-Feb-15	2,4,6-Trichlorophenol	88-06-2	0.09	d	All	90	0.3	--	0	2015	13	Z8
5	06-Feb-15	Dichlorophenols ,3-), (2,4-), (2,5-), (2,6-)	120-83-2	0.05	d	All	50	0.96	--	0	2015	13	Z8
5	06-Feb-15	2,4-Dimethylphenol	105-67-9	0.04	d	SI	40	6.5	--	0	2015	13	Z8
5	06-Feb-15	2,4-Dinitrophenol	51-28-5	0.15	d	All	150	1	--	0	2015	13	Z8
5	06-Feb-15	2,4-Dinitrotoluene	121-14-2	6	c	SI, M, P	6000	0.008666667	--	0	2015	13	Z8
5	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	13	Z8
5	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	13	Z8
5	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	13	Z8
5	06-Feb-15	2-Methylnaphthalene	91-57-6	--	--	All, total	29000	0.000482759	0.001241379	1	2015	13	Z8
5	06-Feb-15	2-Methylphenol (Cresol, o-)	95-48-7	0.1	d	All	100	0.66	--	0	2015	13	Z8
5	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	13	Z8
5	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	13	Z8

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	3&4-Methylphenol	--	U	U	78	780	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	2,000	3,200	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	55	3,200	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	140	1,600	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	44	780	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	38	780	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	49	3,200	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	48	780	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	45	3,200	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	32	3,200	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthene	--	U	U	4.9	33	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	--	U	U	5.9	33	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	24	1,600	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Anthracene	28	28	J	6.4	33	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	49	1,600	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	170	170	J	62	1,600	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	320	320	--	6.4	33	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	380	380	--	11	33	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	540	540	--	9.6	33	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	340	340	--	13	33	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	250	250	--	6.9	33	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	51	780	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	51	780	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	68	780	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	1,900	1,900	--	53	1,600	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	--	U	U	61	780	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	71	1,600	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Carbazole	--	U	U	49	780	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Chrysene	360	360	--	7.8	33	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	78	78	--	12	33	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	--	U	U	51	780	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	52	1,600	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	55	1,600	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	1,500	1,500	J	24	1,600	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	53	780	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluoranthene	750	750	--	11	33	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluorene	--	U	U	11	33	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	46	780	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	55	780	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	51	1,600	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	76	780	µg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
5	06-Feb-15	4-Methylphenol (Cresol, p-)	106-44-5	0.08	d	All	80	0.975	--	0	2015	13	Z8
5	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	13	Z8
5	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	13	Z8
5	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	13	Z8
5	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	13	Z8
5	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	13	Z8
5	06-Feb-15	4-Chloroaniline	106-47-8	1.0	c	P, SI	1000	0.049	--	0	2015	13	Z8
5	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	13	Z8
5	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	13	Z8
5	06-Feb-15	4-Nitrophenol	100-02-7	7	b	SI	7000	0.004571429	--	0	2015	13	Z8
5	06-Feb-15	Acenaphthene	83-32-9	--	--	All, total	29000	0.000168966	--	0	2015	13	Z8
5	06-Feb-15	Acenaphthylene	208-96-8	--	--	--	29000	0.000203448	--	0	2015	13	Z8
5	06-Feb-15	Acetophenone	--	--	--	--	--	--	--	0	2015	13	Z8
5	06-Feb-15	Anthracene	120-12-7	--	--	--	29000	0.00022069	0.000965517	1	2015	13	Z8
5	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	13	Z8
5	06-Feb-15	Benzaldehyde	--	--	--	--	--	--	--	1	2015	13	Z8
5	06-Feb-15	Benzo(a)anthracene	56-55-3	--	--	--	1100	0.005818182	0.290909091	1	2015	13	Z8
5	06-Feb-15	Benzo(a)pyrene	50-32-8	--	--	--	1100	0.01	0.345454545	1	2015	13	Z8
5	06-Feb-15	Benzo(b)fluoranthene	205-99-2	--	--	--	1100	0.008727273	0.490909091	1	2015	13	Z8
5	06-Feb-15	Benzo(ghi)perylene	191-24-2	--	--	--	1100	0.011818182	0.309090909	1	2015	13	Z8
5	06-Feb-15	Benzo(k)fluoranthene	207-08-9	--	--	--	1100	0.006272727	0.227272727	1	2015	13	Z8
5	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	13	Z8
5	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	13	Z8
5	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	13	Z8
5	06-Feb-15	Bis(2-ethylhexyl) phthalate	117-81-7	0.02	c	All	20	2.65	95	1	2015	13	Z8
5	06-Feb-15	Butylbenzyl phthalate	85-68-7	0.59	d	All	590	0.103389831	--	0	2015	13	Z8
5	06-Feb-15	Caprolactam	--	--	--	--	--	--	--	0	2015	13	Z8
5	06-Feb-15	Carbazole	86-74-8	0.16	d	All	160	0.30625	--	0	2015	13	Z8
5	06-Feb-15	Chrysene	218-01-9	--	--	--	1100	0.007090909	0.327272727	1	2015	13	Z8
5	06-Feb-15	Dibenzo(a,h)anthracene	53-70-3	--	--	--	1100	0.010909091	0.070909091	1	2015	13	Z8
5	06-Feb-15	Dibenzofuran	132-64-9	0.15	d	All	150	0.34	--	0	2015	13	Z8
5	06-Feb-15	Diethylphthalate	84-66-2	0.23	d	All	230	0.226086957	--	0	2015	13	Z8
5	06-Feb-15	Dimethylphthalate	131-11-3	0.35	d	All	350	0.157142857	--	0	2015	13	Z8
5	06-Feb-15	Di-n-butyl phthalate	84-74-2	0.011	c	All	11	2.181818182	136.3636364	1	2015	13	Z8
5	06-Feb-15	Di-n-octyl phthalate	117-84-0	0.21	c	All	210	0.252380952	--	0	2015	13	Z8
5	06-Feb-15	Fluoranthene	206-44-0	--	--	--	1100	0.01	0.681818182	1	2015	13	Z8
5	06-Feb-15	Fluorene	86-73-7	--	--	All, total	29000	0.00037931	--	0	2015	13	Z8
5	06-Feb-15	Hexachlorobenzene	118-74-1	0.079	c	All	79	0.582278481	--	0	2015	13	Z8
5	06-Feb-15	Hexachlorobutadiene	87-68-3	0.1	d	SI	100	0.55	--	0	2015	13	Z8
5	06-Feb-15	Hexachlorocyclopentadiene	77-47-4	0.001	d	All	1	51	--	0	2015	13	Z8
5	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	13	Z8

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	3898	--	--	--	--	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	410	410	--	11	33	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	55	780	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Naphthalene	42	42	--	12	33	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	63	780	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	62	780	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	290	780	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	31	1,600	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenanthrene	390	390	--	6.5	33	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	56	780	µg/Kg-dry
ISM-13-Z8	1502016-01	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Pyrene	470	470	--	11	33	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Mercury by CVAA	Mercury	0.067	0.067	--	0.0008	0.013	mg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Metals by ICP-MS	Aluminum	5,800	5,800	--	0.88	2.6	mg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Metals by ICP-MS	Antimony	9.1	9.1	--	0.34	1.3	mg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Metals by ICP-MS	Arsenic	5.6	5.6	--	0.27	1.3	mg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Metals by ICP-MS	Barium	380	380	--	0.015	1.3	mg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Metals by ICP-MS	Beryllium	0.27	0.27	J	0.13	0.52	mg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Metals by ICP-MS	Cadmium	3.6	3.6	--	0.052	0.52	mg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Metals by ICP-MS	Chromium	20	20	--	0.29	1.3	mg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Metals by ICP-MS	Cobalt	5.5	5.5	--	0.15	1.3	mg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Metals by ICP-MS	Copper	150	150	--	0.14	1.3	mg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Metals by ICP-MS	Iron	21,000	21,000	--	3.8	21	mg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Metals by ICP-MS	Lead	350	350	--	0.13	1.3	mg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Metals by ICP-MS	Manganese	320	320	--	0.21	1.3	mg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Metals by ICP-MS	Nickel	33	33	--	0.7	1.3	mg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Metals by ICP-MS	Selenium	0.87	0.87	J	0.27	1.3	mg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Metals by ICP-MS	Silver	3.2	3.2	--	0.0052	1.3	mg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Metals by ICP-MS	Thallium	--	U	U	0.14	1.3	mg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Metals by ICP-MS	Vanadium	14	14	--	0.21	1.3	mg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Metals by ICP-MS	Zinc	510	510	--	9.3	26	mg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Moisture	Moisture	0.3	0.30	--	0.025	0.05	% of sample
ISM-14-Z8	1502016-02	23-Jan-15	Soil	PCBs	Aroclor 1016	--	U	U	26	81	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	PCBs	Aroclor 1221	--	U	U	26	81	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	PCBs	Aroclor 1232	--	U	U	26	81	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	PCBs	Aroclor 1242	--	U	U	26	81	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	PCBs	Aroclor 1248	--	U	U	26	81	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	PCBs	Aroclor 1254	120	120	--	31	81	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	PCBs	Aroclor 1260	--	U	U	31	81	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	PCBs	PCBs, Total	120	120	--	--	--	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	1,1'-Biphenyl	--	U	U	4.9	330	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	8.2	160	µg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
--	6-Feb-15	High Molecular Weight PAHs	--	--	--	--	1100	--	3.543636364	1	2015	13	Z8
5	06-Feb-15	Indeno(1,2,3-cd)pyrene	193-39-5	--	--	--	1100	0.01	0.372727273	1	2015	13	Z8
5	06-Feb-15	Isophorone	--	--	--	--	--	--	--	0	2015	13	Z8
5	06-Feb-15	Naphthalene	91-20-3	--	--	All, total	29000	0.000413793	0.001448276	1	2015	13	Z8
5	06-Feb-15	Nitrobenzene	98-95-3	2.2	c	SI, M	2200	0.028636364	--	0	2015	13	Z8
5	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	13	Z8
5	06-Feb-15	N-Nitrosodiphenylamine	86-30-6	0.12	d	All	120	2.416666667	--	0	2015	13	Z8
5	06-Feb-15	Pentachlorophenol (PCP)	87-86-5	2.1	a	All	2100	0.014761905	--	0	2015	13	Z8
5	06-Feb-15	Phenanthrene	67580	--	--	--	29000	0.000224138	0.013448276	1	2015	13	Z8
5	06-Feb-15	Phenol	108-95-2	0.79	c	All	790	0.070886076	--	0	2015	13	Z8
5	06-Feb-15	Pyrene	129-00-0	--	--	--	1100	0.01	0.427272727	1	2015	13	Z8
1	04-Feb-15	Mercury (total)	7439-97-6	0.1	b	All	100	0.008	0.67	1	2015	14	Z8
4	03-Feb-15	Aluminum	7429-90-5	--	a	All	--	--	--	1	2015	14	Z8
4	03-Feb-15	Antimony	7440-36-0	0.27	a	All	0.27	1.259259259	33.7037037	1	2015	14	Z8
4	03-Feb-15	Arsenic	7440-38-2	18	a	All	18000	0.015	0.311111111	1	2015	14	Z8
4	03-Feb-15	Barium	7440-39-3	330	a	All	330000	4.54545E-05	1.151515152	1	2015	14	Z8
4	03-Feb-15	Beryllium	7440-41-7	10	b	All	10000	0.013	0.027	1	2015	14	Z8
4	03-Feb-15	Cadmium	7440-43-9	0.36	a	All	360	0.144444444	10	1	2015	14	Z8
4	03-Feb-15	Chromium III	16065-83-1	18	a	All	18000	0.016111111	1.111111111	1	2015	14	Z8
4	03-Feb-15	Cobalt	7440-48-4	13	a	All	13000	0.011538462	0.423076923	1	2015	14	Z8
4	03-Feb-15	Copper	7440-50-8	28	a	All	28000	0.005	5.357142857	1	2015	14	Z8
4	03-Feb-15	Iron	7439-89-6	--	a	All	--	--	--	1	2015	14	Z8
4	03-Feb-15	Lead	7439-92-1	11	a	All	11000	0.011818182	31.81818182	1	2015	14	Z8
4	03-Feb-15	Manganese	7439-96-5	220	a	All	220000	0.000954545	1.454545455	1	2015	14	Z8
4	03-Feb-15	Nickel	7440-02-0	38	a	All	38000	0.018421053	0.868421053	1	2015	14	Z8
4	03-Feb-15	Selenium	7782-49-2	0.52	a	All	520	0.519230769	1.673076923	1	2015	14	Z8
4	03-Feb-15	Silver	7440-22-4	4.2	a	All	4200	0.001238095	0.761904762	1	2015	14	Z8
4	03-Feb-15	Thallium	7440-28-0	0.22	c	All	220	0.636363636	--	0	2015	14	Z8
4	03-Feb-15	Vanadium	7440-62-2	7.8	a	All	7800	0.026923077	1.794871795	1	2015	14	Z8
40	03-Feb-15	Zinc	7440-66-6	46	a	All	46000	0.202173913	11.08695652	1	2015	14	Z8
1	05-Feb-15	--	--	--	--	--	--	--	--	--	2015	14	Z8
1	05-Feb-15	Aroclor-1016	12674-11-2	1	c	All	1000	0.026	--	0	2015	14	Z8
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	14	Z8
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	14	Z8
1	05-Feb-15	Aroclor-1242	53469-21-9	0.041	c	All	41	0.634146341	--	0	2015	14	Z8
1	05-Feb-15	Aroclor-1248	12672-29-6	0.0072	c	All	7.2	3.611111111	--	0	2015	14	Z8
1	05-Feb-15	Aroclor-1254	11097-69-1	0.014	c	All	14	2.214285714	8.571428571	1	2015	14	Z8
1	05-Feb-15	Aroclor-1260	11096-82-5	0.88	c	All	880	0.035227273	--	0	2015	14	Z8
1	05-Feb-15	PCBs (sum) (Wildlife Based)	1336-36-3	0.33	d	All	330	0	0.363636364	1	2015	14	Z8
1	05-Feb-15	1,1'-Biphenyl	92-52-4	0.2	d	All	200	0.0245	--	0	2015	14	Z8
1	05-Feb-15	2,4,5-Trichlorophenol	95-95-4	0.03	d	All	30	0.273333333	--	0	2015	14	Z8

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	5.5	160	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	9.6	160	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	53	330	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	30	650	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	10	160	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	17	160	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	1.5	6.6	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	9.9	160	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	18	18	--	2.7	6.6	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	13	160	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	13	650	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	11	160	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	3&4-Methylphenol	17	17	J	16	160	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	410	650	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	11	650	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	27	330	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	8.9	160	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	7.6	160	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	9.8	650	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	9.6	160	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	9.1	650	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	6.5	650	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthene	--	U	U	0.98	6.6	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	--	U	U	1.2	6.6	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Acetophenone	47	47	J	4.9	330	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Anthracene	16	16	--	1.3	6.6	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	10	330	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	270	270	J	13	330	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	98	98	--	1.3	6.6	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	110	110	--	2.1	6.6	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	160	160	--	1.9	6.6	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	110	110	--	2.6	6.6	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	70	70	--	1.4	6.6	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	10	160	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	10	160	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	14	160	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	420	420	--	11	330	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	97	97	J	12	160	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	14	330	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Carbazole	19	19	J	9.8	160	µg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
1	05-Feb-15	2,4,6-Trichlorophenol	88-06-2	0.09	d	All	90	0.061111111	--	0	2015	14	Z8
1	05-Feb-15	Dichlorophenols ,3-), (2,4-), (2,5-), (2,6-)	120-83-2	0.05	d	All	50	0.192	--	0	2015	14	Z8
1	05-Feb-15	2,4-Dimethylphenol	105-67-9	0.04	d	SI	40	1.325	--	0	2015	14	Z8
1	05-Feb-15	2,4-Dinitrophenol	51-28-5	0.15	d	All	150	0.2	--	0	2015	14	Z8
1	05-Feb-15	2,4-Dinitrotoluene	121-14-2	6	c	SI, M, P	6000	0.001666667	--	0	2015	14	Z8
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	14	Z8
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	14	Z8
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	14	Z8
1	05-Feb-15	2-Methylnaphthalene	91-57-6	--	--	All, total	29000	9.31034E-05	0.00062069	1	2015	14	Z8
1	05-Feb-15	2-Methylphenol (Cresol, o-)	95-48-7	0.1	d	All	100	0.13	--	0	2015	14	Z8
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	14	Z8
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	14	Z8
1	05-Feb-15	4-Methylphenol (Cresol, p-)	106-44-5	0.08	d	All	80	0.2	0.2125	1	2015	14	Z8
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	14	Z8
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	14	Z8
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	14	Z8
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	14	Z8
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	14	Z8
1	05-Feb-15	4-Chloroaniline	106-47-8	1.0	c	P, SI	1000	0.0098	--	0	2015	14	Z8
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	14	Z8
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	14	Z8
1	05-Feb-15	4-Nitrophenol	100-02-7	7	b	SI	7000	0.000928571	--	0	2015	14	Z8
1	05-Feb-15	Acenaphthene	83-32-9	--	--	All, total	29000	3.37931E-05	--	0	2015	14	Z8
1	05-Feb-15	Acenaphthylene	208-96-8	--	--	--	29000	4.13793E-05	--	0	2015	14	Z8
1	05-Feb-15	Acetophenone	--	--	--	--	--	--	--	1	2015	14	Z8
1	05-Feb-15	Anthracene	120-12-7	--	--	--	29000	4.48276E-05	0.000551724	1	2015	14	Z8
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	14	Z8
1	05-Feb-15	Benzaldehyde	--	--	--	--	--	--	--	1	2015	14	Z8
1	05-Feb-15	Benzo(a)anthracene	56-55-3	--	--	--	1100	0.001181818	0.089090909	1	2015	14	Z8
1	05-Feb-15	Benzo(a)pyrene	50-32-8	--	--	--	1100	0.001909091	0.1	1	2015	14	Z8
1	05-Feb-15	Benzo(b)fluoranthene	205-99-2	--	--	--	1100	0.001727273	0.145454545	1	2015	14	Z8
1	05-Feb-15	Benzo(ghi)perylene	191-24-2	--	--	--	1100	0.002363636	0.1	1	2015	14	Z8
1	05-Feb-15	Benzo(k)fluoranthene	207-08-9	--	--	--	1100	0.001272727	0.063636364	1	2015	14	Z8
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	14	Z8
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	14	Z8
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	14	Z8
1	05-Feb-15	Bis(2-ethylhexyl) phthalate	117-81-7	0.02	c	All	20	0.55	21	1	2015	14	Z8
1	05-Feb-15	Butylbenzyl phthalate	85-68-7	0.59	d	All	590	0.020338983	0.16440678	1	2015	14	Z8
1	05-Feb-15	Caprolactam	--	--	--	--	--	--	--	0	2015	14	Z8
1	05-Feb-15	Carbazole	86-74-8	0.16	d	All	160	0.06125	0.11875	1	2015	14	Z8

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Chrysene	120	120	--	1.6	6.6	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	26	26	--	2.4	6.6	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	--	U	U	10	160	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	10	330	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	11	330	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	210	210	J	4.7	330	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	11	160	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluoranthene	180	180	--	2.3	6.6	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluorene	--	U	U	2.2	6.6	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	9.2	160	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	11	160	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	10	330	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	15	160	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	1164	--	--	--	--	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	120	120	--	2.2	6.6	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	11	160	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Naphthalene	22	22	--	2.4	6.6	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	13	160	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	13	160	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	58	160	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	6.3	330	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenanthrene	110	110	--	1.3	6.6	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	11	160	µg/Kg-dry
ISM-14-Z8	1502016-02	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Pyrene	170	170	--	2.2	6.6	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Mercury by CVAA	Mercury	0.11	0.11	--	0.00087	0.014	mg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Metals by ICP-MS	Aluminum	5,900	5,900	--	0.87	2.5	mg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Metals by ICP-MS	Antimony	9.3	9.3	--	0.33	1.3	mg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Metals by ICP-MS	Arsenic	7.1	7.1	--	0.26	1.3	mg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Metals by ICP-MS	Barium	220	220	--	0.015	1.3	mg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Metals by ICP-MS	Beryllium	0.26	0.26	J	0.13	0.51	mg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Metals by ICP-MS	Cadmium	3.3	3.3	--	0.051	0.51	mg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Metals by ICP-MS	Chromium	27	27	--	0.28	1.3	mg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Metals by ICP-MS	Cobalt	5.3	5.3	--	0.15	1.3	mg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Metals by ICP-MS	Copper	160	160	--	0.14	1.3	mg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Metals by ICP-MS	Iron	19,000	19,000	--	3.7	20	mg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Metals by ICP-MS	Lead	300	300	--	0.13	1.3	mg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Metals by ICP-MS	Manganese	340	340	--	0.2	1.3	mg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Metals by ICP-MS	Nickel	37	37	--	0.68	1.3	mg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Metals by ICP-MS	Selenium	1.5	1.5	--	0.26	1.3	mg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Metals by ICP-MS	Silver	1.7	1.7	--	0.0051	1.3	mg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Metals by ICP-MS	Thallium	--	U	U	0.14	1.3	mg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
1	05-Feb-15	Chrysene	218-01-9	--	--	--	1100	0.001454545	0.109090909	1	2015	14	Z8
1	05-Feb-15	Dibenzo(a,h)anthracene	53-70-3	--	--	--	1100	0.002181818	0.023636364	1	2015	14	Z8
1	05-Feb-15	Dibenzofuran	132-64-9	0.15	d	All	150	0.066666667	--	0	2015	14	Z8
1	05-Feb-15	Diethylphthalate	84-66-2	0.23	d	All	230	0.043478261	--	0	2015	14	Z8
1	05-Feb-15	Dimethylphthalate	131-11-3	0.35	d	All	350	0.031428571	--	0	2015	14	Z8
1	05-Feb-15	Di-n-butyl phthalate	84-74-2	0.011	c	All	11	0.427272727	19.09090909	1	2015	14	Z8
1	05-Feb-15	Di-n-octyl phthalate	117-84-0	0.21	c	All	210	0.052380952	--	0	2015	14	Z8
1	05-Feb-15	Fluoranthene	206-44-0	--	--	--	1100	0.002090909	0.163636364	1	2015	14	Z8
1	05-Feb-15	Fluorene	86-73-7	--	--	All, total	29000	7.58621E-05	--	0	2015	14	Z8
1	05-Feb-15	Hexachlorobenzene	118-74-1	0.079	c	All	79	0.116455696	--	0	2015	14	Z8
1	05-Feb-15	Hexachlorobutadiene	87-68-3	0.1	d	SI	100	0.11	--	0	2015	14	Z8
1	05-Feb-15	Hexachlorocyclopentadiene	77-47-4	0.001	d	All	1	10	--	0	2015	14	Z8
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	14	Z8
--	5-Feb-15	High Molecular Weight PAHs	--	--	--	--	1100	--	1.058181818	1	2015	14	Z8
1	05-Feb-15	Indeno(1,2,3-cd)pyrene	193-39-5	--	--	--	1100	0.002	0.109090909	1	2015	14	Z8
1	05-Feb-15	Isophorone	--	--	--	--	--	--	--	0	2015	14	Z8
1	05-Feb-15	Naphthalene	91-20-3	--	--	All, total	29000	8.27586E-05	0.000758621	1	2015	14	Z8
1	05-Feb-15	Nitrobenzene	98-95-3	2.2	c	SI, M	2200	0.005909091	--	0	2015	14	Z8
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	14	Z8
1	05-Feb-15	N-Nitrosodiphenylamine	86-30-6	0.12	d	All	120	0.483333333	--	0	2015	14	Z8
1	05-Feb-15	Pentachlorophenol (PCP)	87-86-5	2.1	a	All	2100	0.003	--	0	2015	14	Z8
1	05-Feb-15	Phenanthrene	67580	--	--	--	29000	4.48276E-05	0.003793103	1	2015	14	Z8
1	05-Feb-15	Phenol	108-95-2	0.79	c	All	790	0.013924051	--	0	2015	14	Z8
1	05-Feb-15	Pyrene	129-00-0	--	--	--	1100	0.002	0.154545455	1	2015	14	Z8
1	04-Feb-15	Mercury (total)	7439-97-6	0.1	b	All	100	0.0087	1.1	1	2015	15	Z8
4	03-Feb-15	Aluminum	7429-90-5	--	a	All	--	--	--	1	2015	15	Z8
4	03-Feb-15	Antimony	7440-36-0	0.27	a	All	0.27	1.222222222	34.44444444	1	2015	15	Z8
4	03-Feb-15	Arsenic	7440-38-2	18	a	All	18000	0.014444444	0.394444444	1	2015	15	Z8
4	03-Feb-15	Barium	7440-39-3	330	a	All	330000	4.54545E-05	0.666666667	1	2015	15	Z8
4	03-Feb-15	Beryllium	7440-41-7	10	b	All	10000	0.013	0.026	1	2015	15	Z8
4	03-Feb-15	Cadmium	7440-43-9	0.36	a	All	360	0.141666667	9.166666667	1	2015	15	Z8
4	03-Feb-15	Chromium III	16065-83-1	18	a	All	18000	0.015555556	1.5	1	2015	15	Z8
4	03-Feb-15	Cobalt	7440-48-4	13	a	All	13000	0.011538462	0.407692308	1	2015	15	Z8
4	03-Feb-15	Copper	7440-50-8	28	a	All	28000	0.005	5.714285714	1	2015	15	Z8
4	03-Feb-15	Iron	7439-89-6	--	a	All	--	--	--	1	2015	15	Z8
4	03-Feb-15	Lead	7439-92-1	11	a	All	11000	0.011818182	27.27272727	1	2015	15	Z8
4	03-Feb-15	Manganese	7439-96-5	220	a	All	220000	0.000909091	1.545454545	1	2015	15	Z8
4	03-Feb-15	Nickel	7440-02-0	38	a	All	38000	0.017894737	0.973684211	1	2015	15	Z8
4	03-Feb-15	Selenium	7782-49-2	0.52	a	All	520	0.5	2.884615385	1	2015	15	Z8
4	03-Feb-15	Silver	7440-22-4	4.2	a	All	4200	0.001214286	0.404761905	1	2015	15	Z8
4	03-Feb-15	Thallium	7440-28-0	0.22	c	All	220	0.636363636	--	0	2015	15	Z8

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Metals by ICP-MS	Vanadium	13	13	--	0.21	1.3	mg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Metals by ICP-MS	Zinc	560	560	--	9.1	25	mg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Moisture	Moisture	0.33	0.33	--	0.025	0.05	% of sample
ISM-15-Z8	1502016-03	23-Jan-15	Soil	PCBs	Aroclor 1016	--	U	U	26	80	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	PCBs	Aroclor 1221	--	U	U	26	80	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	PCBs	Aroclor 1232	--	U	U	26	80	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	PCBs	Aroclor 1242	--	U	U	26	80	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	PCBs	Aroclor 1248	--	U	U	26	80	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	PCBs	Aroclor 1254	120	120	--	30	80	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	PCBs	Aroclor 1260	--	U	U	30	80	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	PCBs	PCBs, Total	120	120	--	--	--	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	1,1'-Biphenyl	--	U	U	4.9	330	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	8.2	160	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	5.6	160	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	9.6	160	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	53	330	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	30	650	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	11	160	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	17	160	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	1.6	6.6	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	9.9	160	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	53	53	--	2.7	6.6	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	13	160	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	13	650	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	11	160	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	3&4-Methylphenol	--	U	U	16	160	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	410	650	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	11	650	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	27	330	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	8.9	160	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	7.6	160	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	9.8	650	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	9.7	160	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	9.1	650	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	6.5	650	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthene	4.6	4.6	J	0.99	6.6	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	9.2	9.2	--	1.2	6.6	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	4.9	330	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Anthracene	16	16	--	1.3	6.6	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	10	330	µg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
4	03-Feb-15	Vanadium	7440-62-2	7.8	a	All	7800	0.026923077	1.666666667	1	2015	15	Z8
40	03-Feb-15	Zinc	7440-66-6	46	a	All	46000	0.197826087	12.17391304	1	2015	15	Z8
1	05-Feb-15	--	--	--	--	--	--	--	--	--	2015	15	Z8
1	05-Feb-15	Aroclor-1016	12674-11-2	1	c	All	1000	0.026	--	0	2015	15	Z8
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	15	Z8
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	15	Z8
1	05-Feb-15	Aroclor-1242	53469-21-9	0.041	c	All	41	0.634146341	--	0	2015	15	Z8
1	05-Feb-15	Aroclor-1248	12672-29-6	0.0072	c	All	7.2	3.611111111	--	0	2015	15	Z8
1	05-Feb-15	Aroclor-1254	11097-69-1	0.014	c	All	14	2.142857143	8.571428571	1	2015	15	Z8
1	05-Feb-15	Aroclor-1260	11096-82-5	0.88	c	All	880	0.034090909	--	0	2015	15	Z8
1	05-Feb-15	PCBs (sum) (Wildlife Based)	1336-36-3	0.33	d	All	330	0	0.363636364	1	2015	15	Z8
1	06-Feb-15	1,1'-Biphenyl	92-52-4	0.2	d	All	200	0.0245	--	0	2015	15	Z8
1	06-Feb-15	2,4,5-Trichlorophenol	95-95-4	0.03	d	All	30	0.273333333	--	0	2015	15	Z8
1	06-Feb-15	2,4,6-Trichlorophenol	88-06-2	0.09	d	All	90	0.062222222	--	0	2015	15	Z8
1	06-Feb-15	Dichlorophenols ,3-), (2,4-), (2,5-), (2,6-)	120-83-2	0.05	d	All	50	0.192	--	0	2015	15	Z8
1	06-Feb-15	2,4-Dimethylphenol	105-67-9	0.04	d	SI	40	1.325	--	0	2015	15	Z8
1	06-Feb-15	2,4-Dinitrophenol	51-28-5	0.15	d	All	150	0.2	--	0	2015	15	Z8
1	06-Feb-15	2,4-Dinitrotoluene	121-14-2	6	c	SI, M, P	6000	0.001833333	--	0	2015	15	Z8
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	15	Z8
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	15	Z8
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	15	Z8
1	06-Feb-15	2-Methylnaphthalene	91-57-6	--	--	All, total	29000	9.31034E-05	0.001827586	1	2015	15	Z8
1	06-Feb-15	2-Methylphenol (Cresol, o-)	95-48-7	0.1	d	All	100	0.13	--	0	2015	15	Z8
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	15	Z8
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	15	Z8
1	06-Feb-15	4-Methylphenol (Cresol, p-)	106-44-5	0.08	d	All	80	0.2	--	0	2015	15	Z8
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	15	Z8
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	15	Z8
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	15	Z8
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	15	Z8
1	06-Feb-15	4-Chloroaniline	106-47-8	1.0	c	P, SI	1000	0.0098	--	0	2015	15	Z8
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	15	Z8
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	15	Z8
1	06-Feb-15	4-Nitrophenol	100-02-7	7	b	SI	7000	0.000928571	--	0	2015	15	Z8
1	06-Feb-15	Acenaphthene	83-32-9	--	--	All, total	29000	3.41379E-05	0.000158621	1	2015	15	Z8
1	06-Feb-15	Acenaphthylene	208-96-8	--	--	--	29000	4.13793E-05	0.000317241	1	2015	15	Z8
1	06-Feb-15	Acetophenone	--	--	--	--	--	--	--	0	2015	15	Z8
1	06-Feb-15	Anthracene	120-12-7	--	--	--	29000	4.48276E-05	0.000551724	1	2015	15	Z8
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	15	Z8

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	140	140	J	13	330	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	66	66	--	1.3	6.6	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	85	85	--	2.1	6.6	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	120	120	--	1.9	6.6	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	82	82	--	2.6	6.6	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	53	53	--	1.4	6.6	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	10	160	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	10	160	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	14	160	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	1,500	1,500	--	11	330	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	310	310	--	12	160	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	14	330	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Carbazole	--	U	U	9.8	160	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Chrysene	87	87	--	1.6	6.6	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	25	25	--	2.5	6.6	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	--	U	U	10	160	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	10	330	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	11	330	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	850	850	--	4.8	330	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	11	160	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluoranthene	140	140	--	2.3	6.6	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluorene	4.9	4.9	J	2.2	6.6	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	9.2	160	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	11	160	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	10	330	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	15	160	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	859	--	--	--	--	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	91	91	--	2.2	6.6	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	11	160	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Naphthalene	20	20	--	2.4	6.6	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	13	160	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	13	160	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	59	160	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	6.4	330	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenanthrene	92	92	--	1.3	6.6	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	11	160	µg/Kg-dry
ISM-15-Z8	1502016-03	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Pyrene	110	110	--	2.2	6.6	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Mercury by CVAA	Mercury	0.37	0.37	--	0.0045	0.074	mg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Metals by ICP-MS	Aluminum	5,000	5,000	--	0.89	2.6	mg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Metals by ICP-MS	Antimony	6	6.0	--	0.34	1.3	mg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Metals by ICP-MS	Arsenic	6.1	6.1	--	0.27	1.3	mg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
1	06-Feb-15	Benzaldehyde	--	--	--	--	--	--	--	1	2015	15	Z8
1	06-Feb-15	Benzo(a)anthracene	56-55-3	--	--	--	1100	0.001181818	0.06	1	2015	15	Z8
1	06-Feb-15	Benzo(a)pyrene	50-32-8	--	--	--	1100	0.001909091	0.077272727	1	2015	15	Z8
1	06-Feb-15	Benzo(b)fluoranthene	205-99-2	--	--	--	1100	0.001727273	0.109090909	1	2015	15	Z8
1	06-Feb-15	Benzo(ghi)perylene	191-24-2	--	--	--	1100	0.002363636	0.074545455	1	2015	15	Z8
1	06-Feb-15	Benzo(k)fluoranthene	207-08-9	--	--	--	1100	0.001272727	0.048181818	1	2015	15	Z8
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	15	Z8
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	15	Z8
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	15	Z8
1	06-Feb-15	Bis(2-ethylhexyl) phthalate	117-81-7	0.02	c	All	20	0.55	75	1	2015	15	Z8
1	06-Feb-15	Butylbenzyl phthalate	85-68-7	0.59	d	All	590	0.020338983	0.525423729	1	2015	15	Z8
1	06-Feb-15	Caprolactam	--	--	--	--	--	--	--	0	2015	15	Z8
1	06-Feb-15	Carbazole	86-74-8	0.16	d	All	160	0.06125	--	0	2015	15	Z8
1	06-Feb-15	Chrysene	218-01-9	--	--	--	1100	0.001454545	0.079090909	1	2015	15	Z8
1	06-Feb-15	Dibenzo(a,h)anthracene	53-70-3	--	--	--	1100	0.002272727	0.022727273	1	2015	15	Z8
1	06-Feb-15	Dibenzofuran	132-64-9	0.15	d	All	150	0.066666667	--	0	2015	15	Z8
1	06-Feb-15	Diethylphthalate	84-66-2	0.23	d	All	230	0.043478261	--	0	2015	15	Z8
1	06-Feb-15	Dimethylphthalate	131-11-3	0.35	d	All	350	0.031428571	--	0	2015	15	Z8
1	06-Feb-15	Di-n-butyl phthalate	84-74-2	0.011	c	All	11	0.436363636	77.27272727	1	2015	15	Z8
1	06-Feb-15	Di-n-octyl phthalate	117-84-0	0.21	c	All	210	0.052380952	--	0	2015	15	Z8
1	06-Feb-15	Fluoranthene	206-44-0	--	--	--	1100	0.002090909	0.127272727	1	2015	15	Z8
1	06-Feb-15	Fluorene	86-73-7	--	--	All, total	29000	7.58621E-05	0.000168966	1	2015	15	Z8
1	06-Feb-15	Hexachlorobenzene	118-74-1	0.079	c	All	79	0.116455696	--	0	2015	15	Z8
1	06-Feb-15	Hexachlorobutadiene	87-68-3	0.1	d	SI	100	0.11	--	0	2015	15	Z8
1	06-Feb-15	Hexachlorocyclopentadiene	77-47-4	0.001	d	All	1	10	--	0	2015	15	Z8
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	15	Z8
--	6-Feb-15	High Molecular Weight PAHs	--	--	--	--	1100	--	0.780909091	1	2015	15	Z8
1	06-Feb-15	Indeno(1,2,3-cd)pyrene	193-39-5	--	--	--	1100	0.002	0.082727273	1	2015	15	Z8
1	06-Feb-15	Isophorone	--	--	--	--	--	--	--	0	2015	15	Z8
1	06-Feb-15	Naphthalene	91-20-3	--	--	All, total	29000	8.27586E-05	0.000689655	1	2015	15	Z8
1	06-Feb-15	Nitrobenzene	98-95-3	2.2	c	SI, M	2200	0.005909091	--	0	2015	15	Z8
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	15	Z8
1	06-Feb-15	N-Nitrosodiphenylamine	86-30-6	0.12	d	All	120	0.491666667	--	0	2015	15	Z8
1	06-Feb-15	Pentachlorophenol (PCP)	87-86-5	2.1	a	All	2100	0.003047619	--	0	2015	15	Z8
1	06-Feb-15	Phenanthrene	67580	--	--	--	29000	4.48276E-05	0.003172414	1	2015	15	Z8
1	06-Feb-15	Phenol	108-95-2	0.79	c	All	790	0.013924051	--	0	2015	15	Z8
1	06-Feb-15	Pyrene	129-00-0	--	--	--	1100	0.002	0.1	1	2015	15	Z8
5	05-Feb-15	Mercury (total)	7439-97-6	0.1	b	All	100	0.045	3.7	1	2015	16	Z9
4	03-Feb-15	Aluminum	7429-90-5	--	a	All	--	--	--	1	2015	16	Z9
4	03-Feb-15	Antimony	7440-36-0	0.27	a	All	0.27	1.259259259	22.22222222	1	2015	16	Z9
4	03-Feb-15	Arsenic	7440-38-2	18	a	All	18000	0.015	0.338888889	1	2015	16	Z9

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Metals by ICP-MS	Barium	450	450	--	0.016	1.3	mg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Metals by ICP-MS	Beryllium	0.21	0.21	J	0.14	0.52	mg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Metals by ICP-MS	Cadmium	3	3.0	--	0.052	0.52	mg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Metals by ICP-MS	Chromium	20	20	--	0.29	1.3	mg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Metals by ICP-MS	Cobalt	5.1	5.1	--	0.16	1.3	mg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Metals by ICP-MS	Copper	150	150	--	0.15	1.3	mg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Metals by ICP-MS	Iron	25,000	25,000	--	3.8	21	mg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Metals by ICP-MS	Lead	230	230	--	0.14	1.3	mg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Metals by ICP-MS	Manganese	310	310	--	0.21	1.3	mg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Metals by ICP-MS	Nickel	34	34	--	0.7	1.3	mg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Metals by ICP-MS	Selenium	1	1.0	J	0.27	1.3	mg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Metals by ICP-MS	Silver	1.3	1.3	J	0.0052	1.3	mg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Metals by ICP-MS	Thallium	--	U	U	0.14	1.3	mg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Metals by ICP-MS	Vanadium	13	13	--	0.21	1.3	mg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Metals by ICP-MS	Zinc	440	440	--	0.94	2.6	mg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Moisture	Moisture	0.26	0.26	--	0.025	0.05	% of sample
ISM-16-Z9	1502016-04	23-Jan-15	Soil	PCBs	Aroclor 1016	--	U	U	27	83	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	PCBs	Aroclor 1221	--	U	U	27	83	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	PCBs	Aroclor 1232	--	U	U	27	83	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	PCBs	Aroclor 1242	--	U	U	27	83	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	PCBs	Aroclor 1248	--	U	U	27	83	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	PCBs	Aroclor 1254	230	230	--	31	83	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	PCBs	Aroclor 1260	--	U	U	31	83	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	PCBs	PCBs, Total	230	230	--	--	--	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	1,1'-Biphenyl	--	U	U	25	1,600	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	41	790	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	28	790	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	48	790	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	260	1,600	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	150	3,300	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	53	790	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	85	790	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	7.8	33	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	50	790	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	41	41	--	14	33	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	67	790	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	64	3,300	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	56	790	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	3&4-Methylphenol	--	U	U	79	790	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	2,000	3,300	µg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
4	03-Feb-15	Barium	7440-39-3	330	a	All	330000	4.84848E-05	1.363636364	1	2015	16	Z9
4	03-Feb-15	Beryllium	7440-41-7	10	b	All	10000	0.014	0.021	1	2015	16	Z9
4	03-Feb-15	Cadmium	7440-43-9	0.36	a	All	360	0.144444444	8.333333333	1	2015	16	Z9
4	03-Feb-15	Chromium III	16065-83-1	18	a	All	18000	0.016111111	1.111111111	1	2015	16	Z9
4	03-Feb-15	Cobalt	7440-48-4	13	a	All	13000	0.012307692	0.392307692	1	2015	16	Z9
4	03-Feb-15	Copper	7440-50-8	28	a	All	28000	0.005357143	5.357142857	1	2015	16	Z9
4	03-Feb-15	Iron	7439-89-6	--	a	All	--	--	--	1	2015	16	Z9
4	03-Feb-15	Lead	7439-92-1	11	a	All	11000	0.012727273	20.90909091	1	2015	16	Z9
4	03-Feb-15	Manganese	7439-96-5	220	a	All	220000	0.000954545	1.409090909	1	2015	16	Z9
4	03-Feb-15	Nickel	7440-02-0	38	a	All	38000	0.018421053	0.894736842	1	2015	16	Z9
4	03-Feb-15	Selenium	7782-49-2	0.52	a	All	520	0.519230769	1.923076923	1	2015	16	Z9
4	03-Feb-15	Silver	7440-22-4	4.2	a	All	4200	0.001238095	0.30952381	1	2015	16	Z9
4	03-Feb-15	Thallium	7440-28-0	0.22	c	All	220	0.636363636	--	0	2015	16	Z9
4	03-Feb-15	Vanadium	7440-62-2	7.8	a	All	7800	0.026923077	1.666666667	1	2015	16	Z9
4	03-Feb-15	Zinc	7440-66-6	46	a	All	46000	0.020434783	9.565217391	1	2015	16	Z9
1	05-Feb-15	--	--	--	--	--	--	--	--	--	2015	16	Z9
1	05-Feb-15	Aroclor-1016	12674-11-2	1	c	All	1000	0.027	--	0	2015	16	Z9
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	16	Z9
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	16	Z9
1	05-Feb-15	Aroclor-1242	53469-21-9	0.041	c	All	41	0.658536585	--	0	2015	16	Z9
1	05-Feb-15	Aroclor-1248	12672-29-6	0.0072	c	All	7.2	3.75	--	0	2015	16	Z9
1	05-Feb-15	Aroclor-1254	11097-69-1	0.014	c	All	14	2.214285714	16.42857143	1	2015	16	Z9
1	05-Feb-15	Aroclor-1260	11096-82-5	0.88	c	All	880	0.035227273	--	0	2015	16	Z9
1	05-Feb-15	PCBs (sum) (Wildlife Based)	1336-36-3	0.33	d	All	330	0	0.696969697	1	2015	16	Z9
5	06-Feb-15	1,1'-Biphenyl	92-52-4	0.2	d	All	200	0.125	--	0	2015	16	Z9
5	06-Feb-15	2,4,5-Trichlorophenol	95-95-4	0.03	d	All	30	1.366666667	--	0	2015	16	Z9
5	06-Feb-15	2,4,6-Trichlorophenol	88-06-2	0.09	d	All	90	0.311111111	--	0	2015	16	Z9
5	06-Feb-15	Dichlorophenols ,3-), (2,4-), (2,5-), (2,6-)	120-83-2	0.05	d	All	50	0.96	--	0	2015	16	Z9
5	06-Feb-15	2,4-Dimethylphenol	105-67-9	0.04	d	SI	40	6.5	--	0	2015	16	Z9
5	06-Feb-15	2,4-Dinitrophenol	51-28-5	0.15	d	All	150	1	--	0	2015	16	Z9
5	06-Feb-15	2,4-Dinitrotoluene	121-14-2	6	c	SI, M, P	6000	0.008833333	--	0	2015	16	Z9
5	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	16	Z9
5	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	16	Z9
5	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	16	Z9
5	06-Feb-15	2-Methylnaphthalene	91-57-6	--	--	All, total	29000	0.000482759	0.001413793	1	2015	16	Z9
5	06-Feb-15	2-Methylphenol (Cresol, o-)	95-48-7	0.1	d	All	100	0.67	--	0	2015	16	Z9
5	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	16	Z9
5	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	16	Z9
5	06-Feb-15	4-Methylphenol (Cresol, p-)	106-44-5	0.08	d	All	80	0.9875	--	0	2015	16	Z9
5	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	16	Z9

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	56	3,300	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	140	1,600	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	45	790	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	38	790	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	49	3,300	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	48	790	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	46	3,300	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	33	3,300	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthene	--	U	U	4.9	33	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	--	U	U	6	33	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	25	1,600	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Anthracene	120	120	--	6.5	33	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	50	1,600	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	--	U	U	63	1,600	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	600	600	--	6.5	33	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	570	570	--	11	33	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	880	880	--	9.7	33	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	530	530	--	13	33	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	380	380	--	7	33	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	52	790	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	52	790	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	69	790	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	2,600	2,600	--	54	1,600	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	--	U	U	62	790	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	72	1,600	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Carbazole	--	U	U	49	790	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Chrysene	730	730	--	7.8	33	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	140	140	--	12	33	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	--	U	U	51	790	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	52	1,600	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	55	1,600	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	900	900	J	24	1,600	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	53	790	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluoranthene	1,500	1,500	--	12	33	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluorene	26	26	J	11	33	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	46	790	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	55	790	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	52	1,600	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	77	790	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	6810	--	--	--	--	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	620	620	--	11	33	µg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
5	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	16	Z9
5	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	16	Z9
5	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	16	Z9
5	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	16	Z9
5	06-Feb-15	4-Chloroaniline	106-47-8	1.0	c	P, SI	1000	0.049	--	0	2015	16	Z9
5	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	16	Z9
5	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	16	Z9
5	06-Feb-15	4-Nitrophenol	100-02-7	7	b	SI	7000	0.004714286	--	0	2015	16	Z9
5	06-Feb-15	Acenaphthene	83-32-9	--	--	All, total	29000	0.000168966	--	0	2015	16	Z9
5	06-Feb-15	Acenaphthylene	208-96-8	--	--	--	29000	0.000206897	--	0	2015	16	Z9
5	06-Feb-15	Acetophenone	--	--	--	--	--	--	--	0	2015	16	Z9
5	06-Feb-15	Anthracene	120-12-7	--	--	--	29000	0.000224138	0.004137931	1	2015	16	Z9
5	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	16	Z9
5	06-Feb-15	Benzaldehyde	--	--	--	--	--	--	--	0	2015	16	Z9
5	06-Feb-15	Benzo(a)anthracene	56-55-3	--	--	--	1100	0.005909091	0.545454545	1	2015	16	Z9
5	06-Feb-15	Benzo(a)pyrene	50-32-8	--	--	--	1100	0.01	0.518181818	1	2015	16	Z9
5	06-Feb-15	Benzo(b)fluoranthene	205-99-2	--	--	--	1100	0.008818182	0.8	1	2015	16	Z9
5	06-Feb-15	Benzo(ghi)perylene	191-24-2	--	--	--	1100	0.011818182	0.481818182	1	2015	16	Z9
5	06-Feb-15	Benzo(k)fluoranthene	207-08-9	--	--	--	1100	0.006363636	0.345454545	1	2015	16	Z9
5	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	16	Z9
5	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	16	Z9
5	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	16	Z9
5	06-Feb-15	Bis(2-ethylhexyl) phthalate	117-81-7	0.02	c	All	20	2.7	130	1	2015	16	Z9
5	06-Feb-15	Butylbenzyl phthalate	85-68-7	0.59	d	All	590	0.105084746	--	0	2015	16	Z9
5	06-Feb-15	Caprolactam	--	--	--	--	--	--	--	0	2015	16	Z9
5	06-Feb-15	Carbazole	86-74-8	0.16	d	All	160	0.30625	--	0	2015	16	Z9
5	06-Feb-15	Chrysene	218-01-9	--	--	--	1100	0.007090909	0.663636364	1	2015	16	Z9
5	06-Feb-15	Dibenzo(a,h)anthracene	53-70-3	--	--	--	1100	0.010909091	0.127272727	1	2015	16	Z9
5	06-Feb-15	Dibenzofuran	132-64-9	0.15	d	All	150	0.34	--	0	2015	16	Z9
5	06-Feb-15	Diethylphthalate	84-66-2	0.23	d	All	230	0.226086957	--	0	2015	16	Z9
5	06-Feb-15	Dimethylphthalate	131-11-3	0.35	d	All	350	0.157142857	--	0	2015	16	Z9
5	06-Feb-15	Di-n-butyl phthalate	84-74-2	0.011	c	All	11	2.181818182	81.81818182	1	2015	16	Z9
5	06-Feb-15	Di-n-octyl phthalate	117-84-0	0.21	c	All	210	0.252380952	--	0	2015	16	Z9
5	06-Feb-15	Fluoranthene	206-44-0	--	--	--	1100	0.010909091	1.363636364	1	2015	16	Z9
5	06-Feb-15	Fluorene	86-73-7	--	--	All, total	29000	0.00037931	0.000896552	1	2015	16	Z9
5	06-Feb-15	Hexachlorobenzene	118-74-1	0.079	c	All	79	0.582278481	--	0	2015	16	Z9
5	06-Feb-15	Hexachlorobutadiene	87-68-3	0.1	d	SI	100	0.55	--	0	2015	16	Z9
5	06-Feb-15	Hexachlorocyclopentadiene	77-47-4	0.001	d	All	1	52	--	0	2015	16	Z9
5	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	16	Z9
--	6-Feb-15	High Molecular Weight PAHs	--	--	--	--	1100	--	6.190909091	1	2015	16	Z9
5	06-Feb-15	Indeno(1,2,3-cd)pyrene	193-39-5	--	--	--	1100	0.01	0.563636364	1	2015	16	Z9

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	55	790	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Naphthalene	130	130	--	12	33	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	64	790	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	63	790	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	290	790	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	32	1,600	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenanthrene	1,200	1,200	--	6.6	33	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	56	790	µg/Kg-dry
ISM-16-Z9	1502016-04	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Pyrene	860	860	--	11	33	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Mercury by CVAA	Mercury	0.13	0.13	--	0.00087	0.014	mg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Metals by ICP-MS	Aluminum	4,700	4,700	--	1.1	3.1	mg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Metals by ICP-MS	Antimony	5.4	5.4	--	0.41	1.5	mg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Metals by ICP-MS	Arsenic	6	6.0	--	0.32	1.5	mg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Metals by ICP-MS	Barium	230	230	--	0.018	1.5	mg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Metals by ICP-MS	Beryllium	0.23	0.23	J	0.16	0.62	mg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Metals by ICP-MS	Cadmium	2.9	2.9	--	0.062	0.62	mg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Metals by ICP-MS	Chromium	29	29	--	0.34	1.5	mg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Metals by ICP-MS	Cobalt	5.9	5.9	--	0.18	1.5	mg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Metals by ICP-MS	Copper	200	200	--	0.17	1.5	mg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Metals by ICP-MS	Iron	26,000	26,000	--	4.5	25	mg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Metals by ICP-MS	Lead	220	220	--	0.16	1.5	mg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Metals by ICP-MS	Manganese	290	290	--	0.25	1.5	mg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Metals by ICP-MS	Nickel	28	28	--	0.83	1.5	mg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Metals by ICP-MS	Selenium	0.67	0.67	J	0.32	1.5	mg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Metals by ICP-MS	Silver	1.3	1.3	J	0.0062	1.5	mg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Metals by ICP-MS	Thallium	--	U	U	0.17	1.5	mg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Metals by ICP-MS	Vanadium	13	13	--	0.25	1.5	mg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Metals by ICP-MS	Zinc	440	440	--	1.1	3.1	mg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Moisture	Moisture	0.33	0.33	--	0.025	0.05	% of sample
ISM-17-Z9	1502016-05	23-Jan-15	Soil	PCBs	Aroclor 1016	--	U	U	27	83	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	PCBs	Aroclor 1221	--	U	U	27	83	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	PCBs	Aroclor 1232	--	U	U	27	83	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	PCBs	Aroclor 1242	--	U	U	27	83	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	PCBs	Aroclor 1248	150	150	--	27	83	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	PCBs	Aroclor 1254	140	140	--	31	83	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	PCBs	Aroclor 1260	--	U	U	31	83	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	PCBs	PCBs, Total	290	290	--	--	--	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	1,1'-Biphenyl	16	16	J	4.8	320	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	8.1	160	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	5.5	160	µg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
5	06-Feb-15	Isophorone	--	--	--	--	--	--	--	0	2015	16	Z9
5	06-Feb-15	Naphthalene	91-20-3	--	--	All, total	29000	0.000413793	0.004482759	1	2015	16	Z9
5	06-Feb-15	Nitrobenzene	98-95-3	2.2	c	SI, M	2200	0.029090909	--	0	2015	16	Z9
5	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	16	Z9
5	06-Feb-15	N-Nitrosodiphenylamine	86-30-6	0.12	d	All	120	2.416666667	--	0	2015	16	Z9
5	06-Feb-15	Pentachlorophenol (PCP)	87-86-5	2.1	a	All	2100	0.015238095	--	0	2015	16	Z9
5	06-Feb-15	Phenanthrene	67580	--	--	--	29000	0.000227586	0.04137931	1	2015	16	Z9
5	06-Feb-15	Phenol	108-95-2	0.79	c	All	790	0.070886076	--	0	2015	16	Z9
5	06-Feb-15	Pyrene	129-00-0	--	--	--	1100	0.01	0.781818182	1	2015	16	Z9
1	04-Feb-15	Mercury (total)	7439-97-6	0.1	b	All	100	0.0087	1.3	1	2015	17	Z9
4	03-Feb-15	Aluminum	7429-90-5	--	a	All	--	--	--	1	2015	17	Z9
4	03-Feb-15	Antimony	7440-36-0	0.27	a	All	0.27	1.518518519	20	1	2015	17	Z9
4	03-Feb-15	Arsenic	7440-38-2	18	a	All	18000	0.017777778	0.333333333	1	2015	17	Z9
4	03-Feb-15	Barium	7440-39-3	330	a	All	330000	5.45455E-05	0.696969697	1	2015	17	Z9
4	03-Feb-15	Beryllium	7440-41-7	10	b	All	10000	0.016	0.023	1	2015	17	Z9
4	03-Feb-15	Cadmium	7440-43-9	0.36	a	All	360	0.172222222	8.055555556	1	2015	17	Z9
4	03-Feb-15	Chromium III	16065-83-1	18	a	All	18000	0.018888889	1.611111111	1	2015	17	Z9
4	03-Feb-15	Cobalt	7440-48-4	13	a	All	13000	0.013846154	0.453846154	1	2015	17	Z9
4	03-Feb-15	Copper	7440-50-8	28	a	All	28000	0.006071429	7.142857143	1	2015	17	Z9
4	03-Feb-15	Iron	7439-89-6	--	a	All	--	--	--	1	2015	17	Z9
4	03-Feb-15	Lead	7439-92-1	11	a	All	11000	0.014545455	20	1	2015	17	Z9
4	03-Feb-15	Manganese	7439-96-5	220	a	All	220000	0.001136364	1.318181818	1	2015	17	Z9
4	03-Feb-15	Nickel	7440-02-0	38	a	All	38000	0.021842105	0.736842105	1	2015	17	Z9
4	03-Feb-15	Selenium	7782-49-2	0.52	a	All	520	0.615384615	1.288461538	1	2015	17	Z9
4	03-Feb-15	Silver	7440-22-4	4.2	a	All	4200	0.00147619	0.30952381	1	2015	17	Z9
4	03-Feb-15	Thallium	7440-28-0	0.22	c	All	220	0.772727273	--	0	2015	17	Z9
4	03-Feb-15	Vanadium	7440-62-2	7.8	a	All	7800	0.032051282	1.666666667	1	2015	17	Z9
4	03-Feb-15	Zinc	7440-66-6	46	a	All	46000	0.023913043	9.565217391	1	2015	17	Z9
1	05-Feb-15	--	--	--	--	--	--	--	--	--	2015	17	Z9
1	06-Feb-15	Aroclor-1016	12674-11-2	1	c	All	1000	0.027	--	0	2015	17	Z9
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	17	Z9
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	17	Z9
1	06-Feb-15	Aroclor-1242	53469-21-9	0.041	c	All	41	0.658536585	--	0	2015	17	Z9
1	06-Feb-15	Aroclor-1248	12672-29-6	0.0072	c	All	7.2	3.75	20.83333333	1	2015	17	Z9
1	06-Feb-15	Aroclor-1254	11097-69-1	0.014	c	All	14	2.214285714	10	1	2015	17	Z9
1	06-Feb-15	Aroclor-1260	11096-82-5	0.88	c	All	880	0.035227273	--	0	2015	17	Z9
1	06-Feb-15	PCBs (sum) (Wildlife Based)	1336-36-3	0.33	d	All	330	0	0.878787879	1	2015	17	Z9
1	06-Feb-15	1,1'-Biphenyl	92-52-4	0.2	d	All	200	0.024	0.08	1	2015	17	Z9
1	06-Feb-15	2,4,5-Trichlorophenol	95-95-4	0.03	d	All	30	0.27	--	0	2015	17	Z9
1	06-Feb-15	2,4,6-Trichlorophenol	88-06-2	0.09	d	All	90	0.061111111	--	0	2015	17	Z9

