



Revised Response Action Plan and Construction Contingency Plan

**Lilydale Park Dump Site and
Lilydale Marina Demolition Site**

City of St. Paul

July 16, 2010

Project Number 000211-09114-0

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Re: Revised Response Action Plan and Construction Contingency Plan
Lilydale Park Dump Site and Lilydale Marina Demolition Site
Bonestroo File No.: 000211-09114-0
MPCA VIC Program Project ID VP1071

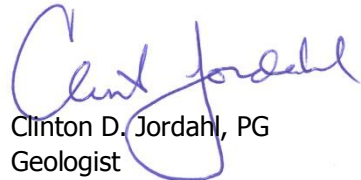
Dear Mmes. Hardiaris and Schmitt:

Enclosed are two copies of the Revised Response Action Plan and Construction Contingency Plan for the above-referenced sites. The identification of asbestos-containing building material within the Lilydale Park Dump waste has made the actions proposed under the previously-approved Response Action/Construction Contingency Plan economically unfeasible at this time. This plan presents a reduced scope of work intended to more closely match the cleanup funds available to the City at this time. The proposed removal actions remain a partial cleanup of the park and are intended to facilitate certain redevelopment objectives. Additional cleanup and redevelopment will occur as funding becomes available.

We appreciate your continued support of the City's efforts to rehabilitate Lilydale Regional Park and thank you in advance for your timely review of the enclosed documents. Please feel free to contact us at (320) 229-5529 if you have any questions regarding this letter or enclosures.

Sincerely,

BONESTROO



Clinton D. Jordahl, PG
Geologist



Stuart J. Gross, PG
Project Manager

Enclosure

c: Ms. Alice Messer, City of Saint Paul Parks and Recreation (2 copies)

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1. Purpose and Scope

This Response Action Plan and Construction Contingency Plan (RAP/CCP) has been developed in general accordance with Minnesota Pollution Agency (MPCA) Voluntary Investigation and Cleanup Program (VIC) guidance to assist the City of Saint Paul (City) in conducting removal actions at the Lilydale Marina Demolition and Lilydale Park Dump sites, both of which are located within Lilydale Regional Park (Park). The Park is generally located in the Northeast ¼ of Section 14, the Northwest ¼ of Section 13 and the Southwest ¼ of Section 12; all in Township 28 North and Range 23 West in Ramsey and Dakota Counties, Minnesota. A site location map is included as Figure 1.

The Park will be redeveloped to provide the amenities desired by the community with a focus on the restoration, protection and interpretation of the Park's unique natural resources. The original 1991 Lilydale/Harriet Island Regional Park Master Plan was amended in January 2010 to reflect more current recreational priorities. A copy of the Lilydale Regional Park Master Site Plan is included as Figure 2

The land encompassing the park has been the subject of regulatory scrutiny since the early 1970s and the MPCA's files date back to 1972. A number of environmental investigations have been conducted within the park since the 1980s including some limited soil sampling and analysis at the Lilydale Park Dump site; however, no physical investigation or sampling of the Lilydale Marina Demolition site has been undertaken to date. Contaminants of concern (COC) identified at the Lilydale Park Dump site include asbestos, metals, polynuclear aromatic hydrocarbons (PAHs), and petroleum. Given the lack of control over the material accumulated at the sites there are reasonable concerns that other contaminants, regulated materials and/or special wastes may be present.

In January 2010, Bonestroo developed a RAP/CCP to assist the City in the complete removal of the Lilydale Park Dump site, and the processing of crushable materials at the Lilydale Marina Demolition site for beneficial reuse. The subsequent identification of asbestos-containing building material within the Lilydale Park Dump waste has made the actions proposed under the previously-approved RAP/CCP economically unfeasible at this time.

This revised RAP/CCP addresses a more limited scope of work intended to allow the initiation of Park redevelopment activities while more closely matching the cleanup funds available to the City at this time. Proposed near-term Park improvements include the realignment of a portion of Lilydale Road/West Water Street and processing demolition debris at the Lilydale Marina Demolition site. It is proposed that demolition debris be cleared from the Lilydale Marina Demolition site to prepare the site for use as a dog park, and produce an aggregate stock pile for use in future construction projects within the Park. Rather than removing the entire Lilydale Park Dump site as originally proposed, a narrow corridor along the proposed roadway re-alignment will be cleared of debris.

The City is seeking a No Association Determination for their proposed redevelopment activities within the Park and has requested that Bonestroo prepare this RAP/CCP for the MPCA's review and approval.

While there are additional environmental issues associated with the Park that will need to be addressed to achieve the objectives outlined in the Park Master Plan, the funds currently available to the City for environmental restoration are only sufficient to implement removal actions at the Lilydale Marina Demolition site and possibly clear the roadway corridor through the Lilydale Park Dump site. The City will contract directly to have the removal work performed, and Bonestroo will observe and guide work and safety procedures onsite.

2. Project Contacts

Project Owner

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To be determined

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3. Site Description

3.1 GENERAL SITE DESCRIPTION

Lilydale Regional Park is an approximately 384 acre parcel lying largely within the floodplain of the Mississippi River, and includes the approximately 100-acre spring-fed Pickerel Lake. It extends from the Smith Avenue High Bridge approximately 2.5 miles upriver to the Lilydale Pool and Yacht Club property. It is approximately one half mile wide at its widest point and bounded on the northwest by the Mississippi River and on the southeast by an approximately 250-foot bedrock escarpment.

The northern portion of the park lies with the City of St. Paul and Ramsey County, while the southern portion of the park lies within Dakota County and the cities of Lilydale and Mendota Heights. The approximate site boundaries are depicted on Figure 1. The entire park is owned and maintained by the City of St. Paul.

3.2 PHYSICAL SETTING

3.2.1 TOPOGRAPHY

Much of the park lies on what is essentially a sand bar in the Mississippi River and is more or less level at an elevation of approximately 700 feet above mean sea level. There are a few linear depressions running parallel to the river that lie several feet lower than the surrounding terrain, but the most significant topographic features in the floodplain area of the