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	9.5	160	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	52	320	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	29	640	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	10	160	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	17	160	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	1.5	6.5	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	9.8	160	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	45	45	--	2.7	6.5	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	13	160	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	13	640	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	11	160	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	3&4-Methylphenol	61	61	J	16	160	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	400	640	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	11	640	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	27	320	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	8.8	160	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	7.5	160	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	9.7	640	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	9.5	160	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	9	640	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	6.4	640	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthene	35	35	--	0.97	6.5	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	15	15	--	1.2	6.5	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	4.9	320	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Anthracene	300	300	--	1.3	6.5	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	9.9	320	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	240	240	J	12	320	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	1,100	1,100	--	1.3	6.5	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	940	940	--	2.1	6.5	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	1,400	1,400	--	1.9	6.5	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	710	710	--	2.6	6.5	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	480	480	--	1.4	6.5	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	10	160	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	10	160	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	14	160	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	450	450	--	11	320	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	--	U	U	12	160	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	14	320	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Carbazole	160	160	J	9.7	160	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Chrysene	1,100	1,100	--	1.5	6.5	µg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
1	06-Feb-15	Dichlorophenols ,3-), (2,4-), (2,5-), (2,6-)	120-83-2	0.05	d	All	50	0.19	--	0	2015	17	Z9
1	06-Feb-15	2,4-Dimethylphenol	105-67-9	0.04	d	SI	40	1.3	--	0	2015	17	Z9
1	06-Feb-15	2,4-Dinitrophenol	51-28-5	0.15	d	All	150	0.193333333	--	0	2015	17	Z9
1	06-Feb-15	2,4-Dinitrotoluene	121-14-2	6	c	SI, M, P	6000	0.001666667	--	0	2015	17	Z9
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	17	Z9
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	17	Z9
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	17	Z9
1	06-Feb-15	2-Methylnaphthalene	91-57-6	--	--	All, total	29000	9.31034E-05	0.001551724	1	2015	17	Z9
1	06-Feb-15	2-Methylphenol (Cresol, o-)	95-48-7	0.1	d	All	100	0.13	--	0	2015	17	Z9
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	17	Z9
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	17	Z9
1	06-Feb-15	4-Methylphenol (Cresol, p-)	106-44-5	0.08	d	All	80	0.2	0.7625	1	2015	17	Z9
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	17	Z9
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	17	Z9
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	17	Z9
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	17	Z9
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	17	Z9
1	06-Feb-15	4-Chloroaniline	106-47-8	1.0	c	P, SI	1000	0.0097	--	0	2015	17	Z9
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	17	Z9
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	17	Z9
1	06-Feb-15	4-Nitrophenol	100-02-7	7	b	SI	7000	0.000914286	--	0	2015	17	Z9
1	06-Feb-15	Acenaphthene	83-32-9	--	--	All, total	29000	3.34483E-05	0.001206897	1	2015	17	Z9
1	06-Feb-15	Acenaphthylene	208-96-8	--	--	--	29000	4.13793E-05	0.000517241	1	2015	17	Z9
1	06-Feb-15	Acetophenone	--	--	--	--	--	--	--	0	2015	17	Z9
1	06-Feb-15	Anthracene	120-12-7	--	--	--	29000	4.48276E-05	0.010344828	1	2015	17	Z9
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	17	Z9
1	06-Feb-15	Benzaldehyde	--	--	--	--	--	--	--	1	2015	17	Z9
1	06-Feb-15	Benzo(a)anthracene	56-55-3	--	--	--	1100	0.001181818	1	1	2015	17	Z9
1	06-Feb-15	Benzo(a)pyrene	50-32-8	--	--	--	1100	0.001909091	0.854545455	1	2015	17	Z9
1	06-Feb-15	Benzo(b)fluoranthene	205-99-2	--	--	--	1100	0.001727273	1.272727273	1	2015	17	Z9
1	06-Feb-15	Benzo(ghi)perylene	191-24-2	--	--	--	1100	0.002363636	0.645454545	1	2015	17	Z9
1	06-Feb-15	Benzo(k)fluoranthene	207-08-9	--	--	--	1100	0.001272727	0.436363636	1	2015	17	Z9
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	17	Z9
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	17	Z9
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	17	Z9
1	06-Feb-15	Bis(2-ethylhexyl) phthalate	117-81-7	0.02	c	All	20	0.55	22.5	1	2015	17	Z9
1	06-Feb-15	Butylbenzyl phthalate	85-68-7	0.59	d	All	590	0.020338983	--	0	2015	17	Z9
1	06-Feb-15	Caprolactam	--	--	--	--	--	--	--	0	2015	17	Z9
1	06-Feb-15	Carbazole	86-74-8	0.16	d	All	160	0.060625	1	1	2015	17	Z9
1	06-Feb-15	Chrysene	218-01-9	--	--	--	1100	0.001363636	1	1	2015	17	Z9

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	170	170	--	2.4	6.5	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	--	U	U	10	160	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	10	320	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	11	320	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U	4.7	320	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	11	160	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluoranthene	2,600	2,600	E	2.3	6.5	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluorene	49	49	--	2.2	6.5	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	9.1	160	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	11	160	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	10	320	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	15	160	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	11000	--	--	--	--	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	800	800	--	2.2	6.5	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	11	160	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Naphthalene	64	64	--	2.4	6.5	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	13	160	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	12	160	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	58	160	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	6.3	320	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenanthrene	1,600	1,600	--	1.3	6.5	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	11	160	µg/Kg-dry
ISM-17-Z9	1502016-05	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Pyrene	1,700	1,700	--	2.2	6.5	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Mercury by CVAA	Mercury	0.16	0.16	--	0.00073	0.012	mg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Metals by ICP-MS	Aluminum	4,800	4,800	--	0.89	2.6	mg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Metals by ICP-MS	Antimony	6.3	6.3	--	0.35	1.3	mg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Metals by ICP-MS	Arsenic	4.9	4.9	--	0.27	1.3	mg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Metals by ICP-MS	Barium	150	150	--	0.016	1.3	mg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Metals by ICP-MS	Beryllium	0.22	0.22	J	0.14	0.52	mg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Metals by ICP-MS	Cadmium	2.8	2.8	--	0.052	0.52	mg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Metals by ICP-MS	Chromium	17	17	--	0.29	1.3	mg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Metals by ICP-MS	Cobalt	5.3	5.3	--	0.16	1.3	mg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Metals by ICP-MS	Copper	230	230	--	0.15	1.3	mg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Metals by ICP-MS	Iron	22,000	22,000	--	3.8	21	mg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Metals by ICP-MS	Lead	240	240	--	0.14	1.3	mg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Metals by ICP-MS	Manganese	270	270	--	0.21	1.3	mg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Metals by ICP-MS	Nickel	33	33	--	0.71	1.3	mg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Metals by ICP-MS	Selenium	1	1.0	J	0.27	1.3	mg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Metals by ICP-MS	Silver	1.3	1.3	J	0.0052	1.3	mg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Metals by ICP-MS	Thallium	--	U	U	0.14	1.3	mg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Metals by ICP-MS	Vanadium	13	13	--	0.21	1.3	mg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
1	06-Feb-15	Dibenzo(a,h)anthracene	53-70-3	--	--	--	1100	0.002181818	0.154545455	1	2015	17	Z9
1	06-Feb-15	Dibenzofuran	132-64-9	0.15	d	All	150	0.066666667	--	0	2015	17	Z9
1	06-Feb-15	Diethylphthalate	84-66-2	0.23	d	All	230	0.043478261	--	0	2015	17	Z9
1	06-Feb-15	Dimethylphthalate	131-11-3	0.35	d	All	350	0.031428571	--	0	2015	17	Z9
1	06-Feb-15	Di-n-butyl phthalate	84-74-2	0.011	c	All	11	0.427272727	--	0	2015	17	Z9
1	06-Feb-15	Di-n-octyl phthalate	117-84-0	0.21	c	All	210	0.052380952	--	0	2015	17	Z9
1	06-Feb-15	Fluoranthene	206-44-0	--	--	--	1100	0.002090909	2.363636364	1	2015	17	Z9
1	06-Feb-15	Fluorene	86-73-7	--	--	All, total	29000	7.58621E-05	0.001689655	1	2015	17	Z9
1	06-Feb-15	Hexachlorobenzene	118-74-1	0.079	c	All	79	0.115189873	--	0	2015	17	Z9
1	06-Feb-15	Hexachlorobutadiene	87-68-3	0.1	d	SI	100	0.11	--	0	2015	17	Z9
1	06-Feb-15	Hexachlorocyclopentadiene	77-47-4	0.001	d	All	1	10	--	0	2015	17	Z9
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	17	Z9
--	6-Feb-15	High Molecular Weight PAHs	--	--	--	--	1100	--	10	1	2015	17	Z9
1	06-Feb-15	Indeno(1,2,3-cd)pyrene	193-39-5	--	--	--	1100	0.002	0.727272727	1	2015	17	Z9
1	06-Feb-15	Isophorone	--	--	--	--	--	--	--	0	2015	17	Z9
1	06-Feb-15	Naphthalene	91-20-3	--	--	All, total	29000	8.27586E-05	0.002206897	1	2015	17	Z9
1	06-Feb-15	Nitrobenzene	98-95-3	2.2	c	SI, M	2200	0.005909091	--	0	2015	17	Z9
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	17	Z9
1	06-Feb-15	N-Nitrosodiphenylamine	86-30-6	0.12	d	All	120	0.483333333	--	0	2015	17	Z9
1	06-Feb-15	Pentachlorophenol (PCP)	87-86-5	2.1	a	All	2100	0.003	--	0	2015	17	Z9
1	06-Feb-15	Phenanthrene	67580	--	--	--	29000	4.48276E-05	0.055172414	1	2015	17	Z9
1	06-Feb-15	Phenol	108-95-2	0.79	c	All	790	0.013924051	--	0	2015	17	Z9
1	06-Feb-15	Pyrene	129-00-0	--	--	--	1100	0.002	1.545454545	1	2015	17	Z9
1	04-Feb-15	Mercury (total)	7439-97-6	0.1	b	All	100	0.0073	1.6	1	2015	18	Z9
4	03-Feb-15	Aluminum	7429-90-5	--	a	All	--	--	--	1	2015	18	Z9
4	03-Feb-15	Antimony	7440-36-0	0.27	a	All	0.27	1.296296296	23.33333333	1	2015	18	Z9
4	03-Feb-15	Arsenic	7440-38-2	18	a	All	18000	0.015	0.272222222	1	2015	18	Z9
4	03-Feb-15	Barium	7440-39-3	330	a	All	330000	4.84848E-05	0.454545455	1	2015	18	Z9
4	03-Feb-15	Beryllium	7440-41-7	10	b	All	10000	0.014	0.022	1	2015	18	Z9
4	03-Feb-15	Cadmium	7440-43-9	0.36	a	All	360	0.144444444	7.777777778	1	2015	18	Z9
4	03-Feb-15	Chromium III	16065-83-1	18	a	All	18000	0.016111111	0.944444444	1	2015	18	Z9
4	03-Feb-15	Cobalt	7440-48-4	13	a	All	13000	0.012307692	0.407692308	1	2015	18	Z9
4	03-Feb-15	Copper	7440-50-8	28	a	All	28000	0.005357143	8.214285714	1	2015	18	Z9
4	03-Feb-15	Iron	7439-89-6	--	a	All	--	--	--	1	2015	18	Z9
4	03-Feb-15	Lead	7439-92-1	11	a	All	11000	0.012727273	21.81818182	1	2015	18	Z9
4	03-Feb-15	Manganese	7439-96-5	220	a	All	220000	0.000954545	1.227272727	1	2015	18	Z9
4	03-Feb-15	Nickel	7440-02-0	38	a	All	38000	0.018684211	0.868421053	1	2015	18	Z9
4	03-Feb-15	Selenium	7782-49-2	0.52	a	All	520	0.519230769	1.923076923	1	2015	18	Z9
4	03-Feb-15	Silver	7440-22-4	4.2	a	All	4200	0.001238095	0.30952381	1	2015	18	Z9
4	03-Feb-15	Thallium	7440-28-0	0.22	c	All	220	0.636363636	--	0	2015	18	Z9
4	03-Feb-15	Vanadium	7440-62-2	7.8	a	All	7800	0.026923077	1.666666667	1	2015	18	Z9

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Metals by ICP-MS	Zinc	410	410	--	0.94	2.6	mg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Moisture	Moisture	0.25	0.25	--	0.025	0.05	% of sample
ISM-18-Z9	1502016-06	23-Jan-15	Soil	PCBs	Aroclor 1016	--	U	U	26	82	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	PCBs	Aroclor 1221	--	U	U	26	82	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	PCBs	Aroclor 1232	--	U	U	26	82	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	PCBs	Aroclor 1242	--	U	U	26	82	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	PCBs	Aroclor 1248	--	U	U	26	82	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	PCBs	Aroclor 1254	130	130	--	31	82	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	PCBs	Aroclor 1260	--	U	U	31	82	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	PCBs	PCBs, Total	130	130	--	--	--	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	1,1'-Biphenyl	23	23	J	5.3	32	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	8.9	32	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	8.6	32	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	6.8	32	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	6.6	32	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	18	32	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	8.5	32	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	5.4	32	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	4.5	6.5	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	10	32	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	35	35	--	3.3	6.5	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	8.8	32	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	7.4	32	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	9.3	32	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	3&4-Methylphenol	52	52	--	6.5	32	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	4.8	160	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	7.4	32	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	8.2	32	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	8.7	32	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	9.3	32	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	5.1	65	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	9	32	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	50	160	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	29	32	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthene	33	33	--	4.7	6.5	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	15	15	--	5.6	6.5	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Acetophenone	86	86	--	5.1	32	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Anthracene	400	400	--	4.6	6.5	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	5.1	32	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	280	280	--	50	65	µg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
4	03-Feb-15	Zinc	7440-66-6	46	a	All	46000	0.020434783	8.913043478	1	2015	18	Z9
1	05-Feb-15	--	--	--	--	--	--	--	--	--	2015	18	Z9
1	05-Feb-15	Aroclor-1016	12674-11-2	1	c	All	1000	0.026	--	0	2015	18	Z9
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	18	Z9
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	18	Z9
1	05-Feb-15	Aroclor-1242	53469-21-9	0.041	c	All	41	0.634146341	--	0	2015	18	Z9
1	05-Feb-15	Aroclor-1248	12672-29-6	0.0072	c	All	7.2	3.611111111	--	0	2015	18	Z9
1	05-Feb-15	Aroclor-1254	11097-69-1	0.014	c	All	14	2.214285714	9.285714286	1	2015	18	Z9
1	05-Feb-15	Aroclor-1260	11096-82-5	0.88	c	All	880	0.035227273	--	0	2015	18	Z9
1	05-Feb-15	PCBs (sum) (Wildlife Based)	1336-36-3	0.33	d	All	330	0	0.393939394	1	2015	18	Z9
1	04-Feb-15	1,1'-Biphenyl	92-52-4	0.2	d	All	200	0.0265	0.115	1	2015	18	Z9
1	04-Feb-15	2,4,5-Trichlorophenol	95-95-4	0.03	d	All	30	0.296666667	--	0	2015	18	Z9
1	04-Feb-15	2,4,6-Trichlorophenol	88-06-2	0.09	d	All	90	0.095555556	--	0	2015	18	Z9
1	04-Feb-15	Dichlorophenols ,3-), (2,4-), (2,5-), (2,6-)	120-83-2	0.05	d	All	50	0.136	--	0	2015	18	Z9
1	04-Feb-15	2,4-Dimethylphenol	105-67-9	0.04	d	SI	40	0.165	--	0	2015	18	Z9
1	04-Feb-15	2,4-Dinitrophenol	51-28-5	0.15	d	All	150	0.12	--	0	2015	18	Z9
1	04-Feb-15	2,4-Dinitrotoluene	121-14-2	6	c	SI, M, P	6000	0.001416667	--	0	2015	18	Z9
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	18	Z9
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	18	Z9
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	18	Z9
1	04-Feb-15	2-Methylnaphthalene	91-57-6	--	--	All, total	29000	0.000113793	0.001206897	1	2015	18	Z9
1	04-Feb-15	2-Methylphenol (Cresol, o-)	95-48-7	0.1	d	All	100	0.088	--	0	2015	18	Z9
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	18	Z9
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	18	Z9
1	04-Feb-15	4-Methylphenol (Cresol, p-)	106-44-5	0.08	d	All	80	0.08125	0.65	1	2015	18	Z9
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	18	Z9
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	18	Z9
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	18	Z9
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	18	Z9
1	04-Feb-15	4-Chloroaniline	106-47-8	1.0	c	P, SI	1000	0.0051	--	0	2015	18	Z9
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	18	Z9
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	18	Z9
1	04-Feb-15	4-Nitrophenol	100-02-7	7	b	SI	7000	0.004142857	--	0	2015	18	Z9
1	04-Feb-15	Acenaphthene	83-32-9	--	--	All, total	29000	0.000162069	0.001137931	1	2015	18	Z9
1	04-Feb-15	Acenaphthylene	208-96-8	--	--	--	29000	0.000193103	0.000517241	1	2015	18	Z9
1	04-Feb-15	Acetophenone	--	--	--	--	--	--	--	1	2015	18	Z9
1	04-Feb-15	Anthracene	120-12-7	--	--	--	29000	0.000158621	0.013793103	1	2015	18	Z9
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	18	Z9
1	04-Feb-15	Benzaldehyde	--	--	--	--	--	--	--	1	2015	18	Z9

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	1,600	1,600	--	5.6	6.5	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	1,300	1,300	--	4	6.5	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	1,900	1,900	--	4.8	6.5	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	1,000	1,000	--	5	6.5	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	730	730	--	4.9	6.5	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	3.1	32	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	9.2	32	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	7.6	32	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	680	680	--	5.6	32	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	140	140	--	5.5	32	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	11	32	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Carbazole	340	340	--	3.5	32	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Chrysene	1,600	1,600	--	5.3	6.5	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	270	270	--	3.5	6.5	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	180	180	--	4.8	32	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	5	32	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	6.3	32	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	160	160	--	5.9	32	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	6.2	32	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluoranthene	5,100	5,100	E	3.1	6.5	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluorene	58	58	--	4.7	6.5	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	9.5	32	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	18	32	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	11	32	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	13	32	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	17200	--	--	--	--	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	1,100	1,100	--	4.5	6.5	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	6.3	160	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Naphthalene	88	88	--	4.2	6.5	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	11	160	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	5.4	32	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	3.1	32	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	12	19	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenanthrene	4,300	4,300	E	3	6.5	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	8.1	32	µg/Kg-dry
ISM-18-Z9	1502016-06	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Pyrene	2,600	2,600	E	1.2	6.5	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Mercury by CVAA	Mercury	0.1	0.10	--	0.00099	0.016	mg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Metals by ICP-MS	Aluminum	7,700	7,700	--	2.8	8.1	mg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Metals by ICP-MS	Antimony	8.5	8.5	--	0.43	1.6	mg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Metals by ICP-MS	Arsenic	7.3	7.3	--	0.34	1.6	mg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Metals by ICP-MS	Barium	240	240	--	0.019	1.6	mg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
1	04-Feb-15	Benzo(a)anthracene	56-55-3	--	--	--	1100	0.005090909	1.454545455	1	2015	18	Z9
1	04-Feb-15	Benzo(a)pyrene	50-32-8	--	--	--	1100	0.003636364	1.181818182	1	2015	18	Z9
1	04-Feb-15	Benzo(b)fluoranthene	205-99-2	--	--	--	1100	0.004363636	1.727272727	1	2015	18	Z9
1	04-Feb-15	Benzo(ghi)perylene	191-24-2	--	--	--	1100	0.004545455	0.909090909	1	2015	18	Z9
1	04-Feb-15	Benzo(k)fluoranthene	207-08-9	--	--	--	1100	0.004454545	0.663636364	1	2015	18	Z9
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	18	Z9
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	18	Z9
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	18	Z9
1	04-Feb-15	Bis(2-ethylhexyl) phthalate	117-81-7	0.02	c	All	20	0.28	34	1	2015	18	Z9
1	04-Feb-15	Butylbenzyl phthalate	85-68-7	0.59	d	All	590	0.009322034	0.237288136	1	2015	18	Z9
1	04-Feb-15	Caprolactam	--	--	--	--	--	--	--	0	2015	18	Z9
1	04-Feb-15	Carbazole	86-74-8	0.16	d	All	160	0.021875	2.125	1	2015	18	Z9
1	04-Feb-15	Chrysene	218-01-9	--	--	--	1100	0.004818182	1.454545455	1	2015	18	Z9
1	04-Feb-15	Dibenzo(a,h)anthracene	53-70-3	--	--	--	1100	0.003181818	0.245454545	1	2015	18	Z9
1	04-Feb-15	Dibenzofuran	132-64-9	0.15	d	All	150	0.032	1.2	1	2015	18	Z9
1	04-Feb-15	Diethylphthalate	84-66-2	0.23	d	All	230	0.02173913	--	0	2015	18	Z9
1	04-Feb-15	Dimethylphthalate	131-11-3	0.35	d	All	350	0.018	--	0	2015	18	Z9
1	04-Feb-15	Di-n-butyl phthalate	84-74-2	0.011	c	All	11	0.536363636	14.54545455	1	2015	18	Z9
1	04-Feb-15	Di-n-octyl phthalate	117-84-0	0.21	c	All	210	0.02952381	--	0	2015	18	Z9
1	04-Feb-15	Fluoranthene	206-44-0	--	--	--	1100	0.002818182	4.636363636	1	2015	18	Z9
1	04-Feb-15	Fluorene	86-73-7	--	--	All, total	29000	0.000162069	0.002	1	2015	18	Z9
1	04-Feb-15	Hexachlorobenzene	118-74-1	0.079	c	All	79	0.120253165	--	0	2015	18	Z9
1	04-Feb-15	Hexachlorobutadiene	87-68-3	0.1	d	SI	100	0.18	--	0	2015	18	Z9
1	04-Feb-15	Hexachlorocyclopentadiene	77-47-4	0.001	d	All	1	11	--	0	2015	18	Z9
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	18	Z9
--	4-Feb-15	High Molecular Weight PAHs	--	--	--	--	1100	--	15.63636364	1	2015	18	Z9
1	04-Feb-15	Indeno(1,2,3-cd)pyrene	193-39-5	--	--	--	1100	0.004090909	1	1	2015	18	Z9
1	04-Feb-15	Isophorone	--	--	--	--	--	--	--	0	2015	18	Z9
1	04-Feb-15	Naphthalene	91-20-3	--	--	All, total	29000	0.000144828	0.003034483	1	2015	18	Z9
1	04-Feb-15	Nitrobenzene	98-95-3	2.2	c	SI, M	2200	0.005	--	0	2015	18	Z9
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	18	Z9
1	04-Feb-15	N-Nitrosodiphenylamine	86-30-6	0.12	d	All	120	0.025833333	--	0	2015	18	Z9
1	04-Feb-15	Pentachlorophenol (PCP)	87-86-5	2.1	a	All	2100	0.005714286	--	0	2015	18	Z9
1	04-Feb-15	Phenanthrene	67580	--	--	--	29000	0.000103448	0.148275862	1	2015	18	Z9
1	04-Feb-15	Phenol	108-95-2	0.79	c	All	790	0.010253165	--	0	2015	18	Z9
1	04-Feb-15	Pyrene	129-00-0	--	--	--	1100	0.001090909	2.363636364	1	2015	18	Z9
1	04-Feb-15	Mercury (total)	7439-97-6	0.1	b	All	100	0.0099	1	1	2015	19	Z2
10	13-Feb-15	Aluminum	7429-90-5	--	a	All	--	--	--	1	2015	19	Z2
4	03-Feb-15	Antimony	7440-36-0	0.27	a	All	0.27	1.592592593	31.48148148	1	2015	19	Z2
4	03-Feb-15	Arsenic	7440-38-2	18	a	All	18000	0.018888889	0.405555556	1	2015	19	Z2
4	03-Feb-15	Barium	7440-39-3	330	a	All	330000	5.75758E-05	0.727272727	1	2015	19	Z2

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Metals by ICP-MS	Beryllium	--	U	U	0.17	0.65	mg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Metals by ICP-MS	Cadmium	7.8	7.8	--	0.065	0.65	mg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Metals by ICP-MS	Chromium	31	31	--	0.36	1.6	mg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Metals by ICP-MS	Cobalt	5.9	5.9	--	0.19	1.6	mg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Metals by ICP-MS	Copper	230	230	--	0.18	1.6	mg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Metals by ICP-MS	Iron	40,000	40,000	--	4.7	26	mg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Metals by ICP-MS	Lead	460	460	--	0.17	1.6	mg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Metals by ICP-MS	Manganese	400	400	--	0.26	1.6	mg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Metals by ICP-MS	Nickel	42	42	--	0.87	1.6	mg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Metals by ICP-MS	Selenium	1.1	1.1	J	0.34	1.6	mg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Metals by ICP-MS	Silver	4.1	4.1	--	0.0065	1.6	mg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Metals by ICP-MS	Thallium	--	U	U	0.17	1.6	mg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Metals by ICP-MS	Vanadium	12	12	--	0.26	1.6	mg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Metals by ICP-MS	Zinc	780	780	--	12	32	mg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Moisture	Moisture	0.46	0.46	--	0.025	0.05	% of sample
ISM-19-Z2	1502016-07	23-Jan-15	Soil	PCBs	Aroclor 1016	--	U	U	27	83	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	PCBs	Aroclor 1221	--	U	U	27	83	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	PCBs	Aroclor 1232	--	U	U	27	83	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	PCBs	Aroclor 1242	--	U	U	27	83	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	PCBs	Aroclor 1248	--	U	U	27	83	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	PCBs	Aroclor 1254	330	330	--	31	83	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	PCBs	Aroclor 1260	--	U	U	31	83	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	PCBs	PCBs, Total	330	330	--	--	--	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	1,1'-Biphenyl	--	U	U	4.9	330	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	8.3	160	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	5.6	160	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	9.7	160	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	53	330	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	30	660	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	11	160	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	17	160	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	1.6	6.6	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	10	160	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	7.6	7.6	--	2.8	6.6	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	14	160	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	13	660	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	11	160	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	3&4-Methylphenol	--	U	U	16	160	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	410	660	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	11	660	µg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
4	03-Feb-15	Beryllium	7440-41-7	10	b	All	10000	0.017	--	0	2015	19	Z2
4	03-Feb-15	Cadmium	7440-43-9	0.36	a	All	360	0.180555556	21.66666667	1	2015	19	Z2
4	03-Feb-15	Chromium III	16065-83-1	18	a	All	18000	0.02	1.722222222	1	2015	19	Z2
4	03-Feb-15	Cobalt	7440-48-4	13	a	All	13000	0.014615385	0.453846154	1	2015	19	Z2
4	03-Feb-15	Copper	7440-50-8	28	a	All	28000	0.006428571	8.214285714	1	2015	19	Z2
4	03-Feb-15	Iron	7439-89-6	--	a	All	--	--	--	1	2015	19	Z2
4	03-Feb-15	Lead	7439-92-1	11	a	All	11000	0.015454545	41.81818182	1	2015	19	Z2
4	03-Feb-15	Manganese	7439-96-5	220	a	All	220000	0.001181818	1.818181818	1	2015	19	Z2
4	03-Feb-15	Nickel	7440-02-0	38	a	All	38000	0.022894737	1.105263158	1	2015	19	Z2
4	03-Feb-15	Selenium	7782-49-2	0.52	a	All	520	0.653846154	2.115384615	1	2015	19	Z2
4	03-Feb-15	Silver	7440-22-4	4.2	a	All	4200	0.001547619	0.976190476	1	2015	19	Z2
4	03-Feb-15	Thallium	7440-28-0	0.22	c	All	220	0.772727273	--	0	2015	19	Z2
4	03-Feb-15	Vanadium	7440-62-2	7.8	a	All	7800	0.033333333	1.538461538	1	2015	19	Z2
40	05-Feb-15	Zinc	7440-66-6	46	a	All	46000	0.260869565	16.95652174	1	2015	19	Z2
1	05-Feb-15	--	--	--	--	--	--	--	--	--	2015	19	Z2
1	05-Feb-15	Aroclor-1016	12674-11-2	1	c	All	1000	0.027	--	0	2015	19	Z2
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	19	Z2
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	19	Z2
1	05-Feb-15	Aroclor-1242	53469-21-9	0.041	c	All	41	0.658536585	--	0	2015	19	Z2
1	05-Feb-15	Aroclor-1248	12672-29-6	0.0072	c	All	7.2	3.75	--	0	2015	19	Z2
1	05-Feb-15	Aroclor-1254	11097-69-1	0.014	c	All	14	2.214285714	23.57142857	1	2015	19	Z2
1	05-Feb-15	Aroclor-1260	11096-82-5	0.88	c	All	880	0.035227273	--	0	2015	19	Z2
1	05-Feb-15	PCBs (sum) (Wildlife Based)	1336-36-3	0.33	d	All	330	0	1	1	2015	19	Z2
1	05-Feb-15	1,1'-Biphenyl	92-52-4	0.2	d	All	200	0.0245	--	0	2015	19	Z2
1	05-Feb-15	2,4,5-Trichlorophenol	95-95-4	0.03	d	All	30	0.276666667	--	0	2015	19	Z2
1	05-Feb-15	2,4,6-Trichlorophenol	88-06-2	0.09	d	All	90	0.062222222	--	0	2015	19	Z2
1	05-Feb-15	Dichlorophenols ,3-), (2,4-), (2,5-), (2,6-)	120-83-2	0.05	d	All	50	0.194	--	0	2015	19	Z2
1	05-Feb-15	2,4-Dimethylphenol	105-67-9	0.04	d	SI	40	1.325	--	0	2015	19	Z2
1	05-Feb-15	2,4-Dinitrophenol	51-28-5	0.15	d	All	150	0.2	--	0	2015	19	Z2
1	05-Feb-15	2,4-Dinitrotoluene	121-14-2	6	c	SI, M, P	6000	0.001833333	--	0	2015	19	Z2
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	19	Z2
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	19	Z2
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	19	Z2
1	05-Feb-15	2-Methylnaphthalene	91-57-6	--	--	All, total	29000	9.65517E-05	0.000262069	1	2015	19	Z2
1	05-Feb-15	2-Methylphenol (Cresol, o-)	95-48-7	0.1	d	All	100	0.14	--	0	2015	19	Z2
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	19	Z2
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	19	Z2
1	05-Feb-15	4-Methylphenol (Cresol, p-)	106-44-5	0.08	d	All	80	0.2	--	0	2015	19	Z2
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	19	Z2
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	19	Z2

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	28	330	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	9	160	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	7.7	160	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	9.9	660	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	9.7	160	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	9.2	660	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	6.6	660	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthene	4.3	4.3	J	0.99	6.6	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	5	5.0	J	1.2	6.6	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Acetophenone	44	44	J	5	330	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Anthracene	27	27	--	1.3	6.6	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	10	330	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	99	99	J	13	330	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	340	340	--	1.3	6.6	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	300	300	--	2.2	6.6	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	510	510	--	1.9	6.6	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	250	250	--	2.6	6.6	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	190	190	--	1.4	6.6	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	10	160	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	10	160	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	14	160	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	300	300	J	11	330	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	110	110	J	12	160	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	14	330	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Carbazole	27	27	J	9.9	160	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Chrysene	390	390	--	1.6	6.6	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	73	73	--	2.5	6.6	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	17	17	J	10	160	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	11	330	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	11	330	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U	4.8	330	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	11	160	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluoranthene	670	670	--	2.3	6.6	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluorene	4	4.0	J	2.2	6.6	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	9.3	160	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	11	160	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	10	330	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	15	160	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	3503	--	--	--	--	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	270	270	--	2.2	6.6	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	11	160	µg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	19	Z2
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	19	Z2
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	19	Z2
1	05-Feb-15	4-Chloroaniline	106-47-8	1.0	c	P, SI	1000	0.0099	--	0	2015	19	Z2
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	19	Z2
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	19	Z2
1	05-Feb-15	4-Nitrophenol	100-02-7	7	b	SI	7000	0.000942857	--	0	2015	19	Z2
1	05-Feb-15	Acenaphthene	83-32-9	--	--	All, total	29000	3.41379E-05	0.000148276	1	2015	19	Z2
1	05-Feb-15	Acenaphthylene	208-96-8	--	--	--	29000	4.13793E-05	0.000172414	1	2015	19	Z2
1	05-Feb-15	Acetophenone	--	--	--	--	--	--	--	1	2015	19	Z2
1	05-Feb-15	Anthracene	120-12-7	--	--	--	29000	4.48276E-05	0.000931034	1	2015	19	Z2
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	19	Z2
1	05-Feb-15	Benzaldehyde	--	--	--	--	--	--	--	1	2015	19	Z2
1	05-Feb-15	Benzo(a)anthracene	56-55-3	--	--	--	1100	0.001181818	0.309090909	1	2015	19	Z2
1	05-Feb-15	Benzo(a)pyrene	50-32-8	--	--	--	1100	0.002	0.272727273	1	2015	19	Z2
1	05-Feb-15	Benzo(b)fluoranthene	205-99-2	--	--	--	1100	0.001727273	0.463636364	1	2015	19	Z2
1	05-Feb-15	Benzo(ghi)perylene	191-24-2	--	--	--	1100	0.002363636	0.227272727	1	2015	19	Z2
1	05-Feb-15	Benzo(k)fluoranthene	207-08-9	--	--	--	1100	0.001272727	0.172727273	1	2015	19	Z2
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	19	Z2
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	19	Z2
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	19	Z2
1	05-Feb-15	Bis(2-ethylhexyl) phthalate	117-81-7	0.02	c	All	20	0.55	15	1	2015	19	Z2
1	05-Feb-15	Butylbenzyl phthalate	85-68-7	0.59	d	All	590	0.020338983	0.186440678	1	2015	19	Z2
1	05-Feb-15	Caprolactam	--	--	--	--	--	--	--	0	2015	19	Z2
1	05-Feb-15	Carbazole	86-74-8	0.16	d	All	160	0.061875	0.16875	1	2015	19	Z2
1	05-Feb-15	Chrysene	218-01-9	--	--	--	1100	0.001454545	0.354545455	1	2015	19	Z2
1	05-Feb-15	Dibenzo(a,h)anthracene	53-70-3	--	--	--	1100	0.002272727	0.066363636	1	2015	19	Z2
1	05-Feb-15	Dibenzofuran	132-64-9	0.15	d	All	150	0.066666667	0.113333333	1	2015	19	Z2
1	05-Feb-15	Diethylphthalate	84-66-2	0.23	d	All	230	0.047826087	--	0	2015	19	Z2
1	05-Feb-15	Dimethylphthalate	131-11-3	0.35	d	All	350	0.031428571	--	0	2015	19	Z2
1	05-Feb-15	Di-n-butyl phthalate	84-74-2	0.011	c	All	11	0.436363636	--	0	2015	19	Z2
1	05-Feb-15	Di-n-octyl phthalate	117-84-0	0.21	c	All	210	0.052380952	--	0	2015	19	Z2
1	05-Feb-15	Fluoranthene	206-44-0	--	--	--	1100	0.002090909	0.609090909	1	2015	19	Z2
1	05-Feb-15	Fluorene	86-73-7	--	--	All, total	29000	7.58621E-05	0.000137931	1	2015	19	Z2
1	05-Feb-15	Hexachlorobenzene	118-74-1	0.079	c	All	79	0.117721519	--	0	2015	19	Z2
1	05-Feb-15	Hexachlorobutadiene	87-68-3	0.1	d	SI	100	0.11	--	0	2015	19	Z2
1	05-Feb-15	Hexachlorocyclopentadiene	77-47-4	0.001	d	All	1	10	--	0	2015	19	Z2
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	19	Z2
--	5-Feb-15	High Molecular Weight PAHs	--	--	--	--	1100	--	3.184545455	1	2015	19	Z2
1	05-Feb-15	Indeno(1,2,3-cd)pyrene	193-39-5	--	--	--	1100	0.002	0.245454545	1	2015	19	Z2
1	05-Feb-15	Isophorone	--	--	--	--	--	--	--	0	2015	19	Z2

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Naphthalene	11	11	--	2.4	6.6	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	13	160	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	13	160	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	59	160	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	6.4	330	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenanthrene	370	370	--	1.3	6.6	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	11	160	µg/Kg-dry
ISM-19-Z2	1502016-07	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Pyrene	510	510	--	2.2	6.6	µg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Mercury by CVAA	Mercury	0.049	0.049	--	0.0008	0.013	mg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Metals by ICP-MS	Aluminum	3,400	3,400	--	1.1	3.2	mg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Metals by ICP-MS	Antimony	1.4	1.4	J	0.43	1.6	mg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Metals by ICP-MS	Arsenic	3.9	3.9	--	0.33	1.6	mg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Metals by ICP-MS	Barium	44	44	--	0.019	1.6	mg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Metals by ICP-MS	Beryllium	0.19	0.19	J	0.17	0.64	mg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Metals by ICP-MS	Cadmium	1.4	1.4	--	0.064	0.64	mg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Metals by ICP-MS	Chromium	8.9	8.9	--	0.36	1.6	mg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Metals by ICP-MS	Cobalt	3.3	3.3	--	0.19	1.6	mg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Metals by ICP-MS	Copper	36	36	--	0.18	1.6	mg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Metals by ICP-MS	Iron	11,000	11,000	--	4.7	26	mg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Metals by ICP-MS	Lead	74	74	--	0.17	1.6	mg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Metals by ICP-MS	Manganese	190	190	--	0.26	1.6	mg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Metals by ICP-MS	Nickel	11	11	--	0.87	1.6	mg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Metals by ICP-MS	Selenium	0.62	0.62	J	0.33	1.6	mg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Metals by ICP-MS	Silver	0.32	0.32	J	0.0064	1.6	mg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Metals by ICP-MS	Thallium	--	U	U	0.17	1.6	mg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Metals by ICP-MS	Vanadium	9.7	9.7	--	0.26	1.6	mg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Metals by ICP-MS	Zinc	180	180	--	1.2	3.2	mg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Moisture	Moisture	0.46	0.46	--	0.025	0.05	% of sample
ISM-1-Z3	1501301-01	06-Jan-15	Soil	PCBs	Aroclor 1016	--	U	U	27	83	µg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	PCBs	Aroclor 1221	--	U	U	27	83	µg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	PCBs	Aroclor 1232	--	U	U	27	83	µg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	PCBs	Aroclor 1242	--	U	U	27	83	µg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	PCBs	Aroclor 1248	--	U	U	27	83	µg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	PCBs	Aroclor 1254	--	U	U	31	83	µg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	PCBs	Aroclor 1260	--	U	U	31	83	µg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	PCBs	PCBs, Total	--	U	U	--	--	µg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	1,1'-Biphenyl	--	U	U	5.4	33	µg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	9	33	µg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	8.8	33	µg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	7	33	µg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
1	05-Feb-15	Naphthalene	91-20-3	--	--	All, total	29000	8.27586E-05	0.00037931	1	2015	19	Z2
1	05-Feb-15	Nitrobenzene	98-95-3	2.2	c	SI, M	2200	0.005909091	--	0	2015	19	Z2
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	19	Z2
1	05-Feb-15	N-Nitrosodiphenylamine	86-30-6	0.12	d	All	120	0.491666667	--	0	2015	19	Z2
1	05-Feb-15	Pentachlorophenol (PCP)	87-86-5	2.1	a	All	2100	0.003047619	--	0	2015	19	Z2
1	05-Feb-15	Phenanthrene	67580	--	--	--	29000	4.48276E-05	0.012758621	1	2015	19	Z2
1	05-Feb-15	Phenol	108-95-2	0.79	c	All	790	0.013924051	--	0	2015	19	Z2
1	05-Feb-15	Pyrene	129-00-0	--	--	--	1100	0.002	0.463636364	1	2015	19	Z2
1	12-Jan-15	Mercury (total)	7439-97-6	0.1	b	All	100	0.008	0.49	1	2015	1	Z3
4	12-Jan-15	Aluminum	7429-90-5	--	a	All	--	--	--	1	2015	1	Z3
4	12-Jan-15	Antimony	7440-36-0	0.27	a	All	0.27	1.592592593	5.185185185	1	2015	1	Z3
4	12-Jan-15	Arsenic	7440-38-2	18	a	All	18000	0.018333333	0.216666667	1	2015	1	Z3
4	12-Jan-15	Barium	7440-39-3	330	a	All	330000	5.75758E-05	0.133333333	1	2015	1	Z3
4	12-Jan-15	Beryllium	7440-41-7	10	b	All	10000	0.017	0.019	1	2015	1	Z3
4	12-Jan-15	Cadmium	7440-43-9	0.36	a	All	360	0.177777778	3.888888889	1	2015	1	Z3
4	12-Jan-15	Chromium III	16065-83-1	18	a	All	18000	0.02	0.494444444	1	2015	1	Z3
4	12-Jan-15	Cobalt	7440-48-4	13	a	All	13000	0.014615385	0.253846154	1	2015	1	Z3
4	12-Jan-15	Copper	7440-50-8	28	a	All	28000	0.006428571	1.285714286	1	2015	1	Z3
4	12-Jan-15	Iron	7439-89-6	--	a	All	--	--	--	1	2015	1	Z3
4	12-Jan-15	Lead	7439-92-1	11	a	All	11000	0.015454545	6.727272727	1	2015	1	Z3
4	12-Jan-15	Manganese	7439-96-5	220	a	All	220000	0.001181818	0.863636364	1	2015	1	Z3
4	12-Jan-15	Nickel	7440-02-0	38	a	All	38000	0.022894737	0.289473684	1	2015	1	Z3
4	12-Jan-15	Selenium	7782-49-2	0.52	a	All	520	0.634615385	1.192307692	1	2015	1	Z3
4	12-Jan-15	Silver	7440-22-4	4.2	a	All	4200	0.00152381	0.076190476	1	2015	1	Z3
4	12-Jan-15	Thallium	7440-28-0	0.22	c	All	220	0.772727273	--	0	2015	1	Z3
4	12-Jan-15	Vanadium	7440-62-2	7.8	a	All	7800	0.033333333	1.243589744	1	2015	1	Z3
4	12-Jan-15	Zinc	7440-66-6	46	a	All	46000	0.026086957	3.913043478	1	2015	1	Z3
1	12-Jan-15	--	--	--	--	--	--	--	--	--	2015	1	Z3
1	15-Jan-15	Aroclor-1016	12674-11-2	1	c	All	1000	0.027	--	0	2015	1	Z3
1	15-Jan-15	--	--	--	--	--	--	--	--	0	2015	1	Z3
1	15-Jan-15	--	--	--	--	--	--	--	--	0	2015	1	Z3
1	15-Jan-15	Aroclor-1242	53469-21-9	0.041	c	All	41	0.658536585	--	0	2015	1	Z3
1	15-Jan-15	Aroclor-1248	12672-29-6	0.0072	c	All	7.2	3.75	--	0	2015	1	Z3
1	15-Jan-15	Aroclor-1254	11097-69-1	0.014	c	All	14	2.214285714	--	0	2015	1	Z3
1	15-Jan-15	Aroclor-1260	11096-82-5	0.88	c	All	880	0.035227273	--	0	2015	1	Z3
1	15-Jan-15	PCBs (sum) (Wildlife Based)	1336-36-3	0.33	d	All	330	0	--	0	2015	1	Z3
1	13-Jan-15	1,1'-Biphenyl	92-52-4	0.2	d	All	200	0.027	--	0	2015	1	Z3
1	13-Jan-15	2,4,5-Trichlorophenol	95-95-4	0.03	d	All	30	0.3	--	0	2015	1	Z3
1	13-Jan-15	2,4,6-Trichlorophenol	88-06-2	0.09	d	All	90	0.097777778	--	0	2015	1	Z3
1	13-Jan-15	Dichlorophenols ,3-), (2,4-), (2,5-), (2,6-)	120-83-2	0.05	d	All	50	0.14	--	0	2015	1	Z3

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	6.8	33	µg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	18	33	µg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	8.6	33	µg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	5.5	33	µg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	4.6	6.6	µg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	10	33	µg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	13	13	--	3.4	6.6	µg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	9	33	µg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	7.6	33	µg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	9.4	33	µg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	3&4-Methylphenol	--	U	U	6.7	33	µg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	4.9	170	µg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	7.6	33	µg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	8.3	33	µg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	8.9	33	µg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	9.4	33	µg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	5.2	67	µg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	9.2	33	µg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	51	170	µg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	30	33	µg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthene	11	11	--	4.8	6.6	µg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	--	U	U	5.7	6.6	µg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	5.2	33	µg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Anthracene	71	71	--	4.7	6.6	µg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	5.2	33	µg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	--	U	U	51	67	µg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	160	160	--	5.7	6.6	µg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	150	150	--	4.1	6.6	µg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	230	230	--	4.9	6.6	µg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	150	150	--	5.1	6.6	µg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	90	90	--	5	6.6	µg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	3.2	33	µg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	9.4	33	µg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	7.8	33	µg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	95	95	--	5.7	33	µg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	--	U	U	5.6	33	µg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	11	33	µg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Carbazole	--	U	U	3.6	33	µg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Chrysene	200	200	--	5.4	6.6	µg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	52	52	--	3.6	6.6	µg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	26	26	J	4.9	33	µg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
1	13-Jan-15	2,4-Dimethylphenol	105-67-9	0.04	d	SI	40	0.17	--	0	2015	1	Z3
1	13-Jan-15	2,4-Dinitrophenol	51-28-5	0.15	d	All	150	0.12	--	0	2015	1	Z3
1	13-Jan-15	2,4-Dinitrotoluene	121-14-2	6	c	SI, M, P	6000	0.001433333	--	0	2015	1	Z3
1	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	1	Z3
1	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	1	Z3
1	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	1	Z3
1	13-Jan-15	2-Methylnaphthalene	91-57-6	--	--	All, total	29000	0.000117241	0.000448276	1	2015	1	Z3
1	13-Jan-15	2-Methylphenol (Cresol, o-)	95-48-7	0.1	d	All	100	0.09	--	0	2015	1	Z3
1	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	1	Z3
1	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	1	Z3
1	13-Jan-15	4-Methylphenol (Cresol, p-)	106-44-5	0.08	d	All	80	0.08375	--	0	2015	1	Z3
1	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	1	Z3
1	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	1	Z3
1	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	1	Z3
1	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	1	Z3
1	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	1	Z3
1	13-Jan-15	4-Chloroaniline	106-47-8	1.0	c	P, SI	1000	0.0052	--	0	2015	1	Z3
1	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	1	Z3
1	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	1	Z3
1	13-Jan-15	4-Nitrophenol	100-02-7	7	b	SI	7000	0.004285714	--	0	2015	1	Z3
1	13-Jan-15	Acenaphthene	83-32-9	--	--	All, total	29000	0.000165517	0.00037931	1	2015	1	Z3
1	13-Jan-15	Acenaphthylene	208-96-8	--	--	--	29000	0.000196552	--	0	2015	1	Z3
1	13-Jan-15	Acetophenone	--	--	--	--	--	--	--	0	2015	1	Z3
1	13-Jan-15	Anthracene	120-12-7	--	--	--	29000	0.000162069	0.002448276	1	2015	1	Z3
1	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	1	Z3
1	13-Jan-15	Benzaldehyde	--	--	--	--	--	--	--	0	2015	1	Z3
1	13-Jan-15	Benzo(a)anthracene	56-55-3	--	--	--	1100	0.005181818	0.145454545	1	2015	1	Z3
1	13-Jan-15	Benzo(a)pyrene	50-32-8	--	--	--	1100	0.003727273	0.136363636	1	2015	1	Z3
1	13-Jan-15	Benzo(b)fluoranthene	205-99-2	--	--	--	1100	0.004454545	0.209090909	1	2015	1	Z3
1	13-Jan-15	Benzo(ghi)perylene	191-24-2	--	--	--	1100	0.004636364	0.136363636	1	2015	1	Z3
1	13-Jan-15	Benzo(k)fluoranthene	207-08-9	--	--	--	1100	0.004545455	0.081818182	1	2015	1	Z3
1	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	1	Z3
1	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	1	Z3
1	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	1	Z3
1	13-Jan-15	Bis(2-ethylhexyl) phthalate	117-81-7	0.02	c	All	20	0.285	4.75	1	2015	1	Z3
1	13-Jan-15	Butylbenzyl phthalate	85-68-7	0.59	d	All	590	0.009491525	--	0	2015	1	Z3
1	13-Jan-15	Caprolactam	--	--	--	--	--	--	--	0	2015	1	Z3
1	13-Jan-15	Carbazole	86-74-8	0.16	d	All	160	0.0225	--	0	2015	1	Z3
1	13-Jan-15	Chrysene	218-01-9	--	--	--	1100	0.004909091	0.181818182	1	2015	1	Z3
1	13-Jan-15	Dibenzo(a,h)anthracene	53-70-3	--	--	--	1100	0.003272727	0.047272727	1	2015	1	Z3
1	13-Jan-15	Dibenzofuran	132-64-9	0.15	d	All	150	0.032666667	0.173333333	1	2015	1	Z3

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	5.1	33	µg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	6.5	33	µg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U	6.1	33	µg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	6.4	33	µg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluoranthene	310	310	--	3.2	6.6	µg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluorene	16	16	--	4.8	6.6	µg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	9.6	33	µg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	18	33	µg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	11	33	µg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	14	33	µg/Kg-dry
ISM-1-Z3	1501301-01	6-Jan-15	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	1782	--	--	--	--	µg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	150	150	--	4.6	6.6	µg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	6.5	170	µg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Naphthalene	31	31	--	4.2	6.6	µg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	11	170	µg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	5.5	33	µg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	3.2	33	µg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	12	20	µg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenanthrene	300	300	--	3.1	6.6	µg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	8.2	33	µg/Kg-dry
ISM-1-Z3	1501301-01	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Pyrene	290	290	--	1.2	6.6	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Mercury by CVAA	Mercury	0.12	0.12	--	0.00085	0.014	mg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Metals by ICP-MS	Aluminum	7,100	7,100	--	2.8	8.1	mg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Metals by ICP-MS	Antimony	6.7	6.7	--	0.43	1.6	mg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Metals by ICP-MS	Arsenic	6.7	6.7	--	0.34	1.6	mg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Metals by ICP-MS	Barium	250	250	--	0.02	1.6	mg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Metals by ICP-MS	Beryllium	--	U	U	0.17	0.65	mg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Metals by ICP-MS	Cadmium	4.7	4.7	--	0.065	0.65	mg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Metals by ICP-MS	Chromium	28	28	--	0.36	1.6	mg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Metals by ICP-MS	Cobalt	6.2	6.2	--	0.2	1.6	mg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Metals by ICP-MS	Copper	250	250	--	0.18	1.6	mg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Metals by ICP-MS	Iron	35,000	35,000	--	4.8	26	mg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Metals by ICP-MS	Lead	490	490	--	0.17	1.6	mg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Metals by ICP-MS	Manganese	430	430	--	0.26	1.6	mg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Metals by ICP-MS	Nickel	33	33	--	0.88	1.6	mg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Metals by ICP-MS	Selenium	0.64	0.64	J	0.34	1.6	mg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Metals by ICP-MS	Silver	2.1	2.1	--	0.0065	1.6	mg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Metals by ICP-MS	Thallium	--	U	U	0.18	1.6	mg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Metals by ICP-MS	Vanadium	12	12	--	0.27	1.6	mg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Metals by ICP-MS	Zinc	690	690	--	12	33	mg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Moisture	Moisture	0.47	0.47	--	0.025	0.05	% of sample

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
1	13-Jan-15	Diethylphthalate	84-66-2	0.23	d	All	230	0.022173913	--	0	2015	1	Z3
1	13-Jan-15	Dimethylphthalate	131-11-3	0.35	d	All	350	0.018571429	--	0	2015	1	Z3
1	13-Jan-15	Di-n-butyl phthalate	84-74-2	0.011	c	All	11	0.554545455	--	0	2015	1	Z3
1	13-Jan-15	Di-n-octyl phthalate	117-84-0	0.21	c	All	210	0.03047619	--	0	2015	1	Z3
1	13-Jan-15	Fluoranthene	206-44-0	--	--	--	1100	0.002909091	0.281818182	1	2015	1	Z3
1	13-Jan-15	Fluorene	86-73-7	--	--	All, total	29000	0.000165517	0.000551724	1	2015	1	Z3
1	13-Jan-15	Hexachlorobenzene	118-74-1	0.079	c	All	79	0.121518987	--	0	2015	1	Z3
1	13-Jan-15	Hexachlorobutadiene	87-68-3	0.1	d	SI	100	0.18	--	0	2015	1	Z3
1	13-Jan-15	Hexachlorocyclopentadiene	77-47-4	0.001	d	All	1	11	--	0	2015	1	Z3
1	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	1	Z3
--	13-Jan-15	High Molecular Weight PAHs	--	--	--	--	1100	--	1.62	1	2015	1	Z3
1	13-Jan-15	Indeno(1,2,3-cd)pyrene	193-39-5	--	--	--	1100	0.004181818	0.136363636	1	2015	1	Z3
1	13-Jan-15	Isophorone	--	--	--	--	--	--	--	0	2015	1	Z3
1	13-Jan-15	Naphthalene	91-20-3	--	--	All, total	29000	0.000144828	0.001068966	1	2015	1	Z3
1	13-Jan-15	Nitrobenzene	98-95-3	2.2	c	SI, M	2200	0.005	--	0	2015	1	Z3
1	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	1	Z3
1	13-Jan-15	N-Nitrosodiphenylamine	86-30-6	0.12	d	All	120	0.026666667	--	0	2015	1	Z3
1	13-Jan-15	Pentachlorophenol (PCP)	87-86-5	2.1	a	All	2100	0.005714286	--	0	2015	1	Z3
1	13-Jan-15	Phenanthrene	67580	--	--	--	29000	0.000106897	0.010344828	1	2015	1	Z3
1	13-Jan-15	Phenol	108-95-2	0.79	c	All	790	0.010379747	--	0	2015	1	Z3
1	13-Jan-15	Pyrene	129-00-0	--	--	--	1100	0.001090909	0.263636364	1	2015	1	Z3
1	04-Feb-15	Mercury (total)	7439-97-6	0.1	b	All	100	0.0085	1.2	1	2015	20	Z2
10	13-Feb-15	Aluminum	7429-90-5	--	a	All	--	--	--	1	2015	20	Z2
4	03-Feb-15	Antimony	7440-36-0	0.27	a	All	0.27	1.592592593	24.81481481	1	2015	20	Z2
4	03-Feb-15	Arsenic	7440-38-2	18	a	All	18000	0.018888889	0.372222222	1	2015	20	Z2
4	03-Feb-15	Barium	7440-39-3	330	a	All	330000	6.06061E-05	0.757575758	1	2015	20	Z2
4	03-Feb-15	Beryllium	7440-41-7	10	b	All	10000	0.017	--	0	2015	20	Z2
4	03-Feb-15	Cadmium	7440-43-9	0.36	a	All	360	0.180555556	13.05555556	1	2015	20	Z2
4	03-Feb-15	Chromium III	16065-83-1	18	a	All	18000	0.02	1.555555556	1	2015	20	Z2
4	03-Feb-15	Cobalt	7440-48-4	13	a	All	13000	0.015384615	0.476923077	1	2015	20	Z2
4	03-Feb-15	Copper	7440-50-8	28	a	All	28000	0.006428571	8.928571429	1	2015	20	Z2
4	03-Feb-15	Iron	7439-89-6	--	a	All	--	--	--	1	2015	20	Z2
4	03-Feb-15	Lead	7439-92-1	11	a	All	11000	0.015454545	44.54545455	1	2015	20	Z2
4	03-Feb-15	Manganese	7439-96-5	220	a	All	220000	0.001181818	1.954545455	1	2015	20	Z2
4	03-Feb-15	Nickel	7440-02-0	38	a	All	38000	0.023157895	0.868421053	1	2015	20	Z2
4	03-Feb-15	Selenium	7782-49-2	0.52	a	All	520	0.653846154	1.230769231	1	2015	20	Z2
4	03-Feb-15	Silver	7440-22-4	4.2	a	All	4200	0.001547619	0.5	1	2015	20	Z2
4	03-Feb-15	Thallium	7440-28-0	0.22	c	All	220	0.818181818	--	0	2015	20	Z2
4	03-Feb-15	Vanadium	7440-62-2	7.8	a	All	7800	0.034615385	1.538461538	1	2015	20	Z2
40	05-Feb-15	Zinc	7440-66-6	46	a	All	46000	0.260869565	15	1	2015	20	Z2
1	05-Feb-15	--	--	--	--	--	--	--	--	--	2015	20	Z2

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-20-Z2	1502016-08	23-Jan-15	Soil	PCBs	Aroclor 1016	--	U	U	27	83	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	PCBs	Aroclor 1221	--	U	U	27	83	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	PCBs	Aroclor 1232	--	U	U	27	83	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	PCBs	Aroclor 1242	--	U	U	27	83	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	PCBs	Aroclor 1248	--	U	U	27	83	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	PCBs	Aroclor 1254	260	260	--	31	83	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	PCBs	Aroclor 1260	--	U	U	31	83	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	PCBs	PCBs, Total	260	260	--	--	--	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	1,1'-Biphenyl	--	U	U	4.9	330	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	8.2	160	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	5.6	160	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	9.6	160	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	53	330	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	30	650	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	11	160	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	17	160	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	1.6	6.6	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	9.9	160	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	6.9	6.9	--	2.7	6.6	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	13	160	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	13	650	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	11	160	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	3&4-Methylphenol	--	U	U	16	160	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	410	650	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	11	650	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	27	330	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	8.9	160	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	7.6	160	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	9.8	650	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	9.7	160	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	9.1	650	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	6.5	650	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthene	--	U	U	0.99	6.6	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	6.3	6.3	J	1.2	6.6	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	4.9	330	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Anthracene	13	13	--	1.3	6.6	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	10	330	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	--	U	U	13	330	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	99	99	--	1.3	6.6	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	120	120	--	2.2	6.6	µg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
1	05-Feb-15	Aroclor-1016	12674-11-2	1	c	All	1000	0.027	--	0	2015	20	Z2
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	20	Z2
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	20	Z2
1	05-Feb-15	Aroclor-1242	53469-21-9	0.041	c	All	41	0.658536585	--	0	2015	20	Z2
1	05-Feb-15	Aroclor-1248	12672-29-6	0.0072	c	All	7.2	3.75	--	0	2015	20	Z2
1	05-Feb-15	Aroclor-1254	11097-69-1	0.014	c	All	14	2.214285714	18.57142857	1	2015	20	Z2
1	05-Feb-15	Aroclor-1260	11096-82-5	0.88	c	All	880	0.035227273	--	0	2015	20	Z2
1	05-Feb-15	PCBs (sum) (Wildlife Based)	1336-36-3	0.33	d	All	330	0	0.787878788	1	2015	20	Z2
1	06-Feb-15	1,1'-Biphenyl	92-52-4	0.2	d	All	200	0.0245	--	0	2015	20	Z2
1	06-Feb-15	2,4,5-Trichlorophenol	95-95-4	0.03	d	All	30	0.273333333	--	0	2015	20	Z2
1	06-Feb-15	2,4,6-Trichlorophenol	88-06-2	0.09	d	All	90	0.062222222	--	0	2015	20	Z2
1	06-Feb-15	Dichlorophenols ,3-), (2,4-), (2,5-), (2,6-)	120-83-2	0.05	d	All	50	0.192	--	0	2015	20	Z2
1	06-Feb-15	2,4-Dimethylphenol	105-67-9	0.04	d	SI	40	1.325	--	0	2015	20	Z2
1	06-Feb-15	2,4-Dinitrophenol	51-28-5	0.15	d	All	150	0.2	--	0	2015	20	Z2
1	06-Feb-15	2,4-Dinitrotoluene	121-14-2	6	c	SI, M, P	6000	0.001833333	--	0	2015	20	Z2
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	20	Z2
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	20	Z2
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	20	Z2
1	06-Feb-15	2-Methylnaphthalene	91-57-6	--	--	All, total	29000	9.31034E-05	0.000237931	1	2015	20	Z2
1	06-Feb-15	2-Methylphenol (Cresol, o-)	95-48-7	0.1	d	All	100	0.13	--	0	2015	20	Z2
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	20	Z2
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	20	Z2
1	06-Feb-15	4-Methylphenol (Cresol, p-)	106-44-5	0.08	d	All	80	0.2	--	0	2015	20	Z2
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	20	Z2
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	20	Z2
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	20	Z2
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	20	Z2
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	20	Z2
1	06-Feb-15	4-Chloroaniline	106-47-8	1.0	c	P, SI	1000	0.0098	--	0	2015	20	Z2
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	20	Z2
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	20	Z2
1	06-Feb-15	4-Nitrophenol	100-02-7	7	b	SI	7000	0.000928571	--	0	2015	20	Z2
1	06-Feb-15	Acenaphthene	83-32-9	--	--	All, total	29000	3.41379E-05	--	0	2015	20	Z2
1	06-Feb-15	Acenaphthylene	208-96-8	--	--	--	29000	4.13793E-05	0.000217241	1	2015	20	Z2
1	06-Feb-15	Acetophenone	--	--	--	--	--	--	--	0	2015	20	Z2
1	06-Feb-15	Anthracene	120-12-7	--	--	--	29000	4.48276E-05	0.000448276	1	2015	20	Z2
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	20	Z2
1	06-Feb-15	Benzaldehyde	--	--	--	--	--	--	--	0	2015	20	Z2
1	06-Feb-15	Benzo(a)anthracene	56-55-3	--	--	--	1100	0.001181818	0.09	1	2015	20	Z2
1	06-Feb-15	Benzo(a)pyrene	50-32-8	--	--	--	1100	0.002	0.109090909	1	2015	20	Z2

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	170	170	--	1.9	6.6	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	110	110	--	2.6	6.6	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	69	69	--	1.4	6.6	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	10	160	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	10	160	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	14	160	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	360	360	--	11	330	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	70	70	J	12	160	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	14	330	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Carbazole	--	U	U	9.8	160	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Chrysene	120	120	--	1.6	6.6	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	28	28	--	2.5	6.6	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	--	U	U	10	160	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	10	330	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	11	330	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U	4.8	330	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	11	160	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluoranthene	200	200	--	2.3	6.6	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluorene	--	U	U	2.2	6.6	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	9.2	160	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	11	160	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	10	330	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	15	160	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	1206	--	--	--	--	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	120	120	--	2.2	6.6	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	11	160	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Naphthalene	12	12	--	2.4	6.6	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	13	160	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	13	160	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	59	160	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	6.4	330	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenanthrene	130	130	--	1.3	6.6	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	11	160	µg/Kg-dry
ISM-20-Z2	1502016-08	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Pyrene	170	170	--	2.2	6.6	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Mercury by CVAA	Mercury	0.83	0.83	--	0.0086	0.14	mg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Metals by ICP-MS	Aluminum	8,100	8,100	--	2.7	7.9	mg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Metals by ICP-MS	Antimony	8.7	8.7	--	0.42	1.6	mg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Metals by ICP-MS	Arsenic	7.6	7.6	--	0.33	1.6	mg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Metals by ICP-MS	Barium	230	230	--	0.019	1.6	mg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Metals by ICP-MS	Beryllium	--	U	U	0.16	0.63	mg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Metals by ICP-MS	Cadmium	5.4	5.4	--	0.063	0.63	mg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
1	06-Feb-15	Benzo(b)fluoranthene	205-99-2	--	--	--	1100	0.001727273	0.154545455	1	2015	20	Z2
1	06-Feb-15	Benzo(ghi)perylene	191-24-2	--	--	--	1100	0.002363636	0.1	1	2015	20	Z2
1	06-Feb-15	Benzo(k)fluoranthene	207-08-9	--	--	--	1100	0.001272727	0.062727273	1	2015	20	Z2
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	20	Z2
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	20	Z2
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	20	Z2
1	06-Feb-15	Bis(2-ethylhexyl) phthalate	117-81-7	0.02	c	All	20	0.55	18	1	2015	20	Z2
1	06-Feb-15	Butylbenzyl phthalate	85-68-7	0.59	d	All	590	0.020338983	0.118644068	1	2015	20	Z2
1	06-Feb-15	Caprolactam	--	--	--	--	--	--	--	0	2015	20	Z2
1	06-Feb-15	Carbazole	86-74-8	0.16	d	All	160	0.06125	--	0	2015	20	Z2
1	06-Feb-15	Chrysene	218-01-9	--	--	--	1100	0.001454545	0.109090909	1	2015	20	Z2
1	06-Feb-15	Dibenzo(a,h)anthracene	53-70-3	--	--	--	1100	0.002272727	0.025454545	1	2015	20	Z2
1	06-Feb-15	Dibenzofuran	132-64-9	0.15	d	All	150	0.066666667	--	0	2015	20	Z2
1	06-Feb-15	Diethylphthalate	84-66-2	0.23	d	All	230	0.043478261	--	0	2015	20	Z2
1	06-Feb-15	Dimethylphthalate	131-11-3	0.35	d	All	350	0.031428571	--	0	2015	20	Z2
1	06-Feb-15	Di-n-butyl phthalate	84-74-2	0.011	c	All	11	0.436363636	--	0	2015	20	Z2
1	06-Feb-15	Di-n-octyl phthalate	117-84-0	0.21	c	All	210	0.052380952	--	0	2015	20	Z2
1	06-Feb-15	Fluoranthene	206-44-0	--	--	--	1100	0.002090909	0.181818182	1	2015	20	Z2
1	06-Feb-15	Fluorene	86-73-7	--	--	All, total	29000	7.58621E-05	--	0	2015	20	Z2
1	06-Feb-15	Hexachlorobenzene	118-74-1	0.079	c	All	79	0.116455696	--	0	2015	20	Z2
1	06-Feb-15	Hexachlorobutadiene	87-68-3	0.1	d	SI	100	0.11	--	0	2015	20	Z2
1	06-Feb-15	Hexachlorocyclopentadiene	77-47-4	0.001	d	All	1	10	--	0	2015	20	Z2
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	20	Z2
--	6-Feb-15	High Molecular Weight PAHs	--	--	--	--	1100	--	1.096363636	1	2015	20	Z2
1	06-Feb-15	Indeno(1,2,3-cd)pyrene	193-39-5	--	--	--	1100	0.002	0.109090909	1	2015	20	Z2
1	06-Feb-15	Isophorone	--	--	--	--	--	--	--	0	2015	20	Z2
1	06-Feb-15	Naphthalene	91-20-3	--	--	All, total	29000	8.27586E-05	0.000413793	1	2015	20	Z2
1	06-Feb-15	Nitrobenzene	98-95-3	2.2	c	SI, M	2200	0.005909091	--	0	2015	20	Z2
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	20	Z2
1	06-Feb-15	N-Nitrosodiphenylamine	86-30-6	0.12	d	All	120	0.491666667	--	0	2015	20	Z2
1	06-Feb-15	Pentachlorophenol (PCP)	87-86-5	2.1	a	All	2100	0.003047619	--	0	2015	20	Z2
1	06-Feb-15	Phenanthrene	67580	--	--	--	29000	4.48276E-05	0.004482759	1	2015	20	Z2
1	06-Feb-15	Phenol	108-95-2	0.79	c	All	790	0.013924051	--	0	2015	20	Z2
1	06-Feb-15	Pyrene	129-00-0	--	--	--	1100	0.002	0.154545455	1	2015	20	Z2
10	05-Feb-15	Mercury (total)	7439-97-6	0.1	b	All	100	0.086	8.3	1	2015	21	Z2
10	13-Feb-15	Aluminum	7429-90-5	--	a	All	--	--	--	1	2015	21	Z2
4	03-Feb-15	Antimony	7440-36-0	0.27	a	All	0.27	1.555555556	32.22222222	1	2015	21	Z2
4	03-Feb-15	Arsenic	7440-38-2	18	a	All	18000	0.018333333	0.422222222	1	2015	21	Z2
4	03-Feb-15	Barium	7440-39-3	330	a	All	330000	5.75758E-05	0.696969697	1	2015	21	Z2
4	03-Feb-15	Beryllium	7440-41-7	10	b	All	10000	0.016	--	0	2015	21	Z2
4	03-Feb-15	Cadmium	7440-43-9	0.36	a	All	360	0.175	15	1	2015	21	Z2

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Metals by ICP-MS	Chromium	29	29	--	0.35	1.6	mg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Metals by ICP-MS	Cobalt	6	6.0	--	0.19	1.6	mg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Metals by ICP-MS	Copper	200	200	--	0.18	1.6	mg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Metals by ICP-MS	Iron	41,000	41,000	--	4.6	25	mg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Metals by ICP-MS	Lead	420	420	--	0.16	1.6	mg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Metals by ICP-MS	Manganese	390	390	--	0.25	1.6	mg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Metals by ICP-MS	Nickel	52	52	--	0.85	1.6	mg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Metals by ICP-MS	Selenium	0.85	0.85	J	0.33	1.6	mg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Metals by ICP-MS	Silver	2.5	2.5	--	0.0063	1.6	mg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Metals by ICP-MS	Thallium	--	U	U	0.17	1.6	mg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Metals by ICP-MS	Vanadium	11	11	--	0.26	1.6	mg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Metals by ICP-MS	Zinc	820	820	--	11	31	mg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Moisture	Moisture	0.6	0.60	--	0.025	0.05	% of sample
ISM-21-Z2	1502016-09	23-Jan-15	Soil	PCBs	Aroclor 1016	--	U	U	26	80	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	PCBs	Aroclor 1221	--	U	U	26	80	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	PCBs	Aroclor 1232	--	U	U	26	80	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	PCBs	Aroclor 1242	--	U	U	26	80	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	PCBs	Aroclor 1248	--	U	U	26	80	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	PCBs	Aroclor 1254	270	270	--	30	80	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	PCBs	Aroclor 1260	--	U	U	30	80	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	PCBs	PCBs, Total	270	270	--	--	--	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	1,1'-Biphenyl	--	U	U	5	330	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	8.3	160	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	5.6	160	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	9.7	160	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	54	330	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	30	660	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	11	160	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	17	160	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	1.6	6.7	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	10	160	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	12	12	--	2.8	6.7	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	14	160	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	13	660	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	11	160	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	3&4-Methylphenol	--	U	U	16	160	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	410	660	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	11	660	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	28	330	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	9	160	µg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
4	03-Feb-15	Chromium III	16065-83-1	18	a	All	18000	0.019444444	1.611111111	1	2015	21	Z2
4	03-Feb-15	Cobalt	7440-48-4	13	a	All	13000	0.014615385	0.461538462	1	2015	21	Z2
4	03-Feb-15	Copper	7440-50-8	28	a	All	28000	0.006428571	7.142857143	1	2015	21	Z2
4	03-Feb-15	Iron	7439-89-6	--	a	All	--	--	--	1	2015	21	Z2
4	03-Feb-15	Lead	7439-92-1	11	a	All	11000	0.014545455	38.18181818	1	2015	21	Z2
4	03-Feb-15	Manganese	7439-96-5	220	a	All	220000	0.001136364	1.772727273	1	2015	21	Z2
4	03-Feb-15	Nickel	7440-02-0	38	a	All	38000	0.022368421	1.368421053	1	2015	21	Z2
4	03-Feb-15	Selenium	7782-49-2	0.52	a	All	520	0.634615385	1.634615385	1	2015	21	Z2
4	03-Feb-15	Silver	7440-22-4	4.2	a	All	4200	0.0015	0.595238095	1	2015	21	Z2
4	03-Feb-15	Thallium	7440-28-0	0.22	c	All	220	0.772727273	--	0	2015	21	Z2
4	03-Feb-15	Vanadium	7440-62-2	7.8	a	All	7800	0.033333333	1.41025641	1	2015	21	Z2
40	05-Feb-15	Zinc	7440-66-6	46	a	All	46000	0.239130435	17.82608696	1	2015	21	Z2
1	05-Feb-15	--	--	--	--	--	--	--	--	--	2015	21	Z2
1	05-Feb-15	Aroclor-1016	12674-11-2	1	c	All	1000	0.026	--	0	2015	21	Z2
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	21	Z2
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	21	Z2
1	05-Feb-15	Aroclor-1242	53469-21-9	0.041	c	All	41	0.634146341	--	0	2015	21	Z2
1	05-Feb-15	Aroclor-1248	12672-29-6	0.0072	c	All	7.2	3.611111111	--	0	2015	21	Z2
1	05-Feb-15	Aroclor-1254	11097-69-1	0.014	c	All	14	2.142857143	19.28571429	1	2015	21	Z2
1	05-Feb-15	Aroclor-1260	11096-82-5	0.88	c	All	880	0.034090909	--	0	2015	21	Z2
1	05-Feb-15	PCBs (sum) (Wildlife Based)	1336-36-3	0.33	d	All	330	0	0.818181818	1	2015	21	Z2
1	05-Feb-15	1,1'-Biphenyl	92-52-4	0.2	d	All	200	0.025	--	0	2015	21	Z2
1	05-Feb-15	2,4,5-Trichlorophenol	95-95-4	0.03	d	All	30	0.276666667	--	0	2015	21	Z2
1	05-Feb-15	2,4,6-Trichlorophenol	88-06-2	0.09	d	All	90	0.062222222	--	0	2015	21	Z2
1	05-Feb-15	Dichlorophenols ,3-), (2,4-), (2,5-), (2,6-)	120-83-2	0.05	d	All	50	0.194	--	0	2015	21	Z2
1	05-Feb-15	2,4-Dimethylphenol	105-67-9	0.04	d	SI	40	1.35	--	0	2015	21	Z2
1	05-Feb-15	2,4-Dinitrophenol	51-28-5	0.15	d	All	150	0.2	--	0	2015	21	Z2
1	05-Feb-15	2,4-Dinitrotoluene	121-14-2	6	c	SI, M, P	6000	0.001833333	--	0	2015	21	Z2
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	21	Z2
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	21	Z2
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	21	Z2
1	05-Feb-15	2-Methylnaphthalene	91-57-6	--	--	All, total	29000	9.65517E-05	0.000413793	1	2015	21	Z2
1	05-Feb-15	2-Methylphenol (Cresol, o-)	95-48-7	0.1	d	All	100	0.14	--	0	2015	21	Z2
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	21	Z2
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	21	Z2
1	05-Feb-15	4-Methylphenol (Cresol, p-)	106-44-5	0.08	d	All	80	0.2	--	0	2015	21	Z2
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	21	Z2
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	21	Z2
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	21	Z2
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	21	Z2
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	21	Z2

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	7.7	160	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	10	660	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	9.8	160	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	9.2	660	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	6.6	660	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthene	--	U	U	1	6.7	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	45	45	--	1.2	6.7	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	5	330	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Anthracene	32	32	--	1.3	6.7	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	10	330	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	85	85	J	13	330	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	160	160	--	1.3	6.7	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	170	170	--	2.2	6.7	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	270	270	--	2	6.7	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	160	160	--	2.6	6.7	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	100	100	--	1.4	6.7	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	11	160	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	10	160	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	14	160	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	4,000	4,000	--	110	3,300	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	--	U	U	13	160	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	15	330	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Carbazole	25	25	J	9.9	160	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Chrysene	250	250	--	1.6	6.7	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	33	33	--	2.5	6.7	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	--	U	U	10	160	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	11	330	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	11	330	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U	4.8	330	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	11	160	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluoranthene	430	430	--	2.3	6.7	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluorene	8.4	8.4	--	2.2	6.7	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	9.4	160	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	11	160	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	11	330	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	16	160	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	2053	--	--	--	--	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	170	170	--	2.2	6.7	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	11	160	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Naphthalene	15	15	--	2.5	6.7	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	13	160	µg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	21	Z2
1	05-Feb-15	4-Chloroaniline	106-47-8	1.0	c	P, SI	1000	0.01	--	0	2015	21	Z2
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	21	Z2
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	21	Z2
1	05-Feb-15	4-Nitrophenol	100-02-7	7	b	SI	7000	0.000942857	--	0	2015	21	Z2
1	05-Feb-15	Acenaphthene	83-32-9	--	--	All, total	29000	3.44828E-05	--	0	2015	21	Z2
1	05-Feb-15	Acenaphthylene	208-96-8	--	--	--	29000	4.13793E-05	0.001551724	1	2015	21	Z2
1	05-Feb-15	Acetophenone	--	--	--	--	--	--	--	0	2015	21	Z2
1	05-Feb-15	Anthracene	120-12-7	--	--	--	29000	4.48276E-05	0.001103448	1	2015	21	Z2
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	21	Z2
1	05-Feb-15	Benzaldehyde	--	--	--	--	--	--	--	1	2015	21	Z2
1	05-Feb-15	Benzo(a)anthracene	56-55-3	--	--	--	1100	0.001181818	0.145454545	1	2015	21	Z2
1	05-Feb-15	Benzo(a)pyrene	50-32-8	--	--	--	1100	0.002	0.154545455	1	2015	21	Z2
1	05-Feb-15	Benzo(b)fluoranthene	205-99-2	--	--	--	1100	0.001818182	0.245454545	1	2015	21	Z2
1	05-Feb-15	Benzo(ghi)perylene	191-24-2	--	--	--	1100	0.002363636	0.145454545	1	2015	21	Z2
1	05-Feb-15	Benzo(k)fluoranthene	207-08-9	--	--	--	1100	0.001272727	0.090909091	1	2015	21	Z2
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	21	Z2
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	21	Z2
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	21	Z2
10	06-Feb-15	Bis(2-ethylhexyl) phthalate	117-81-7	0.02	c	All	20	5.5	200	1	2015	21	Z2
1	05-Feb-15	Butylbenzyl phthalate	85-68-7	0.59	d	All	590	0.022033898	--	0	2015	21	Z2
1	05-Feb-15	Caprolactam	--	--	--	--	--	--	--	0	2015	21	Z2
1	05-Feb-15	Carbazole	86-74-8	0.16	d	All	160	0.061875	0.15625	1	2015	21	Z2
1	05-Feb-15	Chrysene	218-01-9	--	--	--	1100	0.001454545	0.227272727	1	2015	21	Z2
1	05-Feb-15	Dibenzo(a,h)anthracene	53-70-3	--	--	--	1100	0.002272727	0.03	1	2015	21	Z2
1	05-Feb-15	Dibenzofuran	132-64-9	0.15	d	All	150	0.066666667	--	0	2015	21	Z2
1	05-Feb-15	Diethylphthalate	84-66-2	0.23	d	All	230	0.047826087	--	0	2015	21	Z2
1	05-Feb-15	Dimethylphthalate	131-11-3	0.35	d	All	350	0.031428571	--	0	2015	21	Z2
1	05-Feb-15	Di-n-butyl phthalate	84-74-2	0.011	c	All	11	0.436363636	--	0	2015	21	Z2
1	05-Feb-15	Di-n-octyl phthalate	117-84-0	0.21	c	All	210	0.052380952	--	0	2015	21	Z2
1	05-Feb-15	Fluoranthene	206-44-0	--	--	--	1100	0.002090909	0.390909091	1	2015	21	Z2
1	05-Feb-15	Fluorene	86-73-7	--	--	All, total	29000	7.58621E-05	0.000289655	1	2015	21	Z2
1	05-Feb-15	Hexachlorobenzene	118-74-1	0.079	c	All	79	0.118987342	--	0	2015	21	Z2
1	05-Feb-15	Hexachlorobutadiene	87-68-3	0.1	d	SI	100	0.11	--	0	2015	21	Z2
1	05-Feb-15	Hexachlorocyclopentadiene	77-47-4	0.001	d	All	1	11	--	0	2015	21	Z2
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	21	Z2
--	5-Feb-15	High Molecular Weight PAHs	--	--	--	--	1100	--	1.866363636	1	2015	21	Z2
1	05-Feb-15	Indeno(1,2,3-cd)pyrene	193-39-5	--	--	--	1100	0.002	0.154545455	1	2015	21	Z2
1	05-Feb-15	Isophorone	--	--	--	--	--	--	--	0	2015	21	Z2
1	05-Feb-15	Naphthalene	91-20-3	--	--	All, total	29000	8.62069E-05	0.000517241	1	2015	21	Z2
1	05-Feb-15	Nitrobenzene	98-95-3	2.2	c	SI, M	2200	0.005909091	--	0	2015	21	Z2

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	13	160	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	60	160	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	6.4	330	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenanthrene	300	300	--	1.3	6.7	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	11	160	µg/Kg-dry
ISM-21-Z2	1502016-09	23-Jan-15	Soil	Semi-Volatile Organic Compounds	Pyrene	310	310	--	2.3	6.7	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Mercury by CVAA	Mercury	0.063	0.063	--	0.00074	0.012	mg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Metals by ICP-MS	Aluminum	4,800	4,800	--	0.95	2.8	mg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Metals by ICP-MS	Antimony	6.4	6.4	--	0.37	1.4	mg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Metals by ICP-MS	Arsenic	6.4	6.4	--	0.29	1.4	mg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Metals by ICP-MS	Barium	150	150	--	0.017	1.4	mg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Metals by ICP-MS	Beryllium	0.23	0.23	J	0.14	0.56	mg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Metals by ICP-MS	Cadmium	5.3	5.3	--	0.056	0.56	mg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Metals by ICP-MS	Chromium	23	23	--	0.31	1.4	mg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Metals by ICP-MS	Cobalt	9.7	9.7	--	0.17	1.4	mg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Metals by ICP-MS	Copper	310	310	--	0.16	1.4	mg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Metals by ICP-MS	Iron	27,000	27,000	--	4.1	22	mg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Metals by ICP-MS	Lead	380	380	--	1.4	14	mg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Metals by ICP-MS	Manganese	420	420	--	0.22	1.4	mg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Metals by ICP-MS	Nickel	50	50	--	0.75	1.4	mg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Metals by ICP-MS	Selenium	1.1	1.1	J	0.29	1.4	mg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Metals by ICP-MS	Silver	1.8	1.8	--	0.0056	1.4	mg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Metals by ICP-MS	Thallium	--	U	U	0.15	1.4	mg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Metals by ICP-MS	Vanadium	11	11	--	0.23	1.4	mg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Metals by ICP-MS	Zinc	590	590	--	10	28	mg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Moisture	Moisture	0.21	0.21	--	0.025	0.05	% of sample
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Moisture	Moisture	22	22	--	0.025	0.05	% of sample
ISM-22-Z1	1502013-01	28-Jan-15	Soil	PCBs	Aroclor 1016	--	U	U	26	82	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	PCBs	Aroclor 1221	--	U	U	26	82	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	PCBs	Aroclor 1232	--	U	U	26	82	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	PCBs	Aroclor 1242	--	U	U	26	82	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	PCBs	Aroclor 1248	--	U	U	26	82	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	PCBs	Aroclor 1254	3,400	3,400	--	150	410	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	PCBs	Aroclor 1260	--	U	U	31	82	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	PCBs	PCBs, Total	3,400	3,400	--	--	--	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	1,1'-Biphenyl	--	U	U	4.9	320	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	8.1	160	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	5.5	160	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	9.5	160	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	52	320	µg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	21	Z2
1	05-Feb-15	N-Nitrosodiphenylamine	86-30-6	0.12	d	All	120	0.5	--	0	2015	21	Z2
1	05-Feb-15	Pentachlorophenol (PCP)	87-86-5	2.1	a	All	2100	0.003047619	--	0	2015	21	Z2
1	05-Feb-15	Phenanthrene	67580	--	--	--	29000	4.48276E-05	0.010344828	1	2015	21	Z2
1	05-Feb-15	Phenol	108-95-2	0.79	c	All	790	0.013924051	--	0	2015	21	Z2
1	05-Feb-15	Pyrene	129-00-0	--	--	--	1100	0.002090909	0.281818182	1	2015	21	Z2
1	04-Feb-15	Mercury (total)	7439-97-6	0.1	b	All	100	0.0074	0.63	1	2015	22	Z1
4	03-Feb-15	Aluminum	7429-90-5	--	a	All	--	--	--	1	2015	22	Z1
4	03-Feb-15	Antimony	7440-36-0	0.27	a	All	0.27	1.37037037	23.7037037	1	2015	22	Z1
4	03-Feb-15	Arsenic	7440-38-2	18	a	All	18000	0.016111111	0.355555556	1	2015	22	Z1
4	03-Feb-15	Barium	7440-39-3	330	a	All	330000	5.15152E-05	0.454545455	1	2015	22	Z1
4	03-Feb-15	Beryllium	7440-41-7	10	b	All	10000	0.014	0.023	1	2015	22	Z1
4	03-Feb-15	Cadmium	7440-43-9	0.36	a	All	360	0.155555556	14.72222222	1	2015	22	Z1
4	03-Feb-15	Chromium III	16065-83-1	18	a	All	18000	0.017222222	1.277777778	1	2015	22	Z1
4	03-Feb-15	Cobalt	7440-48-4	13	a	All	13000	0.013076923	0.746153846	1	2015	22	Z1
4	03-Feb-15	Copper	7440-50-8	28	a	All	28000	0.005714286	11.07142857	1	2015	22	Z1
4	03-Feb-15	Iron	7439-89-6	--	a	All	--	--	--	1	2015	22	Z1
40	03-Feb-15	Lead	7439-92-1	11	a	All	11000	0.127272727	34.54545455	1	2015	22	Z1
4	03-Feb-15	Manganese	7439-96-5	220	a	All	220000	0.001	1.909090909	1	2015	22	Z1
4	03-Feb-15	Nickel	7440-02-0	38	a	All	38000	0.019736842	1.315789474	1	2015	22	Z1
4	03-Feb-15	Selenium	7782-49-2	0.52	a	All	520	0.557692308	2.115384615	1	2015	22	Z1
4	03-Feb-15	Silver	7440-22-4	4.2	a	All	4200	0.001333333	0.428571429	1	2015	22	Z1
4	03-Feb-15	Thallium	7440-28-0	0.22	c	All	220	0.681818182	--	0	2015	22	Z1
4	03-Feb-15	Vanadium	7440-62-2	7.8	a	All	7800	0.029487179	1.41025641	1	2015	22	Z1
40	03-Feb-15	Zinc	7440-66-6	46	a	All	46000	0.217391304	12.82608696	1	2015	22	Z1
1	05-Feb-15	--	--	--	--	--	--	--	--	--	2015	22	Z1
1	30-Jan-15	--	--	--	--	--	--	--	--	--	2015	22	Z1
1	05-Feb-15	Aroclor-1016	12674-11-2	1	c	All	1000	0.026	--	0	2015	22	Z1
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	22	Z1
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	22	Z1
1	05-Feb-15	Aroclor-1242	53469-21-9	0.041	c	All	41	0.634146341	--	0	2015	22	Z1
1	05-Feb-15	Aroclor-1248	12672-29-6	0.0072	c	All	7.2	3.611111111	--	0	2015	22	Z1
5	06-Feb-15	Aroclor-1254	11097-69-1	0.014	c	All	14	10.71428571	242.8571429	1	2015	22	Z1
1	05-Feb-15	Aroclor-1260	11096-82-5	0.88	c	All	880	0.035227273	--	0	2015	22	Z1
5	06-Feb-15	PCBs (sum) (Wildlife Based)	1336-36-3	0.33	d	All	330	0	10.3030303	1	2015	22	Z1
1	06-Feb-15	1,1'-Biphenyl	92-52-4	0.2	d	All	200	0.0245	--	0	2015	22	Z1
1	06-Feb-15	2,4,5-Trichlorophenol	95-95-4	0.03	d	All	30	0.27	--	0	2015	22	Z1
1	06-Feb-15	2,4,6-Trichlorophenol	88-06-2	0.09	d	All	90	0.061111111	--	0	2015	22	Z1
1	06-Feb-15	Dichlorophenols ,3-), (2,4-), (2,5-), (2,6-)	120-83-2	0.05	d	All	50	0.19	--	0	2015	22	Z1
1	06-Feb-15	2,4-Dimethylphenol	105-67-9	0.04	d	SI	40	1.3	--	0	2015	22	Z1

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	29	650	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	10	160	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	17	160	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	1.5	6.5	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	9.8	160	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	38	38	--	2.7	6.5	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	13	160	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	13	650	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	11	160	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	3&4-Methylphenol	25	25	J	16	160	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	400	650	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	11	650	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	27	320	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	8.8	160	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	7.6	160	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	9.7	650	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	9.6	160	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	9	650	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	6.5	650	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthene	32	32	--	0.98	6.5	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	27	27	--	1.2	6.5	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	4.9	320	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Anthracene	160	160	--	1.3	6.5	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	9.9	320	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	160	160	J	12	320	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	490	490	--	1.3	6.5	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	440	440	--	2.1	6.5	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	670	670	--	1.9	6.5	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	350	350	--	2.6	6.5	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	230	230	--	1.4	6.5	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	10	160	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	10	160	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	14	160	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	1,900	1,900	--	11	320	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	320	320	--	12	160	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	14	320	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Carbazole	89	89	J	9.7	160	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Chrysene	600	600	--	1.6	6.5	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	79	79	--	2.4	6.5	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	49	49	J	10	160	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	10	320	µg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
1	06-Feb-15	2,4-Dinitrophenol	51-28-5	0.15	d	All	150	0.1933333333	--	0	2015	22	Z1
1	06-Feb-15	2,4-Dinitrotoluene	121-14-2	6	c	SI, M, P	6000	0.001666667	--	0	2015	22	Z1
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	22	Z1
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	22	Z1
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	22	Z1
1	06-Feb-15	2-Methylnaphthalene	91-57-6	--	--	All, total	29000	9.31034E-05	0.001310345	1	2015	22	Z1
1	06-Feb-15	2-Methylphenol (Cresol, o-)	95-48-7	0.1	d	All	100	0.13	--	0	2015	22	Z1
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	22	Z1
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	22	Z1
1	06-Feb-15	4-Methylphenol (Cresol, p-)	106-44-5	0.08	d	All	80	0.2	0.3125	1	2015	22	Z1
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	22	Z1
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	22	Z1
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	22	Z1
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	22	Z1
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	22	Z1
1	06-Feb-15	4-Chloroaniline	106-47-8	1.0	c	P, SI	1000	0.0097	--	0	2015	22	Z1
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	22	Z1
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	22	Z1
1	06-Feb-15	4-Nitrophenol	100-02-7	7	b	SI	7000	0.000928571	--	0	2015	22	Z1
1	06-Feb-15	Acenaphthene	83-32-9	--	--	All, total	29000	3.37931E-05	0.001103448	1	2015	22	Z1
1	06-Feb-15	Acenaphthylene	208-96-8	--	--	--	29000	4.13793E-05	0.000931034	1	2015	22	Z1
1	06-Feb-15	Acetophenone	--	--	--	--	--	--	--	0	2015	22	Z1
1	06-Feb-15	Anthracene	120-12-7	--	--	--	29000	4.48276E-05	0.005517241	1	2015	22	Z1
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	22	Z1
1	06-Feb-15	Benzaldehyde	--	--	--	--	--	--	--	1	2015	22	Z1
1	06-Feb-15	Benzo(a)anthracene	56-55-3	--	--	--	1100	0.001181818	0.445454545	1	2015	22	Z1
1	06-Feb-15	Benzo(a)pyrene	50-32-8	--	--	--	1100	0.001909091	0.4	1	2015	22	Z1
1	06-Feb-15	Benzo(b)fluoranthene	205-99-2	--	--	--	1100	0.001727273	0.609090909	1	2015	22	Z1
1	06-Feb-15	Benzo(ghi)perylene	191-24-2	--	--	--	1100	0.002363636	0.318181818	1	2015	22	Z1
1	06-Feb-15	Benzo(k)fluoranthene	207-08-9	--	--	--	1100	0.001272727	0.209090909	1	2015	22	Z1
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	22	Z1
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	22	Z1
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	22	Z1
1	06-Feb-15	Bis(2-ethylhexyl) phthalate	117-81-7	0.02	c	All	20	0.55	95	1	2015	22	Z1
1	06-Feb-15	Butylbenzyl phthalate	85-68-7	0.59	d	All	590	0.020338983	0.542372881	1	2015	22	Z1
1	06-Feb-15	Caprolactam	--	--	--	--	--	--	--	0	2015	22	Z1
1	06-Feb-15	Carbazole	86-74-8	0.16	d	All	160	0.060625	0.55625	1	2015	22	Z1
1	06-Feb-15	Chrysene	218-01-9	--	--	--	1100	0.001454545	0.545454545	1	2015	22	Z1
1	06-Feb-15	Dibenzo(a,h)anthracene	53-70-3	--	--	--	1100	0.002181818	0.071818182	1	2015	22	Z1
1	06-Feb-15	Dibenzofuran	132-64-9	0.15	d	All	150	0.066666667	0.326666667	1	2015	22	Z1
1	06-Feb-15	Diethylphthalate	84-66-2	0.23	d	All	230	0.043478261	--	0	2015	22	Z1

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	11	320	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	220	220	J	4.7	320	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	11	160	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluoranthene	1,400	1,400	--	2.3	6.5	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluorene	27	27	--	2.2	6.5	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	9.1	160	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	11	160	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	10	320	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	15	160	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	5449	--	--	--	--	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	390	390	--	2.2	6.5	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	11	160	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Naphthalene	69	69	--	2.4	6.5	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	13	160	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	12	160	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	58	160	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	6.3	320	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenanthrene	830	830	--	1.3	6.5	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	11	160	µg/Kg-dry
ISM-22-Z1	1502013-01	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Pyrene	800	800	--	2.2	6.5	µg/Kg-dry
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	1,1,1-Trichloroethane	--	U	U	11	38	µg/Kg-dry
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	1,1,2,2-Tetrachloroethane	--	U	U	9.3	38	µg/Kg-dry
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	1,1,2-Trichloroethane	--	U	U	12	38	µg/Kg-dry
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	1,1,2-Trichlorotrifluoroethane	--	U	U	8.7	38	µg/Kg-dry
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	1,1-Dichloroethane	--	U	U	9.8	38	µg/Kg-dry
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	1,1-Dichloroethene	--	U	U	10	38	µg/Kg-dry
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	1,2,4-Trichlorobenzene	--	U	U	28	38	µg/Kg-dry
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	1,2-Dibromo-3-chloropropane	--	U	U	16	38	µg/Kg-dry
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	1,2-Dibromoethane	--	U	U	13	38	µg/Kg-dry
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	1,2-Dichlorobenzene	--	U	U	11	38	µg/Kg-dry
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	1,2-Dichloroethane	--	U	U	10	38	µg/Kg-dry
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	1,2-Dichloropropane	--	U	U	11	38	µg/Kg-dry
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	1,3-Dichlorobenzene	--	U	U	12	38	µg/Kg-dry
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	1,4-Dichlorobenzene	--	U	U	10	38	µg/Kg-dry
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	2-Butanone	--	U	U	52	260	µg/Kg-dry
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	2-Hexanone	--	U	U	26	38	µg/Kg-dry
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	4-Methyl-2-pentanone	--	U	U	28	38	µg/Kg-dry
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	Acetone	--	U	U	70	130	µg/Kg-dry
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	Benzene	--	U	U	8.7	38	µg/Kg-dry
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	Bromodichloromethane	--	U	U	10	38	µg/Kg-dry
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	Bromoform	--	U	U	14	38	µg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
1	06-Feb-15	Dimethylphthalate	131-11-3	0.35	d	All	350	0.031428571	--	0	2015	22	Z1
1	06-Feb-15	Di-n-butyl phthalate	84-74-2	0.011	c	All	11	0.427272727	20	1	2015	22	Z1
1	06-Feb-15	Di-n-octyl phthalate	117-84-0	0.21	c	All	210	0.052380952	--	0	2015	22	Z1
1	06-Feb-15	Fluoranthene	206-44-0	--	--	--	1100	0.002090909	1.272727273	1	2015	22	Z1
1	06-Feb-15	Fluorene	86-73-7	--	--	All, total	29000	7.58621E-05	0.000931034	1	2015	22	Z1
1	06-Feb-15	Hexachlorobenzene	118-74-1	0.079	c	All	79	0.115189873	--	0	2015	22	Z1
1	06-Feb-15	Hexachlorobutadiene	87-68-3	0.1	d	SI	100	0.11	--	0	2015	22	Z1
1	06-Feb-15	Hexachlorocyclopentadiene	77-47-4	0.001	d	All	1	10	--	0	2015	22	Z1
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	22	Z1
--	6-Feb-15	High Molecular Weight PAHs	--	--	--	--	1100	--	4.953636364	1	2015	22	Z1
1	06-Feb-15	Indeno(1,2,3-cd)pyrene	193-39-5	--	--	--	1100	0.002	0.354545455	1	2015	22	Z1
1	06-Feb-15	Isophorone	--	--	--	--	--	--	--	0	2015	22	Z1
1	06-Feb-15	Naphthalene	91-20-3	--	--	All, total	29000	8.27586E-05	0.00237931	1	2015	22	Z1
1	06-Feb-15	Nitrobenzene	98-95-3	2.2	c	SI, M	2200	0.005909091	--	0	2015	22	Z1
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	22	Z1
1	06-Feb-15	N-Nitrosodiphenylamine	86-30-6	0.12	d	All	120	0.483333333	--	0	2015	22	Z1
1	06-Feb-15	Pentachlorophenol (PCP)	87-86-5	2.1	a	All	2100	0.003	--	0	2015	22	Z1
1	06-Feb-15	Phenanthrene	67580	--	--	--	29000	4.48276E-05	0.02862069	1	2015	22	Z1
1	06-Feb-15	Phenol	108-95-2	0.79	c	All	790	0.013924051	--	0	2015	22	Z1
1	06-Feb-15	Pyrene	129-00-0	--	--	--	1100	0.002	0.727272727	1	2015	22	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	22	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	22	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	22	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	22	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	22	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	22	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	22	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	22	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	22	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	22	Z1
1	04-Feb-15	1,2-Dichlorobenzene	95-50-1	0.09	d	All	90	0.122222222	--	0	2015	22	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	22	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	22	Z1
1	04-Feb-15	1,3-Dichlorobenzene	99-65-0	0.08	d	All	80	0.15	--	0	2015	22	Z1
1	04-Feb-15	1,4-Dichlorobenzene	106-46-7	0.88	c	SI, M	880	0.011363636	--	0	2015	22	Z1
1	04-Feb-15	2-Butanone (Methyl Ethyl Ketone)	78-93-3	1.0	d	All	1000	0.052	--	0	2015	22	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	22	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	22	Z1
1	04-Feb-15	Acetone	67-64-1	1.2	c	M, A	1200	0.058333333	--	0	2015	22	Z1
1	04-Feb-15	Benzene	71-43-2	0.12	d	All	120	0.0725	--	0	2015	22	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	22	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	22	Z1

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	Bromomethane	--	U	U	17	96	µg/Kg-dry
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	Carbon disulfide	--	U	U	13	38	µg/Kg-dry
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	Carbon tetrachloride	--	U	U	6.8	38	µg/Kg-dry
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	Chlorobenzene	--	U	U	12	38	µg/Kg-dry
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	Chloroethane	--	U	U	24	130	µg/Kg-dry
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	Chloroform	--	U	U	13	38	µg/Kg-dry
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	Chloromethane	--	U	U	16	130	µg/Kg-dry
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	cis-1,2-Dichloroethene	--	U	U	11	38	µg/Kg-dry
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	cis-1,3-Dichloropropene	--	U	U	15	38	µg/Kg-dry
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	Cyclohexane	--	U	U	19	38	µg/Kg-dry
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	Dibromochloromethane	--	U	U	8.8	38	µg/Kg-dry
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	Dichlorodifluoromethane	--	U	U	17	38	µg/Kg-dry
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	Ethylbenzene	--	U	U	9	38	µg/Kg-dry
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	Isopropylbenzene	--	U	U	15	38	µg/Kg-dry
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	Methyl acetate	180	180	J	79	260	µg/Kg-dry
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	Methyl tert-butyl ether	--	U	U	12	38	µg/Kg-dry
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	Methylcyclohexane	--	U	U	17	38	µg/Kg-dry
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	Methylene chloride	--	U	U	18	38	µg/Kg-dry
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	Styrene	--	U	U	27	38	µg/Kg-dry
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	Tetrachloroethene	--	U	U	19	38	µg/Kg-dry
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	Toluene	--	U	U	13	38	µg/Kg-dry
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	trans-1,2-Dichloroethene	--	U	U	11	38	µg/Kg-dry
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	trans-1,3-Dichloropropene	--	U	U	6.9	38	µg/Kg-dry
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	Trichloroethene	--	U	U	10	38	µg/Kg-dry
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	Trichlorofluoromethane	--	U	U	7.4	38	µg/Kg-dry
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	Vinyl chloride	--	U	U	12	38	µg/Kg-dry
ISM-22-Z1	1502016-13	26-Jan-15	Soil	Volatile Organic Compounds	Xylenes, Total	31	31	J	30	120	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Mercury by CVAA	Mercury	0.16	0.16	--	0.00077	0.013	mg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Metals by ICP-MS	Aluminum	7,600	7,600	--	0.99	2.9	mg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Metals by ICP-MS	Antimony	14	14	--	0.38	1.4	mg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Metals by ICP-MS	Arsenic	12	12	--	0.3	1.4	mg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Metals by ICP-MS	Barium	320	320	--	0.017	1.4	mg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Metals by ICP-MS	Beryllium	0.32	0.32	J	0.15	0.58	mg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Metals by ICP-MS	Cadmium	8.4	8.4	--	0.058	0.58	mg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Metals by ICP-MS	Chromium	62	62	--	0.32	1.4	mg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Metals by ICP-MS	Cobalt	12	12	--	0.17	1.4	mg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Metals by ICP-MS	Copper	410	410	--	0.16	1.4	mg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Metals by ICP-MS	Iron	43,000	43,000	--	43	230	mg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Metals by ICP-MS	Lead	650	650	--	1.5	14	mg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Metals by ICP-MS	Manganese	720	720	--	2.3	14	mg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	22	Z1
1	04-Feb-15	Carbon Disulfide	75-15-0	0.005	d	All	5	2.6	--	0	2015	22	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	22	Z1
1	04-Feb-15	Chlorobenzene	108-90-7	2.4	c	All	2400	0.005	--	0	2015	22	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	22	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	22	Z1
1	04-Feb-15	Chloromethane	--	--	--	--	--	--	--	0	2015	22	Z1
1	04-Feb-15	1,2-Dichloroethene (cis and trans)	540-59-0	0.04	d	All	40	0.275	--	0	2015	22	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	22	Z1
1	04-Feb-15	Cyclohexane	--	--	--	--	--	--	--	0	2015	22	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	22	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	22	Z1
1	04-Feb-15	Ethylbenzene	100-41-4	0.27	d	All	270	0.033333333	--	0	2015	22	Z1
1	04-Feb-15	Isopropylbenzene (Cumene)	98-82-8	0.04	d	All	40	0.375	--	0	2015	22	Z1
1	04-Feb-15	Methyl Acetate	--	--	--	--	--	--	--	1	2015	22	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	22	Z1
1	04-Feb-15	Methylcyclohexane	--	--	--	--	--	--	--	0	2015	22	Z1
1	04-Feb-15	Dichloromethane (Methylene chloride)	75-09-2	0.21	d	All	210	0.085714286	--	0	2015	22	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	22	Z1
1	04-Feb-15	Tetrachloroethene	127-18-4	0.06	d	All	60	0.316666667	--	0	2015	22	Z1
1	04-Feb-15	Toluene	108-88-3	0.15	d	All	150	0.086666667	--	0	2015	22	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	22	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	22	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	22	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	22	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	22	Z1
1	04-Feb-15	Xylenes (total)	1330-20-7	0.1	d	All	100	0.3	0.31	1	2015	22	Z1
1	04-Feb-15	Mercury (total)	7439-97-6	0.1	b	All	100	0.0077	1.6	1	2015	23	Z1
4	03-Feb-15	Aluminum	7429-90-5	--	a	All	--	--	--	1	2015	23	Z1
4	03-Feb-15	Antimony	7440-36-0	0.27	a	All	0.27	1.407407407	51.85185185	1	2015	23	Z1
4	03-Feb-15	Arsenic	7440-38-2	18	a	All	18000	0.016666667	0.666666667	1	2015	23	Z1
4	03-Feb-15	Barium	7440-39-3	330	a	All	330000	5.15152E-05	0.96969697	1	2015	23	Z1
4	03-Feb-15	Beryllium	7440-41-7	10	b	All	10000	0.015	0.032	1	2015	23	Z1
4	03-Feb-15	Cadmium	7440-43-9	0.36	a	All	360	0.161111111	23.33333333	1	2015	23	Z1
4	03-Feb-15	Chromium III	16065-83-1	18	a	All	18000	0.017777778	3.444444444	1	2015	23	Z1
4	03-Feb-15	Cobalt	7440-48-4	13	a	All	13000	0.013076923	0.923076923	1	2015	23	Z1
4	03-Feb-15	Copper	7440-50-8	28	a	All	28000	0.005714286	14.64285714	1	2015	23	Z1
40	03-Feb-15	Iron	7439-89-6	--	a	All	--	--	--	1	2015	23	Z1
40	03-Feb-15	Lead	7439-92-1	11	a	All	11000	0.136363636	59.09090909	1	2015	23	Z1
40	03-Feb-15	Manganese	7439-96-5	220	a	All	220000	0.010454545	3.272727273	1	2015	23	Z1

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Metals by ICP-MS	Nickel	58	58	--	0.78	1.4	mg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Metals by ICP-MS	Selenium	1.3	1.3	J	0.3	1.4	mg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Metals by ICP-MS	Silver	3.6	3.6	--	0.0058	1.4	mg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Metals by ICP-MS	Thallium	--	U	U	0.16	1.4	mg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Metals by ICP-MS	Vanadium	16	16	--	0.24	1.4	mg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Metals by ICP-MS	Zinc	950	950	--	10	29	mg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Moisture	Moisture	0.23	0.23	--	0.025	0.05	% of sample
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Moisture	Moisture	22	22	--	0.025	0.05	% of sample
ISM-23-Z1	1502013-02	28-Jan-15	Soil	PCBs	Aroclor 1016	--	U	U	26	79	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	PCBs	Aroclor 1221	--	U	U	26	79	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	PCBs	Aroclor 1232	--	U	U	26	79	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	PCBs	Aroclor 1242	--	U	U	26	79	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	PCBs	Aroclor 1248	--	U	U	26	79	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	PCBs	Aroclor 1254	130	130	--	30	79	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	PCBs	Aroclor 1260	--	U	U	30	79	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	PCBs	PCBs, Total	130	130	--	--	--	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	1,1'-Biphenyl	25	25	J	4.8	320	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	8.1	160	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	5.4	160	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	9.4	160	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	52	320	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	29	640	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	10	160	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	17	160	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	1.5	6.5	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	9.7	160	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	87	87	--	2.7	6.5	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	13	160	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	13	640	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	11	160	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	3&4-Methylphenol	--	U	U	15	160	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	400	640	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	11	640	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	27	320	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	8.8	160	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	7.5	160	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	9.6	640	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	9.5	160	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	8.9	640	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	6.4	640	µg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
4	03-Feb-15	Nickel	7440-02-0	38	a	All	38000	0.020526316	1.526315789	1	2015	23	Z1
4	03-Feb-15	Selenium	7782-49-2	0.52	a	All	520	0.576923077	2.5	1	2015	23	Z1
4	03-Feb-15	Silver	7440-22-4	4.2	a	All	4200	0.001380952	0.857142857	1	2015	23	Z1
4	03-Feb-15	Thallium	7440-28-0	0.22	c	All	220	0.727272727	--	0	2015	23	Z1
4	03-Feb-15	Vanadium	7440-62-2	7.8	a	All	7800	0.030769231	2.051282051	1	2015	23	Z1
40	03-Feb-15	Zinc	7440-66-6	46	a	All	46000	0.217391304	20.65217391	1	2015	23	Z1
1	05-Feb-15	--	--	--	--	--	--	--	--	--	2015	23	Z1
1	30-Jan-15	--	--	--	--	--	--	--	--	--	2015	23	Z1
1	05-Feb-15	Aroclor-1016	12674-11-2	1	c	All	1000	0.026	--	0	2015	23	Z1
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	23	Z1
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	23	Z1
1	05-Feb-15	Aroclor-1242	53469-21-9	0.041	c	All	41	0.634146341	--	0	2015	23	Z1
1	05-Feb-15	Aroclor-1248	12672-29-6	0.0072	c	All	7.2	3.611111111	--	0	2015	23	Z1
1	05-Feb-15	Aroclor-1254	11097-69-1	0.014	c	All	14	2.142857143	9.285714286	1	2015	23	Z1
1	05-Feb-15	Aroclor-1260	11096-82-5	0.88	c	All	880	0.034090909	--	0	2015	23	Z1
1	05-Feb-15	PCBs (sum) (Wildlife Based)	1336-36-3	0.33	d	All	330	0	0.393939394	1	2015	23	Z1
1	06-Feb-15	1,1'-Biphenyl	92-52-4	0.2	d	All	200	0.024	0.125	1	2015	23	Z1
1	06-Feb-15	2,4,5-Trichlorophenol	95-95-4	0.03	d	All	30	0.27	--	0	2015	23	Z1
1	06-Feb-15	2,4,6-Trichlorophenol	88-06-2	0.09	d	All	90	0.06	--	0	2015	23	Z1
1	06-Feb-15	Dichlorophenols ,3-), (2,4-), (2,5-), (2,6-)	120-83-2	0.05	d	All	50	0.188	--	0	2015	23	Z1
1	06-Feb-15	2,4-Dimethylphenol	105-67-9	0.04	d	SI	40	1.3	--	0	2015	23	Z1
1	06-Feb-15	2,4-Dinitrophenol	51-28-5	0.15	d	All	150	0.193333333	--	0	2015	23	Z1
1	06-Feb-15	2,4-Dinitrotoluene	121-14-2	6	c	SI, M, P	6000	0.001666667	--	0	2015	23	Z1
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	23	Z1
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	23	Z1
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	23	Z1
1	06-Feb-15	2-Methylnaphthalene	91-57-6	--	--	All, total	29000	9.31034E-05	0.003	1	2015	23	Z1
1	06-Feb-15	2-Methylphenol (Cresol, o-)	95-48-7	0.1	d	All	100	0.13	--	0	2015	23	Z1
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	23	Z1
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	23	Z1
1	06-Feb-15	4-Methylphenol (Cresol, p-)	106-44-5	0.08	d	All	80	0.1875	--	0	2015	23	Z1
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	23	Z1
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	23	Z1
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	23	Z1
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	23	Z1
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	23	Z1
1	06-Feb-15	4-Chloroaniline	106-47-8	1.0	c	P, SI	1000	0.0096	--	0	2015	23	Z1
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	23	Z1
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	23	Z1
1	06-Feb-15	4-Nitrophenol	100-02-7	7	b	SI	7000	0.000914286	--	0	2015	23	Z1

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthene	39	39	--	0.97	6.5	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	59	59	--	1.2	6.5	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	4.8	320	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Anthracene	220	220	--	1.3	6.5	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	9.8	320	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	150	150	J	12	320	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	1,300	1,300	--	1.3	6.5	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	1,100	1,100	--	2.1	6.5	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	1,800	1,800	--	1.9	6.5	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	860	860	--	2.5	6.5	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	580	580	--	1.4	6.5	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	10	160	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	10	160	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	14	160	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	760	760	--	11	320	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	270	270	--	12	160	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	14	320	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Carbazole	140	140	J	9.6	160	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Chrysene	1,500	1,500	--	1.5	6.5	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	220	220	--	2.4	6.5	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	92	92	J	10	160	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	10	320	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	11	320	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U	4.7	320	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	10	160	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluoranthene	4,300	4,300	E	2.3	6.5	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluorene	43	43	--	2.2	6.5	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	9.1	160	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	11	160	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	10	320	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	15	160	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	14810	--	--	--	--	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	950	950	--	2.2	6.5	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	11	160	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Naphthalene	240	240	--	2.4	6.5	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	13	160	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	12	160	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	58	160	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	6.2	320	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenanthrene	2,100	2,100	E	1.3	6.5	µg/Kg-dry
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	11	160	µg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
1	06-Feb-15	Acenaphthene	83-32-9	--	--	All, total	29000	3.34483E-05	0.001344828	1	2015	23	Z1
1	06-Feb-15	Acenaphthylene	208-96-8	--	--	--	29000	4.13793E-05	0.002034483	1	2015	23	Z1
1	06-Feb-15	Acetophenone	--	--	--	--	--	--	--	0	2015	23	Z1
1	06-Feb-15	Anthracene	120-12-7	--	--	--	29000	4.48276E-05	0.007586207	1	2015	23	Z1
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	23	Z1
1	06-Feb-15	Benzaldehyde	--	--	--	--	--	--	--	1	2015	23	Z1
1	06-Feb-15	Benzo(a)anthracene	56-55-3	--	--	--	1100	0.001181818	1.181818182	1	2015	23	Z1
1	06-Feb-15	Benzo(a)pyrene	50-32-8	--	--	--	1100	0.001909091	1	1	2015	23	Z1
1	06-Feb-15	Benzo(b)fluoranthene	205-99-2	--	--	--	1100	0.001727273	1.636363636	1	2015	23	Z1
1	06-Feb-15	Benzo(ghi)perylene	191-24-2	--	--	--	1100	0.002272727	0.781818182	1	2015	23	Z1
1	06-Feb-15	Benzo(k)fluoranthene	207-08-9	--	--	--	1100	0.001272727	0.527272727	1	2015	23	Z1
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	23	Z1
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	23	Z1
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	23	Z1
1	06-Feb-15	Bis(2-ethylhexyl) phthalate	117-81-7	0.02	c	All	20	0.55	38	1	2015	23	Z1
1	06-Feb-15	Butylbenzyl phthalate	85-68-7	0.59	d	All	590	0.020338983	0.457627119	1	2015	23	Z1
1	06-Feb-15	Caprolactam	--	--	--	--	--	--	--	0	2015	23	Z1
1	06-Feb-15	Carbazole	86-74-8	0.16	d	All	160	0.06	0.875	1	2015	23	Z1
1	06-Feb-15	Chrysene	218-01-9	--	--	--	1100	0.001363636	1.363636364	1	2015	23	Z1
1	06-Feb-15	Dibenzo(a,h)anthracene	53-70-3	--	--	--	1100	0.002181818	0.2	1	2015	23	Z1
1	06-Feb-15	Dibenzofuran	132-64-9	0.15	d	All	150	0.066666667	0.613333333	1	2015	23	Z1
1	06-Feb-15	Diethylphthalate	84-66-2	0.23	d	All	230	0.043478261	--	0	2015	23	Z1
1	06-Feb-15	Dimethylphthalate	131-11-3	0.35	d	All	350	0.031428571	--	0	2015	23	Z1
1	06-Feb-15	Di-n-butyl phthalate	84-74-2	0.011	c	All	11	0.427272727	--	0	2015	23	Z1
1	06-Feb-15	Di-n-octyl phthalate	117-84-0	0.21	c	All	210	0.047619048	--	0	2015	23	Z1
1	06-Feb-15	Fluoranthene	206-44-0	--	--	--	1100	0.002090909	3.909090909	1	2015	23	Z1
1	06-Feb-15	Fluorene	86-73-7	--	--	All, total	29000	7.58621E-05	0.001482759	1	2015	23	Z1
1	06-Feb-15	Hexachlorobenzene	118-74-1	0.079	c	All	79	0.115189873	--	0	2015	23	Z1
1	06-Feb-15	Hexachlorobutadiene	87-68-3	0.1	d	SI	100	0.11	--	0	2015	23	Z1
1	06-Feb-15	Hexachlorocyclopentadiene	77-47-4	0.001	d	All	1	10	--	0	2015	23	Z1
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	23	Z1
--	6-Feb-15	High Molecular Weight PAHs	--	--	--	--	1100	--	13.46363636	1	2015	23	Z1
1	06-Feb-15	Indeno(1,2,3-cd)pyrene	193-39-5	--	--	--	1100	0.002	0.863636364	1	2015	23	Z1
1	06-Feb-15	Isophorone	--	--	--	--	--	--	--	0	2015	23	Z1
1	06-Feb-15	Naphthalene	91-20-3	--	--	All, total	29000	8.27586E-05	0.008275862	1	2015	23	Z1
1	06-Feb-15	Nitrobenzene	98-95-3	2.2	c	SI, M	2200	0.005909091	--	0	2015	23	Z1
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	23	Z1
1	06-Feb-15	N-Nitrosodiphenylamine	86-30-6	0.12	d	All	120	0.483333333	--	0	2015	23	Z1
1	06-Feb-15	Pentachlorophenol (PCP)	87-86-5	2.1	a	All	2100	0.002952381	--	0	2015	23	Z1
1	06-Feb-15	Phenanthrene	67580	--	--	--	29000	4.48276E-05	0.072413793	1	2015	23	Z1
1	06-Feb-15	Phenol	108-95-2	0.79	c	All	790	0.013924051	--	0	2015	23	Z1

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-23-Z1	1502013-02	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Pyrene	2,200	2,200	E	2.2	6.5	µg/Kg-dry
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	1,1,1-Trichloroethane	--	U	U	11	38	µg/Kg-dry
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	1,1,2,2-Tetrachloroethane	--	U	U	9.3	38	µg/Kg-dry
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	1,1,2-Trichloroethane	--	U	U	12	38	µg/Kg-dry
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	1,1,2-Trichlorotrifluoroethane	--	U	U	8.7	38	µg/Kg-dry
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	1,1-Dichloroethane	--	U	U	9.8	38	µg/Kg-dry
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	1,1-Dichloroethene	--	U	U	10	38	µg/Kg-dry
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	1,2,4-Trichlorobenzene	--	U	U	28	38	µg/Kg-dry
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	1,2-Dibromo-3-chloropropane	--	U	U	16	38	µg/Kg-dry
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	1,2-Dibromoethane	--	U	U	13	38	µg/Kg-dry
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	1,2-Dichlorobenzene	--	U	U	11	38	µg/Kg-dry
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	1,2-Dichloroethane	--	U	U	10	38	µg/Kg-dry
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	1,2-Dichloropropane	--	U	U	11	38	µg/Kg-dry
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	1,3-Dichlorobenzene	--	U	U	12	38	µg/Kg-dry
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	1,4-Dichlorobenzene	--	U	U	10	38	µg/Kg-dry
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	2-Butanone	--	U	U	52	260	µg/Kg-dry
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	2-Hexanone	--	U	U	26	38	µg/Kg-dry
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	4-Methyl-2-pentanone	--	U	U	28	38	µg/Kg-dry
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	Acetone	--	U	U	70	130	µg/Kg-dry
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	Benzene	--	U	U	8.7	38	µg/Kg-dry
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	Bromodichloromethane	--	U	U	10	38	µg/Kg-dry
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	Bromoform	--	U	U	14	38	µg/Kg-dry
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	Bromomethane	--	U	U	17	96	µg/Kg-dry
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	Carbon disulfide	--	U	U	13	38	µg/Kg-dry
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	Carbon tetrachloride	--	U	U	6.8	38	µg/Kg-dry
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	Chlorobenzene	--	U	U	12	38	µg/Kg-dry
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	Chloroethane	--	U	U	24	130	µg/Kg-dry
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	Chloroform	--	U	U	13	38	µg/Kg-dry
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	Chloromethane	--	U	U	16	130	µg/Kg-dry
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	cis-1,2-Dichloroethene	--	U	U	11	38	µg/Kg-dry
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	cis-1,3-Dichloropropene	--	U	U	15	38	µg/Kg-dry
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	Cyclohexane	--	U	U	19	38	µg/Kg-dry
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	Dibromochloromethane	--	U	U	8.8	38	µg/Kg-dry
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	Dichlorodifluoromethane	--	U	U	17	38	µg/Kg-dry
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	Ethylbenzene	170	170	--	9	38	µg/Kg-dry
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	Isopropylbenzene	19	19	J	15	38	µg/Kg-dry
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	Methyl acetate	160	160	J	79	260	µg/Kg-dry
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	Methyl tert-butyl ether	--	U	U	12	38	µg/Kg-dry
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	Methylcyclohexane	160	160	--	17	38	µg/Kg-dry
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	Methylene chloride	--	U	U	18	38	µg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
1	06-Feb-15	Pyrene	129-00-0	--	--	--	1100	0.002	2	1	2015	23	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	23	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	23	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	23	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	23	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	23	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	23	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	23	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	23	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	23	Z1
1	04-Feb-15	1,2-Dichlorobenzene	95-50-1	0.09	d	All	90	0.122222222	--	0	2015	23	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	23	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	23	Z1
1	04-Feb-15	1,3-Dichlorobenzene	99-65-0	0.08	d	All	80	0.15	--	0	2015	23	Z1
1	04-Feb-15	1,4-Dichlorobenzene	106-46-7	0.88	c	SI, M	880	0.011363636	--	0	2015	23	Z1
1	04-Feb-15	2-Butanone (Methyl Ethyl Ketone)	78-93-3	1.0	d	All	1000	0.052	--	0	2015	23	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	23	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	23	Z1
1	04-Feb-15	Acetone	67-64-1	1.2	c	M, A	1200	0.058333333	--	0	2015	23	Z1
1	04-Feb-15	Benzene	71-43-2	0.12	d	All	120	0.0725	--	0	2015	23	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	23	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	23	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	23	Z1
1	04-Feb-15	Carbon Disulfide	75-15-0	0.005	d	All	5	2.6	--	0	2015	23	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	23	Z1
1	04-Feb-15	Chlorobenzene	108-90-7	2.4	c	All	2400	0.005	--	0	2015	23	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	23	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	23	Z1
1	04-Feb-15	Chloromethane	--	--	--	--	--	--	--	0	2015	23	Z1
1	04-Feb-15	1,2-Dichloroethene (cis and trans)	540-59-0	0.04	d	All	40	0.275	--	0	2015	23	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	23	Z1
1	04-Feb-15	Cyclohexane	--	--	--	--	--	--	--	0	2015	23	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	23	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	23	Z1
1	04-Feb-15	Ethylbenzene	100-41-4	0.27	d	All	270	0.033333333	0.62962963	1	2015	23	Z1
1	04-Feb-15	Isopropylbenzene (Cumene)	98-82-8	0.04	d	All	40	0.375	0.475	1	2015	23	Z1
1	04-Feb-15	Methyl Acetate	--	--	--	--	--	--	--	1	2015	23	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	23	Z1
1	04-Feb-15	Methylcyclohexane	--	--	--	--	--	--	--	1	2015	23	Z1
1	04-Feb-15	Dichloromethane (Methylene chloride)	75-09-2	0.21	d	All	210	0.085714286	--	0	2015	23	Z1

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	Styrene	--	U	U	27	38	µg/Kg-dry
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	Tetrachloroethene	--	U	U	19	38	µg/Kg-dry
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	Toluene	350	350	--	13	38	µg/Kg-dry
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	trans-1,2-Dichloroethene	--	U	U	11	38	µg/Kg-dry
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	trans-1,3-Dichloropropene	--	U	U	6.9	38	µg/Kg-dry
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	Trichloroethene	--	U	U	10	38	µg/Kg-dry
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	Trichlorofluoromethane	--	U	U	7.4	38	µg/Kg-dry
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	Vinyl chloride	--	U	U	12	38	µg/Kg-dry
ISM-23-Z1	1502015-01	27-Jan-15	Soil	Volatile Organic Compounds	Xylenes, Total	1,100	1,100	--	30	120	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Mercury by CVAA	Mercury	0.088	0.088	--	0.00095	0.016	mg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Metals by ICP-MS	Aluminum	4,600	4,600	--	0.98	2.9	mg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Metals by ICP-MS	Antimony	5.1	5.1	--	0.38	1.4	mg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Metals by ICP-MS	Arsenic	6.4	6.4	--	0.3	1.4	mg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Metals by ICP-MS	Barium	160	160	--	0.017	1.4	mg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Metals by ICP-MS	Beryllium	0.22	0.22	J	0.15	0.57	mg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Metals by ICP-MS	Cadmium	3.7	3.7	--	0.057	0.57	mg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Metals by ICP-MS	Chromium	23	23	--	0.32	1.4	mg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Metals by ICP-MS	Cobalt	5.4	5.4	--	0.17	1.4	mg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Metals by ICP-MS	Copper	130	130	--	0.16	1.4	mg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Metals by ICP-MS	Iron	30,000	30,000	--	4.2	23	mg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Metals by ICP-MS	Lead	140	140	--	0.15	1.4	mg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Metals by ICP-MS	Manganese	430	430	--	0.23	1.4	mg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Metals by ICP-MS	Nickel	25	25	--	0.77	1.4	mg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Metals by ICP-MS	Selenium	0.77	0.77	J	0.3	1.4	mg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Metals by ICP-MS	Silver	1.6	1.6	--	0.0057	1.4	mg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Metals by ICP-MS	Thallium	--	U	U	0.15	1.4	mg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Metals by ICP-MS	Vanadium	11	11	--	0.24	1.4	mg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Metals by ICP-MS	Zinc	760	760	--	10	29	mg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Moisture	Moisture	0.19	0.19	--	0.025	0.05	% of sample
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Moisture	Moisture	22	22	--	0.025	0.05	% of sample
ISM-24-Z1	1502013-03	28-Jan-15	Soil	PCBs	Aroclor 1016	--	U	U	26	81	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	PCBs	Aroclor 1221	--	U	U	26	81	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	PCBs	Aroclor 1232	--	U	U	26	81	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	PCBs	Aroclor 1242	--	U	U	26	81	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	PCBs	Aroclor 1248	--	U	U	26	81	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	PCBs	Aroclor 1254	78	78	J	30	81	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	PCBs	Aroclor 1260	--	U	U	30	81	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	PCBs	PCBs, Total	78	78	--	--	--	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	1,1'-Biphenyl	22	22	J	4.9	320	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	8.2	160	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	5.5	160	µg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	23	Z1
1	04-Feb-15	Tetrachloroethene	127-18-4	0.06	d	All	60	0.316666667	--	0	2015	23	Z1
1	04-Feb-15	Toluene	108-88-3	0.15	d	All	150	0.086666667	2.333333333	1	2015	23	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	23	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	23	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	23	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	23	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	23	Z1
1	04-Feb-15	Xylenes (total)	1330-20-7	0.1	d	All	100	0.3	11	1	2015	23	Z1
1	04-Feb-15	Mercury (total)	7439-97-6	0.1	b	All	100	0.0095	0.88	1	2015	24	Z1
4	03-Feb-15	Aluminum	7429-90-5	--	a	All	--	--	--	1	2015	24	Z1
4	03-Feb-15	Antimony	7440-36-0	0.27	a	All	0.27	1.407407407	18.88888889	1	2015	24	Z1
4	03-Feb-15	Arsenic	7440-38-2	18	a	All	18000	0.016666667	0.355555556	1	2015	24	Z1
4	03-Feb-15	Barium	7440-39-3	330	a	All	330000	5.15152E-05	0.484848485	1	2015	24	Z1
4	03-Feb-15	Beryllium	7440-41-7	10	b	All	10000	0.015	0.022	1	2015	24	Z1
4	03-Feb-15	Cadmium	7440-43-9	0.36	a	All	360	0.158333333	10.27777778	1	2015	24	Z1
4	03-Feb-15	Chromium III	16065-83-1	18	a	All	18000	0.017777778	1.277777778	1	2015	24	Z1
4	03-Feb-15	Cobalt	7440-48-4	13	a	All	13000	0.013076923	0.415384615	1	2015	24	Z1
4	03-Feb-15	Copper	7440-50-8	28	a	All	28000	0.005714286	4.642857143	1	2015	24	Z1
4	03-Feb-15	Iron	7439-89-6	--	a	All	--	--	--	1	2015	24	Z1
4	03-Feb-15	Lead	7439-92-1	11	a	All	11000	0.013636364	12.72727273	1	2015	24	Z1
4	03-Feb-15	Manganese	7439-96-5	220	a	All	220000	0.001045455	1.954545455	1	2015	24	Z1
4	03-Feb-15	Nickel	7440-02-0	38	a	All	38000	0.020263158	0.657894737	1	2015	24	Z1
4	03-Feb-15	Selenium	7782-49-2	0.52	a	All	520	0.576923077	1.480769231	1	2015	24	Z1
4	03-Feb-15	Silver	7440-22-4	4.2	a	All	4200	0.001357143	0.380952381	1	2015	24	Z1
4	03-Feb-15	Thallium	7440-28-0	0.22	c	All	220	0.681818182	--	0	2015	24	Z1
4	03-Feb-15	Vanadium	7440-62-2	7.8	a	All	7800	0.030769231	1.41025641	1	2015	24	Z1
40	03-Feb-15	Zinc	7440-66-6	46	a	All	46000	0.217391304	16.52173913	1	2015	24	Z1
1	05-Feb-15	--	--	--	--	--	--	--	--	--	2015	24	Z1
1	30-Jan-15	--	--	--	--	--	--	--	--	--	2015	24	Z1
1	05-Feb-15	Aroclor-1016	12674-11-2	1	c	All	1000	0.026	--	0	2015	24	Z1
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	24	Z1
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	24	Z1
1	05-Feb-15	Aroclor-1242	53469-21-9	0.041	c	All	41	0.634146341	--	0	2015	24	Z1
1	05-Feb-15	Aroclor-1248	12672-29-6	0.0072	c	All	7.2	3.611111111	--	0	2015	24	Z1
1	05-Feb-15	Aroclor-1254	11097-69-1	0.014	c	All	14	2.142857143	5.571428571	1	2015	24	Z1
1	05-Feb-15	Aroclor-1260	11096-82-5	0.88	c	All	880	0.034090909	--	0	2015	24	Z1
1	05-Feb-15	PCBs (sum) (Wildlife Based)	1336-36-3	0.33	d	All	330	0	0.236363636	1	2015	24	Z1
1	06-Feb-15	1,1'-Biphenyl	92-52-4	0.2	d	All	200	0.0245	0.11	1	2015	24	Z1
1	06-Feb-15	2,4,5-Trichlorophenol	95-95-4	0.03	d	All	30	0.273333333	--	0	2015	24	Z1
1	06-Feb-15	2,4,6-Trichlorophenol	88-06-2	0.09	d	All	90	0.061111111	--	0	2015	24	Z1

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	9.5	160	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	53	320	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	30	650	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	10	160	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	17	160	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	1.5	6.6	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	9.9	160	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	80	80	--	2.7	6.6	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	13	160	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	13	650	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	11	160	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	3&4-Methylphenol	--	U	U	16	160	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	410	650	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	11	650	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	27	320	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	8.9	160	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	7.6	160	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	9.8	650	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	9.6	160	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	9.1	650	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	6.5	650	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthene	31	31	--	0.98	6.6	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	61	61	--	1.2	6.6	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	4.9	320	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Anthracene	150	150	--	1.3	6.6	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	9.9	320	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	120	120	J	12	320	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	480	480	--	1.3	6.6	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	410	410	--	2.1	6.6	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	650	650	--	1.9	6.6	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	300	300	--	2.6	6.6	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	230	230	--	1.4	6.6	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	10	160	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	10	160	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	14	160	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	620	620	--	11	320	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	87	87	J	12	160	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	14	320	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Carbazole	72	72	J	9.8	160	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Chrysene	650	650	--	1.6	6.6	µg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
1	06-Feb-15	Dichlorophenols ,3-), (2,4-), (2,5-), (2,6-)	120-83-2	0.05	d	All	50	0.19	--	0	2015	24	Z1
1	06-Feb-15	2,4-Dimethylphenol	105-67-9	0.04	d	SI	40	1.325	--	0	2015	24	Z1
1	06-Feb-15	2,4-Dinitrophenol	51-28-5	0.15	d	All	150	0.2	--	0	2015	24	Z1
1	06-Feb-15	2,4-Dinitrotoluene	121-14-2	6	c	SI, M, P	6000	0.001666667	--	0	2015	24	Z1
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	24	Z1
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	24	Z1
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	24	Z1
1	06-Feb-15	2-Methylnaphthalene	91-57-6	--	--	All, total	29000	9.31034E-05	0.002758621	1	2015	24	Z1
1	06-Feb-15	2-Methylphenol (Cresol, o-)	95-48-7	0.1	d	All	100	0.13	--	0	2015	24	Z1
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	24	Z1
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	24	Z1
1	06-Feb-15	4-Methylphenol (Cresol, p-)	106-44-5	0.08	d	All	80	0.2	--	0	2015	24	Z1
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	24	Z1
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	24	Z1
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	24	Z1
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	24	Z1
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	24	Z1
1	06-Feb-15	4-Chloroaniline	106-47-8	1.0	c	P, SI	1000	0.0098	--	0	2015	24	Z1
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	24	Z1
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	24	Z1
1	06-Feb-15	4-Nitrophenol	100-02-7	7	b	SI	7000	0.000928571	--	0	2015	24	Z1
1	06-Feb-15	Acenaphthene	83-32-9	--	--	All, total	29000	3.37931E-05	0.001068966	1	2015	24	Z1
1	06-Feb-15	Acenaphthylene	208-96-8	--	--	--	29000	4.13793E-05	0.002103448	1	2015	24	Z1
1	06-Feb-15	Acetophenone	--	--	--	--	--	--	--	0	2015	24	Z1
1	06-Feb-15	Anthracene	120-12-7	--	--	--	29000	4.48276E-05	0.005172414	1	2015	24	Z1
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	24	Z1
1	06-Feb-15	Benzaldehyde	--	--	--	--	--	--	--	1	2015	24	Z1
1	06-Feb-15	Benzo(a)anthracene	56-55-3	--	--	--	1100	0.001181818	0.436363636	1	2015	24	Z1
1	06-Feb-15	Benzo(a)pyrene	50-32-8	--	--	--	1100	0.001909091	0.372727273	1	2015	24	Z1
1	06-Feb-15	Benzo(b)fluoranthene	205-99-2	--	--	--	1100	0.001727273	0.590909091	1	2015	24	Z1
1	06-Feb-15	Benzo(ghi)perylene	191-24-2	--	--	--	1100	0.002363636	0.272727273	1	2015	24	Z1
1	06-Feb-15	Benzo(k)fluoranthene	207-08-9	--	--	--	1100	0.001272727	0.209090909	1	2015	24	Z1
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	24	Z1
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	24	Z1
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	24	Z1
1	06-Feb-15	Bis(2-ethylhexyl) phthalate	117-81-7	0.02	c	All	20	0.55	31	1	2015	24	Z1
1	06-Feb-15	Butylbenzyl phthalate	85-68-7	0.59	d	All	590	0.020338983	0.147457627	1	2015	24	Z1
1	06-Feb-15	Caprolactam	--	--	--	--	--	--	--	0	2015	24	Z1
1	06-Feb-15	Carbazole	86-74-8	0.16	d	All	160	0.06125	0.45	1	2015	24	Z1
1	06-Feb-15	Chrysene	218-01-9	--	--	--	1100	0.001454545	0.590909091	1	2015	24	Z1

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	84	84	--	2.4	6.6	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	58	58	J	10	160	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	95	95	J	10	320	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	11	320	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U	4.7	320	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	11	160	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluoranthene	860	860	--	2.3	6.6	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluorene	34	34	--	2.2	6.6	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	9.2	160	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	11	160	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	10	320	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	15	160	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	4604	--	--	--	--	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	340	340	--	2.2	6.6	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	11	160	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Naphthalene	240	240	--	2.4	6.6	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	13	160	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	13	160	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	58	160	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	6.3	320	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenanthrene	530	530	--	1.3	6.6	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	11	160	µg/Kg-dry
ISM-24-Z1	1502013-03	28-Jan-15	Soil	Semi-Volatile Organic Compounds	Pyrene	600	600	--	2.2	6.6	µg/Kg-dry
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	1,1,1-Trichloroethane	--	U	U	11	38	µg/Kg-dry
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	1,1,2,2-Tetrachloroethane	--	U	U	9.3	38	µg/Kg-dry
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	1,1,2-Trichloroethane	--	U	U	12	38	µg/Kg-dry
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	1,1,2-Trichlorotrifluoroethane	--	U	U	8.7	38	µg/Kg-dry
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	1,1-Dichloroethane	--	U	U	9.8	38	µg/Kg-dry
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	1,1-Dichloroethene	--	U	U	10	38	µg/Kg-dry
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	1,2,4-Trichlorobenzene	--	U	U	28	38	µg/Kg-dry
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	1,2-Dibromo-3-chloropropane	--	U	U	16	38	µg/Kg-dry
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	1,2-Dibromoethane	--	U	U	13	38	µg/Kg-dry
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	1,2-Dichlorobenzene	--	U	U	11	38	µg/Kg-dry
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	1,2-Dichloroethane	--	U	U	10	38	µg/Kg-dry
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	1,2-Dichloropropane	--	U	U	11	38	µg/Kg-dry
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	1,3-Dichlorobenzene	--	U	U	12	38	µg/Kg-dry
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	1,4-Dichlorobenzene	--	U	U	10	38	µg/Kg-dry
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	2-Butanone	--	U	U	52	260	µg/Kg-dry
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	2-Hexanone	--	U	U	26	38	µg/Kg-dry
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	4-Methyl-2-pentanone	--	U	U	28	38	µg/Kg-dry
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	Acetone	--	U	U	70	130	µg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
1	06-Feb-15	Dibenzo(a,h)anthracene	53-70-3	--	--	--	1100	0.002181818	0.076363636	1	2015	24	Z1
1	06-Feb-15	Dibenzofuran	132-64-9	0.15	d	All	150	0.066666667	0.386666667	1	2015	24	Z1
1	06-Feb-15	Diethylphthalate	84-66-2	0.23	d	All	230	0.043478261	0.413043478	1	2015	24	Z1
1	06-Feb-15	Dimethylphthalate	131-11-3	0.35	d	All	350	0.031428571	--	0	2015	24	Z1
1	06-Feb-15	Di-n-butyl phthalate	84-74-2	0.011	c	All	11	0.427272727	--	0	2015	24	Z1
1	06-Feb-15	Di-n-octyl phthalate	117-84-0	0.21	c	All	210	0.052380952	--	0	2015	24	Z1
1	06-Feb-15	Fluoranthene	206-44-0	--	--	--	1100	0.002090909	0.781818182	1	2015	24	Z1
1	06-Feb-15	Fluorene	86-73-7	--	--	All, total	29000	7.58621E-05	0.001172414	1	2015	24	Z1
1	06-Feb-15	Hexachlorobenzene	118-74-1	0.079	c	All	79	0.116455696	--	0	2015	24	Z1
1	06-Feb-15	Hexachlorobutadiene	87-68-3	0.1	d	SI	100	0.11	--	0	2015	24	Z1
1	06-Feb-15	Hexachlorocyclopentadiene	77-47-4	0.001	d	All	1	10	--	0	2015	24	Z1
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	24	Z1
--	6-Feb-15	High Molecular Weight PAHs	--	--	--	--	1100	--	4.185454545	1	2015	24	Z1
1	06-Feb-15	Indeno(1,2,3-cd)pyrene	193-39-5	--	--	--	1100	0.002	0.309090909	1	2015	24	Z1
1	06-Feb-15	Isophorone	--	--	--	--	--	--	--	0	2015	24	Z1
1	06-Feb-15	Naphthalene	91-20-3	--	--	All, total	29000	8.27586E-05	0.008275862	1	2015	24	Z1
1	06-Feb-15	Nitrobenzene	98-95-3	2.2	c	SI, M	2200	0.005909091	--	0	2015	24	Z1
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	24	Z1
1	06-Feb-15	N-Nitrosodiphenylamine	86-30-6	0.12	d	All	120	0.483333333	--	0	2015	24	Z1
1	06-Feb-15	Pentachlorophenol (PCP)	87-86-5	2.1	a	All	2100	0.003	--	0	2015	24	Z1
1	06-Feb-15	Phenanthrene	67580	--	--	--	29000	4.48276E-05	0.018275862	1	2015	24	Z1
1	06-Feb-15	Phenol	108-95-2	0.79	c	All	790	0.013924051	--	0	2015	24	Z1
1	06-Feb-15	Pyrene	129-00-0	--	--	--	1100	0.002	0.545454545	1	2015	24	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	24	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	24	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	24	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	24	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	24	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	24	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	24	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	24	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	24	Z1
1	04-Feb-15	1,2-Dichlorobenzene	95-50-1	0.09	d	All	90	0.122222222	--	0	2015	24	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	24	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	24	Z1
1	04-Feb-15	1,3-Dichlorobenzene	99-65-0	0.08	d	All	80	0.15	--	0	2015	24	Z1
1	04-Feb-15	1,4-Dichlorobenzene	106-46-7	0.88	c	SI, M	880	0.011363636	--	0	2015	24	Z1
1	04-Feb-15	2-Butanone (Methyl Ethyl Ketone)	78-93-3	1.0	d	All	1000	0.052	--	0	2015	24	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	24	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	24	Z1
1	04-Feb-15	Acetone	67-64-1	1.2	c	M, A	1200	0.058333333	--	0	2015	24	Z1

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	Benzene	--	U	U	8.7	38	µg/Kg-dry
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	Bromodichloromethane	--	U	U	10	38	µg/Kg-dry
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	Bromoform	--	U	U	14	38	µg/Kg-dry
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	Bromomethane	--	U	U	17	96	µg/Kg-dry
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	Carbon disulfide	--	U	U	13	38	µg/Kg-dry
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	Carbon tetrachloride	--	U	U	6.8	38	µg/Kg-dry
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	Chlorobenzene	--	U	U	12	38	µg/Kg-dry
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	Chloroethane	--	U	U	24	130	µg/Kg-dry
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	Chloroform	--	U	U	13	38	µg/Kg-dry
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	Chloromethane	--	U	U	16	130	µg/Kg-dry
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	cis-1,2-Dichloroethene	--	U	U	11	38	µg/Kg-dry
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	cis-1,3-Dichloropropene	--	U	U	15	38	µg/Kg-dry
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	Cyclohexane	--	U	U	19	38	µg/Kg-dry
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	Dibromochloromethane	--	U	U	8.8	38	µg/Kg-dry
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	Dichlorodifluoromethane	--	U	U	17	38	µg/Kg-dry
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	Ethylbenzene	--	U	U	9	38	µg/Kg-dry
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	Isopropylbenzene	--	U	U	15	38	µg/Kg-dry
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	Methyl acetate	120	120	J	79	260	µg/Kg-dry
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	Methyl tert-butyl ether	--	U	U	12	38	µg/Kg-dry
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	Methylcyclohexane	--	U	U	17	38	µg/Kg-dry
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	Methylene chloride	--	U	U	18	38	µg/Kg-dry
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	Styrene	--	U	U	27	38	µg/Kg-dry
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	Tetrachloroethene	--	U	U	19	38	µg/Kg-dry
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	Toluene	--	U	U	13	38	µg/Kg-dry
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	trans-1,2-Dichloroethene	--	U	U	11	38	µg/Kg-dry
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	trans-1,3-Dichloropropene	--	U	U	6.9	38	µg/Kg-dry
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	Trichloroethene	--	U	U	10	38	µg/Kg-dry
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	Trichlorofluoromethane	--	U	U	7.4	38	µg/Kg-dry
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	Vinyl chloride	--	U	U	12	38	µg/Kg-dry
ISM-24-Z1	1502015-02	27-Jan-15	Soil	Volatile Organic Compounds	Xylenes, Total	--	U	U	30	120	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Mercury by CVAA	Mercury	0.054	0.054	--	0.00086	0.014	mg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Metals by ICP-MS	Aluminum	4,600	4,600	--	2.4	7.1	mg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Metals by ICP-MS	Antimony	--	U	U	0.38	1.4	mg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Metals by ICP-MS	Arsenic	2.4	2.4	--	0.3	1.4	mg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Metals by ICP-MS	Barium	32	32	--	0.017	1.4	mg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Metals by ICP-MS	Beryllium	0.16	0.16	J	0.15	0.57	mg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Metals by ICP-MS	Cadmium	0.34	0.34	J	0.057	0.57	mg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Metals by ICP-MS	Chromium	7.8	7.8	--	0.32	1.4	mg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Metals by ICP-MS	Cobalt	1.6	1.6	--	0.17	1.4	mg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Metals by ICP-MS	Copper	9.9	9.9	--	0.16	1.4	mg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
1	04-Feb-15	Benzene	71-43-2	0.12	d	All	120	0.0725	--	0	2015	24	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	24	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	24	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	24	Z1
1	04-Feb-15	Carbon Disulfide	75-15-0	0.005	d	All	5	2.6	--	0	2015	24	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	24	Z1
1	04-Feb-15	Chlorobenzene	108-90-7	2.4	c	All	2400	0.005	--	0	2015	24	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	24	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	24	Z1
1	04-Feb-15	Chloromethane	--	--	--	--	--	--	--	0	2015	24	Z1
1	04-Feb-15	1,2-Dichloroethene (cis and trans)	540-59-0	0.04	d	All	40	0.275	--	0	2015	24	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	24	Z1
1	04-Feb-15	Cyclohexane	--	--	--	--	--	--	--	0	2015	24	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	24	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	24	Z1
1	04-Feb-15	Ethylbenzene	100-41-4	0.27	d	All	270	0.033333333	--	0	2015	24	Z1
1	04-Feb-15	Isopropylbenzene (Cumene)	98-82-8	0.04	d	All	40	0.375	--	0	2015	24	Z1
1	04-Feb-15	Methyl Acetate	--	--	--	--	--	--	--	1	2015	24	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	24	Z1
1	04-Feb-15	Methylcyclohexane	--	--	--	--	--	--	--	0	2015	24	Z1
1	04-Feb-15	Dichloromethane (Methylene chloride)	75-09-2	0.21	d	All	210	0.085714286	--	0	2015	24	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	24	Z1
1	04-Feb-15	Tetrachloroethene	127-18-4	0.06	d	All	60	0.316666667	--	0	2015	24	Z1
1	04-Feb-15	Toluene	108-88-3	0.15	d	All	150	0.086666667	--	0	2015	24	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	24	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	24	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	24	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	24	Z1
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	24	Z1
1	04-Feb-15	Xylenes (total)	1330-20-7	0.1	d	All	100	0.3	--	0	2015	24	Z1
1	04-Feb-15	Mercury (total)	7439-97-6	0.1	b	All	100	0.0086	0.54	1	2015	25	Z10
10	13-Feb-15	Aluminum	7429-90-5	--	a	All	--	--	--	1	2015	25	Z10
4	03-Feb-15	Antimony	7440-36-0	0.27	a	All	0.27	1.407407407	--	0	2015	25	Z10
4	03-Feb-15	Arsenic	7440-38-2	18	a	All	18000	0.016666667	0.133333333	1	2015	25	Z10
4	03-Feb-15	Barium	7440-39-3	330	a	All	330000	5.15152E-05	0.096969697	1	2015	25	Z10
4	03-Feb-15	Beryllium	7440-41-7	10	b	All	10000	0.015	0.016	1	2015	25	Z10
4	03-Feb-15	Cadmium	7440-43-9	0.36	a	All	360	0.158333333	0.944444444	1	2015	25	Z10
4	03-Feb-15	Chromium III	16065-83-1	18	a	All	18000	0.017777778	0.433333333	1	2015	25	Z10
4	03-Feb-15	Cobalt	7440-48-4	13	a	All	13000	0.013076923	0.123076923	1	2015	25	Z10
4	03-Feb-15	Copper	7440-50-8	28	a	All	28000	0.005714286	0.353571429	1	2015	25	Z10

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Metals by ICP-MS	Iron	5,900	5,900	--	4.2	23	mg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Metals by ICP-MS	Lead	19	19	--	0.15	1.4	mg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Metals by ICP-MS	Manganese	97	97	--	0.23	1.4	mg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Metals by ICP-MS	Nickel	5.2	5.2	--	0.77	1.4	mg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Metals by ICP-MS	Selenium	0.71	0.71	J	0.3	1.4	mg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Metals by ICP-MS	Silver	0.057	0.057	J	0.0057	1.4	mg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Metals by ICP-MS	Thallium	--	U	U	0.15	1.4	mg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Metals by ICP-MS	Vanadium	9.4	9.4	--	0.23	1.4	mg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Metals by ICP-MS	Zinc	36	36	--	1	2.9	mg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Moisture	Moisture	0.42	0.42	--	0.025	0.05	% of sample
ISM-25-Z10	1502016-10	26-Jan-15	Soil	PCBs	Aroclor 1016	--	U	U	26	81	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	PCBs	Aroclor 1221	--	U	U	26	81	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	PCBs	Aroclor 1232	--	U	U	26	81	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	PCBs	Aroclor 1242	--	U	U	26	81	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	PCBs	Aroclor 1248	--	U	U	26	81	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	PCBs	Aroclor 1254	--	U	U	30	81	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	PCBs	Aroclor 1260	--	U	U	30	81	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	PCBs	PCBs, Total	--	U	U	--	--	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	1,1'-Biphenyl	--	U	U	4.9	320	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	8.2	160	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	5.5	160	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	9.5	160	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	52	320	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	29	650	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	10	160	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	17	160	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	1.5	6.5	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	9.8	160	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	7.2	7.2	--	2.7	6.5	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	13	160	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	13	650	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	11	160	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	3&4-Methylphenol	17	17	J	16	160	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	400	650	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	11	650	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	27	320	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	8.8	160	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	7.6	160	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	9.7	650	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	9.6	160	µg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
4	03-Feb-15	Iron	7439-89-6	--	a	All	--	--	--	1	2015	25	Z10
4	03-Feb-15	Lead	7439-92-1	11	a	All	11000	0.013636364	1.727272727	1	2015	25	Z10
4	03-Feb-15	Manganese	7439-96-5	220	a	All	220000	0.001045455	0.440909091	1	2015	25	Z10
4	03-Feb-15	Nickel	7440-02-0	38	a	All	38000	0.020263158	0.136842105	1	2015	25	Z10
4	03-Feb-15	Selenium	7782-49-2	0.52	a	All	520	0.576923077	1.365384615	1	2015	25	Z10
4	03-Feb-15	Silver	7440-22-4	4.2	a	All	4200	0.001357143	0.013571429	1	2015	25	Z10
4	03-Feb-15	Thallium	7440-28-0	0.22	c	All	220	0.681818182	--	0	2015	25	Z10
4	03-Feb-15	Vanadium	7440-62-2	7.8	a	All	7800	0.029487179	1.205128205	1	2015	25	Z10
4	03-Feb-15	Zinc	7440-66-6	46	a	All	46000	0.02173913	0.782608696	1	2015	25	Z10
1	05-Feb-15	--	--	--	--	--	--	--	--	--	2015	25	Z10
1	05-Feb-15	Aroclor-1016	12674-11-2	1	c	All	1000	0.026	--	0	2015	25	Z10
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	25	Z10
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	25	Z10
1	05-Feb-15	Aroclor-1242	53469-21-9	0.041	c	All	41	0.634146341	--	0	2015	25	Z10
1	05-Feb-15	Aroclor-1248	12672-29-6	0.0072	c	All	7.2	3.611111111	--	0	2015	25	Z10
1	05-Feb-15	Aroclor-1254	11097-69-1	0.014	c	All	14	2.142857143	--	0	2015	25	Z10
1	05-Feb-15	Aroclor-1260	11096-82-5	0.88	c	All	880	0.034090909	--	0	2015	25	Z10
1	05-Feb-15	PCBs (sum) (Wildlife Based)	1336-36-3	0.33	d	All	330	0	--	0	2015	25	Z10
1	06-Feb-15	1,1'-Biphenyl	92-52-4	0.2	d	All	200	0.0245	--	0	2015	25	Z10
1	06-Feb-15	2,4,5-Trichlorophenol	95-95-4	0.03	d	All	30	0.273333333	--	0	2015	25	Z10
1	06-Feb-15	2,4,6-Trichlorophenol	88-06-2	0.09	d	All	90	0.061111111	--	0	2015	25	Z10
1	06-Feb-15	Dichlorophenols ,3-), (2,4-), (2,5-), (2,6-)	120-83-2	0.05	d	All	50	0.19	--	0	2015	25	Z10
1	06-Feb-15	2,4-Dimethylphenol	105-67-9	0.04	d	SI	40	1.3	--	0	2015	25	Z10
1	06-Feb-15	2,4-Dinitrophenol	51-28-5	0.15	d	All	150	0.193333333	--	0	2015	25	Z10
1	06-Feb-15	2,4-Dinitrotoluene	121-14-2	6	c	SI, M, P	6000	0.001666667	--	0	2015	25	Z10
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	25	Z10
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	25	Z10
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	25	Z10
1	06-Feb-15	2-Methylnaphthalene	91-57-6	--	--	All, total	29000	9.31034E-05	0.000248276	1	2015	25	Z10
1	06-Feb-15	2-Methylphenol (Cresol, o-)	95-48-7	0.1	d	All	100	0.13	--	0	2015	25	Z10
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	25	Z10
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	25	Z10
1	06-Feb-15	4-Methylphenol (Cresol, p-)	106-44-5	0.08	d	All	80	0.2	0.2125	1	2015	25	Z10
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	25	Z10
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	25	Z10
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	25	Z10
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	25	Z10
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	25	Z10
1	06-Feb-15	4-Chloroaniline	106-47-8	1.0	c	P, SI	1000	0.0097	--	0	2015	25	Z10
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	25	Z10

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	9	650	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	6.5	650	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthene	--	U	U	0.98	6.5	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	6.2	6.2	J	1.2	6.5	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	4.9	320	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Anthracene	8.5	8.5	--	1.3	6.5	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	9.9	320	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	89	89	J	12	320	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	43	43	--	1.3	6.5	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	72	72	--	2.1	6.5	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	97	97	--	1.9	6.5	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	62	62	--	2.6	6.5	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	53	53	--	1.4	6.5	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	10	160	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	10	160	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	14	160	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	140	140	J	11	320	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	--	U	U	12	160	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	14	320	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Carbazole	--	U	U	9.7	160	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Chrysene	61	61	--	1.6	6.5	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	23	23	--	2.4	6.5	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	--	U	U	10	160	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	10	320	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	11	320	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U	4.7	320	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	11	160	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluoranthene	110	110	--	2.3	6.5	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluorene	3.9	3.9	J	2.2	6.5	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	9.1	160	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	11	160	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	10	320	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	15	160	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	666	--	--	--	--	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	78	78	--	2.2	6.5	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	11	160	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Naphthalene	8.2	8.2	--	2.4	6.5	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	13	160	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	13	160	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	58	160	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	6.3	320	µg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	25	Z10
1	06-Feb-15	4-Nitrophenol	100-02-7	7	b	SI	7000	0.000928571	--	0	2015	25	Z10
1	06-Feb-15	Acenaphthene	83-32-9	--	--	All, total	29000	3.37931E-05	--	0	2015	25	Z10
1	06-Feb-15	Acenaphthylene	208-96-8	--	--	--	29000	4.13793E-05	0.000213793	1	2015	25	Z10
1	06-Feb-15	Acetophenone	--	--	--	--	--	--	--	0	2015	25	Z10
1	06-Feb-15	Anthracene	120-12-7	--	--	--	29000	4.48276E-05	0.000293103	1	2015	25	Z10
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	25	Z10
1	06-Feb-15	Benzaldehyde	--	--	--	--	--	--	--	1	2015	25	Z10
1	06-Feb-15	Benzo(a)anthracene	56-55-3	--	--	--	1100	0.001181818	0.039090909	1	2015	25	Z10
1	06-Feb-15	Benzo(a)pyrene	50-32-8	--	--	--	1100	0.001909091	0.065454545	1	2015	25	Z10
1	06-Feb-15	Benzo(b)fluoranthene	205-99-2	--	--	--	1100	0.001727273	0.088181818	1	2015	25	Z10
1	06-Feb-15	Benzo(ghi)perylene	191-24-2	--	--	--	1100	0.002363636	0.056363636	1	2015	25	Z10
1	06-Feb-15	Benzo(k)fluoranthene	207-08-9	--	--	--	1100	0.001272727	0.048181818	1	2015	25	Z10
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	25	Z10
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	25	Z10
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	25	Z10
1	06-Feb-15	Bis(2-ethylhexyl) phthalate	117-81-7	0.02	c	All	20	0.55	7	1	2015	25	Z10
1	06-Feb-15	Butylbenzyl phthalate	85-68-7	0.59	d	All	590	0.020338983	--	0	2015	25	Z10
1	06-Feb-15	Caprolactam	--	--	--	--	--	--	--	0	2015	25	Z10
1	06-Feb-15	Carbazole	86-74-8	0.16	d	All	160	0.060625	--	0	2015	25	Z10
1	06-Feb-15	Chrysene	218-01-9	--	--	--	1100	0.001454545	0.055454545	1	2015	25	Z10
1	06-Feb-15	Dibenzo(a,h)anthracene	53-70-3	--	--	--	1100	0.002181818	0.020909091	1	2015	25	Z10
1	06-Feb-15	Dibenzofuran	132-64-9	0.15	d	All	150	0.066666667	--	0	2015	25	Z10
1	06-Feb-15	Diethylphthalate	84-66-2	0.23	d	All	230	0.043478261	--	0	2015	25	Z10
1	06-Feb-15	Dimethylphthalate	131-11-3	0.35	d	All	350	0.031428571	--	0	2015	25	Z10
1	06-Feb-15	Di-n-butyl phthalate	84-74-2	0.011	c	All	11	0.427272727	--	0	2015	25	Z10
1	06-Feb-15	Di-n-octyl phthalate	117-84-0	0.21	c	All	210	0.052380952	--	0	2015	25	Z10
1	06-Feb-15	Fluoranthene	206-44-0	--	--	--	1100	0.002090909	0.1	1	2015	25	Z10
1	06-Feb-15	Fluorene	86-73-7	--	--	All, total	29000	7.58621E-05	0.000134483	1	2015	25	Z10
1	06-Feb-15	Hexachlorobenzene	118-74-1	0.079	c	All	79	0.115189873	--	0	2015	25	Z10
1	06-Feb-15	Hexachlorobutadiene	87-68-3	0.1	d	SI	100	0.11	--	0	2015	25	Z10
1	06-Feb-15	Hexachlorocyclopentadiene	77-47-4	0.001	d	All	1	10	--	0	2015	25	Z10
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	25	Z10
--	6-Feb-15	High Molecular Weight PAHs	--	--	--	--	1100	--	0.605454545	1	2015	25	Z10
1	06-Feb-15	Indeno(1,2,3-cd)pyrene	193-39-5	--	--	--	1100	0.002	0.070909091	1	2015	25	Z10
1	06-Feb-15	Isophorone	--	--	--	--	--	--	--	0	2015	25	Z10
1	06-Feb-15	Naphthalene	91-20-3	--	--	All, total	29000	8.27586E-05	0.000282759	1	2015	25	Z10
1	06-Feb-15	Nitrobenzene	98-95-3	2.2	c	SI, M	2200	0.005909091	--	0	2015	25	Z10
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	25	Z10
1	06-Feb-15	N-Nitrosodiphenylamine	86-30-6	0.12	d	All	120	0.483333333	--	0	2015	25	Z10
1	06-Feb-15	Pentachlorophenol (PCP)	87-86-5	2.1	a	All	2100	0.003	--	0	2015	25	Z10

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenanthrene	52	52	--	1.3	6.5	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	11	160	µg/Kg-dry
ISM-25-Z10	1502016-10	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Pyrene	67	67	--	2.2	6.5	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Mercury by CVAA	Mercury	0.032	0.032	--	0.00074	0.012	mg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Metals by ICP-MS	Aluminum	4,500	4,500	--	2.4	7	mg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Metals by ICP-MS	Antimony	--	U	U	0.37	1.4	mg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Metals by ICP-MS	Arsenic	4.7	4.7	--	0.29	1.4	mg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Metals by ICP-MS	Barium	26	26	--	0.017	1.4	mg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Metals by ICP-MS	Beryllium	--	U	U	0.15	0.56	mg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Metals by ICP-MS	Cadmium	0.24	0.24	J	0.056	0.56	mg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Metals by ICP-MS	Chromium	6.7	6.7	--	0.31	1.4	mg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Metals by ICP-MS	Cobalt	1.8	1.8	--	0.17	1.4	mg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Metals by ICP-MS	Copper	5.6	5.6	--	0.16	1.4	mg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Metals by ICP-MS	Iron	8,100	8,100	--	4.1	22	mg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Metals by ICP-MS	Lead	14	14	--	0.15	1.4	mg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Metals by ICP-MS	Manganese	140	140	--	0.22	1.4	mg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Metals by ICP-MS	Nickel	4.8	4.8	--	0.76	1.4	mg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Metals by ICP-MS	Selenium	0.59	0.59	J	0.29	1.4	mg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Metals by ICP-MS	Silver	0.021	0.021	J	0.0056	1.4	mg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Metals by ICP-MS	Thallium	--	U	U	0.15	1.4	mg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Metals by ICP-MS	Vanadium	11	11	--	0.23	1.4	mg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Metals by ICP-MS	Zinc	25	25	--	1	2.8	mg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Moisture	Moisture	0.14	0.14	--	0.025	0.05	% of sample
ISM-26-Z10	1502016-11	26-Jan-15	Soil	PCBs	Aroclor 1016	--	U	U	26	80	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	PCBs	Aroclor 1221	--	U	U	26	80	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	PCBs	Aroclor 1232	--	U	U	26	80	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	PCBs	Aroclor 1242	--	U	U	26	80	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	PCBs	Aroclor 1248	--	U	U	26	80	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	PCBs	Aroclor 1254	--	U	U	30	80	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	PCBs	Aroclor 1260	--	U	U	30	80	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	PCBs	PCBs, Total	--	U	U	--	--	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	1,1'-Biphenyl	--	U	U	4.8	320	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	8.1	160	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	5.5	160	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	9.4	160	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	52	320	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	29	640	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	10	160	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	17	160	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	1.5	6.5	µg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
1	06-Feb-15	Phenanthrene	67580	--	--	--	29000	4.48276E-05	0.001793103	1	2015	25	Z10
1	06-Feb-15	Phenol	108-95-2	0.79	c	All	790	0.013924051	--	0	2015	25	Z10
1	06-Feb-15	Pyrene	129-00-0	--	--	--	1100	0.002	0.060909091	1	2015	25	Z10
1	04-Feb-15	Mercury (total)	7439-97-6	0.1	b	All	100	0.0074	0.32	1	2015	26	Z10
10	13-Feb-15	Aluminum	7429-90-5	--	a	All	--	--	--	1	2015	26	Z10
4	03-Feb-15	Antimony	7440-36-0	0.27	a	All	0.27	1.37037037	--	0	2015	26	Z10
4	03-Feb-15	Arsenic	7440-38-2	18	a	All	18000	0.016111111	0.261111111	1	2015	26	Z10
4	03-Feb-15	Barium	7440-39-3	330	a	All	330000	5.15152E-05	0.078787879	1	2015	26	Z10
4	03-Feb-15	Beryllium	7440-41-7	10	b	All	10000	0.015	--	0	2015	26	Z10
4	03-Feb-15	Cadmium	7440-43-9	0.36	a	All	360	0.155555556	0.666666667	1	2015	26	Z10
4	03-Feb-15	Chromium III	16065-83-1	18	a	All	18000	0.017222222	0.372222222	1	2015	26	Z10
4	03-Feb-15	Cobalt	7440-48-4	13	a	All	13000	0.013076923	0.138461538	1	2015	26	Z10
4	03-Feb-15	Copper	7440-50-8	28	a	All	28000	0.005714286	0.2	1	2015	26	Z10
4	03-Feb-15	Iron	7439-89-6	--	a	All	--	--	--	1	2015	26	Z10
4	03-Feb-15	Lead	7439-92-1	11	a	All	11000	0.013636364	1.272727273	1	2015	26	Z10
4	03-Feb-15	Manganese	7439-96-5	220	a	All	220000	0.001	0.636363636	1	2015	26	Z10
4	03-Feb-15	Nickel	7440-02-0	38	a	All	38000	0.02	0.126315789	1	2015	26	Z10
4	03-Feb-15	Selenium	7782-49-2	0.52	a	All	520	0.557692308	1.134615385	1	2015	26	Z10
4	03-Feb-15	Silver	7440-22-4	4.2	a	All	4200	0.001333333	0.005	1	2015	26	Z10
4	03-Feb-15	Thallium	7440-28-0	0.22	c	All	220	0.681818182	--	0	2015	26	Z10
4	03-Feb-15	Vanadium	7440-62-2	7.8	a	All	7800	0.029487179	1.41025641	1	2015	26	Z10
4	03-Feb-15	Zinc	7440-66-6	46	a	All	46000	0.02173913	0.543478261	1	2015	26	Z10
1	05-Feb-15	--	--	--	--	--	--	--	--	--	2015	26	Z10
1	05-Feb-15	Aroclor-1016	12674-11-2	1	c	All	1000	0.026	--	0	2015	26	Z10
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	26	Z10
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	26	Z10
1	05-Feb-15	Aroclor-1242	53469-21-9	0.041	c	All	41	0.634146341	--	0	2015	26	Z10
1	05-Feb-15	Aroclor-1248	12672-29-6	0.0072	c	All	7.2	3.611111111	--	0	2015	26	Z10
1	05-Feb-15	Aroclor-1254	11097-69-1	0.014	c	All	14	2.142857143	--	0	2015	26	Z10
1	05-Feb-15	Aroclor-1260	11096-82-5	0.88	c	All	880	0.034090909	--	0	2015	26	Z10
1	05-Feb-15	PCBs (sum) (Wildlife Based)	1336-36-3	0.33	d	All	330	0	--	0	2015	26	Z10
1	06-Feb-15	1,1'-Biphenyl	92-52-4	0.2	d	All	200	0.024	--	0	2015	26	Z10
1	06-Feb-15	2,4,5-Trichlorophenol	95-95-4	0.03	d	All	30	0.27	--	0	2015	26	Z10
1	06-Feb-15	2,4,6-Trichlorophenol	88-06-2	0.09	d	All	90	0.061111111	--	0	2015	26	Z10
1	06-Feb-15	Dichlorophenols ,3-), (2,4-), (2,5-), (2,6-)	120-83-2	0.05	d	All	50	0.188	--	0	2015	26	Z10
1	06-Feb-15	2,4-Dimethylphenol	105-67-9	0.04	d	SI	40	1.3	--	0	2015	26	Z10
1	06-Feb-15	2,4-Dinitrophenol	51-28-5	0.15	d	All	150	0.193333333	--	0	2015	26	Z10
1	06-Feb-15	2,4-Dinitrotoluene	121-14-2	6	c	SI, M, P	6000	0.001666667	--	0	2015	26	Z10
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	26	Z10
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	26	Z10

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	9.8	160	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	6.8	6.8	--	2.7	6.5	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	13	160	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	13	640	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	11	160	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	3&4-Methylphenol	18	18	J	16	160	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	400	640	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	11	640	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	27	320	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	8.8	160	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	7.5	160	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	9.7	640	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	9.5	160	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	9	640	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	6.4	640	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthene	--	U	U	0.97	6.5	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	--	U	U	1.2	6.5	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	4.9	320	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Anthracene	6.5	6.5	J	1.3	6.5	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	9.8	320	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	110	110	J	12	320	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	31	31	--	1.3	6.5	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	58	58	--	2.1	6.5	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	86	86	--	1.9	6.5	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	71	71	--	2.5	6.5	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	43	43	--	1.4	6.5	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	10	160	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	10	160	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	14	160	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	87	87	J	11	320	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	--	U	U	12	160	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	14	320	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Carbazole	--	U	U	9.7	160	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Chrysene	44	44	--	1.5	6.5	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	19	19	--	2.4	6.5	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	--	U	U	10	160	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	10	320	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	11	320	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U	4.7	320	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	11	160	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluoranthene	76	76	--	2.3	6.5	µg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	26	Z10
1	06-Feb-15	2-Methylnaphthalene	91-57-6	--	--	All, total	29000	9.31034E-05	0.000234483	1	2015	26	Z10
1	06-Feb-15	2-Methylphenol (Cresol, o-)	95-48-7	0.1	d	All	100	0.13	--	0	2015	26	Z10
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	26	Z10
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	26	Z10
1	06-Feb-15	4-Methylphenol (Cresol, p-)	106-44-5	0.08	d	All	80	0.2	0.225	1	2015	26	Z10
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	26	Z10
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	26	Z10
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	26	Z10
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	26	Z10
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	26	Z10
1	06-Feb-15	4-Chloroaniline	106-47-8	1.0	c	P, SI	1000	0.0097	--	0	2015	26	Z10
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	26	Z10
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	26	Z10
1	06-Feb-15	4-Nitrophenol	100-02-7	7	b	SI	7000	0.000914286	--	0	2015	26	Z10
1	06-Feb-15	Acenaphthene	83-32-9	--	--	All, total	29000	3.34483E-05	--	0	2015	26	Z10
1	06-Feb-15	Acenaphthylene	208-96-8	--	--	--	29000	4.13793E-05	--	0	2015	26	Z10
1	06-Feb-15	Acetophenone	--	--	--	--	--	--	--	0	2015	26	Z10
1	06-Feb-15	Anthracene	120-12-7	--	--	--	29000	4.48276E-05	0.000224138	1	2015	26	Z10
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	26	Z10
1	06-Feb-15	Benzaldehyde	--	--	--	--	--	--	--	1	2015	26	Z10
1	06-Feb-15	Benzo(a)anthracene	56-55-3	--	--	--	1100	0.001181818	0.028181818	1	2015	26	Z10
1	06-Feb-15	Benzo(a)pyrene	50-32-8	--	--	--	1100	0.001909091	0.052727273	1	2015	26	Z10
1	06-Feb-15	Benzo(b)fluoranthene	205-99-2	--	--	--	1100	0.001727273	0.078181818	1	2015	26	Z10
1	06-Feb-15	Benzo(ghi)perylene	191-24-2	--	--	--	1100	0.002272727	0.064545455	1	2015	26	Z10
1	06-Feb-15	Benzo(k)fluoranthene	207-08-9	--	--	--	1100	0.001272727	0.039090909	1	2015	26	Z10
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	26	Z10
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	26	Z10
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	26	Z10
1	06-Feb-15	Bis(2-ethylhexyl) phthalate	117-81-7	0.02	c	All	20	0.55	4.35	1	2015	26	Z10
1	06-Feb-15	Butylbenzyl phthalate	85-68-7	0.59	d	All	590	0.020338983	--	0	2015	26	Z10
1	06-Feb-15	Caprolactam	--	--	--	--	--	--	--	0	2015	26	Z10
1	06-Feb-15	Carbazole	86-74-8	0.16	d	All	160	0.060625	--	0	2015	26	Z10
1	06-Feb-15	Chrysene	218-01-9	--	--	--	1100	0.001363636	0.04	1	2015	26	Z10
1	06-Feb-15	Dibenzo(a,h)anthracene	53-70-3	--	--	--	1100	0.002181818	0.017272727	1	2015	26	Z10
1	06-Feb-15	Dibenzofuran	132-64-9	0.15	d	All	150	0.066666667	--	0	2015	26	Z10
1	06-Feb-15	Diethylphthalate	84-66-2	0.23	d	All	230	0.043478261	--	0	2015	26	Z10
1	06-Feb-15	Dimethylphthalate	131-11-3	0.35	d	All	350	0.031428571	--	0	2015	26	Z10
1	06-Feb-15	Di-n-butyl phthalate	84-74-2	0.011	c	All	11	0.427272727	--	0	2015	26	Z10
1	06-Feb-15	Di-n-octyl phthalate	117-84-0	0.21	c	All	210	0.052380952	--	0	2015	26	Z10
1	06-Feb-15	Fluoranthene	206-44-0	--	--	--	1100	0.002090909	0.069090909	1	2015	26	Z10

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluorene	--	U	U	2.2	6.5	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	9.1	160	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	11	160	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	10	320	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	15	160	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	550	--	--	--	--	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	75	75	--	2.2	6.5	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	11	160	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Naphthalene	7.5	7.5	--	2.4	6.5	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	13	160	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	12	160	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	58	160	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	6.3	320	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenanthrene	53	53	--	1.3	6.5	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	11	160	µg/Kg-dry
ISM-26-Z10	1502016-11	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Pyrene	47	47	--	2.2	6.5	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Mercury by CVAA	Mercury	0.039	0.039	--	0.00089	0.015	mg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Metals by ICP-MS	Aluminum	3,900	3,900	--	2.6	7.5	mg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Metals by ICP-MS	Antimony	--	U	U	0.4	1.5	mg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Metals by ICP-MS	Arsenic	3.3	3.3	--	0.31	1.5	mg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Metals by ICP-MS	Barium	22	22	--	0.018	1.5	mg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Metals by ICP-MS	Beryllium	--	U	U	0.16	0.6	mg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Metals by ICP-MS	Cadmium	0.17	0.17	J	0.06	0.6	mg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Metals by ICP-MS	Chromium	6.6	6.6	--	0.34	1.5	mg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Metals by ICP-MS	Cobalt	1.8	1.8	--	0.18	1.5	mg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Metals by ICP-MS	Copper	4.7	4.7	--	0.17	1.5	mg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Metals by ICP-MS	Iron	6,300	6,300	--	4.4	24	mg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Metals by ICP-MS	Lead	13	13	--	0.16	1.5	mg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Metals by ICP-MS	Manganese	130	130	--	0.24	1.5	mg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Metals by ICP-MS	Nickel	4.8	4.8	--	0.81	1.5	mg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Metals by ICP-MS	Selenium	0.93	0.93	J	0.31	1.5	mg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Metals by ICP-MS	Silver	0.025	0.025	J	0.006	1.5	mg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Metals by ICP-MS	Thallium	--	U	U	0.16	1.5	mg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Metals by ICP-MS	Vanadium	10	10	--	0.25	1.5	mg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Metals by ICP-MS	Zinc	22	22	--	1.1	3	mg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Moisture	Moisture	0.2	0.20	--	0.025	0.05	% of sample
ISM-27-Z10	1502016-12	26-Jan-15	Soil	PCBs	Aroclor 1016	--	U	U	26	81	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	PCBs	Aroclor 1221	--	U	U	26	81	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	PCBs	Aroclor 1232	--	U	U	26	81	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	PCBs	Aroclor 1242	--	U	U	26	81	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	PCBs	Aroclor 1248	--	U	U	26	81	µg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
1	06-Feb-15	Fluorene	86-73-7	--	--	All, total	29000	7.58621E-05	--	0	2015	26	Z10
1	06-Feb-15	Hexachlorobenzene	118-74-1	0.079	c	All	79	0.115189873	--	0	2015	26	Z10
1	06-Feb-15	Hexachlorobutadiene	87-68-3	0.1	d	SI	100	0.11	--	0	2015	26	Z10
1	06-Feb-15	Hexachlorocyclopentadiene	77-47-4	0.001	d	All	1	10	--	0	2015	26	Z10
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	26	Z10
--	6-Feb-15	High Molecular Weight PAHs	--	--	--	--	1100	--	0.5	1	2015	26	Z10
1	06-Feb-15	Indeno(1,2,3-cd)pyrene	193-39-5	--	--	--	1100	0.002	0.068181818	1	2015	26	Z10
1	06-Feb-15	Isophorone	--	--	--	--	--	--	--	0	2015	26	Z10
1	06-Feb-15	Naphthalene	91-20-3	--	--	All, total	29000	8.27586E-05	0.000258621	1	2015	26	Z10
1	06-Feb-15	Nitrobenzene	98-95-3	2.2	c	SI, M	2200	0.005909091	--	0	2015	26	Z10
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	26	Z10
1	06-Feb-15	N-Nitrosodiphenylamine	86-30-6	0.12	d	All	120	0.483333333	--	0	2015	26	Z10
1	06-Feb-15	Pentachlorophenol (PCP)	87-86-5	2.1	a	All	2100	0.003	--	0	2015	26	Z10
1	06-Feb-15	Phenanthrene	67580	--	--	--	29000	4.48276E-05	0.001827586	1	2015	26	Z10
1	06-Feb-15	Phenol	108-95-2	0.79	c	All	790	0.013924051	--	0	2015	26	Z10
1	06-Feb-15	Pyrene	129-00-0	--	--	--	1100	0.002	0.042727273	1	2015	26	Z10
1	04-Feb-15	Mercury (total)	7439-97-6	0.1	b	All	100	0.0089	0.39	1	2015	27	Z10
10	13-Feb-15	Aluminum	7429-90-5	--	a	All	--	--	--	1	2015	27	Z10
4	03-Feb-15	Antimony	7440-36-0	0.27	a	All	0.27	1.481481481	--	0	2015	27	Z10
4	03-Feb-15	Arsenic	7440-38-2	18	a	All	18000	0.017222222	0.183333333	1	2015	27	Z10
4	03-Feb-15	Barium	7440-39-3	330	a	All	330000	5.45455E-05	0.066666667	1	2015	27	Z10
4	03-Feb-15	Beryllium	7440-41-7	10	b	All	10000	0.016	--	0	2015	27	Z10
4	03-Feb-15	Cadmium	7440-43-9	0.36	a	All	360	0.166666667	0.472222222	1	2015	27	Z10
4	03-Feb-15	Chromium III	16065-83-1	18	a	All	18000	0.018888889	0.366666667	1	2015	27	Z10
4	03-Feb-15	Cobalt	7440-48-4	13	a	All	13000	0.013846154	0.138461538	1	2015	27	Z10
4	03-Feb-15	Copper	7440-50-8	28	a	All	28000	0.006071429	0.167857143	1	2015	27	Z10
4	03-Feb-15	Iron	7439-89-6	--	a	All	--	--	--	1	2015	27	Z10
4	03-Feb-15	Lead	7439-92-1	11	a	All	11000	0.014545455	1.181818182	1	2015	27	Z10
4	03-Feb-15	Manganese	7439-96-5	220	a	All	220000	0.001090909	0.590909091	1	2015	27	Z10
4	03-Feb-15	Nickel	7440-02-0	38	a	All	38000	0.021315789	0.126315789	1	2015	27	Z10
4	03-Feb-15	Selenium	7782-49-2	0.52	a	All	520	0.596153846	1.788461538	1	2015	27	Z10
4	03-Feb-15	Silver	7440-22-4	4.2	a	All	4200	0.001428571	0.005952381	1	2015	27	Z10
4	03-Feb-15	Thallium	7440-28-0	0.22	c	All	220	0.727272727	--	0	2015	27	Z10
4	03-Feb-15	Vanadium	7440-62-2	7.8	a	All	7800	0.032051282	1.282051282	1	2015	27	Z10
4	03-Feb-15	Zinc	7440-66-6	46	a	All	46000	0.023913043	0.47826087	1	2015	27	Z10
1	05-Feb-15	--	--	--	--	--	--	--	--	--	2015	27	Z10
1	05-Feb-15	Aroclor-1016	12674-11-2	1	c	All	1000	0.026	--	0	2015	27	Z10
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	27	Z10
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	27	Z10
1	05-Feb-15	Aroclor-1242	53469-21-9	0.041	c	All	41	0.634146341	--	0	2015	27	Z10
1	05-Feb-15	Aroclor-1248	12672-29-6	0.0072	c	All	7.2	3.611111111	--	0	2015	27	Z10

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-27-Z10	1502016-12	26-Jan-15	Soil	PCBs	Aroclor 1254	--	U	U	31	81	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	PCBs	Aroclor 1260	--	U	U	31	81	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	PCBs	PCBs, Total	--	U	U	--	--	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	1,1'-Biphenyl	--	U	U	4.9	330	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	8.2	160	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	5.5	160	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	9.6	160	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	53	330	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	30	650	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	11	160	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	17	160	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	1.6	6.6	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	9.9	160	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	8.2	8.2	--	2.7	6.6	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	13	160	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	13	650	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	11	160	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	3&4-Methylphenol	28	28	J	16	160	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	410	650	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	11	650	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	27	330	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	8.9	160	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	7.6	160	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	9.8	650	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	9.7	160	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	9.1	650	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	6.5	650	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthene	--	U	U	0.99	6.6	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	--	U	U	1.2	6.6	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	4.9	330	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Anthracene	5.6	5.6	J	1.3	6.6	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	10	330	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	--	U	U	13	330	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	48	48	--	1.3	6.6	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	64	64	--	2.1	6.6	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	83	83	--	1.9	6.6	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	56	56	--	2.6	6.6	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	44	44	--	1.4	6.6	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	10	160	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	10	160	µg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
1	05-Feb-15	Aroclor-1254	11097-69-1	0.014	c	All	14	2.214285714	--	0	2015	27	Z10
1	05-Feb-15	Aroclor-1260	11096-82-5	0.88	c	All	880	0.035227273	--	0	2015	27	Z10
1	05-Feb-15	PCBs (sum) (Wildlife Based)	1336-36-3	0.33	d	All	330	0	--	0	2015	27	Z10
1	05-Feb-15	1,1'-Biphenyl	92-52-4	0.2	d	All	200	0.0245	--	0	2015	27	Z10
1	05-Feb-15	2,4,5-Trichlorophenol	95-95-4	0.03	d	All	30	0.273333333	--	0	2015	27	Z10
1	05-Feb-15	2,4,6-Trichlorophenol	88-06-2	0.09	d	All	90	0.061111111	--	0	2015	27	Z10
1	05-Feb-15	Dichlorophenols ,3-), (2,4-), (2,5-), (2,6-)	120-83-2	0.05	d	All	50	0.192	--	0	2015	27	Z10
1	05-Feb-15	2,4-Dimethylphenol	105-67-9	0.04	d	SI	40	1.325	--	0	2015	27	Z10
1	05-Feb-15	2,4-Dinitrophenol	51-28-5	0.15	d	All	150	0.2	--	0	2015	27	Z10
1	05-Feb-15	2,4-Dinitrotoluene	121-14-2	6	c	SI, M, P	6000	0.001833333	--	0	2015	27	Z10
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	27	Z10
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	27	Z10
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	27	Z10
1	05-Feb-15	2-Methylnaphthalene	91-57-6	--	--	All, total	29000	9.31034E-05	0.000282759	1	2015	27	Z10
1	05-Feb-15	2-Methylphenol (Cresol, o-)	95-48-7	0.1	d	All	100	0.13	--	0	2015	27	Z10
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	27	Z10
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	27	Z10
1	05-Feb-15	4-Methylphenol (Cresol, p-)	106-44-5	0.08	d	All	80	0.2	0.35	1	2015	27	Z10
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	27	Z10
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	27	Z10
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	27	Z10
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	27	Z10
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	27	Z10
1	05-Feb-15	4-Chloroaniline	106-47-8	1.0	c	P, SI	1000	0.0098	--	0	2015	27	Z10
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	27	Z10
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	27	Z10
1	05-Feb-15	4-Nitrophenol	100-02-7	7	b	SI	7000	0.000928571	--	0	2015	27	Z10
1	05-Feb-15	Acenaphthene	83-32-9	--	--	All, total	29000	3.41379E-05	--	0	2015	27	Z10
1	05-Feb-15	Acenaphthylene	208-96-8	--	--	--	29000	4.13793E-05	--	0	2015	27	Z10
1	05-Feb-15	Acetophenone	--	--	--	--	--	--	--	0	2015	27	Z10
1	05-Feb-15	Anthracene	120-12-7	--	--	--	29000	4.48276E-05	0.000193103	1	2015	27	Z10
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	27	Z10
1	05-Feb-15	Benzaldehyde	--	--	--	--	--	--	--	0	2015	27	Z10
1	05-Feb-15	Benzo(a)anthracene	56-55-3	--	--	--	1100	0.001181818	0.043636364	1	2015	27	Z10
1	05-Feb-15	Benzo(a)pyrene	50-32-8	--	--	--	1100	0.001909091	0.058181818	1	2015	27	Z10
1	05-Feb-15	Benzo(b)fluoranthene	205-99-2	--	--	--	1100	0.001727273	0.075454545	1	2015	27	Z10
1	05-Feb-15	Benzo(ghi)perylene	191-24-2	--	--	--	1100	0.002363636	0.050909091	1	2015	27	Z10
1	05-Feb-15	Benzo(k)fluoranthene	207-08-9	--	--	--	1100	0.001272727	0.04	1	2015	27	Z10
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	27	Z10
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	27	Z10

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	14	160	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	--	U	U	11	330	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	--	U	U	12	160	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	14	330	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Carbazole	--	U	U	9.8	160	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Chrysene	46	46	--	1.6	6.6	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	11	11	--	2.5	6.6	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	--	U	U	10	160	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	10	330	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	11	330	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U	4.8	330	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	11	160	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluoranthene	81	81	--	2.3	6.6	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluorene	--	U	U	2.2	6.6	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	9.2	160	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	11	160	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	10	330	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	15	160	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	583	--	--	--	--	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	68	68	--	2.2	6.6	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	11	160	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Naphthalene	11	11	--	2.4	6.6	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	13	160	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	13	160	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	59	160	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	6.4	330	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenanthrene	67	67	--	1.3	6.6	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	11	160	µg/Kg-dry
ISM-27-Z10	1502016-12	26-Jan-15	Soil	Semi-Volatile Organic Compounds	Pyrene	82	82	--	2.2	6.6	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Mercury by CVAA	Mercury	0.11	0.11	--	0.0008	0.013	mg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Metals by ICP-MS	Aluminum	6,500	6,500	--	1	3	mg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Metals by ICP-MS	Antimony	6.8	6.8	--	0.4	1.5	mg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Metals by ICP-MS	Arsenic	10	10	--	0.31	1.5	mg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Metals by ICP-MS	Barium	200	200	--	0.018	1.5	mg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Metals by ICP-MS	Beryllium	0.48	0.48	J	0.16	0.6	mg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Metals by ICP-MS	Cadmium	5.2	5.2	--	0.06	0.6	mg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Metals by ICP-MS	Chromium	30	30	--	0.34	1.5	mg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Metals by ICP-MS	Cobalt	8.5	8.5	--	0.18	1.5	mg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Metals by ICP-MS	Copper	330	330	--	0.17	1.5	mg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Metals by ICP-MS	Iron	33,000	33,000	--	4.4	24	mg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Metals by ICP-MS	Lead	380	380	--	0.16	1.5	mg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	27	Z10
1	05-Feb-15	Bis(2-ethylhexyl) phthalate	117-81-7	0.02	c	All	20	0.55	--	0	2015	27	Z10
1	05-Feb-15	Butylbenzyl phthalate	85-68-7	0.59	d	All	590	0.020338983	--	0	2015	27	Z10
1	05-Feb-15	Caprolactam	--	--	--	--	--	--	--	0	2015	27	Z10
1	05-Feb-15	Carbazole	86-74-8	0.16	d	All	160	0.06125	--	0	2015	27	Z10
1	05-Feb-15	Chrysene	218-01-9	--	--	--	1100	0.001454545	0.041818182	1	2015	27	Z10
1	05-Feb-15	Dibenzo(a,h)anthracene	53-70-3	--	--	--	1100	0.002272727	0.01	1	2015	27	Z10
1	05-Feb-15	Dibenzofuran	132-64-9	0.15	d	All	150	0.066666667	--	0	2015	27	Z10
1	05-Feb-15	Diethylphthalate	84-66-2	0.23	d	All	230	0.043478261	--	0	2015	27	Z10
1	05-Feb-15	Dimethylphthalate	131-11-3	0.35	d	All	350	0.031428571	--	0	2015	27	Z10
1	05-Feb-15	Di-n-butyl phthalate	84-74-2	0.011	c	All	11	0.436363636	--	0	2015	27	Z10
1	05-Feb-15	Di-n-octyl phthalate	117-84-0	0.21	c	All	210	0.052380952	--	0	2015	27	Z10
1	05-Feb-15	Fluoranthene	206-44-0	--	--	--	1100	0.002090909	0.073636364	1	2015	27	Z10
1	05-Feb-15	Fluorene	86-73-7	--	--	All, total	29000	7.58621E-05	--	0	2015	27	Z10
1	05-Feb-15	Hexachlorobenzene	118-74-1	0.079	c	All	79	0.116455696	--	0	2015	27	Z10
1	05-Feb-15	Hexachlorobutadiene	87-68-3	0.1	d	SI	100	0.11	--	0	2015	27	Z10
1	05-Feb-15	Hexachlorocyclopentadiene	77-47-4	0.001	d	All	1	10	--	0	2015	27	Z10
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	27	Z10
--	5-Feb-15	High Molecular Weight PAHs	--	--	--	--	1100	--	0.53	1	2015	27	Z10
1	05-Feb-15	Indeno(1,2,3-cd)pyrene	193-39-5	--	--	--	1100	0.002	0.061818182	1	2015	27	Z10
1	05-Feb-15	Isophorone	--	--	--	--	--	--	--	0	2015	27	Z10
1	05-Feb-15	Naphthalene	91-20-3	--	--	All, total	29000	8.27586E-05	0.00037931	1	2015	27	Z10
1	05-Feb-15	Nitrobenzene	98-95-3	2.2	c	SI, M	2200	0.005909091	--	0	2015	27	Z10
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	27	Z10
1	05-Feb-15	N-Nitrosodiphenylamine	86-30-6	0.12	d	All	120	0.491666667	--	0	2015	27	Z10
1	05-Feb-15	Pentachlorophenol (PCP)	87-86-5	2.1	a	All	2100	0.003047619	--	0	2015	27	Z10
1	05-Feb-15	Phenanthrene	67580	--	--	--	29000	4.48276E-05	0.002310345	1	2015	27	Z10
1	05-Feb-15	Phenol	108-95-2	0.79	c	All	790	0.013924051	--	0	2015	27	Z10
1	05-Feb-15	Pyrene	129-00-0	--	--	--	1100	0.002	0.074545455	1	2015	27	Z10
1	04-Feb-15	Mercury (total)	7439-97-6	0.1	b	All	100	0.008	1.1	1	2015	28	Z4
4	03-Feb-15	Aluminum	7429-90-5	--	a	All	--	--	--	1	2015	28	Z4
4	03-Feb-15	Antimony	7440-36-0	0.27	a	All	0.27	1.481481481	25.18518519	1	2015	28	Z4
4	03-Feb-15	Arsenic	7440-38-2	18	a	All	18000	0.017222222	0.555555556	1	2015	28	Z4
4	03-Feb-15	Barium	7440-39-3	330	a	All	330000	5.45455E-05	0.606060606	1	2015	28	Z4
4	03-Feb-15	Beryllium	7440-41-7	10	b	All	10000	0.016	0.048	1	2015	28	Z4
4	03-Feb-15	Cadmium	7440-43-9	0.36	a	All	360	0.166666667	14.44444444	1	2015	28	Z4
4	03-Feb-15	Chromium III	16065-83-1	18	a	All	18000	0.018888889	1.666666667	1	2015	28	Z4
4	03-Feb-15	Cobalt	7440-48-4	13	a	All	13000	0.013846154	0.653846154	1	2015	28	Z4
4	03-Feb-15	Copper	7440-50-8	28	a	All	28000	0.006071429	11.78571429	1	2015	28	Z4
4	03-Feb-15	Iron	7439-89-6	--	a	All	--	--	--	1	2015	28	Z4
4	03-Feb-15	Lead	7439-92-1	11	a	All	11000	0.014545455	34.54545455	1	2015	28	Z4

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Metals by ICP-MS	Manganese	390	390	--	0.24	1.5	mg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Metals by ICP-MS	Nickel	56	56	--	0.81	1.5	mg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Metals by ICP-MS	Selenium	0.98	0.98	J	0.31	1.5	mg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Metals by ICP-MS	Silver	1.3	1.3	J	0.006	1.5	mg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Metals by ICP-MS	Thallium	--	U	U	0.16	1.5	mg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Metals by ICP-MS	Vanadium	16	16	--	0.25	1.5	mg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Metals by ICP-MS	Zinc	970	970	--	11	30	mg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Moisture	Moisture	0.31	0.31	--	0.025	0.05	% of sample
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Moisture	Moisture	22.3	22.3	--	0.025	0.05	% of sample
ISM-28-Z4	1502011-01	30-Jan-15	Soil	PCBs	Aroclor 1016	--	U	U	25	79	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	PCBs	Aroclor 1221	--	U	U	25	79	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	PCBs	Aroclor 1232	--	U	U	25	79	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	PCBs	Aroclor 1242	--	U	U	25	79	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	PCBs	Aroclor 1248	--	U	U	25	79	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	PCBs	Aroclor 1254	--	U	U	30	79	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	PCBs	Aroclor 1260	470	470	--	30	79	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	PCBs	PCBs, Total	470	470	--	--	--	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	1,1'-Biphenyl	--	U	U	4.8	320	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	8.1	160	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	5.5	160	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	9.4	160	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	52	320	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	29	640	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	10	160	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	17	160	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	1.5	6.5	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	9.8	160	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	39	39	--	2.7	6.5	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	13	160	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	13	640	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	11	160	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	3&4-Methylphenol	--	U	U	16	160	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	400	640	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	11	640	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	27	320	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	8.8	160	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	7.5	160	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	9.7	640	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	9.5	160	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	9	640	µg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
4	03-Feb-15	Manganese	7439-96-5	220	a	All	220000	0.001090909	1.772727273	1	2015	28	Z4
4	03-Feb-15	Nickel	7440-02-0	38	a	All	38000	0.021315789	1.473684211	1	2015	28	Z4
4	03-Feb-15	Selenium	7782-49-2	0.52	a	All	520	0.596153846	1.884615385	1	2015	28	Z4
4	03-Feb-15	Silver	7440-22-4	4.2	a	All	4200	0.001428571	0.30952381	1	2015	28	Z4
4	03-Feb-15	Thallium	7440-28-0	0.22	c	All	220	0.727272727	--	0	2015	28	Z4
4	03-Feb-15	Vanadium	7440-62-2	7.8	a	All	7800	0.032051282	2.051282051	1	2015	28	Z4
40	03-Feb-15	Zinc	7440-66-6	46	a	All	46000	0.239130435	21.08695652	1	2015	28	Z4
1	05-Feb-15	--	--	--	--	--	--	--	--	--	2015	28	Z4
1	30-Jan-15	--	--	--	--	--	--	--	--	--	2015	28	Z4
1	05-Feb-15	Aroclor-1016	12674-11-2	1	c	All	1000	0.025	--	0	2015	28	Z4
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	28	Z4
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	28	Z4
1	05-Feb-15	Aroclor-1242	53469-21-9	0.041	c	All	41	0.609756098	--	0	2015	28	Z4
1	05-Feb-15	Aroclor-1248	12672-29-6	0.0072	c	All	7.2	3.472222222	--	0	2015	28	Z4
1	05-Feb-15	Aroclor-1254	11097-69-1	0.014	c	All	14	2.142857143	--	0	2015	28	Z4
1	05-Feb-15	Aroclor-1260	11096-82-5	0.88	c	All	880	0.034090909	0.534090909	1	2015	28	Z4
1	05-Feb-15	PCBs (sum) (Wildlife Based)	1336-36-3	0.33	d	All	330	0	1.424242424	1	2015	28	Z4
1	06-Feb-15	1,1'-Biphenyl	92-52-4	0.2	d	All	200	0.024	--	0	2015	28	Z4
1	06-Feb-15	2,4,5-Trichlorophenol	95-95-4	0.03	d	All	30	0.27	--	0	2015	28	Z4
1	06-Feb-15	2,4,6-Trichlorophenol	88-06-2	0.09	d	All	90	0.061111111	--	0	2015	28	Z4
1	06-Feb-15	Dichlorophenols ,3-), (2,4-), (2,5-), (2,6-)	120-83-2	0.05	d	All	50	0.188	--	0	2015	28	Z4
1	06-Feb-15	2,4-Dimethylphenol	105-67-9	0.04	d	SI	40	1.3	--	0	2015	28	Z4
1	06-Feb-15	2,4-Dinitrophenol	51-28-5	0.15	d	All	150	0.193333333	--	0	2015	28	Z4
1	06-Feb-15	2,4-Dinitrotoluene	121-14-2	6	c	SI, M, P	6000	0.001666667	--	0	2015	28	Z4
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	28	Z4
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	28	Z4
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	28	Z4
1	06-Feb-15	2-Methylnaphthalene	91-57-6	--	--	All, total	29000	9.31034E-05	0.001344828	1	2015	28	Z4
1	06-Feb-15	2-Methylphenol (Cresol, o-)	95-48-7	0.1	d	All	100	0.13	--	0	2015	28	Z4
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	28	Z4
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	28	Z4
1	06-Feb-15	4-Methylphenol (Cresol, p-)	106-44-5	0.08	d	All	80	0.2	--	0	2015	28	Z4
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	28	Z4
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	28	Z4
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	28	Z4
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	28	Z4
1	06-Feb-15	4-Chloroaniline	106-47-8	1.0	c	P, SI	1000	0.0097	--	0	2015	28	Z4
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	28	Z4
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	28	Z4

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	6.4	640	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthene	12	12	--	0.97	6.5	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	86	86	--	1.2	6.5	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	4.9	320	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Anthracene	130	130	--	1.3	6.5	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	9.8	320	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	--	U	U	12	320	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	580	580	--	1.3	6.5	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	610	610	--	2.1	6.5	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	910	910	--	1.9	6.5	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	560	560	--	2.6	6.5	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	330	330	--	1.4	6.5	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	10	160	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	10	160	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	14	160	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	590	590	--	11	320	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	850	850	--	12	160	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	14	320	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Carbazole	48	48	J	9.7	160	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Chrysene	690	690	--	1.5	6.5	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	180	180	--	2.4	6.5	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	45	45	J	10	160	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	10	320	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	11	320	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	66	66	J	4.7	320	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	11	160	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluoranthene	780	780	--	2.3	6.5	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluorene	27	27	--	2.2	6.5	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	9.1	160	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	11	160	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	10	320	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	15	160	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	5830	--	--	--	--	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	590	590	--	2.2	6.5	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	11	160	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Naphthalene	110	110	--	2.4	6.5	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	13	160	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	12	160	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	58	160	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	6.3	320	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenanthrene	450	450	--	1.3	6.5	µg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
1	06-Feb-15	4-Nitrophenol	100-02-7	7	b	SI	7000	0.000914286	--	0	2015	28	Z4
1	06-Feb-15	Acenaphthene	83-32-9	--	--	All, total	29000	3.34483E-05	0.000413793	1	2015	28	Z4
1	06-Feb-15	Acenaphthylene	208-96-8	--	--	--	29000	4.13793E-05	0.002965517	1	2015	28	Z4
1	06-Feb-15	Acetophenone	--	--	--	--	--	--	--	0	2015	28	Z4
1	06-Feb-15	Anthracene	120-12-7	--	--	--	29000	4.48276E-05	0.004482759	1	2015	28	Z4
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	28	Z4
1	06-Feb-15	Benzaldehyde	--	--	--	--	--	--	--	0	2015	28	Z4
1	06-Feb-15	Benzo(a)anthracene	56-55-3	--	--	--	1100	0.001181818	0.527272727	1	2015	28	Z4
1	06-Feb-15	Benzo(a)pyrene	50-32-8	--	--	--	1100	0.001909091	0.554545455	1	2015	28	Z4
1	06-Feb-15	Benzo(b)fluoranthene	205-99-2	--	--	--	1100	0.001727273	0.827272727	1	2015	28	Z4
1	06-Feb-15	Benzo(ghi)perylene	191-24-2	--	--	--	1100	0.002363636	0.509090909	1	2015	28	Z4
1	06-Feb-15	Benzo(k)fluoranthene	207-08-9	--	--	--	1100	0.001272727	0.3	1	2015	28	Z4
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	28	Z4
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	28	Z4
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	28	Z4
1	06-Feb-15	Bis(2-ethylhexyl) phthalate	117-81-7	0.02	c	All	20	0.55	29.5	1	2015	28	Z4
1	06-Feb-15	Butylbenzyl phthalate	85-68-7	0.59	d	All	590	0.020338983	1.440677966	1	2015	28	Z4
1	06-Feb-15	Caprolactam	--	--	--	--	--	--	--	0	2015	28	Z4
1	06-Feb-15	Carbazole	86-74-8	0.16	d	All	160	0.060625	0.3	1	2015	28	Z4
1	06-Feb-15	Chrysene	218-01-9	--	--	--	1100	0.001363636	0.627272727	1	2015	28	Z4
1	06-Feb-15	Dibenzo(a,h)anthracene	53-70-3	--	--	--	1100	0.002181818	0.163636364	1	2015	28	Z4
1	06-Feb-15	Dibenzofuran	132-64-9	0.15	d	All	150	0.066666667	0.3	1	2015	28	Z4
1	06-Feb-15	Diethylphthalate	84-66-2	0.23	d	All	230	0.043478261	--	0	2015	28	Z4
1	06-Feb-15	Dimethylphthalate	131-11-3	0.35	d	All	350	0.031428571	--	0	2015	28	Z4
1	06-Feb-15	Di-n-butyl phthalate	84-74-2	0.011	c	All	11	0.427272727	6	1	2015	28	Z4
1	06-Feb-15	Di-n-octyl phthalate	117-84-0	0.21	c	All	210	0.052380952	--	0	2015	28	Z4
1	06-Feb-15	Fluoranthene	206-44-0	--	--	--	1100	0.002090909	0.709090909	1	2015	28	Z4
1	06-Feb-15	Fluorene	86-73-7	--	--	All, total	29000	7.58621E-05	0.000931034	1	2015	28	Z4
1	06-Feb-15	Hexachlorobenzene	118-74-1	0.079	c	All	79	0.115189873	--	0	2015	28	Z4
1	06-Feb-15	Hexachlorobutadiene	87-68-3	0.1	d	SI	100	0.11	--	0	2015	28	Z4
1	06-Feb-15	Hexachlorocyclopentadiene	77-47-4	0.001	d	All	1	10	--	0	2015	28	Z4
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	28	Z4
--	6-Feb-15	High Molecular Weight PAHs	--	--	--	--	1100	--	5.3	1	2015	28	Z4
1	06-Feb-15	Indeno(1,2,3-cd)pyrene	193-39-5	--	--	--	1100	0.002	0.536363636	1	2015	28	Z4
1	06-Feb-15	Isophorone	--	--	--	--	--	--	--	0	2015	28	Z4
1	06-Feb-15	Naphthalene	91-20-3	--	--	All, total	29000	8.27586E-05	0.003793103	1	2015	28	Z4
1	06-Feb-15	Nitrobenzene	98-95-3	2.2	c	SI, M	2200	0.005909091	--	0	2015	28	Z4
1	06-Feb-15	--	--	--	--	--	--	--	--	0	2015	28	Z4
1	06-Feb-15	N-Nitrosodiphenylamine	86-30-6	0.12	d	All	120	0.483333333	--	0	2015	28	Z4
1	06-Feb-15	Pentachlorophenol (PCP)	87-86-5	2.1	a	All	2100	0.003	--	0	2015	28	Z4
1	06-Feb-15	Phenanthrene	67580	--	--	--	29000	4.48276E-05	0.015517241	1	2015	28	Z4

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	11	160	µg/Kg-dry
ISM-28-Z4	1502011-01	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Pyrene	600	600	--	2.2	6.5	µg/Kg-dry
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	1,1,1-Trichloroethane	--	U	U	11	39	µg/Kg-dry
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	1,1,2,2-Tetrachloroethane	--	U	U	9.3	39	µg/Kg-dry
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	1,1,2-Trichloroethane	--	U	U	12	39	µg/Kg-dry
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	1,1,2-Trichlorotrifluoroethane	--	U	U	8.7	39	µg/Kg-dry
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	1,1-Dichloroethane	--	U	U	9.8	39	µg/Kg-dry
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	1,1-Dichloroethene	--	U	U	10	39	µg/Kg-dry
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	1,2,4-Trichlorobenzene	--	U	U	28	39	µg/Kg-dry
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	1,2-Dibromo-3-chloropropane	--	U	U	16	39	µg/Kg-dry
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	1,2-Dibromoethane	--	U	U	13	39	µg/Kg-dry
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	1,2-Dichlorobenzene	--	U	U	11	39	µg/Kg-dry
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	1,2-Dichloroethane	--	U	U	11	39	µg/Kg-dry
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	1,2-Dichloropropane	--	U	U	11	39	µg/Kg-dry
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	1,3-Dichlorobenzene	--	U	U	12	39	µg/Kg-dry
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	1,4-Dichlorobenzene	--	U	U	10	39	µg/Kg-dry
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	2-Butanone	--	U	U	52	260	µg/Kg-dry
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	2-Hexanone	--	U	U	26	39	µg/Kg-dry
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	4-Methyl-2-pentanone	--	U	U	28	39	µg/Kg-dry
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	Acetone	--	U	U	70	130	µg/Kg-dry
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	Benzene	--	U	U	8.7	39	µg/Kg-dry
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	Bromodichloromethane	--	U	U	10	39	µg/Kg-dry
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	Bromoform	--	U	U	14	39	µg/Kg-dry
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	Bromomethane	--	U	U	17	97	µg/Kg-dry
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	Carbon disulfide	--	U	U	13	39	µg/Kg-dry
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	Carbon tetrachloride	--	U	U	6.8	39	µg/Kg-dry
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	Chlorobenzene	--	U	U	12	39	µg/Kg-dry
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	Chloroethane	--	U	U	25	130	µg/Kg-dry
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	Chloroform	--	U	U	13	39	µg/Kg-dry
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	Chloromethane	--	U	U	16	130	µg/Kg-dry
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	cis-1,2-Dichloroethene	--	U	U	11	39	µg/Kg-dry
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	cis-1,3-Dichloropropene	--	U	U	15	39	µg/Kg-dry
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	Cyclohexane	--	U	U	19	39	µg/Kg-dry
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	Dibromochloromethane	--	U	U	8.8	39	µg/Kg-dry
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	Dichlorodifluoromethane	--	U	U	17	39	µg/Kg-dry
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	Ethylbenzene	--	U	U	9	39	µg/Kg-dry
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	Isopropylbenzene	--	U	U	15	39	µg/Kg-dry
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	Methyl acetate	--	U	U	79	260	µg/Kg-dry
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	Methyl tert-butyl ether	--	U	U	13	39	µg/Kg-dry
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	Methylcyclohexane	--	U	U	17	39	µg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
1	06-Feb-15	Phenol	108-95-2	0.79	c	All	790	0.013924051	--	0	2015	28	Z4
1	06-Feb-15	Pyrene	129-00-0	--	--	--	1100	0.002	0.545454545	1	2015	28	Z4
1	03-Feb-15	--	--	--	--	--	--	--	--	0	2015	28	Z4
1	03-Feb-15	--	--	--	--	--	--	--	--	0	2015	28	Z4
1	03-Feb-15	--	--	--	--	--	--	--	--	0	2015	28	Z4
1	03-Feb-15	--	--	--	--	--	--	--	--	0	2015	28	Z4
1	03-Feb-15	--	--	--	--	--	--	--	--	0	2015	28	Z4
1	03-Feb-15	--	--	--	--	--	--	--	--	0	2015	28	Z4
1	03-Feb-15	--	--	--	--	--	--	--	--	0	2015	28	Z4
1	03-Feb-15	--	--	--	--	--	--	--	--	0	2015	28	Z4
1	03-Feb-15	--	--	--	--	--	--	--	--	0	2015	28	Z4
1	03-Feb-15	1,2-Dichlorobenzene	95-50-1	0.09	d	All	90	0.122222222	--	0	2015	28	Z4
1	03-Feb-15	--	--	--	--	--	--	--	--	0	2015	28	Z4
1	03-Feb-15	--	--	--	--	--	--	--	--	0	2015	28	Z4
1	03-Feb-15	1,3-Dichlorobenzene	99-65-0	0.08	d	All	80	0.15	--	0	2015	28	Z4
1	03-Feb-15	1,4-Dichlorobenzene	106-46-7	0.88	c	SI, M	880	0.011363636	--	0	2015	28	Z4
1	03-Feb-15	2-Butanone (Methyl Ethyl Ketone)	78-93-3	1.0	d	All	1000	0.052	--	0	2015	28	Z4
1	03-Feb-15	--	--	--	--	--	--	--	--	0	2015	28	Z4
1	03-Feb-15	--	--	--	--	--	--	--	--	0	2015	28	Z4
1	03-Feb-15	Acetone	67-64-1	1.2	c	M, A	1200	0.058333333	--	0	2015	28	Z4
1	03-Feb-15	Benzene	71-43-2	0.12	d	All	120	0.0725	--	0	2015	28	Z4
1	03-Feb-15	--	--	--	--	--	--	--	--	0	2015	28	Z4
1	03-Feb-15	--	--	--	--	--	--	--	--	0	2015	28	Z4
1	03-Feb-15	--	--	--	--	--	--	--	--	0	2015	28	Z4
1	03-Feb-15	Carbon Disulfide	75-15-0	0.005	d	All	5	2.6	--	0	2015	28	Z4
1	03-Feb-15	--	--	--	--	--	--	--	--	0	2015	28	Z4
1	03-Feb-15	Chlorobenzene	108-90-7	2.4	c	All	2400	0.005	--	0	2015	28	Z4
1	03-Feb-15	--	--	--	--	--	--	--	--	0	2015	28	Z4
1	03-Feb-15	--	--	--	--	--	--	--	--	0	2015	28	Z4
1	03-Feb-15	Chloromethane	--	--	--	--	--	--	--	0	2015	28	Z4
1	03-Feb-15	1,2-Dichloroethene (cis and trans)	540-59-0	0.04	d	All	40	0.275	--	0	2015	28	Z4
1	03-Feb-15	--	--	--	--	--	--	--	--	0	2015	28	Z4
1	03-Feb-15	Cyclohexane	--	--	--	--	--	--	--	0	2015	28	Z4
1	03-Feb-15	--	--	--	--	--	--	--	--	0	2015	28	Z4
1	03-Feb-15	--	--	--	--	--	--	--	--	0	2015	28	Z4
1	03-Feb-15	Ethylbenzene	100-41-4	0.27	d	All	270	0.033333333	--	0	2015	28	Z4
1	03-Feb-15	Isopropylbenzene (Cumene)	98-82-8	0.04	d	All	40	0.375	--	0	2015	28	Z4
1	03-Feb-15	Methyl Acetate	--	--	--	--	--	--	--	0	2015	28	Z4
1	03-Feb-15	--	--	--	--	--	--	--	--	0	2015	28	Z4
1	03-Feb-15	Methylcyclohexane	--	--	--	--	--	--	--	0	2015	28	Z4

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	Methylene chloride	--	U	U	18	39	µg/Kg-dry
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	Styrene	--	U	U	27	39	µg/Kg-dry
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	Tetrachloroethene	--	U	U	19	39	µg/Kg-dry
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	Toluene	--	U	U	13	39	µg/Kg-dry
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	trans-1,2-Dichloroethene	--	U	U	11	39	µg/Kg-dry
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	trans-1,3-Dichloropropene	--	U	U	6.9	39	µg/Kg-dry
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	Trichloroethene	--	U	U	10	39	µg/Kg-dry
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	Trichlorofluoromethane	--	U	U	7.4	39	µg/Kg-dry
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	Vinyl chloride	--	U	U	12	39	µg/Kg-dry
ISM-28-Z4	1502013-04	28-Jan-15	Soil	Volatile Organic Compounds	Xylenes, Total	--	U	U	30	120	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Mercury by CVAA	Mercury	2.5	2.5	--	0.037	0.61	mg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Metals by ICP-MS	Aluminum	5,500	5,500	--	0.89	2.6	mg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Metals by ICP-MS	Antimony	3.1	3.1	--	0.34	1.3	mg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Metals by ICP-MS	Arsenic	6.8	6.8	--	0.27	1.3	mg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Metals by ICP-MS	Barium	150	150	--	0.016	1.3	mg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Metals by ICP-MS	Beryllium	0.26	0.26	J	0.14	0.52	mg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Metals by ICP-MS	Cadmium	2.6	2.6	--	0.052	0.52	mg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Metals by ICP-MS	Chromium	20	20	--	0.29	1.3	mg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Metals by ICP-MS	Cobalt	4.8	4.8	--	0.16	1.3	mg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Metals by ICP-MS	Copper	120	120	--	0.15	1.3	mg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Metals by ICP-MS	Iron	17,000	17,000	--	3.8	21	mg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Metals by ICP-MS	Lead	310	310	--	0.14	1.3	mg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Metals by ICP-MS	Manganese	240	240	--	0.21	1.3	mg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Metals by ICP-MS	Nickel	54	54	--	0.7	1.3	mg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Metals by ICP-MS	Selenium	1	1.0	J	0.27	1.3	mg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Metals by ICP-MS	Silver	0.78	0.78	J	0.0052	1.3	mg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Metals by ICP-MS	Thallium	--	U	U	0.14	1.3	mg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Metals by ICP-MS	Vanadium	13	13	--	0.21	1.3	mg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Metals by ICP-MS	Zinc	940	940	--	9.4	26	mg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Moisture	Moisture	0.28	0.28	--	0.025	0.05	% of sample
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Moisture	Moisture	22.3	22.3	--	0.025	0.05	% of sample
ISM-29-Z4	1502011-02	30-Jan-15	Soil	PCBs	Aroclor 1016	--	U	U	27	83	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	PCBs	Aroclor 1221	--	U	U	27	83	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	PCBs	Aroclor 1232	--	U	U	27	83	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	PCBs	Aroclor 1242	--	U	U	27	83	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	PCBs	Aroclor 1248	--	U	U	27	83	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	PCBs	Aroclor 1254	490	490	--	31	83	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	PCBs	Aroclor 1260	--	U	U	31	83	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	PCBs	PCBs, Total	490	490	--	--	--	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	1,1'-Biphenyl	--	U	U	54	330	µg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
1	03-Feb-15	Dichloromethane (Methylene chloride)	75-09-2	0.21	d	All	210	0.085714286	--	0	2015	28	Z4
1	03-Feb-15	--	--	--	--	--	--	--	--	0	2015	28	Z4
1	03-Feb-15	Tetrachloroethene	127-18-4	0.06	d	All	60	0.316666667	--	0	2015	28	Z4
1	03-Feb-15	Toluene	108-88-3	0.15	d	All	150	0.086666667	--	0	2015	28	Z4
1	03-Feb-15	--	--	--	--	--	--	--	--	0	2015	28	Z4
1	03-Feb-15	--	--	--	--	--	--	--	--	0	2015	28	Z4
1	03-Feb-15	--	--	--	--	--	--	--	--	0	2015	28	Z4
1	03-Feb-15	--	--	--	--	--	--	--	--	0	2015	28	Z4
1	03-Feb-15	--	--	--	--	--	--	--	--	0	2015	28	Z4
1	03-Feb-15	Xylenes (total)	1330-20-7	0.1	d	All	100	0.3	--	0	2015	28	Z4
50	05-Feb-15	Mercury (total)	7439-97-6	0.1	b	All	100	0.37	25	1	2015	29	Z4
4	03-Feb-15	Aluminum	7429-90-5	--	a	All	--	--	--	1	2015	29	Z4
4	03-Feb-15	Antimony	7440-36-0	0.27	a	All	0.27	1.259259259	11.48148148	1	2015	29	Z4
4	03-Feb-15	Arsenic	7440-38-2	18	a	All	18000	0.015	0.377777778	1	2015	29	Z4
4	03-Feb-15	Barium	7440-39-3	330	a	All	330000	4.84848E-05	0.454545455	1	2015	29	Z4
4	03-Feb-15	Beryllium	7440-41-7	10	b	All	10000	0.014	0.026	1	2015	29	Z4
4	03-Feb-15	Cadmium	7440-43-9	0.36	a	All	360	0.144444444	7.222222222	1	2015	29	Z4
4	03-Feb-15	Chromium III	16065-83-1	18	a	All	18000	0.016111111	1.111111111	1	2015	29	Z4
4	03-Feb-15	Cobalt	7440-48-4	13	a	All	13000	0.012307692	0.369230769	1	2015	29	Z4
4	03-Feb-15	Copper	7440-50-8	28	a	All	28000	0.005357143	4.285714286	1	2015	29	Z4
4	03-Feb-15	Iron	7439-89-6	--	a	All	--	--	--	1	2015	29	Z4
4	03-Feb-15	Lead	7439-92-1	11	a	All	11000	0.012727273	28.18181818	1	2015	29	Z4
4	03-Feb-15	Manganese	7439-96-5	220	a	All	220000	0.000954545	1.090909091	1	2015	29	Z4
4	03-Feb-15	Nickel	7440-02-0	38	a	All	38000	0.018421053	1.421052632	1	2015	29	Z4
4	03-Feb-15	Selenium	7782-49-2	0.52	a	All	520	0.519230769	1.923076923	1	2015	29	Z4
4	03-Feb-15	Silver	7440-22-4	4.2	a	All	4200	0.001238095	0.185714286	1	2015	29	Z4
4	03-Feb-15	Thallium	7440-28-0	0.22	c	All	220	0.636363636	--	0	2015	29	Z4
4	03-Feb-15	Vanadium	7440-62-2	7.8	a	All	7800	0.026923077	1.666666667	1	2015	29	Z4
40	03-Feb-15	Zinc	7440-66-6	46	a	All	46000	0.204347826	20.43478261	1	2015	29	Z4
1	05-Feb-15	--	--	--	--	--	--	--	--	--	2015	29	Z4
1	30-Jan-15	--	--	--	--	--	--	--	--	--	2015	29	Z4
1	05-Feb-15	Aroclor-1016	12674-11-2	1	c	All	1000	0.027	--	0	2015	29	Z4
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	29	Z4
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	29	Z4
1	05-Feb-15	Aroclor-1242	53469-21-9	0.041	c	All	41	0.658536585	--	0	2015	29	Z4
1	05-Feb-15	Aroclor-1248	12672-29-6	0.0072	c	All	7.2	3.75	--	0	2015	29	Z4
1	05-Feb-15	Aroclor-1254	11097-69-1	0.014	c	All	14	2.214285714	35	1	2015	29	Z4
1	05-Feb-15	Aroclor-1260	11096-82-5	0.88	c	All	880	0.035227273	--	0	2015	29	Z4
1	05-Feb-15	PCBs (sum) (Wildlife Based)	1336-36-3	0.33	d	All	330	0	1.484848485	1	2015	29	Z4
10	09-Feb-15	1,1'-Biphenyl	92-52-4	0.2	d	All	200	0.27	--	0	2015	29	Z4

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	90	330	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	88	330	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	69	330	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	67	330	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	180	330	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	86	330	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	54	330	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	46	66	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	100	330	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	49	49	J	34	66	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	89	330	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	76	330	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	94	330	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	3&4-Methylphenol	--	U	U	66	330	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	49	1,700	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	76	330	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	83	330	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	89	330	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	94	330	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	370	370	J	52	660	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	91	330	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	510	1,700	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	560	560	--	290	330	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthene	--	U	U	48	66	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	--	U	U	57	66	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	52	330	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Anthracene	99	99	--	46	66	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	52	330	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	--	U	U	510	660	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	530	530	--	57	66	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	710	710	--	40	66	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	940	940	--	49	66	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	670	670	--	51	66	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	860	860	--	50	66	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	32	330	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	93	330	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	77	330	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	5,200	5,200	--	57	330	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	1,000	1,000	--	56	330	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Caprolactam	270	270	J	110	330	µg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
10	09-Feb-15	2,4,5-Trichlorophenol	95-95-4	0.03	d	All	30	3	--	0	2015	29	Z4
10	09-Feb-15	2,4,6-Trichlorophenol	88-06-2	0.09	d	All	90	0.977777778	--	0	2015	29	Z4
10	09-Feb-15	Dichlorophenols ,3-), (2,4-), (2,5-), (2,6-)	120-83-2	0.05	d	All	50	1.38	--	0	2015	29	Z4
10	09-Feb-15	2,4-Dimethylphenol	105-67-9	0.04	d	SI	40	1.675	--	0	2015	29	Z4
10	09-Feb-15	2,4-Dinitrophenol	51-28-5	0.15	d	All	150	1.2	--	0	2015	29	Z4
10	09-Feb-15	2,4-Dinitrotoluene	121-14-2	6	c	SI, M, P	6000	0.014333333	--	0	2015	29	Z4
10	09-Feb-15	--	--	--	--	--	--	--	--	0	2015	29	Z4
10	09-Feb-15	--	--	--	--	--	--	--	--	0	2015	29	Z4
10	09-Feb-15	--	--	--	--	--	--	--	--	0	2015	29	Z4
10	09-Feb-15	2-Methylnaphthalene	91-57-6	--	--	All, total	29000	0.001172414	0.001689655	1	2015	29	Z4
10	09-Feb-15	2-Methylphenol (Cresol, o-)	95-48-7	0.1	d	All	100	0.89	--	0	2015	29	Z4
10	09-Feb-15	--	--	--	--	--	--	--	--	0	2015	29	Z4
10	09-Feb-15	--	--	--	--	--	--	--	--	0	2015	29	Z4
10	09-Feb-15	4-Methylphenol (Cresol, p-)	106-44-5	0.08	d	All	80	0.825	--	0	2015	29	Z4
10	09-Feb-15	--	--	--	--	--	--	--	--	0	2015	29	Z4
10	09-Feb-15	--	--	--	--	--	--	--	--	0	2015	29	Z4
10	09-Feb-15	--	--	--	--	--	--	--	--	0	2015	29	Z4
10	09-Feb-15	--	--	--	--	--	--	--	--	0	2015	29	Z4
10	09-Feb-15	--	--	--	--	--	--	--	--	0	2015	29	Z4
10	09-Feb-15	4-Chloroaniline	106-47-8	1.0	c	P, SI	1000	0.052	0.37	1	2015	29	Z4
10	09-Feb-15	--	--	--	--	--	--	--	--	0	2015	29	Z4
10	09-Feb-15	--	--	--	--	--	--	--	--	0	2015	29	Z4
10	09-Feb-15	4-Nitrophenol	100-02-7	7	b	SI	7000	0.041428571	0.08	1	2015	29	Z4
10	09-Feb-15	Acenaphthene	83-32-9	--	--	All, total	29000	0.001655172	--	0	2015	29	Z4
10	09-Feb-15	Acenaphthylene	208-96-8	--	--	--	29000	0.001965517	--	0	2015	29	Z4
10	09-Feb-15	Acetophenone	--	--	--	--	--	--	--	0	2015	29	Z4
10	09-Feb-15	Anthracene	120-12-7	--	--	--	29000	0.001586207	0.003413793	1	2015	29	Z4
10	09-Feb-15	--	--	--	--	--	--	--	--	0	2015	29	Z4
10	09-Feb-15	Benzaldehyde	--	--	--	--	--	--	--	0	2015	29	Z4
10	09-Feb-15	Benzo(a)anthracene	56-55-3	--	--	--	1100	0.051818182	0.481818182	1	2015	29	Z4
10	09-Feb-15	Benzo(a)pyrene	50-32-8	--	--	--	1100	0.036363636	0.645454545	1	2015	29	Z4
10	09-Feb-15	Benzo(b)fluoranthene	205-99-2	--	--	--	1100	0.044545455	0.854545455	1	2015	29	Z4
10	09-Feb-15	Benzo(ghi)perylene	191-24-2	--	--	--	1100	0.046363636	0.609090909	1	2015	29	Z4
10	09-Feb-15	Benzo(k)fluoranthene	207-08-9	--	--	--	1100	0.045454545	0.781818182	1	2015	29	Z4
10	09-Feb-15	--	--	--	--	--	--	--	--	0	2015	29	Z4
10	09-Feb-15	--	--	--	--	--	--	--	--	0	2015	29	Z4
10	09-Feb-15	--	--	--	--	--	--	--	--	0	2015	29	Z4
10	09-Feb-15	Bis(2-ethylhexyl) phthalate	117-81-7	0.02	c	All	20	2.85	260	1	2015	29	Z4
10	09-Feb-15	Butylbenzyl phthalate	85-68-7	0.59	d	All	590	0.094915254	1.694915254	1	2015	29	Z4
10	09-Feb-15	Caprolactam	--	--	--	--	--	--	--	1	2015	29	Z4

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Carbazole	--	U	U	36	330	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Chrysene	530	530	--	53	66	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	150	150	--	36	66	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	--	U	U	48	330	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	50	330	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	64	330	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U	60	330	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	63	330	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluoranthene	670	670	--	32	66	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluorene	--	U	U	48	66	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	96	330	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	180	330	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	110	330	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	140	330	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	6620	--	--	--	--	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	780	780	--	46	66	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	64	1,700	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Naphthalene	140	140	--	42	66	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	110	1,700	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	54	330	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	32	330	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	120	200	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenanthrene	420	420	--	31	66	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	82	330	µg/Kg-dry
ISM-29-Z4	1502011-02	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Pyrene	780	780	--	12	66	µg/Kg-dry
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	1,1,1-Trichloroethane	--	U	U	11	39	µg/Kg-dry
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	1,1,2,2-Tetrachloroethane	--	U	U	9.3	39	µg/Kg-dry
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	1,1,2-Trichloroethane	--	U	U	12	39	µg/Kg-dry
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	1,1,2-Trichlorotrifluoroethane	--	U	U	8.7	39	µg/Kg-dry
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	1,1-Dichloroethane	--	U	U	9.8	39	µg/Kg-dry
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	1,1-Dichloroethene	--	U	U	10	39	µg/Kg-dry
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	1,2,4-Trichlorobenzene	--	U	U	28	39	µg/Kg-dry
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	1,2-Dibromo-3-chloropropane	--	U	U	16	39	µg/Kg-dry
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	1,2-Dibromoethane	--	U	U	13	39	µg/Kg-dry
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	1,2-Dichlorobenzene	--	U	U	11	39	µg/Kg-dry
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	1,2-Dichloroethane	--	U	U	11	39	µg/Kg-dry
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	1,2-Dichloropropane	--	U	U	11	39	µg/Kg-dry
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	1,3-Dichlorobenzene	--	U	U	12	39	µg/Kg-dry
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	1,4-Dichlorobenzene	--	U	U	10	39	µg/Kg-dry
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	2-Butanone	--	U	U	52	260	µg/Kg-dry
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	2-Hexanone	--	U	U	26	39	µg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
10	09-Feb-15	Carbazole	86-74-8	0.16	d	All	160	0.225	--	0	2015	29	Z4
10	09-Feb-15	Chrysene	218-01-9	--	--	--	1100	0.048181818	0.481818182	1	2015	29	Z4
10	09-Feb-15	Dibenzo(a,h)anthracene	53-70-3	--	--	--	1100	0.032727273	0.136363636	1	2015	29	Z4
10	09-Feb-15	Dibenzofuran	132-64-9	0.15	d	All	150	0.32	--	0	2015	29	Z4
10	09-Feb-15	Diethylphthalate	84-66-2	0.23	d	All	230	0.217391304	--	0	2015	29	Z4
10	09-Feb-15	Dimethylphthalate	131-11-3	0.35	d	All	350	0.182857143	--	0	2015	29	Z4
10	09-Feb-15	Di-n-butyl phthalate	84-74-2	0.011	c	All	11	5.454545455	--	0	2015	29	Z4
10	09-Feb-15	Di-n-octyl phthalate	117-84-0	0.21	c	All	210	0.3	--	0	2015	29	Z4
10	09-Feb-15	Fluoranthene	206-44-0	--	--	--	1100	0.029090909	0.609090909	1	2015	29	Z4
10	09-Feb-15	Fluorene	86-73-7	--	--	All, total	29000	0.001655172	--	0	2015	29	Z4
10	09-Feb-15	Hexachlorobenzene	118-74-1	0.079	c	All	79	1.215189873	--	0	2015	29	Z4
10	09-Feb-15	Hexachlorobutadiene	87-68-3	0.1	d	SI	100	1.8	--	0	2015	29	Z4
10	09-Feb-15	Hexachlorocyclopentadiene	77-47-4	0.001	d	All	1	110	--	0	2015	29	Z4
10	09-Feb-15	--	--	--	--	--	--	--	--	0	2015	29	Z4
--	9-Feb-15	High Molecular Weight PAHs	--	--	--	--	1100	--	6.018181818	1	2015	29	Z4
10	09-Feb-15	Indeno(1,2,3-cd)pyrene	193-39-5	--	--	--	1100	0.041818182	0.709090909	1	2015	29	Z4
10	09-Feb-15	Isophorone	--	--	--	--	--	--	--	0	2015	29	Z4
10	09-Feb-15	Naphthalene	91-20-3	--	--	All, total	29000	0.001448276	0.004827586	1	2015	29	Z4
10	09-Feb-15	Nitrobenzene	98-95-3	2.2	c	SI, M	2200	0.05	--	0	2015	29	Z4
10	09-Feb-15	--	--	--	--	--	--	--	--	0	2015	29	Z4
10	09-Feb-15	N-Nitrosodiphenylamine	86-30-6	0.12	d	All	120	0.266666667	--	0	2015	29	Z4
10	09-Feb-15	Pentachlorophenol (PCP)	87-86-5	2.1	a	All	2100	0.057142857	--	0	2015	29	Z4
10	09-Feb-15	Phenanthrene	67580	--	--	--	29000	0.001068966	0.014482759	1	2015	29	Z4
10	09-Feb-15	Phenol	108-95-2	0.79	c	All	790	0.103797468	--	0	2015	29	Z4
10	09-Feb-15	Pyrene	129-00-0	--	--	--	1100	0.010909091	0.709090909	1	2015	29	Z4
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	29	Z4
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	29	Z4
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	29	Z4
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	29	Z4
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	29	Z4
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	29	Z4
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	29	Z4
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	29	Z4
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	29	Z4
1	04-Feb-15	1,2-Dichlorobenzene	95-50-1	0.09	d	All	90	0.122222222	--	0	2015	29	Z4
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	29	Z4
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	29	Z4
1	04-Feb-15	1,3-Dichlorobenzene	99-65-0	0.08	d	All	80	0.15	--	0	2015	29	Z4
1	04-Feb-15	1,4-Dichlorobenzene	106-46-7	0.88	c	SI, M	880	0.011363636	--	0	2015	29	Z4
1	04-Feb-15	2-Butanone (Methyl Ethyl Ketone)	78-93-3	1.0	d	All	1000	0.052	--	0	2015	29	Z4
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	29	Z4

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	4-Methyl-2-pentanone	--	U	U	28	39	µg/Kg-dry
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	Acetone	--	U	U	70	130	µg/Kg-dry
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	Benzene	--	U	U	8.7	39	µg/Kg-dry
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	Bromodichloromethane	--	U	U	10	39	µg/Kg-dry
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	Bromoform	--	U	U	14	39	µg/Kg-dry
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	Bromomethane	--	U	U	17	97	µg/Kg-dry
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	Carbon disulfide	--	U	U	13	39	µg/Kg-dry
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	Carbon tetrachloride	--	U	U	6.8	39	µg/Kg-dry
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	Chlorobenzene	--	U	U	12	39	µg/Kg-dry
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	Chloroethane	--	U	U	25	130	µg/Kg-dry
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	Chloroform	--	U	U	13	39	µg/Kg-dry
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	Chloromethane	--	U	U	16	130	µg/Kg-dry
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	cis-1,2-Dichloroethene	--	U	U	11	39	µg/Kg-dry
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	cis-1,3-Dichloropropene	--	U	U	15	39	µg/Kg-dry
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	Cyclohexane	--	U	U	19	39	µg/Kg-dry
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	Dibromochloromethane	--	U	U	8.8	39	µg/Kg-dry
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	Dichlorodifluoromethane	--	U	U	17	39	µg/Kg-dry
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	Ethylbenzene	--	U	U	9	39	µg/Kg-dry
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	Isopropylbenzene	--	U	U	15	39	µg/Kg-dry
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	Methyl acetate	--	U	U	79	260	µg/Kg-dry
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	Methyl tert-butyl ether	--	U	U	13	39	µg/Kg-dry
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	Methylcyclohexane	--	U	U	17	39	µg/Kg-dry
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	Methylene chloride	--	U	U	18	39	µg/Kg-dry
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	Styrene	--	U	U	27	39	µg/Kg-dry
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	Tetrachloroethene	--	U	U	19	39	µg/Kg-dry
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	Toluene	--	U	U	13	39	µg/Kg-dry
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	trans-1,2-Dichloroethene	--	U	U	11	39	µg/Kg-dry
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	trans-1,3-Dichloropropene	--	U	U	6.9	39	µg/Kg-dry
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	Trichloroethene	--	U	U	10	39	µg/Kg-dry
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	Trichlorofluoromethane	--	U	U	7.4	39	µg/Kg-dry
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	Vinyl chloride	--	U	U	12	39	µg/Kg-dry
ISM-29-Z4	1502014-01	29-Jan-15	Soil	Volatile Organic Compounds	Xylenes, Total	--	U	U	30	120	µg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Mercury by CVAA	Mercury	0.035	0.035	--	0.00089	0.015	mg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Metals by ICP-MS	Aluminum	2,900	2,900	--	1	2.9	mg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Metals by ICP-MS	Antimony	2.1	2.1	--	0.38	1.5	mg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Metals by ICP-MS	Arsenic	3.7	3.7	--	0.3	0.58	mg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Metals by ICP-MS	Barium	59	59	--	0.017	1.5	mg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Metals by ICP-MS	Beryllium	--	U	U	0.15	0.58	mg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Metals by ICP-MS	Cadmium	1.9	1.9	--	0.058	0.58	mg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Metals by ICP-MS	Chromium	9.1	9.1	--	0.33	1.5	mg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	29	Z4
1	04-Feb-15	Acetone	67-64-1	1.2	c	M, A	1200	0.058333333	--	0	2015	29	Z4
1	04-Feb-15	Benzene	71-43-2	0.12	d	All	120	0.0725	--	0	2015	29	Z4
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	29	Z4
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	29	Z4
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	29	Z4
1	04-Feb-15	Carbon Disulfide	75-15-0	0.005	d	All	5	2.6	--	0	2015	29	Z4
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	29	Z4
1	04-Feb-15	Chlorobenzene	108-90-7	2.4	c	All	2400	0.005	--	0	2015	29	Z4
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	29	Z4
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	29	Z4
1	04-Feb-15	Chloromethane	--	--	--	--	--	--	--	0	2015	29	Z4
1	04-Feb-15	1,2-Dichloroethene (cis and trans)	540-59-0	0.04	d	All	40	0.275	--	0	2015	29	Z4
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	29	Z4
1	04-Feb-15	Cyclohexane	--	--	--	--	--	--	--	0	2015	29	Z4
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	29	Z4
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	29	Z4
1	04-Feb-15	Ethylbenzene	100-41-4	0.27	d	All	270	0.033333333	--	0	2015	29	Z4
1	04-Feb-15	Isopropylbenzene (Cumene)	98-82-8	0.04	d	All	40	0.375	--	0	2015	29	Z4
1	04-Feb-15	Methyl Acetate	--	--	--	--	--	--	--	0	2015	29	Z4
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	29	Z4
1	04-Feb-15	Methylcyclohexane	--	--	--	--	--	--	--	0	2015	29	Z4
1	04-Feb-15	Dichloromethane (Methylene chloride)	75-09-2	0.21	d	All	210	0.085714286	--	0	2015	29	Z4
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	29	Z4
1	04-Feb-15	Tetrachloroethene	127-18-4	0.06	d	All	60	0.316666667	--	0	2015	29	Z4
1	04-Feb-15	Toluene	108-88-3	0.15	d	All	150	0.086666667	--	0	2015	29	Z4
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	29	Z4
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	29	Z4
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	29	Z4
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	29	Z4
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	29	Z4
1	04-Feb-15	Xylenes (total)	1330-20-7	0.1	d	All	100	0.3	--	0	2015	29	Z4
1	12-Jan-15	Mercury (total)	7439-97-6	0.1	b	All	100	0.0089	0.35	1	2015	2	Z3
4	12-Jan-15	Aluminum	7429-90-5	--	a	All	--	--	--	1	2015	2	Z3
4	12-Jan-15	Antimony	7440-36-0	0.27	a	All	0.27	1.407407407	7.777777778	1	2015	2	Z3
4	12-Jan-15	Arsenic	7440-38-2	18	a	All	18000	0.016666667	0.205555556	1	2015	2	Z3
4	12-Jan-15	Barium	7440-39-3	330	a	All	330000	5.15152E-05	0.178787879	1	2015	2	Z3
4	12-Jan-15	Beryllium	7440-41-7	10	b	All	10000	0.015	--	0	2015	2	Z3
4	12-Jan-15	Cadmium	7440-43-9	0.36	a	All	360	0.161111111	5.277777778	1	2015	2	Z3
4	12-Jan-15	Chromium III	16065-83-1	18	a	All	18000	0.018333333	0.505555556	1	2015	2	Z3

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Metals by ICP-MS	Cobalt	3.8	3.8	--	0.17	1.5	mg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Metals by ICP-MS	Copper	36	36	--	0.16	1.5	mg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Metals by ICP-MS	Iron	12,000	12,000	--	4.3	23	mg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Metals by ICP-MS	Lead	110	110	--	0.15	1.5	mg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Metals by ICP-MS	Manganese	210	210	--	0.23	1.5	mg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Metals by ICP-MS	Nickel	17	17	--	0.79	1.5	mg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Metals by ICP-MS	Selenium	0.63	0.63	J	0.3	1.2	mg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Metals by ICP-MS	Silver	0.33	0.33	J	0.0058	0.58	mg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Metals by ICP-MS	Thallium	--	U	U	0.16	1.5	mg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Metals by ICP-MS	Vanadium	8.4	8.4	--	0.24	1.5	mg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Metals by ICP-MS	Zinc	190	190	--	1	2.9	mg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Moisture	Moisture	0.3	0.30	--	0.025	0.05	% of sample
ISM-2-Z3	1501301-02	06-Jan-15	Soil	PCBs	Aroclor 1016	--	U	U	27	83	µg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	PCBs	Aroclor 1221	--	U	U	27	83	µg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	PCBs	Aroclor 1232	--	U	U	27	83	µg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	PCBs	Aroclor 1242	--	U	U	27	83	µg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	PCBs	Aroclor 1248	--	U	U	27	83	µg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	PCBs	Aroclor 1254	33	33	J	31	83	µg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	PCBs	Aroclor 1260	--	U	U	31	83	µg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	PCBs	PCBs, Total	33	--	--	--	--	µg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	1,1'-Biphenyl	--	U	U	4.9	330	µg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	8.2	160	µg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	5.6	160	µg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	9.6	160	µg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	53	330	µg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	30	650	µg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	11	160	µg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	17	160	µg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	1.6	79	µg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	9.9	160	µg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	5.9	5.9	J	2.7	79	µg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	13	160	µg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	13	650	µg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	11	160	µg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	3&4-Methylphenol	--	U	U	16	--	µg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	410	650	µg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	11	650	µg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	27	330	µg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	8.9	160	µg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	7.6	160	µg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
4	12-Jan-15	Cobalt	7440-48-4	13	a	All	13000	0.013076923	0.292307692	1	2015	2	Z3
4	12-Jan-15	Copper	7440-50-8	28	a	All	28000	0.005714286	1.285714286	1	2015	2	Z3
4	12-Jan-15	Iron	7439-89-6	--	a	All	--	--	--	1	2015	2	Z3
4	12-Jan-15	Lead	7439-92-1	11	a	All	11000	0.013636364	10	1	2015	2	Z3
4	12-Jan-15	Manganese	7439-96-5	220	a	All	220000	0.001045455	0.954545455	1	2015	2	Z3
4	12-Jan-15	Nickel	7440-02-0	38	a	All	38000	0.020789474	0.447368421	1	2015	2	Z3
4	12-Jan-15	Selenium	7782-49-2	0.52	a	All	520	0.576923077	1.211538462	1	2015	2	Z3
4	12-Jan-15	Silver	7440-22-4	4.2	a	All	4200	0.001380952	0.078571429	1	2015	2	Z3
4	12-Jan-15	Thallium	7440-28-0	0.22	c	All	220	0.727272727	--	0	2015	2	Z3
4	12-Jan-15	Vanadium	7440-62-2	7.8	a	All	7800	0.030769231	1.076923077	1	2015	2	Z3
4	12-Jan-15	Zinc	7440-66-6	46	a	All	46000	0.02173913	4.130434783	1	2015	2	Z3
1	12-Jan-15	--	--	--	--	--	--	--	--	--	2015	2	Z3
1	15-Jan-15	Aroclor-1016	12674-11-2	1	c	All	1000	0.027	--	0	2015	2	Z3
1	15-Jan-15	--	--	--	--	--	--	--	--	0	2015	2	Z3
1	15-Jan-15	--	--	--	--	--	--	--	--	0	2015	2	Z3
1	15-Jan-15	Aroclor-1242	53469-21-9	0.041	c	All	41	0.658536585	--	0	2015	2	Z3
1	15-Jan-15	Aroclor-1248	12672-29-6	0.0072	c	All	7.2	3.75	--	0	2015	2	Z3
1	15-Jan-15	Aroclor-1254	11097-69-1	0.014	c	All	14	2.214285714	2.357142857	1	2015	2	Z3
1	15-Jan-15	Aroclor-1260	11096-82-5	0.88	c	All	880	0.035227273	--	0	2015	2	Z3
--	--	PCBs (sum) (Wildlife Based)	1336-36-3	0.33	d	All	330	0	0.1	1	2015	2	Z3
1	13-Jan-15	1,1'-Biphenyl	92-52-4	0.2	d	All	200	0.0245	--	0	2015	2	Z3
1	13-Jan-15	2,4,5-Trichlorophenol	95-95-4	0.03	d	All	30	0.273333333	--	0	2015	2	Z3
1	13-Jan-15	2,4,6-Trichlorophenol	88-06-2	0.09	d	All	90	0.062222222	--	0	2015	2	Z3
1	13-Jan-15	Dichlorophenols ,3-), (2,4-), (2,5-), (2,6-)	120-83-2	0.05	d	All	50	0.192	--	0	2015	2	Z3
1	13-Jan-15	2,4-Dimethylphenol	105-67-9	0.04	d	SI	40	1.325	--	0	2015	2	Z3
1	13-Jan-15	2,4-Dinitrophenol	51-28-5	0.15	d	All	150	0.2	--	0	2015	2	Z3
1	13-Jan-15	2,4-Dinitrotoluene	121-14-2	6	c	SI, M, P	6000	0.001833333	--	0	2015	2	Z3
1	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	2	Z3
1	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	2	Z3
1	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	2	Z3
1	13-Jan-15	2-Methylnaphthalene	91-57-6	--	--	All, total	29000	9.31034E-05	0.000203448	1	2015	2	Z3
1	13-Jan-15	2-Methylphenol (Cresol, o-)	95-48-7	0.1	d	All	100	0.13	--	0	2015	2	Z3
1	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	2	Z3
1	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	2	Z3
1	13-Jan-15	4-Methylphenol (Cresol, p-)	106-44-5	0.08	d	All	80	0.2	--	0	2015	2	Z3
1	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	2	Z3
1	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	2	Z3
1	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	2	Z3
1	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	2	Z3
1	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	2	Z3
1	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	2	Z3

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	9.8	330	µg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	9.7	160	µg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	9.1	650	µg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	6.5	650	µg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthene	13	13	J	0.99	30	µg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	6.9	6.9	J	1.2	30	µg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	4.9	330	µg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Anthracene	100	100	--	1.3	30	µg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	10	50	µg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	--	U	U	13	330	µg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	300	300	--	1.3	30	µg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	220	220	--	2.1	30	µg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	360	360	--	1.9	30	µg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	210	210	--	2.6	30	µg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	140	140	--	1.4	30	µg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	10	160	µg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	10	160	µg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	14	160	µg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	96	96	J	11	330	µg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	--	U	U	12	160	µg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	14	330	µg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Carbazole	58	58	J	9.8	160	µg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Chrysene	360	360	--	1.6	30	µg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	69	69	--	2.5	30	µg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	72	72	J	10	160	µg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	10	330	µg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	11	330	µg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U	4.8	330	µg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	11	160	µg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluoranthene	800	800	--	2.3	30	µg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluorene	21	21	J	2.2	30	µg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	9.2	160	µg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	11	50	µg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	10	330	µg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	15	160	µg/Kg-dry
ISM-2-Z3	1501301-02	6-Jan-15	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	3199	--	--	--	--	µg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	220	220	--	2.2	30	µg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	11	160	µg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Naphthalene	42	42	--	2.4	30	µg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	13	160	µg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	13	160	µg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
1	13-Jan-15	4-Chloroaniline	106-47-8	1.0	c	P, SI	1000	0.0098	--	0	2015	2	Z3
1	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	2	Z3
1	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	2	Z3
1	13-Jan-15	4-Nitrophenol	100-02-7	7	b	SI	7000	0.000928571	--	0	2015	2	Z3
1	13-Jan-15	Acenaphthene	83-32-9	--	--	All, total	29000	3.41379E-05	0.000448276	1	2015	2	Z3
1	13-Jan-15	Acenaphthylene	208-96-8	--	--	--	29000	4.13793E-05	0.000237931	1	2015	2	Z3
1	13-Jan-15	Acetophenone	--	--	--	--	--	--	--	0	2015	2	Z3
1	13-Jan-15	Anthracene	120-12-7	--	--	--	29000	4.48276E-05	0.003448276	1	2015	2	Z3
1	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	2	Z3
1	13-Jan-15	Benzaldehyde	--	--	--	--	--	--	--	0	2015	2	Z3
1	13-Jan-15	Benzo(a)anthracene	56-55-3	--	--	--	1100	0.001181818	0.272727273	1	2015	2	Z3
1	13-Jan-15	Benzo(a)pyrene	50-32-8	--	--	--	1100	0.001909091	0.2	1	2015	2	Z3
1	13-Jan-15	Benzo(b)fluoranthene	205-99-2	--	--	--	1100	0.001727273	0.327272727	1	2015	2	Z3
1	13-Jan-15	Benzo(ghi)perylene	191-24-2	--	--	--	1100	0.002363636	0.190909091	1	2015	2	Z3
1	13-Jan-15	Benzo(k)fluoranthene	207-08-9	--	--	--	1100	0.001272727	0.127272727	1	2015	2	Z3
1	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	2	Z3
1	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	2	Z3
1	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	2	Z3
1	13-Jan-15	Bis(2-ethylhexyl) phthalate	117-81-7	0.02	c	All	20	0.55	4.8	1	2015	2	Z3
1	13-Jan-15	Butylbenzyl phthalate	85-68-7	0.59	d	All	590	0.020338983	--	0	2015	2	Z3
1	13-Jan-15	Caprolactam	--	--	--	--	--	--	--	0	2015	2	Z3
1	13-Jan-15	Carbazole	86-74-8	0.16	d	All	160	0.06125	0.3625	1	2015	2	Z3
1	13-Jan-15	Chrysene	218-01-9	--	--	--	1100	0.001454545	0.327272727	1	2015	2	Z3
1	13-Jan-15	Dibenzo(a,h)anthracene	53-70-3	--	--	--	1100	0.002272727	0.062727273	1	2015	2	Z3
1	13-Jan-15	Dibenzofuran	132-64-9	0.15	d	All	150	0.066666667	0.48	1	2015	2	Z3
1	13-Jan-15	Diethylphthalate	84-66-2	0.23	d	All	230	0.043478261	--	0	2015	2	Z3
1	13-Jan-15	Dimethylphthalate	131-11-3	0.35	d	All	350	0.031428571	--	0	2015	2	Z3
1	13-Jan-15	Di-n-butyl phthalate	84-74-2	0.011	c	All	11	0.436363636	--	0	2015	2	Z3
1	13-Jan-15	Di-n-octyl phthalate	117-84-0	0.21	c	All	210	0.052380952	--	0	2015	2	Z3
1	13-Jan-15	Fluoranthene	206-44-0	--	--	--	1100	0.002090909	0.727272727	1	2015	2	Z3
1	13-Jan-15	Fluorene	86-73-7	--	--	All, total	29000	7.58621E-05	0.000724138	1	2015	2	Z3
1	13-Jan-15	Hexachlorobenzene	118-74-1	0.079	c	All	79	0.116455696	--	0	2015	2	Z3
1	13-Jan-15	Hexachlorobutadiene	87-68-3	0.1	d	SI	100	0.11	--	0	2015	2	Z3
1	13-Jan-15	Hexachlorocyclopentadiene	77-47-4	0.001	d	All	1	10	--	0	2015	2	Z3
1	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	2	Z3
--	13-Jan-15	High Molecular Weight PAHs	--	--	--	--	1100	--	2.908181818	1	2015	2	Z3
1	13-Jan-15	Indeno(1,2,3-cd)pyrene	193-39-5	--	--	--	1100	0.002	0.2	1	2015	2	Z3
1	13-Jan-15	Isophorone	--	--	--	--	--	--	--	0	2015	2	Z3
1	13-Jan-15	Naphthalene	91-20-3	--	--	All, total	29000	8.27586E-05	0.001448276	1	2015	2	Z3
1	13-Jan-15	Nitrobenzene	98-95-3	2.2	c	SI, M	2200	0.005909091	--	0	2015	2	Z3
1	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	2	Z3

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	59	160	µg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	6.4	20	µg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenanthrene	800	800	--	1.3	30	µg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	11	160	µg/Kg-dry
ISM-2-Z3	1501301-02	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Pyrene	520	520	--	2.2	30	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Mercury by CVAA	Mercury	0.11	0.11	--	0.00075	0.012	mg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Metals by ICP-MS	Aluminum	5,200	5,200	--	0.99	2.9	mg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Metals by ICP-MS	Antimony	2.7	2.7	--	0.38	1.4	mg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Metals by ICP-MS	Arsenic	7.4	7.4	--	0.3	1.4	mg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Metals by ICP-MS	Barium	140	140	--	0.017	1.4	mg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Metals by ICP-MS	Beryllium	0.24	0.24	J	0.15	0.58	mg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Metals by ICP-MS	Cadmium	3.7	3.7	--	0.058	0.58	mg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Metals by ICP-MS	Chromium	25	25	--	0.32	1.4	mg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Metals by ICP-MS	Cobalt	5.3	5.3	--	0.17	1.4	mg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Metals by ICP-MS	Copper	130	130	--	0.16	1.4	mg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Metals by ICP-MS	Iron	24,000	24,000	--	4.3	23	mg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Metals by ICP-MS	Lead	210	210	--	0.15	1.4	mg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Metals by ICP-MS	Manganese	380	380	--	0.23	1.4	mg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Metals by ICP-MS	Nickel	52	52	--	0.78	1.4	mg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Metals by ICP-MS	Selenium	0.96	0.96	J	0.3	1.4	mg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Metals by ICP-MS	Silver	0.52	0.52	J	0.0058	1.4	mg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Metals by ICP-MS	Thallium	--	U	U	0.16	1.4	mg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Metals by ICP-MS	Vanadium	13	13	--	0.24	1.4	mg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Metals by ICP-MS	Zinc	1,800	1,800	--	10	29	mg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Moisture	Moisture	0.23	0.23	--	0.025	0.05	% of sample
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Moisture	Moisture	22.3	22.3	--	0.025	0.05	% of sample
ISM-30-Z4	1502011-03	30-Jan-15	Soil	PCBs	Aroclor 1016	--	U	U	26	82	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	PCBs	Aroclor 1221	--	U	U	26	82	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	PCBs	Aroclor 1232	--	U	U	26	82	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	PCBs	Aroclor 1242	--	U	U	26	82	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	PCBs	Aroclor 1248	--	U	U	26	82	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	PCBs	Aroclor 1254	230	230	--	31	82	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	PCBs	Aroclor 1260	--	U	U	31	82	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	PCBs	PCBs, Total	230	230	--	--	--	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	1,1'-Biphenyl	--	U	U	54	330	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	90	330	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	88	330	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	70	330	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	68	330	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	180	330	µg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
1	13-Jan-15	N-Nitrosodiphenylamine	86-30-6	0.12	d	All	120	0.491666667	--	0	2015	2	Z3
1	13-Jan-15	Pentachlorophenol (PCP)	87-86-5	2.1	a	All	2100	0.003047619	--	0	2015	2	Z3
1	13-Jan-15	Phenanthrene	67580	--	--	--	29000	4.48276E-05	0.027586207	1	2015	2	Z3
1	13-Jan-15	Phenol	108-95-2	0.79	c	All	790	0.013924051	--	0	2015	2	Z3
1	13-Jan-15	Pyrene	129-00-0	--	--	--	1100	0.002	0.472727273	1	2015	2	Z3
1	04-Feb-15	Mercury (total)	7439-97-6	0.1	b	All	100	0.0075	1.1	1	2015	30	Z4
4	03-Feb-15	Aluminum	7429-90-5	--	a	All	--	--	--	1	2015	30	Z4
4	03-Feb-15	Antimony	7440-36-0	0.27	a	All	0.27	1.407407407	10	1	2015	30	Z4
4	03-Feb-15	Arsenic	7440-38-2	18	a	All	18000	0.016666667	0.411111111	1	2015	30	Z4
4	03-Feb-15	Barium	7440-39-3	330	a	All	330000	5.15152E-05	0.424242424	1	2015	30	Z4
4	03-Feb-15	Beryllium	7440-41-7	10	b	All	10000	0.015	0.024	1	2015	30	Z4
4	03-Feb-15	Cadmium	7440-43-9	0.36	a	All	360	0.161111111	10.27777778	1	2015	30	Z4
4	03-Feb-15	Chromium III	16065-83-1	18	a	All	18000	0.017777778	1.388888889	1	2015	30	Z4
4	03-Feb-15	Cobalt	7440-48-4	13	a	All	13000	0.013076923	0.407692308	1	2015	30	Z4
4	03-Feb-15	Copper	7440-50-8	28	a	All	28000	0.005714286	4.642857143	1	2015	30	Z4
4	03-Feb-15	Iron	7439-89-6	--	a	All	--	--	--	1	2015	30	Z4
4	03-Feb-15	Lead	7439-92-1	11	a	All	11000	0.013636364	19.09090909	1	2015	30	Z4
4	03-Feb-15	Manganese	7439-96-5	220	a	All	220000	0.001045455	1.727272727	1	2015	30	Z4
4	03-Feb-15	Nickel	7440-02-0	38	a	All	38000	0.020526316	1.368421053	1	2015	30	Z4
4	03-Feb-15	Selenium	7782-49-2	0.52	a	All	520	0.576923077	1.846153846	1	2015	30	Z4
4	03-Feb-15	Silver	7440-22-4	4.2	a	All	4200	0.001380952	0.123809524	1	2015	30	Z4
4	03-Feb-15	Thallium	7440-28-0	0.22	c	All	220	0.727272727	--	0	2015	30	Z4
4	03-Feb-15	Vanadium	7440-62-2	7.8	a	All	7800	0.030769231	1.666666667	1	2015	30	Z4
40	03-Feb-15	Zinc	7440-66-6	46	a	All	46000	0.217391304	39.13043478	1	2015	30	Z4
1	05-Feb-15	--	--	--	--	--	--	--	--	--	2015	30	Z4
1	30-Jan-15	--	--	--	--	--	--	--	--	--	2015	30	Z4
1	05-Feb-15	Aroclor-1016	12674-11-2	1	c	All	1000	0.026	--	0	2015	30	Z4
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	30	Z4
1	05-Feb-15	--	--	--	--	--	--	--	--	0	2015	30	Z4
1	05-Feb-15	Aroclor-1242	53469-21-9	0.041	c	All	41	0.634146341	--	0	2015	30	Z4
1	05-Feb-15	Aroclor-1248	12672-29-6	0.0072	c	All	7.2	3.611111111	--	0	2015	30	Z4
1	05-Feb-15	Aroclor-1254	11097-69-1	0.014	c	All	14	2.214285714	16.42857143	1	2015	30	Z4
1	05-Feb-15	Aroclor-1260	11096-82-5	0.88	c	All	880	0.035227273	--	0	2015	30	Z4
1	05-Feb-15	PCBs (sum) (Wildlife Based)	1336-36-3	0.33	d	All	330	0	0.696969697	1	2015	30	Z4
10	09-Feb-15	1,1'-Biphenyl	92-52-4	0.2	d	All	200	0.27	--	0	2015	30	Z4
10	09-Feb-15	2,4,5-Trichlorophenol	95-95-4	0.03	d	All	30	3	--	0	2015	30	Z4
10	09-Feb-15	2,4,6-Trichlorophenol	88-06-2	0.09	d	All	90	0.977777778	--	0	2015	30	Z4
10	09-Feb-15	Dichlorophenols ,3-), (2,4-), (2,5-), (2,6-)	120-83-2	0.05	d	All	50	1.4	--	0	2015	30	Z4
10	09-Feb-15	2,4-Dimethylphenol	105-67-9	0.04	d	SI	40	1.7	--	0	2015	30	Z4
10	09-Feb-15	2,4-Dinitrophenol	51-28-5	0.15	d	All	150	1.2	--	0	2015	30	Z4

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	86	330	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	55	330	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	46	66	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	100	330	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	60	60	J	34	66	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	90	330	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	76	330	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	94	330	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	3&4-Methylphenol	--	U	U	67	330	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	49	1,700	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	76	330	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	83	330	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	89	330	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	94	330	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	360	360	J	52	670	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	92	330	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	510	1,700	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	550	550	--	300	330	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthene	--	U	U	48	66	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	--	U	U	57	66	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	52	330	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Anthracene	110	110	--	47	66	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	52	330	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	--	U	U	510	670	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	450	450	--	57	66	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	650	650	--	41	66	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	1,000	1,000	--	49	66	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	600	600	--	51	66	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	1,000	1,000	--	50	66	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	32	330	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	94	330	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	78	330	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	3,600	3,600	--	57	330	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	750	750	--	56	330	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Caprolactam	260	260	J	110	330	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Carbazole	--	U	U	36	330	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Chrysene	490	490	--	54	66	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	120	120	--	36	66	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	--	U	U	49	330	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	51	330	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	65	330	µg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
10	09-Feb-15	2,4-Dinitrotoluene	121-14-2	6	c	SI, M, P	6000	0.014333333	--	0	2015	30	Z4
10	09-Feb-15	--	--	--	--	--	--	--	--	0	2015	30	Z4
10	09-Feb-15	--	--	--	--	--	--	--	--	0	2015	30	Z4
10	09-Feb-15	--	--	--	--	--	--	--	--	0	2015	30	Z4
10	09-Feb-15	2-Methylnaphthalene	91-57-6	--	--	All, total	29000	0.001172414	0.002068966	1	2015	30	Z4
10	09-Feb-15	2-Methylphenol (Cresol, o-)	95-48-7	0.1	d	All	100	0.9	--	0	2015	30	Z4
10	09-Feb-15	--	--	--	--	--	--	--	--	0	2015	30	Z4
10	09-Feb-15	--	--	--	--	--	--	--	--	0	2015	30	Z4
10	09-Feb-15	4-Methylphenol (Cresol, p-)	106-44-5	0.08	d	All	80	0.8375	--	0	2015	30	Z4
10	09-Feb-15	--	--	--	--	--	--	--	--	0	2015	30	Z4
10	09-Feb-15	--	--	--	--	--	--	--	--	0	2015	30	Z4
10	09-Feb-15	--	--	--	--	--	--	--	--	0	2015	30	Z4
10	09-Feb-15	--	--	--	--	--	--	--	--	0	2015	30	Z4
10	09-Feb-15	4-Chloroaniline	106-47-8	1.0	c	P, SI	1000	0.052	0.36	1	2015	30	Z4
10	09-Feb-15	--	--	--	--	--	--	--	--	0	2015	30	Z4
10	09-Feb-15	--	--	--	--	--	--	--	--	0	2015	30	Z4
10	09-Feb-15	4-Nitrophenol	100-02-7	7	b	SI	7000	0.042857143	0.078571429	1	2015	30	Z4
10	09-Feb-15	Acenaphthene	83-32-9	--	--	All, total	29000	0.001655172	--	0	2015	30	Z4
10	09-Feb-15	Acenaphthylene	208-96-8	--	--	--	29000	0.001965517	--	0	2015	30	Z4
10	09-Feb-15	Acetophenone	--	--	--	--	--	--	--	0	2015	30	Z4
10	09-Feb-15	Anthracene	120-12-7	--	--	--	29000	0.00162069	0.003793103	1	2015	30	Z4
10	09-Feb-15	--	--	--	--	--	--	--	--	0	2015	30	Z4
10	09-Feb-15	Benzaldehyde	--	--	--	--	--	--	--	0	2015	30	Z4
10	09-Feb-15	Benzo(a)anthracene	56-55-3	--	--	--	1100	0.051818182	0.409090909	1	2015	30	Z4
10	09-Feb-15	Benzo(a)pyrene	50-32-8	--	--	--	1100	0.037272727	0.590909091	1	2015	30	Z4
10	09-Feb-15	Benzo(b)fluoranthene	205-99-2	--	--	--	1100	0.044545455	0.909090909	1	2015	30	Z4
10	09-Feb-15	Benzo(ghi)perylene	191-24-2	--	--	--	1100	0.046363636	0.545454545	1	2015	30	Z4
10	09-Feb-15	Benzo(k)fluoranthene	207-08-9	--	--	--	1100	0.045454545	0.909090909	1	2015	30	Z4
10	09-Feb-15	--	--	--	--	--	--	--	--	0	2015	30	Z4
10	09-Feb-15	--	--	--	--	--	--	--	--	0	2015	30	Z4
10	09-Feb-15	--	--	--	--	--	--	--	--	0	2015	30	Z4
10	09-Feb-15	Bis(2-ethylhexyl) phthalate	117-81-7	0.02	c	All	20	2.85	180	1	2015	30	Z4
10	09-Feb-15	Butylbenzyl phthalate	85-68-7	0.59	d	All	590	0.094915254	1.271186441	1	2015	30	Z4
10	09-Feb-15	Caprolactam	--	--	--	--	--	--	--	1	2015	30	Z4
10	09-Feb-15	Carbazole	86-74-8	0.16	d	All	160	0.225	--	0	2015	30	Z4
10	09-Feb-15	Chrysene	218-01-9	--	--	--	1100	0.049090909	0.445454545	1	2015	30	Z4
10	09-Feb-15	Dibenzo(a,h)anthracene	53-70-3	--	--	--	1100	0.032727273	0.109090909	1	2015	30	Z4
10	09-Feb-15	Dibenzofuran	132-64-9	0.15	d	All	150	0.326666667	--	0	2015	30	Z4
10	09-Feb-15	Diethylphthalate	84-66-2	0.23	d	All	230	0.22173913	--	0	2015	30	Z4
10	09-Feb-15	Dimethylphthalate	131-11-3	0.35	d	All	350	0.185714286	--	0	2015	30	Z4

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U	61	330	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	64	330	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluoranthene	780	780	--	32	66	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluorene	--	U	U	48	66	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	96	330	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	180	330	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	110	330	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	140	330	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	6560	--	--	--	--	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	700	700	--	46	66	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	65	1,700	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Naphthalene	170	170	--	42	66	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	110	1,700	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	55	330	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	32	330	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	120	200	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenanthrene	620	620	--	31	66	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	82	330	µg/Kg-dry
ISM-30-Z4	1502011-03	30-Jan-15	Soil	Semi-Volatile Organic Compounds	Pyrene	770	770	--	12	66	µg/Kg-dry
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	1,1,1-Trichloroethane	--	U	U	11	39	µg/Kg-dry
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	1,1,2,2-Tetrachloroethane	--	U	U	9.3	39	µg/Kg-dry
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	1,1,2-Trichloroethane	--	U	U	12	39	µg/Kg-dry
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	1,1,2-Trichlorotrifluoroethane	--	U	U	8.7	39	µg/Kg-dry
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	1,1-Dichloroethane	--	U	U	9.8	39	µg/Kg-dry
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	1,1-Dichloroethene	--	U	U	10	39	µg/Kg-dry
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	1,2,4-Trichlorobenzene	--	U	U	28	39	µg/Kg-dry
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	1,2-Dibromo-3-chloropropane	--	U	U	16	39	µg/Kg-dry
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	1,2-Dibromoethane	--	U	U	13	39	µg/Kg-dry
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	1,2-Dichlorobenzene	--	U	U	11	39	µg/Kg-dry
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	1,2-Dichloroethane	--	U	U	11	39	µg/Kg-dry
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	1,2-Dichloropropane	--	U	U	11	39	µg/Kg-dry
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	1,3-Dichlorobenzene	--	U	U	12	39	µg/Kg-dry
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	1,4-Dichlorobenzene	--	U	U	10	39	µg/Kg-dry
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	2-Butanone	--	U	U	52	260	µg/Kg-dry
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	2-Hexanone	--	U	U	26	39	µg/Kg-dry
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	4-Methyl-2-pentanone	--	U	U	28	39	µg/Kg-dry
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	Acetone	--	U	U	70	130	µg/Kg-dry
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	Benzene	--	U	U	8.7	39	µg/Kg-dry
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	Bromodichloromethane	--	U	U	10	39	µg/Kg-dry
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	Bromoform	--	U	U	14	39	µg/Kg-dry
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	Bromomethane	--	U	U	17	97	µg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
10	09-Feb-15	Di-n-butyl phthalate	84-74-2	0.011	c	All	11	5.545454545	--	0	2015	30	Z4
10	09-Feb-15	Di-n-octyl phthalate	117-84-0	0.21	c	All	210	0.304761905	--	0	2015	30	Z4
10	09-Feb-15	Fluoranthene	206-44-0	--	--	--	1100	0.029090909	0.709090909	1	2015	30	Z4
10	09-Feb-15	Fluorene	86-73-7	--	--	All, total	29000	0.001655172	--	0	2015	30	Z4
10	09-Feb-15	Hexachlorobenzene	118-74-1	0.079	c	All	79	1.215189873	--	0	2015	30	Z4
10	09-Feb-15	Hexachlorobutadiene	87-68-3	0.1	d	SI	100	1.8	--	0	2015	30	Z4
10	09-Feb-15	Hexachlorocyclopentadiene	77-47-4	0.001	d	All	1	110	--	0	2015	30	Z4
10	09-Feb-15	--	--	--	--	--	--	--	--	0	2015	30	Z4
--	9-Feb-15	High Molecular Weight PAHs	--	--	--	--	1100	--	5.963636364	1	2015	30	Z4
10	09-Feb-15	Indeno(1,2,3-cd)pyrene	193-39-5	--	--	--	1100	0.041818182	0.636363636	1	2015	30	Z4
10	09-Feb-15	Isophorone	--	--	--	--	--	--	--	0	2015	30	Z4
10	09-Feb-15	Naphthalene	91-20-3	--	--	All, total	29000	0.001448276	0.005862069	1	2015	30	Z4
10	09-Feb-15	Nitrobenzene	98-95-3	2.2	c	SI, M	2200	0.05	--	0	2015	30	Z4
10	09-Feb-15	--	--	--	--	--	--	--	--	0	2015	30	Z4
10	09-Feb-15	N-Nitrosodiphenylamine	86-30-6	0.12	d	All	120	0.266666667	--	0	2015	30	Z4
10	09-Feb-15	Pentachlorophenol (PCP)	87-86-5	2.1	a	All	2100	0.057142857	--	0	2015	30	Z4
10	09-Feb-15	Phenanthrene	67580	--	--	--	29000	0.001068966	0.02137931	1	2015	30	Z4
10	09-Feb-15	Phenol	108-95-2	0.79	c	All	790	0.103797468	--	0	2015	30	Z4
10	09-Feb-15	Pyrene	129-00-0	--	--	--	1100	0.010909091	0.7	1	2015	30	Z4
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	30	Z4
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	30	Z4
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	30	Z4
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	30	Z4
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	30	Z4
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	30	Z4
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	30	Z4
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	30	Z4
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	30	Z4
1	04-Feb-15	1,2-Dichlorobenzene	95-50-1	0.09	d	All	90	0.122222222	--	0	2015	30	Z4
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	30	Z4
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	30	Z4
1	04-Feb-15	1,3-Dichlorobenzene	99-65-0	0.08	d	All	80	0.15	--	0	2015	30	Z4
1	04-Feb-15	1,4-Dichlorobenzene	106-46-7	0.88	c	SI, M	880	0.011363636	--	0	2015	30	Z4
1	04-Feb-15	2-Butanone (Methyl Ethyl Ketone)	78-93-3	1.0	d	All	1000	0.052	--	0	2015	30	Z4
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	30	Z4
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	30	Z4
1	04-Feb-15	Acetone	67-64-1	1.2	c	M, A	1200	0.058333333	--	0	2015	30	Z4
1	04-Feb-15	Benzene	71-43-2	0.12	d	All	120	0.0725	--	0	2015	30	Z4
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	30	Z4
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	30	Z4
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	30	Z4

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	Carbon disulfide	--	U	U	13	39	µg/Kg-dry
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	Carbon tetrachloride	--	U	U	6.8	39	µg/Kg-dry
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	Chlorobenzene	--	U	U	12	39	µg/Kg-dry
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	Chloroethane	--	U	U	25	130	µg/Kg-dry
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	Chloroform	--	U	U	13	39	µg/Kg-dry
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	Chloromethane	--	U	U	16	130	µg/Kg-dry
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	cis-1,2-Dichloroethene	--	U	U	11	39	µg/Kg-dry
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	cis-1,3-Dichloropropene	--	U	U	15	39	µg/Kg-dry
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	Cyclohexane	--	U	U	19	39	µg/Kg-dry
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	Dibromochloromethane	--	U	U	8.8	39	µg/Kg-dry
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	Dichlorodifluoromethane	--	U	U	17	39	µg/Kg-dry
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	Ethylbenzene	--	U	U	9	39	µg/Kg-dry
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	Isopropylbenzene	--	U	U	15	39	µg/Kg-dry
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	Methyl acetate	--	U	U	79	260	µg/Kg-dry
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	Methyl tert-butyl ether	--	U	U	13	39	µg/Kg-dry
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	Methylcyclohexane	--	U	U	17	39	µg/Kg-dry
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	Methylene chloride	--	U	U	18	39	µg/Kg-dry
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	Styrene	--	U	U	27	39	µg/Kg-dry
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	Tetrachloroethene	--	U	U	19	39	µg/Kg-dry
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	Toluene	--	U	U	13	39	µg/Kg-dry
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	trans-1,2-Dichloroethene	--	U	U	11	39	µg/Kg-dry
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	trans-1,3-Dichloropropene	--	U	U	6.9	39	µg/Kg-dry
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	Trichloroethene	--	U	U	10	39	µg/Kg-dry
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	Trichlorofluoromethane	--	U	U	7.4	39	µg/Kg-dry
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	Vinyl chloride	--	U	U	12	39	µg/Kg-dry
ISM-30-Z4	1502014-02	29-Jan-15	Soil	Volatile Organic Compounds	Xylenes, Total	--	U	U	30	120	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Mercury by CVAA	Mercury	0.076	0.076	--	0.00074	0.012	mg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Metals by ICP-MS	Aluminum	3,600	3,600	--	0.9	2.6	mg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Metals by ICP-MS	Antimony	2.1	2.1	--	0.35	1.3	mg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Metals by ICP-MS	Arsenic	4.5	4.5	--	0.27	0.53	mg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Metals by ICP-MS	Barium	55	55	--	0.016	1.3	mg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Metals by ICP-MS	Beryllium	0.18	0.18	J	0.14	0.53	mg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Metals by ICP-MS	Cadmium	1.9	1.9	--	0.053	0.53	mg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Metals by ICP-MS	Chromium	11	11	--	0.29	1.3	mg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Metals by ICP-MS	Cobalt	3.3	3.3	--	0.16	1.3	mg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Metals by ICP-MS	Copper	45	45	--	0.15	1.3	mg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Metals by ICP-MS	Iron	15,000	15,000	--	3.9	21	mg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Metals by ICP-MS	Lead	140	140	--	0.14	1.3	mg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Metals by ICP-MS	Manganese	210	210	--	0.21	1.3	mg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Metals by ICP-MS	Nickel	15	15	--	0.71	1.3	mg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
1	04-Feb-15	Carbon Disulfide	75-15-0	0.005	d	All	5	2.6	--	0	2015	30	Z4
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	30	Z4
1	04-Feb-15	Chlorobenzene	108-90-7	2.4	c	All	2400	0.005	--	0	2015	30	Z4
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	30	Z4
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	30	Z4
1	04-Feb-15	Chloromethane	--	--	--	--	--	--	--	0	2015	30	Z4
1	04-Feb-15	1,2-Dichloroethene (cis and trans)	540-59-0	0.04	d	All	40	0.275	--	0	2015	30	Z4
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	30	Z4
1	04-Feb-15	Cyclohexane	--	--	--	--	--	--	--	0	2015	30	Z4
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	30	Z4
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	30	Z4
1	04-Feb-15	Ethylbenzene	100-41-4	0.27	d	All	270	0.033333333	--	0	2015	30	Z4
1	04-Feb-15	Isopropylbenzene (Cumene)	98-82-8	0.04	d	All	40	0.375	--	0	2015	30	Z4
1	04-Feb-15	Methyl Acetate	--	--	--	--	--	--	--	0	2015	30	Z4
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	30	Z4
1	04-Feb-15	Methylcyclohexane	--	--	--	--	--	--	--	0	2015	30	Z4
1	04-Feb-15	Dichloromethane (Methylene chloride)	75-09-2	0.21	d	All	210	0.085714286	--	0	2015	30	Z4
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	30	Z4
1	04-Feb-15	Tetrachloroethene	127-18-4	0.06	d	All	60	0.316666667	--	0	2015	30	Z4
1	04-Feb-15	Toluene	108-88-3	0.15	d	All	150	0.086666667	--	0	2015	30	Z4
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	30	Z4
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	30	Z4
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	30	Z4
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	30	Z4
1	04-Feb-15	--	--	--	--	--	--	--	--	0	2015	30	Z4
1	04-Feb-15	Xylenes (total)	1330-20-7	0.1	d	All	100	0.3	--	0	2015	30	Z4
1	12-Jan-15	Mercury (total)	7439-97-6	0.1	b	All	100	0.0074	0.76	1	2015	3	Z3
4	12-Jan-15	Aluminum	7429-90-5	--	a	All	--	--	--	1	2015	3	Z3
4	12-Jan-15	Antimony	7440-36-0	0.27	a	All	0.27	1.296296296	7.777777778	1	2015	3	Z3
4	12-Jan-15	Arsenic	7440-38-2	18	a	All	18000	0.015	0.25	1	2015	3	Z3
4	12-Jan-15	Barium	7440-39-3	330	a	All	330000	4.84848E-05	0.166666667	1	2015	3	Z3
4	12-Jan-15	Beryllium	7440-41-7	10	b	All	10000	0.014	0.018	1	2015	3	Z3
4	12-Jan-15	Cadmium	7440-43-9	0.36	a	All	360	0.147222222	5.277777778	1	2015	3	Z3
4	12-Jan-15	Chromium III	16065-83-1	18	a	All	18000	0.016111111	0.611111111	1	2015	3	Z3
4	12-Jan-15	Cobalt	7440-48-4	13	a	All	13000	0.012307692	0.253846154	1	2015	3	Z3
4	12-Jan-15	Copper	7440-50-8	28	a	All	28000	0.005357143	1.607142857	1	2015	3	Z3
4	12-Jan-15	Iron	7439-89-6	--	a	All	--	--	--	1	2015	3	Z3
4	12-Jan-15	Lead	7439-92-1	11	a	All	11000	0.012727273	12.72727273	1	2015	3	Z3
4	12-Jan-15	Manganese	7439-96-5	220	a	All	220000	0.000954545	0.954545455	1	2015	3	Z3
4	12-Jan-15	Nickel	7440-02-0	38	a	All	38000	0.018684211	0.394736842	1	2015	3	Z3

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Metals by ICP-MS	Selenium	0.82	0.82	J	0.27	1.1	mg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Metals by ICP-MS	Silver	0.46	0.46	J	0.0053	0.53	mg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Metals by ICP-MS	Thallium	--	U	U	0.14	1.3	mg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Metals by ICP-MS	Vanadium	9.4	9.4	--	0.22	1.3	mg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Metals by ICP-MS	Zinc	180	180	--	0.95	2.6	mg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Moisture	Moisture	0.41	0.41	--	0.025	0.05	% of sample
ISM-3-Z3	1501301-03	06-Jan-15	Soil	PCBs	Aroclor 1016	--	U	U	26	79	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	PCBs	Aroclor 1221	--	U	U	26	79	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	PCBs	Aroclor 1232	--	U	U	26	79	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	PCBs	Aroclor 1242	--	U	U	26	79	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	PCBs	Aroclor 1248	--	U	U	26	79	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	PCBs	Aroclor 1254	330	330	--	30	79	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	PCBs	Aroclor 1260	--	U	U	30	79	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	PCBs	PCBs, Total	330	--	--	--	--	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	1,1'-Biphenyl	--	U	U	5	330	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	8.3	160	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	5.6	160	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	9.7	160	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	53	330	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	30	660	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	11	160	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	17	160	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	1.6	80	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	10	160	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	34	34	J	2.8	80	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	14	160	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	13	660	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	11	160	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	3&4-Methylphenol	--	U	U	16	--	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	410	660	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	11	660	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	28	330	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	9	160	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	7.7	160	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	9.9	330	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	9.8	160	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	9.2	660	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	6.6	660	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthene	10	10	J	1	30	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	10	10	J	1.2	30	µg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
4	12-Jan-15	Selenium	7782-49-2	0.52	a	All	520	0.519230769	1.576923077	1	2015	3	Z3
4	12-Jan-15	Silver	7440-22-4	4.2	a	All	4200	0.001261905	0.10952381	1	2015	3	Z3
4	12-Jan-15	Thallium	7440-28-0	0.22	c	All	220	0.636363636	--	0	2015	3	Z3
4	12-Jan-15	Vanadium	7440-62-2	7.8	a	All	7800	0.028205128	1.205128205	1	2015	3	Z3
4	12-Jan-15	Zinc	7440-66-6	46	a	All	46000	0.020652174	3.913043478	1	2015	3	Z3
1	12-Jan-15	--	--	--	--	--	--	--	--	--	2015	3	Z3
1	20-Jan-15	Aroclor-1016	12674-11-2	1	c	All	1000	0.026	--	0	2015	3	Z3
1	20-Jan-15	--	--	--	--	--	--	--	--	0	2015	3	Z3
1	20-Jan-15	--	--	--	--	--	--	--	--	0	2015	3	Z3
1	20-Jan-15	Aroclor-1242	53469-21-9	0.041	c	All	41	0.634146341	--	0	2015	3	Z3
1	20-Jan-15	Aroclor-1248	12672-29-6	0.0072	c	All	7.2	3.611111111	--	0	2015	3	Z3
1	20-Jan-15	Aroclor-1254	11097-69-1	0.014	c	All	14	2.142857143	23.57142857	1	2015	3	Z3
1	20-Jan-15	Aroclor-1260	11096-82-5	0.88	c	All	880	0.034090909	--	0	2015	3	Z3
--	--	PCBs (sum) (Wildlife Based)	1336-36-3	0.33	d	All	330	0	1	1	2015	3	Z3
1	13-Jan-15	1,1'-Biphenyl	92-52-4	0.2	d	All	200	0.025	--	0	2015	3	Z3
1	13-Jan-15	2,4,5-Trichlorophenol	95-95-4	0.03	d	All	30	0.276666667	--	0	2015	3	Z3
1	13-Jan-15	2,4,6-Trichlorophenol	88-06-2	0.09	d	All	90	0.062222222	--	0	2015	3	Z3
1	13-Jan-15	Dichlorophenols ,3-), (2,4-), (2,5-), (2,6-)	120-83-2	0.05	d	All	50	0.194	--	0	2015	3	Z3
1	13-Jan-15	2,4-Dimethylphenol	105-67-9	0.04	d	SI	40	1.325	--	0	2015	3	Z3
1	13-Jan-15	2,4-Dinitrophenol	51-28-5	0.15	d	All	150	0.2	--	0	2015	3	Z3
1	13-Jan-15	2,4-Dinitrotoluene	121-14-2	6	c	SI, M, P	6000	0.001833333	--	0	2015	3	Z3
1	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	3	Z3
1	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	3	Z3
1	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	3	Z3
1	13-Jan-15	2-Methylnaphthalene	91-57-6	--	--	All, total	29000	9.65517E-05	0.001172414	1	2015	3	Z3
1	13-Jan-15	2-Methylphenol (Cresol, o-)	95-48-7	0.1	d	All	100	0.14	--	0	2015	3	Z3
1	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	3	Z3
1	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	3	Z3
1	13-Jan-15	4-Methylphenol (Cresol, p-)	106-44-5	0.08	d	All	80	0.2	--	0	2015	3	Z3
1	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	3	Z3
1	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	3	Z3
1	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	3	Z3
1	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	3	Z3
1	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	3	Z3
1	13-Jan-15	4-Chloroaniline	106-47-8	1.0	c	P, SI	1000	0.0099	--	0	2015	3	Z3
1	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	3	Z3
1	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	3	Z3
1	13-Jan-15	4-Nitrophenol	100-02-7	7	b	SI	7000	0.000942857	--	0	2015	3	Z3
1	13-Jan-15	Acenaphthene	83-32-9	--	--	All, total	29000	3.44828E-05	0.000344828	1	2015	3	Z3
1	13-Jan-15	Acenaphthylene	208-96-8	--	--	--	29000	4.13793E-05	0.000344828	1	2015	3	Z3

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	5	330	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Anthracene	83	83	--	1.3	30	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	10	50	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	--	U	U	13	330	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	380	380	--	1.3	30	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	390	390	--	2.2	30	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	660	660	--	2	30	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	450	450	--	2.6	30	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	230	230	--	1.4	30	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	10	160	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	10	160	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	14	160	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	240	240	J	11	330	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	240	240	--	12	160	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	15	330	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Carbazole	45	45	J	9.9	160	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Chrysene	590	590	--	1.6	30	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	130	130	--	2.5	30	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	76	76	J	10	160	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	11	330	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	11	330	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U	4.8	330	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	11	160	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluoranthene	870	870	--	2.3	30	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluorene	17	17	J	2.2	30	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	9.3	160	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	11	50	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	10	330	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	16	160	µg/Kg-dry
ISM-3-Z3	1501301-03	6-Jan-15	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	4700	--	--	--	--	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	470	470	--	2.2	30	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	11	160	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Naphthalene	110	110	--	2.5	30	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	13	160	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	13	160	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	59	160	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	6.4	20	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenanthrene	680	680	--	1.3	30	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	11	160	µg/Kg-dry
ISM-3-Z3	1501301-03	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Pyrene	530	530	--	2.3	30	µg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Mercury by CVAA	Mercury	0.12	0.12	--	0.00079	0.013	mg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
1	13-Jan-15	Acetophenone	--	--	--	--	--	--	--	0	2015	3	Z3
1	13-Jan-15	Anthracene	120-12-7	--	--	--	29000	4.48276E-05	0.002862069	1	2015	3	Z3
1	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	3	Z3
1	13-Jan-15	Benzaldehyde	--	--	--	--	--	--	--	0	2015	3	Z3
1	13-Jan-15	Benzo(a)anthracene	56-55-3	--	--	--	1100	0.001181818	0.345454545	1	2015	3	Z3
1	13-Jan-15	Benzo(a)pyrene	50-32-8	--	--	--	1100	0.002	0.354545455	1	2015	3	Z3
1	13-Jan-15	Benzo(b)fluoranthene	205-99-2	--	--	--	1100	0.001818182	0.6	1	2015	3	Z3
1	13-Jan-15	Benzo(ghi)perylene	191-24-2	--	--	--	1100	0.002363636	0.409090909	1	2015	3	Z3
1	13-Jan-15	Benzo(k)fluoranthene	207-08-9	--	--	--	1100	0.001272727	0.209090909	1	2015	3	Z3
1	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	3	Z3
1	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	3	Z3
1	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	3	Z3
1	13-Jan-15	Bis(2-ethylhexyl) phthalate	117-81-7	0.02	c	All	20	0.55	12	1	2015	3	Z3
1	13-Jan-15	Butylbenzyl phthalate	85-68-7	0.59	d	All	590	0.020338983	0.406779661	1	2015	3	Z3
1	13-Jan-15	Caprolactam	--	--	--	--	--	--	--	0	2015	3	Z3
1	13-Jan-15	Carbazole	86-74-8	0.16	d	All	160	0.061875	0.28125	1	2015	3	Z3
1	13-Jan-15	Chrysene	218-01-9	--	--	--	1100	0.001454545	0.536363636	1	2015	3	Z3
1	13-Jan-15	Dibenzo(a,h)anthracene	53-70-3	--	--	--	1100	0.002272727	0.118181818	1	2015	3	Z3
1	13-Jan-15	Dibenzofuran	132-64-9	0.15	d	All	150	0.066666667	0.506666667	1	2015	3	Z3
1	13-Jan-15	Diethylphthalate	84-66-2	0.23	d	All	230	0.047826087	--	0	2015	3	Z3
1	13-Jan-15	Dimethylphthalate	131-11-3	0.35	d	All	350	0.031428571	--	0	2015	3	Z3
1	13-Jan-15	Di-n-butyl phthalate	84-74-2	0.011	c	All	11	0.436363636	--	0	2015	3	Z3
1	13-Jan-15	Di-n-octyl phthalate	117-84-0	0.21	c	All	210	0.052380952	--	0	2015	3	Z3
1	13-Jan-15	Fluoranthene	206-44-0	--	--	--	1100	0.002090909	0.790909091	1	2015	3	Z3
1	13-Jan-15	Fluorene	86-73-7	--	--	All, total	29000	7.58621E-05	0.000586207	1	2015	3	Z3
1	13-Jan-15	Hexachlorobenzene	118-74-1	0.079	c	All	79	0.117721519	--	0	2015	3	Z3
1	13-Jan-15	Hexachlorobutadiene	87-68-3	0.1	d	SI	100	0.11	--	0	2015	3	Z3
1	13-Jan-15	Hexachlorocyclopentadiene	77-47-4	0.001	d	All	1	10	--	0	2015	3	Z3
1	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	3	Z3
--	13-Jan-15	High Molecular Weight PAHs	--	--	--	--	1100	--	4.272727273	1	2015	3	Z3
1	13-Jan-15	Indeno(1,2,3-cd)pyrene	193-39-5	--	--	--	1100	0.002	0.427272727	1	2015	3	Z3
1	13-Jan-15	Isophorone	--	--	--	--	--	--	--	0	2015	3	Z3
1	13-Jan-15	Naphthalene	91-20-3	--	--	All, total	29000	8.62069E-05	0.003793103	1	2015	3	Z3
1	13-Jan-15	Nitrobenzene	98-95-3	2.2	c	SI, M	2200	0.005909091	--	0	2015	3	Z3
1	13-Jan-15	--	--	--	--	--	--	--	--	0	2015	3	Z3
1	13-Jan-15	N-Nitrosodiphenylamine	86-30-6	0.12	d	All	120	0.491666667	--	0	2015	3	Z3
1	13-Jan-15	Pentachlorophenol (PCP)	87-86-5	2.1	a	All	2100	0.003047619	--	0	2015	3	Z3
1	13-Jan-15	Phenanthrene	67580	--	--	--	29000	4.48276E-05	0.023448276	1	2015	3	Z3
1	13-Jan-15	Phenol	108-95-2	0.79	c	All	790	0.013924051	--	0	2015	3	Z3
1	13-Jan-15	Pyrene	129-00-0	--	--	--	1100	0.002090909	0.481818182	1	2015	3	Z3
1	12-Jan-15	Mercury (total)	7439-97-6	0.1	b	All	100	0.0079	1.2	1	2015	4	Z5

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Metals by ICP-MS	Aluminum	4,700	4,700	--	0.97	2.8	mg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Metals by ICP-MS	Antimony	8.2	8.2	--	0.38	1.4	mg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Metals by ICP-MS	Arsenic	5.3	5.3	--	0.3	0.57	mg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Metals by ICP-MS	Barium	150	150	--	0.017	1.4	mg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Metals by ICP-MS	Beryllium	0.23	0.23	J	0.15	0.57	mg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Metals by ICP-MS	Cadmium	3.4	3.4	--	0.057	0.57	mg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Metals by ICP-MS	Chromium	20	20	--	0.32	1.4	mg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Metals by ICP-MS	Cobalt	5	5.0	--	0.17	1.4	mg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Metals by ICP-MS	Copper	120	120	--	0.16	1.4	mg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Metals by ICP-MS	Iron	23,000	23,000	--	4.2	23	mg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Metals by ICP-MS	Lead	360	360	--	0.15	1.4	mg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Metals by ICP-MS	Manganese	280	280	--	0.23	1.4	mg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Metals by ICP-MS	Nickel	31	31	--	0.77	1.4	mg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Metals by ICP-MS	Selenium	0.67	0.67	J	0.3	1.1	mg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Metals by ICP-MS	Silver	1.2	1.2	--	0.0057	0.57	mg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Metals by ICP-MS	Thallium	--	U	U	0.15	1.4	mg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Metals by ICP-MS	Vanadium	9	9.0	--	0.23	1.4	mg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Metals by ICP-MS	Zinc	640	640	--	10	28	mg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Moisture	Moisture	0.48	0.48	--	0.025	0.05	% of sample
ISM-4-Z5	1501301-04	06-Jan-15	Soil	PCBs	Aroclor 1016	--	U	U	27	84	µg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	PCBs	Aroclor 1221	--	U	U	27	84	µg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	PCBs	Aroclor 1232	--	U	U	27	84	µg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	PCBs	Aroclor 1242	--	U	U	27	84	µg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	PCBs	Aroclor 1248	1,100	1,100	--	27	84	µg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	PCBs	Aroclor 1254	--	U	U	31	84	µg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	PCBs	Aroclor 1260	360	360	--	31	84	µg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	PCBs	PCBs, Total	1,460	--	--	--	--	µg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	1,1'-Biphenyl	--	U	U	49	3,200	µg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	81	1,600	µg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	55	1,600	µg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	95	1,600	µg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	520	3,200	µg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	290	6,500	µg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	100	1,600	µg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	170	1,600	µg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	15	780	µg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	98	1,600	µg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	130	130	J	27	780	µg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	130	1,600	µg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	130	6,500	µg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
4	12-Jan-15	Aluminum	7429-90-5	--	a	All	--	--	--	1	2015	4	Z5
4	12-Jan-15	Antimony	7440-36-0	0.27	a	All	0.27	1.407407407	30.37037037	1	2015	4	Z5
4	12-Jan-15	Arsenic	7440-38-2	18	a	All	18000	0.016666667	0.294444444	1	2015	4	Z5
4	12-Jan-15	Barium	7440-39-3	330	a	All	330000	5.15152E-05	0.454545455	1	2015	4	Z5
4	12-Jan-15	Beryllium	7440-41-7	10	b	All	10000	0.015	0.023	1	2015	4	Z5
4	12-Jan-15	Cadmium	7440-43-9	0.36	a	All	360	0.158333333	9.444444444	1	2015	4	Z5
4	12-Jan-15	Chromium III	16065-83-1	18	a	All	18000	0.017777778	1.111111111	1	2015	4	Z5
4	12-Jan-15	Cobalt	7440-48-4	13	a	All	13000	0.013076923	0.384615385	1	2015	4	Z5
4	12-Jan-15	Copper	7440-50-8	28	a	All	28000	0.005714286	4.285714286	1	2015	4	Z5
4	12-Jan-15	Iron	7439-89-6	--	a	All	--	--	--	1	2015	4	Z5
4	12-Jan-15	Lead	7439-92-1	11	a	All	11000	0.013636364	32.72727273	1	2015	4	Z5
4	12-Jan-15	Manganese	7439-96-5	220	a	All	220000	0.001045455	1.272727273	1	2015	4	Z5
4	12-Jan-15	Nickel	7440-02-0	38	a	All	38000	0.020263158	0.815789474	1	2015	4	Z5
4	12-Jan-15	Selenium	7782-49-2	0.52	a	All	520	0.576923077	1.288461538	1	2015	4	Z5
4	12-Jan-15	Silver	7440-22-4	4.2	a	All	4200	0.001357143	0.285714286	1	2015	4	Z5
4	12-Jan-15	Thallium	7440-28-0	0.22	c	All	220	0.681818182	--	0	2015	4	Z5
4	12-Jan-15	Vanadium	7440-62-2	7.8	a	All	7800	0.029487179	1.153846154	1	2015	4	Z5
40	13-Jan-15	Zinc	7440-66-6	46	a	All	46000	0.217391304	13.91304348	1	2015	4	Z5
1	12-Jan-15	--	--	--	--	--	--	--	--	--	2015	4	Z5
1	20-Jan-15	Aroclor-1016	12674-11-2	1	c	All	1000	0.027	--	0	2015	4	Z5
1	20-Jan-15	--	--	--	--	--	--	--	--	0	2015	4	Z5
1	20-Jan-15	--	--	--	--	--	--	--	--	0	2015	4	Z5
1	20-Jan-15	Aroclor-1242	53469-21-9	0.041	c	All	41	0.658536585	--	0	2015	4	Z5
1	20-Jan-15	Aroclor-1248	12672-29-6	0.0072	c	All	7.2	3.75	152.7777778	1	2015	4	Z5
1	20-Jan-15	Aroclor-1254	11097-69-1	0.014	c	All	14	2.214285714	--	0	2015	4	Z5
1	20-Jan-15	Aroclor-1260	11096-82-5	0.88	c	All	880	0.035227273	0.409090909	1	2015	4	Z5
--	--	PCBs (sum) (Wildlife Based)	1336-36-3	0.33	d	All	330	0	4.424242424	1	2015	4	Z5
10	12-Jan-15	1,1'-Biphenyl	92-52-4	0.2	d	All	200	0.245	--	0	2015	4	Z5
10	12-Jan-15	2,4,5-Trichlorophenol	95-95-4	0.03	d	All	30	2.7	--	0	2015	4	Z5
10	12-Jan-15	2,4,6-Trichlorophenol	88-06-2	0.09	d	All	90	0.611111111	--	0	2015	4	Z5
10	12-Jan-15	Dichlorophenols ,3-), (2,4-), (2,5-), (2,6-)	120-83-2	0.05	d	All	50	1.9	--	0	2015	4	Z5
10	12-Jan-15	2,4-Dimethylphenol	105-67-9	0.04	d	SI	40	13	--	0	2015	4	Z5
10	12-Jan-15	2,4-Dinitrophenol	51-28-5	0.15	d	All	150	1.933333333	--	0	2015	4	Z5
10	12-Jan-15	2,4-Dinitrotoluene	121-14-2	6	c	SI, M, P	6000	0.016666667	--	0	2015	4	Z5
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	4	Z5
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	4	Z5
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	4	Z5
10	12-Jan-15	2-Methylnaphthalene	91-57-6	--	--	All, total	29000	0.000931034	0.004482759	1	2015	4	Z5
10	12-Jan-15	2-Methylphenol (Cresol, o-)	95-48-7	0.1	d	All	100	1.3	--	0	2015	4	Z5
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	4	Z5

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	110	1,600	µg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	3&4-Methylphenol	--	U	U	160	--	µg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	4,000	6,500	µg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	110	6,500	µg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	270	3,200	µg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	88	1,600	µg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	75	1,600	µg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	97	3,200	µg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	96	1,600	µg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	90	6,500	µg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	65	6,500	µg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthene	200	200	J	9.8	290	µg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	82	82	J	12	290	µg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	49	3,200	µg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Anthracene	2,000	2,000	--	13	290	µg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	99	490	µg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	490	490	J	120	3,200	µg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	5,900	5,900	--	13	290	µg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	4,500	4,500	--	21	290	µg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	6,800	6,800	--	19	290	µg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	3,600	3,600	--	26	290	µg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	3,100	3,100	--	14	290	µg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	100	1,600	µg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	100	1,600	µg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	140	1,600	µg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	4,400	4,400	--	110	3,200	µg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	--	U	U	120	1,600	µg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	140	3,200	µg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Carbazole	1,800	1,800	--	97	1,600	µg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Chrysene	6,400	6,400	--	16	290	µg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	1,100	1,100	--	24	290	µg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	1,200	1,200	J	100	1,600	µg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	100	3,200	µg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	110	3,200	µg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U	47	3,200	µg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	110	1,600	µg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluoranthene	20,000	20,000	E	23	290	µg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluorene	260	260	J	22	290	µg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	91	1,600	µg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	110	490	µg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	100	3,200	µg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	4	Z5
10	12-Jan-15	4-Methylphenol (Cresol, p-)	106-44-5	0.08	d	All	80	2	--	0	2015	4	Z5
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	4	Z5
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	4	Z5
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	4	Z5
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	4	Z5
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	4	Z5
10	12-Jan-15	4-Chloroaniline	106-47-8	1.0	c	P, SI	1000	0.097	--	0	2015	4	Z5
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	4	Z5
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	4	Z5
10	12-Jan-15	4-Nitrophenol	100-02-7	7	b	SI	7000	0.009285714	--	0	2015	4	Z5
10	12-Jan-15	Acenaphthene	83-32-9	--	--	All, total	29000	0.000337931	0.006896552	1	2015	4	Z5
10	12-Jan-15	Acenaphthylene	208-96-8	--	--	--	29000	0.000413793	0.002827586	1	2015	4	Z5
10	12-Jan-15	Acetophenone	--	--	--	--	--	--	--	0	2015	4	Z5
10	12-Jan-15	Anthracene	120-12-7	--	--	--	29000	0.000448276	0.068965517	1	2015	4	Z5
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	4	Z5
10	12-Jan-15	Benzaldehyde	--	--	--	--	--	--	--	1	2015	4	Z5
10	12-Jan-15	Benzo(a)anthracene	56-55-3	--	--	--	1100	0.011818182	5.363636364	1	2015	4	Z5
10	12-Jan-15	Benzo(a)pyrene	50-32-8	--	--	--	1100	0.019090909	4.090909091	1	2015	4	Z5
10	12-Jan-15	Benzo(b)fluoranthene	205-99-2	--	--	--	1100	0.017272727	6.181818182	1	2015	4	Z5
10	12-Jan-15	Benzo(ghi)perylene	191-24-2	--	--	--	1100	0.023636364	3.272727273	1	2015	4	Z5
10	12-Jan-15	Benzo(k)fluoranthene	207-08-9	--	--	--	1100	0.012727273	2.818181818	1	2015	4	Z5
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	4	Z5
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	4	Z5
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	4	Z5
10	12-Jan-15	Bis(2-ethylhexyl) phthalate	117-81-7	0.02	c	All	20	5.5	220	1	2015	4	Z5
10	12-Jan-15	Butylbenzyl phthalate	85-68-7	0.59	d	All	590	0.203389831	--	0	2015	4	Z5
10	12-Jan-15	Caprolactam	--	--	--	--	--	--	--	0	2015	4	Z5
10	12-Jan-15	Carbazole	86-74-8	0.16	d	All	160	0.60625	11.25	1	2015	4	Z5
10	12-Jan-15	Chrysene	218-01-9	--	--	--	1100	0.014545455	5.818181818	1	2015	4	Z5
10	12-Jan-15	Dibenzo(a,h)anthracene	53-70-3	--	--	--	1100	0.021818182	1	1	2015	4	Z5
10	12-Jan-15	Dibenzofuran	132-64-9	0.15	d	All	150	0.666666667	8	1	2015	4	Z5
10	12-Jan-15	Diethylphthalate	84-66-2	0.23	d	All	230	0.434782609	--	0	2015	4	Z5
10	12-Jan-15	Dimethylphthalate	131-11-3	0.35	d	All	350	0.314285714	--	0	2015	4	Z5
10	12-Jan-15	Di-n-butyl phthalate	84-74-2	0.011	c	All	11	4.272727273	--	0	2015	4	Z5
10	12-Jan-15	Di-n-octyl phthalate	117-84-0	0.21	c	All	210	0.523809524	--	0	2015	4	Z5
10	12-Jan-15	Fluoranthene	206-44-0	--	--	--	1100	0.020909091	18.18181818	1	2015	4	Z5
10	12-Jan-15	Fluorene	86-73-7	--	--	All, total	29000	0.000758621	0.008965517	1	2015	4	Z5
10	12-Jan-15	Hexachlorobenzene	118-74-1	0.079	c	All	79	1.151898734	--	0	2015	4	Z5
10	12-Jan-15	Hexachlorobutadiene	87-68-3	0.1	d	SI	100	1.1	--	0	2015	4	Z5
10	12-Jan-15	Hexachlorocyclopentadiene	77-47-4	0.001	d	All	1	100	--	0	2015	4	Z5

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	150	1,600	µg/Kg-dry
ISM-4-Z5	1501301-04	6-Jan-15	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	67500	--	--	--	--	µg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	4,100	4,100	--	22	290	µg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	110	1,600	µg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Naphthalene	700	700	--	24	290	µg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	130	1,600	µg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	120	1,600	µg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	580	1,600	µg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	63	200	µg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenanthrene	15,000	15,000	--	13	290	µg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	110	1,600	µg/Kg-dry
ISM-4-Z5	1501301-04	06-Jan-15	Soil	Semi-Volatile Organic Compounds	Pyrene	12,000	12,000	--	22	290	µg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Mercury by CVAA	Mercury	0.19	0.19	--	0.00087	0.014	mg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Metals by ICP-MS	Aluminum	6,600	6,600	--	0.96	2.8	mg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Metals by ICP-MS	Antimony	12	12	--	0.37	1.4	mg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Metals by ICP-MS	Arsenic	7.5	7.5	--	0.29	0.56	mg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Metals by ICP-MS	Barium	270	270	--	0.017	1.4	mg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Metals by ICP-MS	Beryllium	0.26	0.26	J	0.15	0.56	mg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Metals by ICP-MS	Cadmium	6.1	6.1	--	0.056	0.56	mg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Metals by ICP-MS	Chromium	30	30	--	0.31	1.4	mg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Metals by ICP-MS	Cobalt	6.9	6.9	--	0.17	1.4	mg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Metals by ICP-MS	Copper	290	290	--	0.16	1.4	mg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Metals by ICP-MS	Iron	37,000	37,000	--	4.1	22	mg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Metals by ICP-MS	Lead	540	540	--	1.5	14	mg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Metals by ICP-MS	Manganese	450	450	--	0.22	1.4	mg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Metals by ICP-MS	Nickel	40	40	--	0.76	1.4	mg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Metals by ICP-MS	Selenium	0.84	0.84	J	0.29	1.1	mg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Metals by ICP-MS	Silver	3.2	3.2	--	0.0056	0.56	mg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Metals by ICP-MS	Thallium	--	U	U	0.15	1.4	mg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Metals by ICP-MS	Vanadium	10	10	--	0.23	1.4	mg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Metals by ICP-MS	Zinc	880	880	--	10	28	mg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Moisture	Moisture	0.55	0.55	--	0.025	0.05	% of sample
ISM-5-Z5	1501301-05	07-Jan-15	Soil	PCBs	Aroclor 1016	--	U	U	27	83	µg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	PCBs	Aroclor 1221	--	U	U	27	83	µg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	PCBs	Aroclor 1232	--	U	U	27	83	µg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	PCBs	Aroclor 1242	--	U	U	27	83	µg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	PCBs	Aroclor 1248	390	390	--	27	83	µg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	PCBs	Aroclor 1254	--	U	U	31	83	µg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	PCBs	Aroclor 1260	180	180	--	31	83	µg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	PCBs	PCBs, Total	570	--	--	--	--	µg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	1,1'-Biphenyl	520	520	J	50	3,300	µg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	4	Z5
--	12-Jan-15	High Molecular Weight PAHs	--	--	--	--	1100	--	61.36363636	1	2015	4	Z5
10	12-Jan-15	Indeno(1,2,3-cd)pyrene	193-39-5	--	--	--	1100	0.02	3.727272727	1	2015	4	Z5
10	12-Jan-15	Isophorone	--	--	--	--	--	--	--	0	2015	4	Z5
10	12-Jan-15	Naphthalene	91-20-3	--	--	All, total	29000	0.000827586	0.024137931	1	2015	4	Z5
10	12-Jan-15	Nitrobenzene	98-95-3	2.2	c	SI, M	2200	0.059090909	--	0	2015	4	Z5
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	4	Z5
10	12-Jan-15	N-Nitrosodiphenylamine	86-30-6	0.12	d	All	120	4.833333333	--	0	2015	4	Z5
10	12-Jan-15	Pentachlorophenol (PCP)	87-86-5	2.1	a	All	2100	0.03	--	0	2015	4	Z5
10	12-Jan-15	Phenanthrene	67580	--	--	--	29000	0.000448276	0.517241379	1	2015	4	Z5
10	12-Jan-15	Phenol	108-95-2	0.79	c	All	790	0.139240506	--	0	2015	4	Z5
10	12-Jan-15	Pyrene	129-00-0	--	--	--	1100	0.02	10.90909091	1	2015	4	Z5
1	12-Jan-15	Mercury (total)	7439-97-6	0.1	b	All	100	0.0087	1.9	1	2015	5	Z5
4	12-Jan-15	Aluminum	7429-90-5	--	a	All	--	--	--	1	2015	5	Z5
4	12-Jan-15	Antimony	7440-36-0	0.27	a	All	0.27	1.37037037	44.44444444	1	2015	5	Z5
4	12-Jan-15	Arsenic	7440-38-2	18	a	All	18000	0.016111111	0.416666667	1	2015	5	Z5
4	12-Jan-15	Barium	7440-39-3	330	a	All	330000	5.15152E-05	0.818181818	1	2015	5	Z5
4	12-Jan-15	Beryllium	7440-41-7	10	b	All	10000	0.015	0.026	1	2015	5	Z5
4	12-Jan-15	Cadmium	7440-43-9	0.36	a	All	360	0.155555556	16.94444444	1	2015	5	Z5
4	12-Jan-15	Chromium III	16065-83-1	18	a	All	18000	0.017222222	1.666666667	1	2015	5	Z5
4	12-Jan-15	Cobalt	7440-48-4	13	a	All	13000	0.013076923	0.530769231	1	2015	5	Z5
4	12-Jan-15	Copper	7440-50-8	28	a	All	28000	0.005714286	10.35714286	1	2015	5	Z5
4	12-Jan-15	Iron	7439-89-6	--	a	All	--	--	--	1	2015	5	Z5
40	13-Jan-15	Lead	7439-92-1	11	a	All	11000	0.136363636	49.09090909	1	2015	5	Z5
4	12-Jan-15	Manganese	7439-96-5	220	a	All	220000	0.001	2.045454545	1	2015	5	Z5
4	12-Jan-15	Nickel	7440-02-0	38	a	All	38000	0.02	1.052631579	1	2015	5	Z5
4	12-Jan-15	Selenium	7782-49-2	0.52	a	All	520	0.557692308	1.615384615	1	2015	5	Z5
4	12-Jan-15	Silver	7440-22-4	4.2	a	All	4200	0.001333333	0.761904762	1	2015	5	Z5
4	12-Jan-15	Thallium	7440-28-0	0.22	c	All	220	0.681818182	--	0	2015	5	Z5
4	12-Jan-15	Vanadium	7440-62-2	7.8	a	All	7800	0.029487179	1.282051282	1	2015	5	Z5
40	13-Jan-15	Zinc	7440-66-6	46	a	All	46000	0.217391304	19.13043478	1	2015	5	Z5
1	12-Jan-15	--	--	--	--	--	--	--	--	--	2015	5	Z5
1	15-Jan-15	Aroclor-1016	12674-11-2	1	c	All	1000	0.027	--	0	2015	5	Z5
1	15-Jan-15	--	--	--	--	--	--	--	--	0	2015	5	Z5
1	15-Jan-15	--	--	--	--	--	--	--	--	0	2015	5	Z5
1	15-Jan-15	Aroclor-1242	53469-21-9	0.041	c	All	41	0.658536585	--	0	2015	5	Z5
1	15-Jan-15	Aroclor-1248	12672-29-6	0.0072	c	All	7.2	3.75	54.16666667	1	2015	5	Z5
1	15-Jan-15	Aroclor-1254	11097-69-1	0.014	c	All	14	2.214285714	--	0	2015	5	Z5
1	15-Jan-15	Aroclor-1260	11096-82-5	0.88	c	All	880	0.035227273	0.204545455	1	2015	5	Z5
--	--	PCBs (sum) (Wildlife Based)	1336-36-3	0.33	d	All	330	0	1.727272727	1	2015	5	Z5
10	12-Jan-15	1,1'-Biphenyl	92-52-4	0.2	d	All	200	0.25	2.6	1	2015	5	Z5

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	83	1,600	µg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	56	1,600	µg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	97	1,600	µg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	530	3,300	µg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	300	6,600	µg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	110	1,600	µg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	170	1,600	µg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	16	800	µg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	100	1,600	µg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	850	850	--	28	800	µg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	140	1,600	µg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	130	6,600	µg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	110	1,600	µg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	3&4-Methylphenol	--	U	U	160	--	µg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	4,100	6,600	µg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	110	6,600	µg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	280	3,300	µg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	90	1,600	µg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	77	1,600	µg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	99	3,300	µg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	97	1,600	µg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	92	6,600	µg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	66	6,600	µg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthene	700	700	--	10	300	µg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	210	210	J	12	300	µg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	50	3,300	µg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Anthracene	4,400	4,400	--	13	300	µg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	100	500	µg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	450	450	J	130	3,300	µg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	15,000	15,000	--	13	300	µg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	12,000	12,000	--	22	300	µg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	16,000	16,000	--	20	300	µg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	8,400	8,400	--	26	300	µg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	6,900	6,900	--	14	300	µg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	100	1,600	µg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	100	1,600	µg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	140	1,600	µg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	14,000	14,000	--	110	3,300	µg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	--	U	U	120	1,600	µg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	150	3,300	µg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
10	12-Jan-15	2,4,5-Trichlorophenol	95-95-4	0.03	d	All	30	2.766666667	--	0	2015	5	Z5
10	12-Jan-15	2,4,6-Trichlorophenol	88-06-2	0.09	d	All	90	0.622222222	--	0	2015	5	Z5
10	12-Jan-15	Dichlorophenols ,3-), (2,4-), (2,5-), (2,6-)	120-83-2	0.05	d	All	50	1.94	--	0	2015	5	Z5
10	12-Jan-15	2,4-Dimethylphenol	105-67-9	0.04	d	SI	40	13.25	--	0	2015	5	Z5
10	12-Jan-15	2,4-Dinitrophenol	51-28-5	0.15	d	All	150	2	--	0	2015	5	Z5
10	12-Jan-15	2,4-Dinitrotoluene	121-14-2	6	c	SI, M, P	6000	0.018333333	--	0	2015	5	Z5
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	5	Z5
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	5	Z5
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	5	Z5
10	12-Jan-15	2-Methylnaphthalene	91-57-6	--	--	All, total	29000	0.000965517	0.029310345	1	2015	5	Z5
10	12-Jan-15	2-Methylphenol (Cresol, o-)	95-48-7	0.1	d	All	100	1.4	--	0	2015	5	Z5
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	5	Z5
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	5	Z5
10	12-Jan-15	4-Methylphenol (Cresol, p-)	106-44-5	0.08	d	All	80	2	--	0	2015	5	Z5
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	5	Z5
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	5	Z5
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	5	Z5
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	5	Z5
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	5	Z5
10	12-Jan-15	4-Chloroaniline	106-47-8	1.0	c	P, SI	1000	0.099	--	0	2015	5	Z5
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	5	Z5
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	5	Z5
10	12-Jan-15	4-Nitrophenol	100-02-7	7	b	SI	7000	0.009428571	--	0	2015	5	Z5
10	12-Jan-15	Acenaphthene	83-32-9	--	--	All, total	29000	0.000344828	0.024137931	1	2015	5	Z5
10	12-Jan-15	Acenaphthylene	208-96-8	--	--	--	29000	0.000413793	0.007241379	1	2015	5	Z5
10	12-Jan-15	Acetophenone	--	--	--	--	--	--	--	0	2015	5	Z5
10	12-Jan-15	Anthracene	120-12-7	--	--	--	29000	0.000448276	0.151724138	1	2015	5	Z5
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	5	Z5
10	12-Jan-15	Benzaldehyde	--	--	--	--	--	--	--	1	2015	5	Z5
10	12-Jan-15	Benzo(a)anthracene	56-55-3	--	--	--	1100	0.011818182	13.63636364	1	2015	5	Z5
10	12-Jan-15	Benzo(a)pyrene	50-32-8	--	--	--	1100	0.02	10.90909091	1	2015	5	Z5
10	12-Jan-15	Benzo(b)fluoranthene	205-99-2	--	--	--	1100	0.018181818	14.54545455	1	2015	5	Z5
10	12-Jan-15	Benzo(ghi)perylene	191-24-2	--	--	--	1100	0.023636364	7.636363636	1	2015	5	Z5
10	12-Jan-15	Benzo(k)fluoranthene	207-08-9	--	--	--	1100	0.012727273	6.272727273	1	2015	5	Z5
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	5	Z5
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	5	Z5
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	5	Z5
10	12-Jan-15	Bis(2-ethylhexyl) phthalate	117-81-7	0.02	c	All	20	5.5	700	1	2015	5	Z5
10	12-Jan-15	Butylbenzyl phthalate	85-68-7	0.59	d	All	590	0.203389831	--	0	2015	5	Z5
10	12-Jan-15	Caprolactam	--	--	--	--	--	--	--	0	2015	5	Z5

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Carbazole	4,900	4,900	--	99	1,600	µg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Chrysene	17,000	17,000	--	16	300	µg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	2,200	2,200	--	25	300	µg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	4,700	4,700	--	100	1,600	µg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	110	3,300	µg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	110	3,300	µg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U	48	3,300	µg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	730	730	J	110	1,600	µg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluoranthene	66,000	66,000	E	23	300	µg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluorene	720	720	--	22	300	µg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	93	1,600	µg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	110	500	µg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	100	3,300	µg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	150	1,600	µg/Kg-dry
ISM-5-Z5	1501301-05	7-Jan-15	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	198100	--	--	--	--	µg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	9,600	9,600	--	22	300	µg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	110	1,600	µg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Naphthalene	3,200	3,200	--	24	300	µg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	130	1,600	µg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	130	1,600	µg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	590	1,600	µg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	64	200	µg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenanthrene	79,000	79,000	E	13	300	µg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	110	1,600	µg/Kg-dry
ISM-5-Z5	1501301-05	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Pyrene	45,000	45,000	E	22	300	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Mercury by CVAA	Mercury	0.31	0.31	--	0.0037	0.061	mg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Metals by ICP-MS	Aluminum	6,700	6,700	--	1.1	3.2	mg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Metals by ICP-MS	Antimony	8.8	8.8	--	0.42	1.6	mg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Metals by ICP-MS	Arsenic	9.1	9.1	--	0.33	0.64	mg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Metals by ICP-MS	Barium	430	430	--	0.019	1.6	mg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Metals by ICP-MS	Beryllium	0.27	0.27	J	0.17	0.64	mg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Metals by ICP-MS	Cadmium	7.9	7.9	--	0.064	0.64	mg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Metals by ICP-MS	Chromium	41	41	--	0.36	1.6	mg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Metals by ICP-MS	Cobalt	7.4	7.4	--	0.19	1.6	mg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Metals by ICP-MS	Copper	200	200	--	0.18	1.6	mg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Metals by ICP-MS	Iron	47,000	47,000	--	4.7	26	mg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Metals by ICP-MS	Lead	680	680	--	1.7	16	mg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Metals by ICP-MS	Manganese	700	700	--	2.6	16	mg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Metals by ICP-MS	Nickel	39	39	--	0.86	1.6	mg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Metals by ICP-MS	Selenium	0.96	0.96	J	0.33	1.3	mg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Metals by ICP-MS	Silver	2.3	2.3	--	0.0064	0.64	mg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
10	12-Jan-15	Carbazole	86-74-8	0.16	d	All	160	0.61875	30.625	1	2015	5	Z5
10	12-Jan-15	Chrysene	218-01-9	--	--	--	1100	0.014545455	15.45454545	1	2015	5	Z5
10	12-Jan-15	Dibenzo(a,h)anthracene	53-70-3	--	--	--	1100	0.022727273	2	1	2015	5	Z5
10	12-Jan-15	Dibenzofuran	132-64-9	0.15	d	All	150	0.666666667	31.33333333	1	2015	5	Z5
10	12-Jan-15	Diethylphthalate	84-66-2	0.23	d	All	230	0.47826087	--	0	2015	5	Z5
10	12-Jan-15	Dimethylphthalate	131-11-3	0.35	d	All	350	0.314285714	--	0	2015	5	Z5
10	12-Jan-15	Di-n-butyl phthalate	84-74-2	0.011	c	All	11	4.363636364	--	0	2015	5	Z5
10	12-Jan-15	Di-n-octyl phthalate	117-84-0	0.21	c	All	210	0.523809524	3.476190476	1	2015	5	Z5
10	12-Jan-15	Fluoranthene	206-44-0	--	--	--	1100	0.020909091	60	1	2015	5	Z5
10	12-Jan-15	Fluorene	86-73-7	--	--	All, total	29000	0.000758621	0.024827586	1	2015	5	Z5
10	12-Jan-15	Hexachlorobenzene	118-74-1	0.079	c	All	79	1.17721519	--	0	2015	5	Z5
10	12-Jan-15	Hexachlorobutadiene	87-68-3	0.1	d	SI	100	1.1	--	0	2015	5	Z5
10	12-Jan-15	Hexachlorocyclopentadiene	77-47-4	0.001	d	All	1	100	--	0	2015	5	Z5
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	5	Z5
--	12-Jan-15	High Molecular Weight PAHs	--	--	--	--	1100	--	180.0909091	1	2015	5	Z5
10	12-Jan-15	Indeno(1,2,3-cd)pyrene	193-39-5	--	--	--	1100	0.02	8.727272727	1	2015	5	Z5
10	12-Jan-15	Isophorone	--	--	--	--	--	--	--	0	2015	5	Z5
10	12-Jan-15	Naphthalene	91-20-3	--	--	All, total	29000	0.000827586	0.110344828	1	2015	5	Z5
10	12-Jan-15	Nitrobenzene	98-95-3	2.2	c	SI, M	2200	0.059090909	--	0	2015	5	Z5
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	5	Z5
10	12-Jan-15	N-Nitrosodiphenylamine	86-30-6	0.12	d	All	120	4.916666667	--	0	2015	5	Z5
10	12-Jan-15	Pentachlorophenol (PCP)	87-86-5	2.1	a	All	2100	0.03047619	--	0	2015	5	Z5
10	12-Jan-15	Phenanthrene	67580	--	--	--	29000	0.000448276	2.724137931	1	2015	5	Z5
10	12-Jan-15	Phenol	108-95-2	0.79	c	All	790	0.139240506	--	0	2015	5	Z5
10	12-Jan-15	Pyrene	129-00-0	--	--	--	1100	0.02	40.90909091	1	2015	5	Z5
5	12-Jan-15	Mercury (total)	7439-97-6	0.1	b	All	100	0.037	3.1	1	2015	6	Z5
4	12-Jan-15	Aluminum	7429-90-5	--	a	All	--	--	--	1	2015	6	Z5
4	12-Jan-15	Antimony	7440-36-0	0.27	a	All	0.27	1.555555556	32.59259259	1	2015	6	Z5
4	12-Jan-15	Arsenic	7440-38-2	18	a	All	18000	0.018333333	0.505555556	1	2015	6	Z5
4	12-Jan-15	Barium	7440-39-3	330	a	All	330000	5.75758E-05	1.303030303	1	2015	6	Z5
4	12-Jan-15	Beryllium	7440-41-7	10	b	All	10000	0.017	0.027	1	2015	6	Z5
4	12-Jan-15	Cadmium	7440-43-9	0.36	a	All	360	0.177777778	21.94444444	1	2015	6	Z5
4	12-Jan-15	Chromium III	16065-83-1	18	a	All	18000	0.02	2.277777778	1	2015	6	Z5
4	12-Jan-15	Cobalt	7440-48-4	13	a	All	13000	0.014615385	0.569230769	1	2015	6	Z5
4	12-Jan-15	Copper	7440-50-8	28	a	All	28000	0.006428571	7.142857143	1	2015	6	Z5
4	12-Jan-15	Iron	7439-89-6	--	a	All	--	--	--	1	2015	6	Z5
40	13-Jan-15	Lead	7439-92-1	11	a	All	11000	0.154545455	61.81818182	1	2015	6	Z5
40	13-Jan-15	Manganese	7439-96-5	220	a	All	220000	0.011818182	3.181818182	1	2015	6	Z5
4	12-Jan-15	Nickel	7440-02-0	38	a	All	38000	0.022631579	1.026315789	1	2015	6	Z5
4	12-Jan-15	Selenium	7782-49-2	0.52	a	All	520	0.634615385	1.846153846	1	2015	6	Z5
4	12-Jan-15	Silver	7440-22-4	4.2	a	All	4200	0.00152381	0.547619048	1	2015	6	Z5

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Metals by ICP-MS	Thallium	--	U	U	0.17	1.6	mg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Metals by ICP-MS	Vanadium	19	19	--	0.26	1.6	mg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Metals by ICP-MS	Zinc	920	920	--	11	32	mg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Moisture	Moisture	0.62	0.62	--	0.025	0.05	% of sample
ISM-6-Z5	1501301-06	07-Jan-15	Soil	PCBs	Aroclor 1016	--	U	U	27	83	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	PCBs	Aroclor 1221	--	U	U	27	83	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	PCBs	Aroclor 1232	--	U	U	27	83	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	PCBs	Aroclor 1242	--	U	U	27	83	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	PCBs	Aroclor 1248	--	U	U	27	83	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	PCBs	Aroclor 1254	440	440	--	31	83	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	PCBs	Aroclor 1260	--	U	U	31	83	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	PCBs	PCBs, Total	440	--	--	--	--	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	1,1'-Biphenyl	--	U	U	49	3,300	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	82	1,600	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	55	1,600	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	96	1,600	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	530	3,300	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	300	6,500	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	110	1,600	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	170	1,600	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	15	790	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	99	1,600	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	380	380	J	27	790	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	130	1,600	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	130	6,500	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	110	1,600	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	3&4-Methylphenol	--	U	U	160	--	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	4,100	6,500	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	110	6,500	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	270	3,300	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	89	1,600	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	76	1,600	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	98	3,300	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	96	1,600	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	91	6,500	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	65	6,500	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthene	680	680	--	9.8	300	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	210	210	J	12	300	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Acetophenone	230	230	J	49	3,300	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Anthracene	2,400	2,400	--	13	300	µg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
4	12-Jan-15	Thallium	7440-28-0	0.22	c	All	220	0.772727273	--	0	2015	6	Z5
4	12-Jan-15	Vanadium	7440-62-2	7.8	a	All	7800	0.033333333	2.435897436	1	2015	6	Z5
40	13-Jan-15	Zinc	7440-66-6	46	a	All	46000	0.239130435	20	1	2015	6	Z5
1	12-Jan-15	--	--	--	--	--	--	--	--	--	2015	6	Z5
1	15-Jan-15	Aroclor-1016	12674-11-2	1	c	All	1000	0.027	--	0	2015	6	Z5
1	15-Jan-15	--	--	--	--	--	--	--	--	0	2015	6	Z5
1	15-Jan-15	--	--	--	--	--	--	--	--	0	2015	6	Z5
1	15-Jan-15	Aroclor-1242	53469-21-9	0.041	c	All	41	0.658536585	--	0	2015	6	Z5
1	15-Jan-15	Aroclor-1248	12672-29-6	0.0072	c	All	7.2	3.75	--	0	2015	6	Z5
1	15-Jan-15	Aroclor-1254	11097-69-1	0.014	c	All	14	2.214285714	31.42857143	1	2015	6	Z5
1	15-Jan-15	Aroclor-1260	11096-82-5	0.88	c	All	880	0.035227273	--	0	2015	6	Z5
--	--	PCBs (sum) (Wildlife Based)	1336-36-3	0.33	d	All	330	0	1.333333333	1	2015	6	Z5
10	12-Jan-15	1,1'-Biphenyl	92-52-4	0.2	d	All	200	0.245	--	0	2015	6	Z5
10	12-Jan-15	2,4,5-Trichlorophenol	95-95-4	0.03	d	All	30	2.733333333	--	0	2015	6	Z5
10	12-Jan-15	2,4,6-Trichlorophenol	88-06-2	0.09	d	All	90	0.611111111	--	0	2015	6	Z5
10	12-Jan-15	Dichlorophenols ,3-), (2,4-), (2,5-), (2,6-)	120-83-2	0.05	d	All	50	1.92	--	0	2015	6	Z5
10	12-Jan-15	2,4-Dimethylphenol	105-67-9	0.04	d	SI	40	13.25	--	0	2015	6	Z5
10	12-Jan-15	2,4-Dinitrophenol	51-28-5	0.15	d	All	150	2	--	0	2015	6	Z5
10	12-Jan-15	2,4-Dinitrotoluene	121-14-2	6	c	SI, M, P	6000	0.018333333	--	0	2015	6	Z5
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	6	Z5
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	6	Z5
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	6	Z5
10	12-Jan-15	2-Methylnaphthalene	91-57-6	--	--	All, total	29000	0.000931034	0.013103448	1	2015	6	Z5
10	12-Jan-15	2-Methylphenol (Cresol, o-)	95-48-7	0.1	d	All	100	1.3	--	0	2015	6	Z5
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	6	Z5
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	6	Z5
10	12-Jan-15	4-Methylphenol (Cresol, p-)	106-44-5	0.08	d	All	80	2	--	0	2015	6	Z5
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	6	Z5
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	6	Z5
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	6	Z5
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	6	Z5
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	6	Z5
10	12-Jan-15	4-Chloroaniline	106-47-8	1.0	c	P, SI	1000	0.098	--	0	2015	6	Z5
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	6	Z5
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	6	Z5
10	12-Jan-15	4-Nitrophenol	100-02-7	7	b	SI	7000	0.009285714	--	0	2015	6	Z5
10	12-Jan-15	Acenaphthene	83-32-9	--	--	All, total	29000	0.000337931	0.023448276	1	2015	6	Z5
10	12-Jan-15	Acenaphthylene	208-96-8	--	--	--	29000	0.000413793	0.007241379	1	2015	6	Z5
10	12-Jan-15	Acetophenone	--	--	--	--	--	--	--	1	2015	6	Z5
10	12-Jan-15	Anthracene	120-12-7	--	--	--	29000	0.000448276	0.082758621	1	2015	6	Z5

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	100	490	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	--	U	U	130	3,300	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	6,700	6,700	--	13	300	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	5,400	5,400	--	21	300	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	7,400	7,400	--	19	300	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	4,200	4,200	--	26	300	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	3,100	3,100	--	14	300	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	100	1,600	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	100	1,600	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	140	1,600	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	--	U	U	110	3,300	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	1,500	1,500	J	120	1,600	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	140	3,300	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Carbazole	1,500	1,500	J	98	1,600	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Chrysene	7,100	7,100	--	16	300	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	1,100	1,100	--	24	300	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	1,600	1,600	J	100	1,600	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	100	3,300	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	110	3,300	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U	48	3,300	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	110	1,600	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluoranthene	21,000	21,000	E	23	300	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluorene	530	530	--	22	300	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	92	1,600	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	110	490	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	100	3,300	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	150	1,600	µg/Kg-dry
ISM-6-Z5	1501301-06	7-Jan-15	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	76700	--	--	--	--	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	4,700	4,700	--	22	300	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	110	1,600	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Naphthalene	1,300	1,300	--	24	300	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	130	1,600	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	130	1,600	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	590	1,600	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	63	200	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenanthrene	19,000	19,000	--	13	300	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	110	1,600	µg/Kg-dry
ISM-6-Z5	1501301-06	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Pyrene	16,000	16,000	--	22	300	µg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Mercury by CVAA	Mercury	0.12	0.12	--	0.00074	0.012	mg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Metals by ICP-MS	Aluminum	7,700	7,700	--	1.1	3.1	mg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Metals by ICP-MS	Antimony	6.8	6.8	--	0.41	1.5	mg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	6	Z5
10	12-Jan-15	Benzaldehyde	--	--	--	--	--	--	--	0	2015	6	Z5
10	12-Jan-15	Benzo(a)anthracene	56-55-3	--	--	--	1100	0.011818182	6.090909091	1	2015	6	Z5
10	12-Jan-15	Benzo(a)pyrene	50-32-8	--	--	--	1100	0.019090909	4.909090909	1	2015	6	Z5
10	12-Jan-15	Benzo(b)fluoranthene	205-99-2	--	--	--	1100	0.017272727	6.727272727	1	2015	6	Z5
10	12-Jan-15	Benzo(ghi)perylene	191-24-2	--	--	--	1100	0.023636364	3.818181818	1	2015	6	Z5
10	12-Jan-15	Benzo(k)fluoranthene	207-08-9	--	--	--	1100	0.012727273	2.818181818	1	2015	6	Z5
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	6	Z5
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	6	Z5
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	6	Z5
10	12-Jan-15	Bis(2-ethylhexyl) phthalate	117-81-7	0.02	c	All	20	5.5	--	0	2015	6	Z5
10	12-Jan-15	Butylbenzyl phthalate	85-68-7	0.59	d	All	590	0.203389831	2.542372881	1	2015	6	Z5
10	12-Jan-15	Caprolactam	--	--	--	--	--	--	--	0	2015	6	Z5
10	12-Jan-15	Carbazole	86-74-8	0.16	d	All	160	0.6125	9.375	1	2015	6	Z5
10	12-Jan-15	Chrysene	218-01-9	--	--	--	1100	0.014545455	6.454545455	1	2015	6	Z5
10	12-Jan-15	Dibenzo(a,h)anthracene	53-70-3	--	--	--	1100	0.021818182	1	1	2015	6	Z5
10	12-Jan-15	Dibenzofuran	132-64-9	0.15	d	All	150	0.666666667	10.66666667	1	2015	6	Z5
10	12-Jan-15	Diethylphthalate	84-66-2	0.23	d	All	230	0.434782609	--	0	2015	6	Z5
10	12-Jan-15	Dimethylphthalate	131-11-3	0.35	d	All	350	0.314285714	--	0	2015	6	Z5
10	12-Jan-15	Di-n-butyl phthalate	84-74-2	0.011	c	All	11	4.363636364	--	0	2015	6	Z5
10	12-Jan-15	Di-n-octyl phthalate	117-84-0	0.21	c	All	210	0.523809524	--	0	2015	6	Z5
10	12-Jan-15	Fluoranthene	206-44-0	--	--	--	1100	0.020909091	19.09090909	1	2015	6	Z5
10	12-Jan-15	Fluorene	86-73-7	--	--	All, total	29000	0.000758621	0.018275862	1	2015	6	Z5
10	12-Jan-15	Hexachlorobenzene	118-74-1	0.079	c	All	79	1.164556962	--	0	2015	6	Z5
10	12-Jan-15	Hexachlorobutadiene	87-68-3	0.1	d	SI	100	1.1	--	0	2015	6	Z5
10	12-Jan-15	Hexachlorocyclopentadiene	77-47-4	0.001	d	All	1	100	--	0	2015	6	Z5
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	6	Z5
--	12-Jan-15	High Molecular Weight PAHs	--	--	--	--	1100	--	69.72727273	1	2015	6	Z5
10	12-Jan-15	Indeno(1,2,3-cd)pyrene	193-39-5	--	--	--	1100	0.02	4.272727273	1	2015	6	Z5
10	12-Jan-15	Isophorone	--	--	--	--	--	--	--	0	2015	6	Z5
10	12-Jan-15	Naphthalene	91-20-3	--	--	All, total	29000	0.000827586	0.044827586	1	2015	6	Z5
10	12-Jan-15	Nitrobenzene	98-95-3	2.2	c	SI, M	2200	0.059090909	--	0	2015	6	Z5
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	6	Z5
10	12-Jan-15	N-Nitrosodiphenylamine	86-30-6	0.12	d	All	120	4.916666667	--	0	2015	6	Z5
10	12-Jan-15	Pentachlorophenol (PCP)	87-86-5	2.1	a	All	2100	0.03	--	0	2015	6	Z5
10	12-Jan-15	Phenanthrene	67580	--	--	--	29000	0.000448276	0.655172414	1	2015	6	Z5
10	12-Jan-15	Phenol	108-95-2	0.79	c	All	790	0.139240506	--	0	2015	6	Z5
10	12-Jan-15	Pyrene	129-00-0	--	--	--	1100	0.02	14.54545455	1	2015	6	Z5
1	12-Jan-15	Mercury (total)	7439-97-6	0.1	b	All	100	0.0074	1.2	1	2015	7	Z6
4	12-Jan-15	Aluminum	7429-90-5	--	a	All	--	--	--	1	2015	7	Z6
4	12-Jan-15	Antimony	7440-36-0	0.27	a	All	0.27	1.518518519	25.18518519	1	2015	7	Z6

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Metals by ICP-MS	Arsenic	6.6	6.6	--	0.32	0.61	mg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Metals by ICP-MS	Barium	200	200	--	0.018	1.5	mg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Metals by ICP-MS	Beryllium	0.24	0.24	J	0.16	0.61	mg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Metals by ICP-MS	Cadmium	4.3	4.3	--	0.061	0.61	mg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Metals by ICP-MS	Chromium	21	21	--	0.34	1.5	mg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Metals by ICP-MS	Cobalt	5	5.0	--	0.18	1.5	mg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Metals by ICP-MS	Copper	260	260	--	0.17	1.5	mg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Metals by ICP-MS	Iron	29,000	29,000	--	4.5	25	mg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Metals by ICP-MS	Lead	350	350	--	0.16	1.5	mg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Metals by ICP-MS	Manganese	380	380	--	0.25	1.5	mg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Metals by ICP-MS	Nickel	32	32	--	0.83	1.5	mg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Metals by ICP-MS	Selenium	1.1	1.1	J	0.32	1.2	mg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Metals by ICP-MS	Silver	1.5	1.5	--	0.0061	0.61	mg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Metals by ICP-MS	Thallium	--	U	U	0.17	1.5	mg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Metals by ICP-MS	Vanadium	11	11	--	0.25	1.5	mg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Metals by ICP-MS	Zinc	530	530	--	1.1	3.1	mg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Moisture	Moisture	0.4	0.40	--	0.025	0.05	% of sample
ISM-7-Z6	1501301-07	07-Jan-15	Soil	PCBs	Aroclor 1016	--	U	U	26	82	µg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	PCBs	Aroclor 1221	--	U	U	26	82	µg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	PCBs	Aroclor 1232	--	U	U	26	82	µg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	PCBs	Aroclor 1242	--	U	U	26	82	µg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	PCBs	Aroclor 1248	--	U	U	26	82	µg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	PCBs	Aroclor 1254	300	300	--	31	82	µg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	PCBs	Aroclor 1260	240	240	--	31	82	µg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	PCBs	PCBs, Total	540	--	--	--	--	µg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	1,1'-Biphenyl	--	U	U	49	3,300	µg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	82	1,600	µg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	55	1,600	µg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	96	1,600	µg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	530	3,300	µg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	300	6,500	µg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	110	1,600	µg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	170	1,600	µg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	15	790	µg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	99	1,600	µg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	100	100	J	27	790	µg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	130	1,600	µg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	130	6,500	µg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	110	1,600	µg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	3&4-Methylphenol	--	U	U	160	--	µg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
4	12-Jan-15	Arsenic	7440-38-2	18	a	All	18000	0.017777778	0.366666667	1	2015	7	Z6
4	12-Jan-15	Barium	7440-39-3	330	a	All	330000	5.45455E-05	0.606060606	1	2015	7	Z6
4	12-Jan-15	Beryllium	7440-41-7	10	b	All	10000	0.016	0.024	1	2015	7	Z6
4	12-Jan-15	Cadmium	7440-43-9	0.36	a	All	360	0.169444444	11.94444444	1	2015	7	Z6
4	12-Jan-15	Chromium III	16065-83-1	18	a	All	18000	0.018888889	1.166666667	1	2015	7	Z6
4	12-Jan-15	Cobalt	7440-48-4	13	a	All	13000	0.013846154	0.384615385	1	2015	7	Z6
4	12-Jan-15	Copper	7440-50-8	28	a	All	28000	0.006071429	9.285714286	1	2015	7	Z6
4	12-Jan-15	Iron	7439-89-6	--	a	All	--	--	--	1	2015	7	Z6
4	12-Jan-15	Lead	7439-92-1	11	a	All	11000	0.014545455	31.81818182	1	2015	7	Z6
4	12-Jan-15	Manganese	7439-96-5	220	a	All	220000	0.001136364	1.727272727	1	2015	7	Z6
4	12-Jan-15	Nickel	7440-02-0	38	a	All	38000	0.021842105	0.842105263	1	2015	7	Z6
4	12-Jan-15	Selenium	7782-49-2	0.52	a	All	520	0.615384615	2.115384615	1	2015	7	Z6
4	12-Jan-15	Silver	7440-22-4	4.2	a	All	4200	0.001452381	0.357142857	1	2015	7	Z6
4	12-Jan-15	Thallium	7440-28-0	0.22	c	All	220	0.772727273	--	0	2015	7	Z6
4	12-Jan-15	Vanadium	7440-62-2	7.8	a	All	7800	0.032051282	1.41025641	1	2015	7	Z6
4	12-Jan-15	Zinc	7440-66-6	46	a	All	46000	0.023913043	11.52173913	1	2015	7	Z6
1	12-Jan-15	--	--	--	--	--	--	--	--	--	2015	7	Z6
1	15-Jan-15	Aroclor-1016	12674-11-2	1	c	All	1000	0.026	--	0	2015	7	Z6
1	15-Jan-15	--	--	--	--	--	--	--	--	0	2015	7	Z6
1	15-Jan-15	--	--	--	--	--	--	--	--	0	2015	7	Z6
1	15-Jan-15	Aroclor-1242	53469-21-9	0.041	c	All	41	0.634146341	--	0	2015	7	Z6
1	15-Jan-15	Aroclor-1248	12672-29-6	0.0072	c	All	7.2	3.611111111	--	0	2015	7	Z6
1	15-Jan-15	Aroclor-1254	11097-69-1	0.014	c	All	14	2.214285714	21.42857143	1	2015	7	Z6
1	15-Jan-15	Aroclor-1260	11096-82-5	0.88	c	All	880	0.035227273	0.272727273	1	2015	7	Z6
--	--	PCBs (sum) (Wildlife Based)	1336-36-3	0.33	d	All	330	0	1.636363636	1	2015	7	Z6
10	12-Jan-15	1,1'-Biphenyl	92-52-4	0.2	d	All	200	0.245	--	0	2015	7	Z6
10	12-Jan-15	2,4,5-Trichlorophenol	95-95-4	0.03	d	All	30	2.733333333	--	0	2015	7	Z6
10	12-Jan-15	2,4,6-Trichlorophenol	88-06-2	0.09	d	All	90	0.611111111	--	0	2015	7	Z6
10	12-Jan-15	Dichlorophenols ,3-), (2,4-), (2,5-), (2,6-)	120-83-2	0.05	d	All	50	1.92	--	0	2015	7	Z6
10	12-Jan-15	2,4-Dimethylphenol	105-67-9	0.04	d	SI	40	13.25	--	0	2015	7	Z6
10	12-Jan-15	2,4-Dinitrophenol	51-28-5	0.15	d	All	150	2	--	0	2015	7	Z6
10	12-Jan-15	2,4-Dinitrotoluene	121-14-2	6	c	SI, M, P	6000	0.018333333	--	0	2015	7	Z6
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	7	Z6
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	7	Z6
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	7	Z6
10	12-Jan-15	2-Methylnaphthalene	91-57-6	--	--	All, total	29000	0.000931034	0.003448276	1	2015	7	Z6
10	12-Jan-15	2-Methylphenol (Cresol, o-)	95-48-7	0.1	d	All	100	1.3	--	0	2015	7	Z6
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	7	Z6
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	7	Z6
10	12-Jan-15	4-Methylphenol (Cresol, p-)	106-44-5	0.08	d	All	80	2	--	0	2015	7	Z6

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	4,100	6,500	µg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	110	6,500	µg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	270	3,300	µg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	89	1,600	µg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	76	1,600	µg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	98	3,300	µg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	96	1,600	µg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	91	6,500	µg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	65	6,500	µg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthene	230	230	J	9.8	300	µg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	59	59	J	12	300	µg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	49	3,300	µg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Anthracene	990	990	--	13	300	µg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	100	490	µg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	400	400	J	130	3,300	µg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	1,900	1,900	--	13	300	µg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	1,600	1,600	--	21	300	µg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	2,300	2,300	--	19	300	µg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	1,300	1,300	--	26	300	µg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	950	950	--	14	300	µg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	100	1,600	µg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	100	1,600	µg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	140	1,600	µg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	--	U	U	110	3,300	µg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	--	U	U	120	1,600	µg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	140	3,300	µg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Carbazole	580	580	J	98	1,600	µg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Chrysene	2,000	2,000	--	16	300	µg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	--	U	U	25	300	µg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	620	620	J	100	1,600	µg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	100	3,300	µg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	110	3,300	µg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U	48	3,300	µg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	110	1,600	µg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluoranthene	5,200	5,200	--	23	300	µg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluorene	330	330	--	22	300	µg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	92	1,600	µg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	110	490	µg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	100	3,300	µg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	150	1,600	µg/Kg-dry
ISM-7-Z6	1501301-07	7-Jan-15	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	20275	--	--	--	--	µg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	7	Z6
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	7	Z6
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	7	Z6
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	7	Z6
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	7	Z6
10	12-Jan-15	4-Chloroaniline	106-47-8	1.0	c	P, SI	1000	0.098	--	0	2015	7	Z6
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	7	Z6
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	7	Z6
10	12-Jan-15	4-Nitrophenol	100-02-7	7	b	SI	7000	0.009285714	--	0	2015	7	Z6
10	12-Jan-15	Acenaphthene	83-32-9	--	--	All, total	29000	0.000337931	0.007931034	1	2015	7	Z6
10	12-Jan-15	Acenaphthylene	208-96-8	--	--	--	29000	0.000413793	0.002034483	1	2015	7	Z6
10	12-Jan-15	Acetophenone	--	--	--	--	--	--	--	0	2015	7	Z6
10	12-Jan-15	Anthracene	120-12-7	--	--	--	29000	0.000448276	0.034137931	1	2015	7	Z6
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	7	Z6
10	12-Jan-15	Benzaldehyde	--	--	--	--	--	--	--	1	2015	7	Z6
10	12-Jan-15	Benzo(a)anthracene	56-55-3	--	--	--	1100	0.011818182	1.727272727	1	2015	7	Z6
10	12-Jan-15	Benzo(a)pyrene	50-32-8	--	--	--	1100	0.019090909	1.454545455	1	2015	7	Z6
10	12-Jan-15	Benzo(b)fluoranthene	205-99-2	--	--	--	1100	0.017272727	2.090909091	1	2015	7	Z6
10	12-Jan-15	Benzo(ghi)perylene	191-24-2	--	--	--	1100	0.023636364	1.181818182	1	2015	7	Z6
10	12-Jan-15	Benzo(k)fluoranthene	207-08-9	--	--	--	1100	0.012727273	0.863636364	1	2015	7	Z6
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	7	Z6
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	7	Z6
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	7	Z6
10	12-Jan-15	Bis(2-ethylhexyl) phthalate	117-81-7	0.02	c	All	20	5.5	--	0	2015	7	Z6
10	12-Jan-15	Butylbenzyl phthalate	85-68-7	0.59	d	All	590	0.203389831	--	0	2015	7	Z6
10	12-Jan-15	Caprolactam	--	--	--	--	--	--	--	0	2015	7	Z6
10	12-Jan-15	Carbazole	86-74-8	0.16	d	All	160	0.6125	3.625	1	2015	7	Z6
10	12-Jan-15	Chrysene	218-01-9	--	--	--	1100	0.014545455	1.818181818	1	2015	7	Z6
10	12-Jan-15	Dibenzo(a,h)anthracene	53-70-3	--	--	--	1100	0.022727273	--	0	2015	7	Z6
10	12-Jan-15	Dibenzofuran	132-64-9	0.15	d	All	150	0.666666667	4.133333333	1	2015	7	Z6
10	12-Jan-15	Diethylphthalate	84-66-2	0.23	d	All	230	0.434782609	--	0	2015	7	Z6
10	12-Jan-15	Dimethylphthalate	131-11-3	0.35	d	All	350	0.314285714	--	0	2015	7	Z6
10	12-Jan-15	Di-n-butyl phthalate	84-74-2	0.011	c	All	11	4.363636364	--	0	2015	7	Z6
10	12-Jan-15	Di-n-octyl phthalate	117-84-0	0.21	c	All	210	0.523809524	--	0	2015	7	Z6
10	12-Jan-15	Fluoranthene	206-44-0	--	--	--	1100	0.020909091	4.727272727	1	2015	7	Z6
10	12-Jan-15	Fluorene	86-73-7	--	--	All, total	29000	0.000758621	0.01137931	1	2015	7	Z6
10	12-Jan-15	Hexachlorobenzene	118-74-1	0.079	c	All	79	1.164556962	--	0	2015	7	Z6
10	12-Jan-15	Hexachlorobutadiene	87-68-3	0.1	d	SI	100	1.1	--	0	2015	7	Z6
10	12-Jan-15	Hexachlorocyclopentadiene	77-47-4	0.001	d	All	1	100	--	0	2015	7	Z6
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	7	Z6
--	12-Jan-15	High Molecular Weight PAHs	--	--	--	--	1100	--	18.43181818	1	2015	7	Z6

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	1,500	1,500	--	22	300	µg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	110	1,600	µg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Naphthalene	750	750	--	24	300	µg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	130	1,600	µg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	130	1,600	µg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	590	1,600	µg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	63	200	µg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenanthrene	4,200	4,200	--	13	300	µg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	110	1,600	µg/Kg-dry
ISM-7-Z6	1501301-07	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Pyrene	3,500	3,500	--	22	300	µg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Mercury by CVAA	Mercury	0.25	0.25	--	0.0017	0.028	mg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Metals by ICP-MS	Aluminum	5,200	5,200	--	0.99	2.9	mg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Metals by ICP-MS	Antimony	6.9	6.9	--	0.38	1.4	mg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Metals by ICP-MS	Arsenic	6.4	6.4	--	0.3	0.58	mg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Metals by ICP-MS	Barium	180	180	--	0.017	1.4	mg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Metals by ICP-MS	Beryllium	0.23	0.23	J	0.15	0.58	mg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Metals by ICP-MS	Cadmium	6.3	6.3	--	0.058	0.58	mg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Metals by ICP-MS	Chromium	22	22	--	0.32	1.4	mg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Metals by ICP-MS	Cobalt	5.7	5.7	--	0.17	1.4	mg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Metals by ICP-MS	Copper	110	110	--	0.16	1.4	mg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Metals by ICP-MS	Iron	28,000	28,000	--	4.2	23	mg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Metals by ICP-MS	Lead	400	400	--	0.15	1.4	mg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Metals by ICP-MS	Manganese	360	360	--	0.23	1.4	mg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Metals by ICP-MS	Nickel	30	30	--	0.78	1.4	mg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Metals by ICP-MS	Selenium	0.78	0.78	J	0.3	1.2	mg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Metals by ICP-MS	Silver	2.4	2.4	--	0.0058	0.58	mg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Metals by ICP-MS	Thallium	--	U	U	0.16	1.4	mg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Metals by ICP-MS	Vanadium	10	10	--	0.24	1.4	mg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Metals by ICP-MS	Zinc	580	580	--	10	29	mg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Moisture	Moisture	0.39	0.39	--	0.025	0.05	% of sample
ISM-8-Z6	1501301-08	07-Jan-15	Soil	PCBs	Aroclor 1016	--	U	U	26	82	µg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	PCBs	Aroclor 1221	--	U	U	26	82	µg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	PCBs	Aroclor 1232	--	U	U	26	82	µg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	PCBs	Aroclor 1242	--	U	U	26	82	µg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	PCBs	Aroclor 1248	1,100	1,100	--	26	82	µg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	PCBs	Aroclor 1254	--	U	U	31	82	µg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	PCBs	Aroclor 1260	--	U	U	31	82	µg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	PCBs	PCBs, Total	1,100	--	--	--	--	µg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	1,1'-Biphenyl	--	U	U	48	3,200	µg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	81	1,600	µg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	55	1,600	µg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
10	12-Jan-15	Indeno(1,2,3-cd)pyrene	193-39-5	--	--	--	1100	0.02	1.363636364	1	2015	7	Z6
10	12-Jan-15	Isophorone	--	--	--	--	--	--	--	0	2015	7	Z6
10	12-Jan-15	Naphthalene	91-20-3	--	--	All, total	29000	0.000827586	0.025862069	1	2015	7	Z6
10	12-Jan-15	Nitrobenzene	98-95-3	2.2	c	SI, M	2200	0.059090909	--	0	2015	7	Z6
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	7	Z6
10	12-Jan-15	N-Nitrosodiphenylamine	86-30-6	0.12	d	All	120	4.916666667	--	0	2015	7	Z6
10	12-Jan-15	Pentachlorophenol (PCP)	87-86-5	2.1	a	All	2100	0.03	--	0	2015	7	Z6
10	12-Jan-15	Phenanthrene	67580	--	--	--	29000	0.000448276	0.144827586	1	2015	7	Z6
10	12-Jan-15	Phenol	108-95-2	0.79	c	All	790	0.139240506	--	0	2015	7	Z6
10	12-Jan-15	Pyrene	129-00-0	--	--	--	1100	0.02	3.181818182	1	2015	7	Z6
2	12-Jan-15	Mercury (total)	7439-97-6	0.1	b	All	100	0.017	2.5	1	2015	8	Z6
4	12-Jan-15	Aluminum	7429-90-5	--	a	All	--	--	--	1	2015	8	Z6
4	12-Jan-15	Antimony	7440-36-0	0.27	a	All	0.27	1.407407407	25.55555556	1	2015	8	Z6
4	12-Jan-15	Arsenic	7440-38-2	18	a	All	18000	0.016666667	0.355555556	1	2015	8	Z6
4	12-Jan-15	Barium	7440-39-3	330	a	All	330000	5.15152E-05	0.545454545	1	2015	8	Z6
4	12-Jan-15	Beryllium	7440-41-7	10	b	All	10000	0.015	0.023	1	2015	8	Z6
4	12-Jan-15	Cadmium	7440-43-9	0.36	a	All	360	0.161111111	17.5	1	2015	8	Z6
4	12-Jan-15	Chromium III	16065-83-1	18	a	All	18000	0.017777778	1.222222222	1	2015	8	Z6
4	12-Jan-15	Cobalt	7440-48-4	13	a	All	13000	0.013076923	0.438461538	1	2015	8	Z6
4	12-Jan-15	Copper	7440-50-8	28	a	All	28000	0.005714286	3.928571429	1	2015	8	Z6
4	12-Jan-15	Iron	7439-89-6	--	a	All	--	--	--	1	2015	8	Z6
4	12-Jan-15	Lead	7439-92-1	11	a	All	11000	0.013636364	36.36363636	1	2015	8	Z6
4	12-Jan-15	Manganese	7439-96-5	220	a	All	220000	0.001045455	1.636363636	1	2015	8	Z6
4	12-Jan-15	Nickel	7440-02-0	38	a	All	38000	0.020526316	0.789473684	1	2015	8	Z6
4	12-Jan-15	Selenium	7782-49-2	0.52	a	All	520	0.576923077	1.5	1	2015	8	Z6
4	12-Jan-15	Silver	7440-22-4	4.2	a	All	4200	0.001380952	0.571428571	1	2015	8	Z6
4	12-Jan-15	Thallium	7440-28-0	0.22	c	All	220	0.727272727	--	0	2015	8	Z6
4	12-Jan-15	Vanadium	7440-62-2	7.8	a	All	7800	0.030769231	1.282051282	1	2015	8	Z6
40	13-Jan-15	Zinc	7440-66-6	46	a	All	46000	0.217391304	12.60869565	1	2015	8	Z6
1	12-Jan-15	--	--	--	--	--	--	--	--	--	2015	8	Z6
1	15-Jan-15	Aroclor-1016	12674-11-2	1	c	All	1000	0.026	--	0	2015	8	Z6
1	15-Jan-15	--	--	--	--	--	--	--	--	0	2015	8	Z6
1	15-Jan-15	--	--	--	--	--	--	--	--	0	2015	8	Z6
1	15-Jan-15	Aroclor-1242	53469-21-9	0.041	c	All	41	0.634146341	--	0	2015	8	Z6
1	15-Jan-15	Aroclor-1248	12672-29-6	0.0072	c	All	7.2	3.611111111	152.7777778	1	2015	8	Z6
1	15-Jan-15	Aroclor-1254	11097-69-1	0.014	c	All	14	2.214285714	--	0	2015	8	Z6
1	15-Jan-15	Aroclor-1260	11096-82-5	0.88	c	All	880	0.035227273	--	0	2015	8	Z6
--	--	PCBs (sum) (Wildlife Based)	1336-36-3	0.33	d	All	330	0	3.333333333	1	2015	8	Z6
10	12-Jan-15	1,1'-Biphenyl	92-52-4	0.2	d	All	200	0.24	--	0	2015	8	Z6
10	12-Jan-15	2,4,5-Trichlorophenol	95-95-4	0.03	d	All	30	2.7	--	0	2015	8	Z6
10	12-Jan-15	2,4,6-Trichlorophenol	88-06-2	0.09	d	All	90	0.611111111	--	0	2015	8	Z6

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	95	1,600	µg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	520	3,200	µg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	290	6,400	µg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	100	1,600	µg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	170	1,600	µg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	15	780	µg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	98	1,600	µg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	--	U	U	27	780	µg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	130	1,600	µg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	130	6,400	µg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	110	1,600	µg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	3&4-Methylphenol	--	U	U	160	--	µg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	4,000	6,400	µg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	110	6,400	µg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	270	3,200	µg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	88	1,600	µg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	75	1,600	µg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	97	3,200	µg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	95	1,600	µg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	90	6,400	µg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	64	6,400	µg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthene	46	46	J	9.7	290	µg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	46	46	J	12	290	µg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	49	3,200	µg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Anthracene	500	500	--	13	290	µg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	99	490	µg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	570	570	J	120	3,200	µg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	1,800	1,800	--	13	290	µg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	1,700	1,700	--	21	290	µg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	2,500	2,500	--	19	290	µg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	1,400	1,400	--	26	290	µg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	1,000	1,000	--	14	290	µg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	100	1,600	µg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	100	1,600	µg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	140	1,600	µg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	1,500	1,500	J	110	3,200	µg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	--	U	U	120	1,600	µg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	140	3,200	µg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Carbazole	180	180	J	97	1,600	µg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Chrysene	2,200	2,200	--	15	290	µg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
10	12-Jan-15	Dichlorophenols ,3-), (2,4-), (2,5-), (2,6-)	120-83-2	0.05	d	All	50	1.9	--	0	2015	8	Z6
10	12-Jan-15	2,4-Dimethylphenol	105-67-9	0.04	d	SI	40	13	--	0	2015	8	Z6
10	12-Jan-15	2,4-Dinitrophenol	51-28-5	0.15	d	All	150	1.933333333	--	0	2015	8	Z6
10	12-Jan-15	2,4-Dinitrotoluene	121-14-2	6	c	SI, M, P	6000	0.016666667	--	0	2015	8	Z6
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	8	Z6
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	8	Z6
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	8	Z6
10	12-Jan-15	2-Methylnaphthalene	91-57-6	--	--	All, total	29000	0.000931034	--	0	2015	8	Z6
10	12-Jan-15	2-Methylphenol (Cresol, o-)	95-48-7	0.1	d	All	100	1.3	--	0	2015	8	Z6
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	8	Z6
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	8	Z6
10	12-Jan-15	4-Methylphenol (Cresol, p-)	106-44-5	0.08	d	All	80	2	--	0	2015	8	Z6
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	8	Z6
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	8	Z6
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	8	Z6
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	8	Z6
10	12-Jan-15	4-Chloroaniline	106-47-8	1.0	c	P, SI	1000	0.097	--	0	2015	8	Z6
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	8	Z6
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	8	Z6
10	12-Jan-15	4-Nitrophenol	100-02-7	7	b	SI	7000	0.009142857	--	0	2015	8	Z6
10	12-Jan-15	Acenaphthene	83-32-9	--	--	All, total	29000	0.000334483	0.001586207	1	2015	8	Z6
10	12-Jan-15	Acenaphthylene	208-96-8	--	--	--	29000	0.000413793	0.001586207	1	2015	8	Z6
10	12-Jan-15	Acetophenone	--	--	--	--	--	--	--	0	2015	8	Z6
10	12-Jan-15	Anthracene	120-12-7	--	--	--	29000	0.000448276	0.017241379	1	2015	8	Z6
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	8	Z6
10	12-Jan-15	Benzaldehyde	--	--	--	--	--	--	--	1	2015	8	Z6
10	12-Jan-15	Benzo(a)anthracene	56-55-3	--	--	--	1100	0.011818182	1.636363636	1	2015	8	Z6
10	12-Jan-15	Benzo(a)pyrene	50-32-8	--	--	--	1100	0.019090909	1.545454545	1	2015	8	Z6
10	12-Jan-15	Benzo(b)fluoranthene	205-99-2	--	--	--	1100	0.017272727	2.272727273	1	2015	8	Z6
10	12-Jan-15	Benzo(ghi)perylene	191-24-2	--	--	--	1100	0.023636364	1.272727273	1	2015	8	Z6
10	12-Jan-15	Benzo(k)fluoranthene	207-08-9	--	--	--	1100	0.012727273	0.909090909	1	2015	8	Z6
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	8	Z6
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	8	Z6
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	8	Z6
10	12-Jan-15	Bis(2-ethylhexyl) phthalate	117-81-7	0.02	c	All	20	5.5	75	1	2015	8	Z6
10	12-Jan-15	Butylbenzyl phthalate	85-68-7	0.59	d	All	590	0.203389831	--	0	2015	8	Z6
10	12-Jan-15	Caprolactam	--	--	--	--	--	--	--	0	2015	8	Z6
10	12-Jan-15	Carbazole	86-74-8	0.16	d	All	160	0.60625	1.125	1	2015	8	Z6
10	12-Jan-15	Chrysene	218-01-9	--	--	--	1100	0.013636364	2	1	2015	8	Z6

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	530	530	--	24	290	µg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	--	U	U	100	1,600	µg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	100	3,200	µg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	110	3,200	µg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U	47	3,200	µg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	110	1,600	µg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluoranthene	3,900	3,900	--	23	290	µg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluorene	52	52	J	22	290	µg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	91	1,600	µg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	110	490	µg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	100	3,200	µg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	150	1,600	µg/Kg-dry
ISM-8-Z6	1501301-08	7-Jan-15	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	19830	--	--	--	--	µg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	1,700	1,700	--	22	290	µg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	110	1,600	µg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Naphthalene	140	140	J	24	290	µg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	130	1,600	µg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	120	1,600	µg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	580	1,600	µg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	63	200	µg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenanthrene	2,200	2,200	--	13	290	µg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	110	1,600	µg/Kg-dry
ISM-8-Z6	1501301-08	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Pyrene	3,100	3,100	--	22	290	µg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Mercury by CVAA	Mercury	0.14	0.14	--	0.00082	0.014	mg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Metals by ICP-MS	Aluminum	5,500	5,500	--	0.99	2.9	mg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Metals by ICP-MS	Antimony	13	13	--	0.38	1.4	mg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Metals by ICP-MS	Arsenic	7.7	7.7	--	0.3	0.58	mg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Metals by ICP-MS	Barium	170	170	--	0.017	1.4	mg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Metals by ICP-MS	Beryllium	0.23	0.23	J	0.15	0.58	mg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Metals by ICP-MS	Cadmium	5	5.0	--	0.058	0.58	mg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Metals by ICP-MS	Chromium	26	26	--	0.32	1.4	mg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Metals by ICP-MS	Cobalt	6.2	6.2	--	0.17	1.4	mg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Metals by ICP-MS	Copper	170	170	--	0.16	1.4	mg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Metals by ICP-MS	Iron	32,000	32,000	--	4.2	23	mg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Metals by ICP-MS	Lead	420	420	--	0.15	1.4	mg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Metals by ICP-MS	Manganese	400	400	--	0.23	1.4	mg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Metals by ICP-MS	Nickel	28	28	--	0.78	1.4	mg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Metals by ICP-MS	Selenium	0.85	0.85	J	0.3	1.2	mg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Metals by ICP-MS	Silver	1.3	1.3	--	0.0058	0.58	mg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Metals by ICP-MS	Thallium	--	U	U	0.16	1.4	mg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Metals by ICP-MS	Vanadium	9.3	9.3	--	0.24	1.4	mg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
10	12-Jan-15	Dibenzo(a,h)anthracene	53-70-3	--	--	--	1100	0.021818182	0.481818182	1	2015	8	Z6
10	12-Jan-15	Dibenzofuran	132-64-9	0.15	d	All	150	0.666666667	--	0	2015	8	Z6
10	12-Jan-15	Diethylphthalate	84-66-2	0.23	d	All	230	0.434782609	--	0	2015	8	Z6
10	12-Jan-15	Dimethylphthalate	131-11-3	0.35	d	All	350	0.314285714	--	0	2015	8	Z6
10	12-Jan-15	Di-n-butyl phthalate	84-74-2	0.011	c	All	11	4.272727273	--	0	2015	8	Z6
10	12-Jan-15	Di-n-octyl phthalate	117-84-0	0.21	c	All	210	0.523809524	--	0	2015	8	Z6
10	12-Jan-15	Fluoranthene	206-44-0	--	--	--	1100	0.020909091	3.545454545	1	2015	8	Z6
10	12-Jan-15	Fluorene	86-73-7	--	--	All, total	29000	0.000758621	0.001793103	1	2015	8	Z6
10	12-Jan-15	Hexachlorobenzene	118-74-1	0.079	c	All	79	1.151898734	--	0	2015	8	Z6
10	12-Jan-15	Hexachlorobutadiene	87-68-3	0.1	d	SI	100	1.1	--	0	2015	8	Z6
10	12-Jan-15	Hexachlorocyclopentadiene	77-47-4	0.001	d	All	1	100	--	0	2015	8	Z6
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	8	Z6
--	12-Jan-15	High Molecular Weight PAHs	--	--	--	--	1100	--	18.02727273	1	2015	8	Z6
10	12-Jan-15	Indeno(1,2,3-cd)pyrene	193-39-5	--	--	--	1100	0.02	1.545454545	1	2015	8	Z6
10	12-Jan-15	Isophorone	--	--	--	--	--	--	--	0	2015	8	Z6
10	12-Jan-15	Naphthalene	91-20-3	--	--	All, total	29000	0.000827586	0.004827586	1	2015	8	Z6
10	12-Jan-15	Nitrobenzene	98-95-3	2.2	c	SI, M	2200	0.059090909	--	0	2015	8	Z6
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	8	Z6
10	12-Jan-15	N-Nitrosodiphenylamine	86-30-6	0.12	d	All	120	4.833333333	--	0	2015	8	Z6
10	12-Jan-15	Pentachlorophenol (PCP)	87-86-5	2.1	a	All	2100	0.03	--	0	2015	8	Z6
10	12-Jan-15	Phenanthrene	67580	--	--	--	29000	0.000448276	0.075862069	1	2015	8	Z6
10	12-Jan-15	Phenol	108-95-2	0.79	c	All	790	0.139240506	--	0	2015	8	Z6
10	12-Jan-15	Pyrene	129-00-0	--	--	--	1100	0.02	2.818181818	1	2015	8	Z6
1	12-Jan-15	Mercury (total)	7439-97-6	0.1	b	All	100	0.0082	1.4	1	2015	9	Z6
4	12-Jan-15	Aluminum	7429-90-5	--	a	All	--	--	--	1	2015	9	Z6
4	12-Jan-15	Antimony	7440-36-0	0.27	a	All	0.27	1.407407407	48.14814815	1	2015	9	Z6
4	12-Jan-15	Arsenic	7440-38-2	18	a	All	18000	0.016666667	0.427777778	1	2015	9	Z6
4	12-Jan-15	Barium	7440-39-3	330	a	All	330000	5.15152E-05	0.515151515	1	2015	9	Z6
4	12-Jan-15	Beryllium	7440-41-7	10	b	All	10000	0.015	0.023	1	2015	9	Z6
4	12-Jan-15	Cadmium	7440-43-9	0.36	a	All	360	0.161111111	13.88888889	1	2015	9	Z6
4	12-Jan-15	Chromium III	16065-83-1	18	a	All	18000	0.017777778	1.444444444	1	2015	9	Z6
4	12-Jan-15	Cobalt	7440-48-4	13	a	All	13000	0.013076923	0.476923077	1	2015	9	Z6
4	12-Jan-15	Copper	7440-50-8	28	a	All	28000	0.005714286	6.071428571	1	2015	9	Z6
4	12-Jan-15	Iron	7439-89-6	--	a	All	--	--	--	1	2015	9	Z6
4	12-Jan-15	Lead	7439-92-1	11	a	All	11000	0.013636364	38.18181818	1	2015	9	Z6
4	12-Jan-15	Manganese	7439-96-5	220	a	All	220000	0.001045455	1.818181818	1	2015	9	Z6
4	12-Jan-15	Nickel	7440-02-0	38	a	All	38000	0.020526316	0.736842105	1	2015	9	Z6
4	12-Jan-15	Selenium	7782-49-2	0.52	a	All	520	0.576923077	1.634615385	1	2015	9	Z6
4	12-Jan-15	Silver	7440-22-4	4.2	a	All	4200	0.001380952	0.30952381	1	2015	9	Z6
4	12-Jan-15	Thallium	7440-28-0	0.22	c	All	220	0.727272727	--	0	2015	9	Z6
4	12-Jan-15	Vanadium	7440-62-2	7.8	a	All	7800	0.030769231	1.192307692	1	2015	9	Z6

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Metals by ICP-MS	Zinc	740	740	--	10	29	mg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Moisture	Moisture	0.26	0.26	--	0.025	0.05	% of sample
ISM-9-Z6	1501301-09	07-Jan-15	Soil	PCBs	Aroclor 1016	--	U	U	25	79	µg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	PCBs	Aroclor 1221	--	U	U	25	79	µg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	PCBs	Aroclor 1232	--	U	U	25	79	µg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	PCBs	Aroclor 1242	--	U	U	25	79	µg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	PCBs	Aroclor 1248	230	230	--	25	79	µg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	PCBs	Aroclor 1254	140	140	--	30	79	µg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	PCBs	Aroclor 1260	--	U	U	30	79	µg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	PCBs	PCBs, Total	370	--	--	--	--	µg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	1,1'-Biphenyl	--	U	U	48	3,200	µg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	--	U	U	81	1,600	µg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	--	U	U	55	1,600	µg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dichlorophenol	--	U	U	95	1,600	µg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	--	U	U	520	3,200	µg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	--	U	U	290	6,400	µg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	--	U	U	100	1,600	µg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2,6-Dinitrotoluene	--	U	U	170	1,600	µg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chloronaphthalene	--	U	U	15	780	µg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Chlorophenol	--	U	U	98	1,600	µg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylnaphthalene	75	75	J	27	780	µg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Methylphenol	--	U	U	130	1,600	µg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitroaniline	--	U	U	130	6,400	µg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	2-Nitrophenol	--	U	U	110	1,600	µg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	3&4-Methylphenol	--	U	U	160	--	µg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	3,3'-Dichlorobenzidine	--	U	U	4,000	6,400	µg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	3-Nitroaniline	--	U	U	110	6,400	µg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	4,6-Dinitro-2-methylphenol	--	U	U	270	3,200	µg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Bromophenyl phenyl ether	--	U	U	88	1,600	µg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloro-3-methylphenol	--	U	U	75	1,600	µg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chloroaniline	--	U	U	97	3,200	µg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Chlorophenyl phenyl ether	--	U	U	95	1,600	µg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitroaniline	--	U	U	90	6,400	µg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	4-Nitrophenol	--	U	U	64	6,400	µg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthene	440	440	--	9.7	290	µg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Acenaphthylene	140	140	J	12	290	µg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Acetophenone	--	U	U	49	3,200	µg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Anthracene	1,500	1,500	--	13	290	µg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Atrazine	--	U	U	99	490	µg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzaldehyde	340	340	J	120	3,200	µg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
40	13-Jan-15	Zinc	7440-66-6	46	a	All	46000	0.217391304	16.08695652	1	2015	9	Z6
1	12-Jan-15	--	--	--	--	--	--	--	--	--	2015	9	Z6
1	15-Jan-15	Aroclor-1016	12674-11-2	1	c	All	1000	0.025	--	0	2015	9	Z6
1	15-Jan-15	--	--	--	--	--	--	--	--	0	2015	9	Z6
1	15-Jan-15	--	--	--	--	--	--	--	--	0	2015	9	Z6
1	15-Jan-15	Aroclor-1242	53469-21-9	0.041	c	All	41	0.609756098	--	0	2015	9	Z6
1	15-Jan-15	Aroclor-1248	12672-29-6	0.0072	c	All	7.2	3.472222222	31.94444444	1	2015	9	Z6
1	15-Jan-15	Aroclor-1254	11097-69-1	0.014	c	All	14	2.142857143	10	1	2015	9	Z6
1	15-Jan-15	Aroclor-1260	11096-82-5	0.88	c	All	880	0.034090909	--	0	2015	9	Z6
--	--	PCBs (sum) (Wildlife Based)	1336-36-3	0.33	d	All	330	0	1.121212121	1	2015	9	Z6
10	12-Jan-15	1,1'-Biphenyl	92-52-4	0.2	d	All	200	0.24	--	0	2015	9	Z6
10	12-Jan-15	2,4,5-Trichlorophenol	95-95-4	0.03	d	All	30	2.7	--	0	2015	9	Z6
10	12-Jan-15	2,4,6-Trichlorophenol	88-06-2	0.09	d	All	90	0.611111111	--	0	2015	9	Z6
10	12-Jan-15	Dichlorophenols ,3-), (2,4-), (2,5-), (2,6-)	120-83-2	0.05	d	All	50	1.9	--	0	2015	9	Z6
10	12-Jan-15	2,4-Dimethylphenol	105-67-9	0.04	d	SI	40	13	--	0	2015	9	Z6
10	12-Jan-15	2,4-Dinitrophenol	51-28-5	0.15	d	All	150	1.933333333	--	0	2015	9	Z6
10	12-Jan-15	2,4-Dinitrotoluene	121-14-2	6	c	SI, M, P	6000	0.016666667	--	0	2015	9	Z6
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	9	Z6
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	9	Z6
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	9	Z6
10	12-Jan-15	2-Methylnaphthalene	91-57-6	--	--	All, total	29000	0.000931034	0.002586207	1	2015	9	Z6
10	12-Jan-15	2-Methylphenol (Cresol, o-)	95-48-7	0.1	d	All	100	1.3	--	0	2015	9	Z6
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	9	Z6
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	9	Z6
10	12-Jan-15	4-Methylphenol (Cresol, p-)	106-44-5	0.08	d	All	80	2	--	0	2015	9	Z6
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	9	Z6
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	9	Z6
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	9	Z6
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	9	Z6
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	9	Z6
10	12-Jan-15	4-Chloroaniline	106-47-8	1.0	c	P, SI	1000	0.097	--	0	2015	9	Z6
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	9	Z6
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	9	Z6
10	12-Jan-15	4-Nitrophenol	100-02-7	7	b	SI	7000	0.009142857	--	0	2015	9	Z6
10	12-Jan-15	Acenaphthene	83-32-9	--	--	All, total	29000	0.000334483	0.015172414	1	2015	9	Z6
10	12-Jan-15	Acenaphthylene	208-96-8	--	--	--	29000	0.000413793	0.004827586	1	2015	9	Z6
10	12-Jan-15	Acetophenone	--	--	--	--	--	--	--	0	2015	9	Z6
10	12-Jan-15	Anthracene	120-12-7	--	--	--	29000	0.000448276	0.051724138	1	2015	9	Z6
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	9	Z6
10	12-Jan-15	Benzaldehyde	--	--	--	--	--	--	--	1	2015	9	Z6

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)anthracene	3,500	3,500	--	13	290	µg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(a)pyrene	3,000	3,000	--	21	290	µg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	4,000	4,000	--	19	290	µg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(g,h,i)perylene	2,300	2,300	--	26	290	µg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	1,700	1,700	--	14	290	µg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethoxy)methane	--	U	U	100	1,600	µg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroethyl)ether	--	U	U	100	1,600	µg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-chloroisopropyl)ether	--	U	U	140	1,600	µg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl)phthalate	730	730	J	110	3,200	µg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Butyl benzyl phthalate	--	U	U	120	1,600	µg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Caprolactam	--	U	U	140	3,200	µg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Carbazole	850	850	J	97	1,600	µg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Chrysene	3,700	3,700	--	15	290	µg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	700	700	--	24	290	µg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Dibenzofuran	650	650	J	100	1,600	µg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Diethyl phthalate	--	U	U	100	3,200	µg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Dimethyl phthalate	--	U	U	110	3,200	µg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	--	U	U	47	3,200	µg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	--	U	U	110	1,600	µg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluoranthene	8,700	8,700	--	23	290	µg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Fluorene	360	360	--	22	290	µg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobenzene	--	U	U	91	1,600	µg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorobutadiene	--	U	U	110	490	µg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	--	U	U	100	3,200	µg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Hexachloroethane	--	U	U	150	1,600	µg/Kg-dry
ISM-9-Z6	1501301-09	7-Jan-15	Soil	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	37100	--	--	--	--	µg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	2,600	2,600	--	22	290	µg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Isophorone	--	U	U	110	1,600	µg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Naphthalene	470	470	--	24	290	µg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Nitrobenzene	--	U	U	130	1,600	µg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodi-n-propylamine	--	U	U	120	1,600	µg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	--	U	U	580	1,600	µg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
10	12-Jan-15	Benzo(a)anthracene	56-55-3	--	--	--	1100	0.011818182	3.181818182	1	2015	9	Z6
10	12-Jan-15	Benzo(a)pyrene	50-32-8	--	--	--	1100	0.019090909	2.727272727	1	2015	9	Z6
10	12-Jan-15	Benzo(b)fluoranthene	205-99-2	--	--	--	1100	0.017272727	3.636363636	1	2015	9	Z6
10	12-Jan-15	Benzo(ghi)perylene	191-24-2	--	--	--	1100	0.023636364	2.090909091	1	2015	9	Z6
10	12-Jan-15	Benzo(k)fluoranthene	207-08-9	--	--	--	1100	0.012727273	1.545454545	1	2015	9	Z6
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	9	Z6
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	9	Z6
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	9	Z6
10	12-Jan-15	Bis(2-ethylhexyl) phthalate	117-81-7	0.02	c	All	20	5.5	36.5	1	2015	9	Z6
10	12-Jan-15	Butylbenzyl phthalate	85-68-7	0.59	d	All	590	0.203389831	--	0	2015	9	Z6
10	12-Jan-15	Caprolactam	--	--	--	--	--	--	--	0	2015	9	Z6
10	12-Jan-15	Carbazole	86-74-8	0.16	d	All	160	0.60625	5.3125	1	2015	9	Z6
10	12-Jan-15	Chrysene	218-01-9	--	--	--	1100	0.013636364	3.363636364	1	2015	9	Z6
10	12-Jan-15	Dibenzo(a,h)anthracene	53-70-3	--	--	--	1100	0.021818182	0.636363636	1	2015	9	Z6
10	12-Jan-15	Dibenzofuran	132-64-9	0.15	d	All	150	0.666666667	4.333333333	1	2015	9	Z6
10	12-Jan-15	Diethylphthalate	84-66-2	0.23	d	All	230	0.434782609	--	0	2015	9	Z6
10	12-Jan-15	Dimethylphthalate	131-11-3	0.35	d	All	350	0.314285714	--	0	2015	9	Z6
10	12-Jan-15	Di-n-butyl phthalate	84-74-2	0.011	c	All	11	4.272727273	--	0	2015	9	Z6
10	12-Jan-15	Di-n-octyl phthalate	117-84-0	0.21	c	All	210	0.523809524	--	0	2015	9	Z6
10	12-Jan-15	Fluoranthene	206-44-0	--	--	--	1100	0.020909091	7.909090909	1	2015	9	Z6
10	12-Jan-15	Fluorene	86-73-7	--	--	All, total	29000	0.000758621	0.012413793	1	2015	9	Z6
10	12-Jan-15	Hexachlorobenzene	118-74-1	0.079	c	All	79	1.151898734	--	0	2015	9	Z6
10	12-Jan-15	Hexachlorobutadiene	87-68-3	0.1	d	SI	100	1.1	--	0	2015	9	Z6
10	12-Jan-15	Hexachlorocyclopentadiene	77-47-4	0.001	d	All	1	100	--	0	2015	9	Z6
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	9	Z6
--	12-Jan-15	High Molecular Weight PAHs	--	--	--	--	1100	--	33.72727273	1	2015	9	Z6
10	12-Jan-15	Indeno(1,2,3-cd)pyrene	193-39-5	--	--	--	1100	0.02	2.363636364	1	2015	9	Z6
10	12-Jan-15	Isophorone	--	--	--	--	--	--	--	0	2015	9	Z6
10	12-Jan-15	Naphthalene	91-20-3	--	--	All, total	29000	0.000827586	0.016206897	1	2015	9	Z6
10	12-Jan-15	Nitrobenzene	98-95-3	2.2	c	SI, M	2200	0.059090909	--	0	2015	9	Z6
10	12-Jan-15	--	--	--	--	--	--	--	--	0	2015	9	Z6
10	12-Jan-15	N-Nitrosodiphenylamine	86-30-6	0.12	d	All	120	4.833333333	--	0	2015	9	Z6

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Client Samp ID	Frac ID	Collection Date	Media	Test Name	Van Buren Analyte	Result	Final Result	Qual	RMDL	R Limit	R Units
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Pentachlorophenol	--	U	U	63	200	µg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenanthrene	7,100	7,100	--	13	290	µg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Phenol	--	U	U	110	1,600	µg/Kg-dry
ISM-9-Z6	1501301-09	07-Jan-15	Soil	Semi-Volatile Organic Compounds	Pyrene	6,900	6,900	--	22	290	µg/Kg-dry

Table A-12
Exposure Concentrations, Region 4 SLs, MDL Evaluation and HQs for Incremental Soil Samples

Dilution Factor	Anal Date	Region 4 Chemical	CAS	Region 4 (2015), Screening Level (mg/kg)	Region 4 Reference	Region 4 Receptor	Region 4, Screening Level (µg/kg)	MDL/SL Ratio	Detected Result HQ	Detection_Flag	Year	Cell	Zone
10	12-Jan-15	Pentachlorophenol (PCP)	87-86-5	2.1	a	All	2100	0.03	--	0	2015	9	Z6
10	12-Jan-15	Phenanthrene	67580	--	--	--	29000	0.000448276	0.244827586	1	2015	9	Z6
10	12-Jan-15	Phenol	108-95-2	0.79	c	All	790	0.139240506	--	0	2015	9	Z6
10	12-Jan-15	Pyrene	129-00-0	--	--	--	1100	0.02	6.272727273	1	2015	9	Z6

Notes

Detection Flags

1= Detected
0 = Not detected

Derived from Region 4 notes.

Region 4, Receptor

All - ESV for protection of all receptors A - ESV for protection of Avians
M - ESV for protection of Mammals P - ESV for protection of Plants
SI - ESV for protection of soil invertebrates
LMWPAHs have less than 4 rings HMWPAHs have 4 or more rings

Region 4, Reference

a - USEPA (2007): Ecological Soil Screening Levels. <http://www.epa.gov/ecotox/ecossl/>
b - Oak Ridge National Laboratory
c - Los Alamos National Laboratory (LANL). 2012. ECORISK Database Release 3.2. Environmental Programs, Engineering and Technology Division. September 2013. <http://www.lanl.gov/community-environment/environmental->
d - ECOSAR & Region 4 soil model. See text Section 6.3 of USEPA 2015.

Other

Efroymson, R.A., M.E. Will, and G.W. Suter. 1997a. Toxicological Benchmarks for Screening Contaminants of Potential Concern for Effects on Soil and Litter Invertebrates Heterotrophic Process: 1997 Revision. Oak Ridge National Laboratory, Oak Ridge, TN. ES/ER/TM-126/R2. <http://www.esd.ornl.gov/programs/ecorisk/documents/tm126r21.pdf>
Efroymson, R.A., M.E. Will, G.W. Suter, and A.C. Wooten. 1997b. Toxicological Benchmarks for Screening Contaminants of Potential Concern for Effects on Terrestrial Plants: 1997 Revision. Oak Ridge National Laboratory, Oak Ridge, TN. ES/ER/TM-95/R4. <http://www.esd.ornl.gov/programs/ecorisk/documents/tm85r3.pdf>
Efroymson, R.A., G.W. Suter, II, B.E. Sample, and D.S. Jones. 1997. Preliminary Remediation Goals for Ecological Endpoints. Oak Ridge National Laboratory, Oak Ridge, TN. 50 pp. ES/ER/TM-162/R2

Table A-13
Sitewide, MDL and HQ Evaluation for Incremental Soil Samples

Van Buren Analyte	Test Name	Region 4 Chemical	Region 4, Reference	Region 4, Receptor	Units	Max of Result	Max of RMDL	Region 4 (2015), Screening Level (mg/kg)	Region 4, Screening Level (µg/kg)	Max of MDL/SL Ratio	Max of HQ for Detected Result	Detection Flag	Flag
Mercury	Mercury by CVAA	Mercury (total)	b	All	mg/Kg-dry	2.5	0.037	0.1	100	0.3700	25.00	1	a
Antimony	Metals by ICP-MS	Antimony	a	All	mg/Kg-dry	20	0.43	0.27	0.27	1.59	74.07	1	a
Barium	Metals by ICP-MS	Barium	a	All	mg/Kg-dry	450	0.02	330	330000	6.06061E-05	1.36	1	a
Cadmium	Metals by ICP-MS	Cadmium	a	All	mg/Kg-dry	16	0.065	0.36	360	0.1806	44.44	1	a
Chromium	Metals by ICP-MS	Chromium III	a	All	mg/Kg-dry	62	0.36	18	18000	0.0200	3.44	1	a
Copper	Metals by ICP-MS	Copper	a	All	mg/Kg-dry	2900	1.7	28	28000	0.0607	104	1	a
Lead	Metals by ICP-MS	Lead	a	All	mg/Kg-dry	1000	1.7	11	11000	0.1545	90.91	1	a
Manganese	Metals by ICP-MS	Manganese	a	All	mg/Kg-dry	720	2.6	220	220000	0.0118	3.27	1	a
Nickel	Metals by ICP-MS	Nickel	a	All	mg/Kg-dry	58	0.88	38	38000	0.0232	1.53	1	a
Selenium	Metals by ICP-MS	Selenium	a	All	mg/Kg-dry	1.5	0.34	0.52	520	0.6538	2.88	1	a
Silver	Metals by ICP-MS	Silver	a	All	mg/Kg-dry	4.4	0.0065	4.2	4200	0.00155	1.05	1	a
Vanadium	Metals by ICP-MS	Vanadium	a	All	mg/Kg-dry	19	0.27	7.8	7800	0.0346	2.44	1	a
Zinc	Metals by ICP-MS	Zinc	a	All	mg/Kg-dry	1800	12	46	46000	0.2609	39.13	1	a
Aroclor 1248	PCBs	Aroclor-1248	c	All	µg/Kg-dry	1100	27	0.0072	7.2	3.75	153	1	a
Aroclor 1254	PCBs	Aroclor-1254	c	All	µg/Kg-dry	3400	150	0.014	14	10.71	243	1	a
PCBs, Total	PCBs	PCBs (sum) (Wildlife Based)	d	All	µg/Kg-dry	3400	--	0.33	330	--	10.30	1	a
1,1'-Biphenyl	Semi-Volatile Organic Compounds	1,1'-Biphenyl	d	All	µg/Kg-dry	520	54	0.2	200	0.2700	2.60	1	a
Benzo(a)anthracene	Semi-Volatile Organic Compounds	Benzo(a)anthracene	(blank)	(blank)	µg/Kg-dry	15000	57	--	1100	0.0518	13.64	1	a
Benzo(a)pyrene	Semi-Volatile Organic Compounds	Benzo(a)pyrene	(blank)	(blank)	µg/Kg-dry	12000	41	--	1100	0.0373	10.91	1	a
Benzo(b)fluoranthene	Semi-Volatile Organic Compounds	Benzo(b)fluoranthene	(blank)	(blank)	µg/Kg-dry	16000	49	--	1100	0.0445	14.55	1	a
Benzo(g,h,i)perylene	Semi-Volatile Organic Compounds	Benzo(ghi)perylene	(blank)	(blank)	µg/Kg-dry	8400	51	--	1100	0.0464	7.64	1	a
Benzo(k)fluoranthene	Semi-Volatile Organic Compounds	Benzo(k)fluoranthene	(blank)	(blank)	µg/Kg-dry	6900	50	--	1100	0.0455	6.27	1	a
Bis(2-ethylhexyl)phthalate	Semi-Volatile Organic Compounds	Bis(2-ethylhexyl) phthalate	c	All	µg/Kg-dry	14000	110	0.02	20	5.50	700	1	a
Butyl benzyl phthalate	Semi-Volatile Organic Compounds	Butylbenzyl phthalate	d	All	µg/Kg-dry	2800	120	0.59	590	0.2034	4.75	1	a
Carbazole	Semi-Volatile Organic Compounds	Carbazole	d	All	µg/Kg-dry	4900	99	0.16	160	0.6188	30.63	1	a
Chrysene	Semi-Volatile Organic Compounds	Chrysene	(blank)	(blank)	µg/Kg-dry	17000	54	--	1100	0.0491	15.45	1	a
Dibenzo(a,h)anthracene	Semi-Volatile Organic Compounds	Dibenzo(a,h)anthracene	(blank)	(blank)	µg/Kg-dry	2200	36	--	1100	0.0327	2.00	1	a
Dibenzofuran	Semi-Volatile Organic Compounds	Dibenzofuran	d	All	µg/Kg-dry	4700	100	0.15	150	0.6667	31.33	1	a
Di-n-butyl phthalate	Semi-Volatile Organic Compounds	Di-n-butyl phthalate	c	All	µg/Kg-dry	1500	61	0.011	11	5.55	136	1	a
Di-n-octyl phthalate	Semi-Volatile Organic Compounds	Di-n-octyl phthalate	c	All	µg/Kg-dry	730	110	0.21	210	0.5238	3.48	1	a
Fluoranthene	Semi-Volatile Organic Compounds	Fluoranthene	(blank)	(blank)	µg/Kg-dry	66000	32	--	1100	0.0291	60.00	1	a
High Molecular Weight PAHs	Semi-Volatile Organic Compounds	High Molecular Weight PAHs	(blank)	(blank)	µg/Kg-dry	198100	--	--	1100	--	180	1	a
Indeno(1,2,3-cd)pyrene	Semi-Volatile Organic Compounds	Indeno(1,2,3-cd)pyrene	(blank)	(blank)	µg/Kg-dry	9600	46	--	1100	0.0418	8.73	1	a
Phenanthrene	Semi-Volatile Organic Compounds	Phenanthrene	(blank)	(blank)	µg/Kg-dry	79000	31	--	29000	0.00107	2.72	1	a
Pyrene	Semi-Volatile Organic Compounds	Pyrene	(blank)	(blank)	µg/Kg-dry	45000	23	--	1100	0.0209	40.91	1	a
Toluene	Volatile Organic Compounds	Toluene	d	All	µg/Kg-dry	350	13	0.15	150	0.0867	2.33	1	a
Xylenes, Total	Volatile Organic Compounds	Xylenes (total)	d	All	µg/Kg-dry	1100	30	0.1	100	0.3000	11.00	1	a
Thallium	Metals by ICP-MS	Thallium	c	All	mg/Kg-dry	--	0.18	0.22	220	0.8182	0	0	b
Aroclor 1242	PCBs	Aroclor-1242	c	All	µg/Kg-dry	--	27	0.041	41	0.6585	0	0	b
2,4,5-Trichlorophenol	Semi-Volatile Organic Compounds	2,4,5-Trichlorophenol	d	All	µg/Kg-dry	--	90	0.03	30	3.00	0	0	b
2,4,6-Trichlorophenol	Semi-Volatile Organic Compounds	2,4,6-Trichlorophenol	d	All	µg/Kg-dry	--	88	0.09	90	0.9778	0	0	b
2,4-Dichlorophenol	Semi-Volatile Organic Compounds	Dichlorophenols ,3-), (2,4-), (2,5-), (2,6-)	d	All	µg/Kg-dry	--	97	0.05	50	1.94	0	0	b
2,4-Dimethylphenol	Semi-Volatile Organic Compounds	2,4-Dimethylphenol	d	SI	µg/Kg-dry	--	530	0.04	40	13.25	0	0	b
2,4-Dinitrophenol	Semi-Volatile Organic Compounds	2,4-Dinitrophenol	d	All	µg/Kg-dry	--	300	0.15	150	2.00	0	0	b
2-Methylphenol	Semi-Volatile Organic Compounds	2-Methylphenol (Cresol, o-)	d	All	µg/Kg-dry	--	140	0.1	100	1.40	0	0	b
Dimethyl phthalate	Semi-Volatile Organic Compounds	Dimethylphthalate	d	All	µg/Kg-dry	--	110	0.35	350	0.3143	0	0	b
Hexachlorobenzene	Semi-Volatile Organic Compounds	Hexachlorobenzene	c	All	µg/Kg-dry	--	96	0.079	79	1.22	0	0	b
Hexachlorobutadiene	Semi-Volatile Organic Compounds	Hexachlorobutadiene	d	SI	µg/Kg-dry	--	180	0.1	100	1.80	0	0	b

Table A-13
Sitewide, MDL and HQ Evaluation for Incremental Soil Samples

Van Buren Analyte	Test Name	Region 4 Chemical	Region 4, Reference	Region 4, Receptor	Units	Max of Result	Max of RMDL	Region 4 (2015), Screening Level (mg/kg)	Region 4, Screening Level (µg/kg)	Max of MDL/SL Ratio	Max of HQ for Detected Result	Detection Flag	Flag
Hexachlorocyclopentadiene	Semi-Volatile Organic Compounds	Hexachlorocyclopentadiene	d	All	µg/Kg-dry	--	110	0.001	1	110	0	0	b
N-Nitrosodiphenylamine	Semi-Volatile Organic Compounds	N-Nitrosodiphenylamine	d	All	µg/Kg-dry	--	590	0.12	120	4.92	0	0	b
Carbon disulfide	Volatile Organic Compounds	Carbon Disulfide	d	All	µg/Kg-dry	--	13	0.005	5	2.60	0	0	b
cis-1,2-Dichloroethene	Volatile Organic Compounds	1,2-Dichloroethene (cis and trans)	d	All	µg/Kg-dry	--	11	0.04	40	0.2750	0	0	b
Tetrachloroethene	Volatile Organic Compounds	Tetrachloroethene	d	All	µg/Kg-dry	--	19	0.06	60	0.3167	0	0	b
Aroclor 1221	PCBs	(blank)	(blank)	(blank)	µg/Kg-dry	--	27	--	--	--	0	0	c
Aroclor 1232	PCBs	(blank)	(blank)	(blank)	µg/Kg-dry	--	27	--	--	--	0	0	c
2,6-Dinitrotoluene	Semi-Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	170	--	--	--	0	0	c
2-Chloronaphthalene	Semi-Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	46	--	--	--	0	0	c
2-Chlorophenol	Semi-Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	100	--	--	--	0	0	c
2-Nitroaniline	Semi-Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	130	--	--	--	0	0	c
2-Nitrophenol	Semi-Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	110	--	--	--	0	0	c
3,3'-Dichlorobenzidine	Semi-Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	4100	--	--	--	0	0	c
3-Nitroaniline	Semi-Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	110	--	--	--	0	0	c
4,6-Dinitro-2-methylphenol	Semi-Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	280	--	--	--	0	0	c
4-Bromophenyl phenyl ether	Semi-Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	90	--	--	--	0	0	c
4-Chloro-3-methylphenol	Semi-Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	94	--	--	--	0	0	c
4-Chlorophenyl phenyl ether	Semi-Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	98	--	--	--	0	0	c
4-Nitroaniline	Semi-Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	510	--	--	--	0	0	c
Acetophenone	Semi-Volatile Organic Compounds	Acetophenone	(blank)	(blank)	µg/Kg-dry	230	52	--	--	--	0	1	c
Atrazine	Semi-Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	100	--	--	--	0	0	c
Benzaldehyde	Semi-Volatile Organic Compounds	Benzaldehyde	(blank)	(blank)	µg/Kg-dry	570	510	--	--	--	0	1	c
Bis(2-chloroethoxy)methane	Semi-Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	100	--	--	--	0	0	c
Bis(2-chloroethyl)ether	Semi-Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	100	--	--	--	0	0	c
Bis(2-chloroisopropyl)ether	Semi-Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	140	--	--	--	0	0	c
Caprolactam	Semi-Volatile Organic Compounds	Caprolactam	(blank)	(blank)	µg/Kg-dry	270	150	--	--	--	0	1	c
Hexachloroethane	Semi-Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	160	--	--	--	0	0	c
Isophorone	Semi-Volatile Organic Compounds	Isophorone	(blank)	(blank)	µg/Kg-dry	--	110	--	--	--	0	0	c
N-Nitrosodi-n-propylamine	Semi-Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	130	--	--	--	0	0	c
1,1,1-Trichloroethane	Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	11	--	--	--	0	0	c
1,1,2,2-Tetrachloroethane	Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	9.3	--	--	--	0	0	c
1,1,2-Trichloroethane	Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	12	--	--	--	0	0	c
1,1,2-Trichlorotrifluoroethane	Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	8.7	--	--	--	0	0	c
1,1-Dichloroethane	Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	9.8	--	--	--	0	0	c
1,1-Dichloroethene	Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	10	--	--	--	0	0	c
1,2,4-Trichlorobenzene	Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	28	--	--	--	0	0	c
1,2-Dibromo-3-chloropropane	Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	16	--	--	--	0	0	c
1,2-Dibromoethane	Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	13	--	--	--	0	0	c
1,2-Dichloroethane	Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	11	--	--	--	0	0	c
1,2-Dichloropropane	Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	11	--	--	--	0	0	c
2-Hexanone	Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	26	--	--	--	0	0	c
4-Methyl-2-pentanone	Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	28	--	--	--	0	0	c
Bromodichloromethane	Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	10	--	--	--	0	0	c
Bromoform	Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	14	--	--	--	0	0	c
Bromomethane	Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	17	--	--	--	0	0	c
Carbon tetrachloride	Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	6.8	--	--	--	0	0	c
Chloroethane	Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	25	--	--	--	0	0	c
Chloroform	Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	13	--	--	--	0	0	c

Table A-13
Sitewide, MDL and HQ Evaluation for Incremental Soil Samples

Van Buren Analyte	Test Name	Region 4 Chemical	Region 4, Reference	Region 4, Receptor	Units	Max of Result	Max of RMDL	Region 4 (2015), Screening Level (mg/kg)	Region 4, Screening Level (µg/kg)	Max of MDL/SL Ratio	Max of HQ for Detected Result	Detection Flag	Flag
Chloromethane	Volatile Organic Compounds	Chloromethane	(blank)	(blank)	µg/Kg-dry	--	16	--	--	--	0	0	c
cis-1,3-Dichloropropene	Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	15	--	--	--	0	0	c
Cyclohexane	Volatile Organic Compounds	Cyclohexane	(blank)	(blank)	µg/Kg-dry	--	19	--	--	--	0	0	c
Dibromochloromethane	Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	8.8	--	--	--	0	0	c
Dichlorodifluoromethane	Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	17	--	--	--	0	0	c
Methyl acetate	Volatile Organic Compounds	Methyl Acetate	(blank)	(blank)	µg/Kg-dry	180	79	--	--	--	0	1	c
Methyl tert-butyl ether	Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	13	--	--	--	0	0	c
Methylcyclohexane	Volatile Organic Compounds	Methylcyclohexane	(blank)	(blank)	µg/Kg-dry	160	17	--	--	--	0	1	c
Styrene	Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	27	--	--	--	0	0	c
trans-1,2-Dichloroethene	Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	11	--	--	--	0	0	c
trans-1,3-Dichloropropene	Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	6.9	--	--	--	0	0	c
Trichloroethene	Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	10	--	--	--	0	0	c
Trichlorofluoromethane	Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	7.4	--	--	--	0	0	c
Vinyl chloride	Volatile Organic Compounds	(blank)	(blank)	(blank)	µg/Kg-dry	--	12	--	--	--	0	0	c
Aluminum	Metals by ICP-MS	Aluminum	a	All	mg/Kg-dry	8100	2.8	--	--	--	0	1	d
Iron	Metals by ICP-MS	Iron	a	All	mg/Kg-dry	47000	43	--	--	--	0	1	d
Arsenic	Metals by ICP-MS	Arsenic	a	All	mg/Kg-dry	12	0.34	18	18000	0.0189	0.67	1	e
Beryllium	Metals by ICP-MS	Beryllium	b	All	mg/Kg-dry	0.48	0.17	10	10000	0.0170	0.05	1	e
Cobalt	Metals by ICP-MS	Cobalt	a	All	mg/Kg-dry	12	0.2	13	13000	0.0154	0.92	1	e
Aroclor 1016	PCBs	Aroclor-1016	c	All	µg/Kg-dry	--	27	1	1000	0.0270	0	0	e
Aroclor 1260	PCBs	Aroclor-1260	c	All	µg/Kg-dry	470	31	0.88	880	0.0352	0.53	1	e
2,4-Dinitrotoluene	Semi-Volatile Organic Compounds	2,4-Dinitrotoluene	c	SI, M, P	µg/Kg-dry	--	110	6	6000	0.0183	0	0	e
2-Methylnaphthalene	Semi-Volatile Organic Compounds	2-Methylnaphthalene	(blank)	All, total	µg/Kg-dry	850	34	--	29000	0.00117	0.03	1	e
3&4-Methylphenol	Semi-Volatile Organic Compounds	4-Methylphenol (Cresol, p-)	d	All	µg/Kg-dry	61	160	0.08	80	2.00	0.76	1	e
4-Chloroaniline	Semi-Volatile Organic Compounds	4-Chloroaniline	c	P, SI	µg/Kg-dry	370	99	1	1000	0.0990	0.37	1	e
4-Nitrophenol	Semi-Volatile Organic Compounds	4-Nitrophenol	b	SI	µg/Kg-dry	560	300	7	7000	0.0429	0.08	1	e
Acenaphthene	Semi-Volatile Organic Compounds	Acenaphthene	(blank)	All, total	µg/Kg-dry	940	48	--	29000	0.00166	0.03	1	e
Acenaphthylene	Semi-Volatile Organic Compounds	Acenaphthylene	(blank)	(blank)	µg/Kg-dry	270	57	--	29000	0.00197	0.0093	1	e
Anthracene	Semi-Volatile Organic Compounds	Anthracene	(blank)	(blank)	µg/Kg-dry	4400	47	--	29000	0.00162	0.15	1	e
Diethyl phthalate	Semi-Volatile Organic Compounds	Diethylphthalate	d	All	µg/Kg-dry	95	110	0.23	230	0.4783	0.41	1	e
Fluorene	Semi-Volatile Organic Compounds	Fluorene	(blank)	All, total	µg/Kg-dry	720	48	--	29000	0.00166	0.02	1	e
Naphthalene	Semi-Volatile Organic Compounds	Naphthalene	(blank)	All, total	µg/Kg-dry	3200	42	--	29000	0.00145	0.11	1	e
Nitrobenzene	Semi-Volatile Organic Compounds	Nitrobenzene	c	SI, M	µg/Kg-dry	--	130	2.2	2200	0.0591	0	0	e
Pentachlorophenol	Semi-Volatile Organic Compounds	Pentachlorophenol (PCP)	a	All	µg/Kg-dry	--	120	2.1	2100	0.0571	0	0	e
Phenol	Semi-Volatile Organic Compounds	Phenol	c	All	µg/Kg-dry	--	110	0.79	790	0.1392	0	0	e
1,2-Dichlorobenzene	Volatile Organic Compounds	1,2-Dichlorobenzene	d	All	µg/Kg-dry	--	11	0.09	90	0.1222	0	0	e
1,3-Dichlorobenzene	Volatile Organic Compounds	1,3-Dichlorobenzene	d	All	µg/Kg-dry	--	12	0.08	80	0.1500	0	0	e
1,4-Dichlorobenzene	Volatile Organic Compounds	1,4-Dichlorobenzene	c	SI, M	µg/Kg-dry	--	10	0.88	880	0.0114	0	0	e
2-Butanone	Volatile Organic Compounds	2-Butanone (Methyl Ethyl Ketone)	d	All	µg/Kg-dry	--	52	1	1000	0.0520	0	0	e
Acetone	Volatile Organic Compounds	Acetone	c	M, A	µg/Kg-dry	--	70	1.2	1200	0.0583	0	0	e
Benzene	Volatile Organic Compounds	Benzene	d	All	µg/Kg-dry	--	8.7	0.12	120	0.0725	0	0	e
Chlorobenzene	Volatile Organic Compounds	Chlorobenzene	c	All	µg/Kg-dry	--	12	2.4	2400	0.00500	0	0	e
Ethylbenzene	Volatile Organic Compounds	Ethylbenzene	d	All	µg/Kg-dry	170	9	0.27	270	0.0333	0.63	1	e

Table A-13
Sitewide, MDL and HQ Evaluation for Incremental Soil Samples

Van Buren Analyte	Test Name	Region 4 Chemical	Region 4, Reference	Region 4, Receptor	Units	Max of Result	Max of RMDL	Region 4 (2015), Screening Level (mg/kg)	Region 4, Screening Level (µg/kg)	Max of MDL/SL Ratio	Max of HQ for Detected Result	Detection Flag	Flag
Isopropylbenzene	Volatile Organic Compounds	Isopropylbenzene (Cumene)	d	All	µg/Kg-dry	19	15	0.04	40	0.3750	0.48	1	e
Methylene chloride	Volatile Organic Compounds	Dichloromethane (Methylene chloride)	d	All	µg/Kg-dry	--	18	0.21	210	0.0857	0	0	e
Moisture	Moisture	(blank)	(blank)	(blank)	% of sample	22.3	0.025	--	--	--	--	--	NA

Notes

Detection Flags

0 = Not detected
1= Detected
a: Exceeds screening level benchmark, chemical is a COPEC
All - ESV for protection of all receptors; A - ESV for protection of avians
b: Could exceed screening level benchmark, , chemical is an uncertain COPEC
c: No screening level benchmark, chemical is an uncertain COPEC
d: Soil pH not provided
e: Not chemical of concern

Flag descriptions

LMWPAHs have less than 4 rings HMWPAHs have 4 or more rings
M - ESV for protection of mammals; P - ESV for protection of plants

Region 4, Receptor

SI - ESV for protection of soil invertebrates

Region 4, Reference

a - USEPA (2007): Ecological Soil Screening Levels. <http://www.epa.gov/ecotox/ecossl/>
b - Oak Ridge National Laboratory
c - Los Alamos National Laboratory (LANL). 2012. ECORISK Database Release 3.2. Environmental Programs, Engineering and Technology Division. September 2013. <http://www.lanl.gov/community-environment/environmental->
d - ECOSAR & Region 4 soil model. See text Section 6.3 of USEPA 2015

Status of SL

Original = Evaluated n Original SLERA
New = Not evaluated n Original SLERA

Acronyms

COPEC = constituent of potential ecological concern
ESV = ecological screening volume
HMWPAH = high molecular weight polycyclic aromatic hydrocarbon
ICP-MS = Inductively Coupled Plasma-Mass Spectrometry
LMWPAH = low molecular weight polycyclic aromatic hydrocarbon
mg/kg-dry = milligrams per kilogram-dry weight
NA = not applicable
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
SL = screening level
SLERA = Screening-Level Ecological Risk Assessment
SVOC = semi-volatile organic compound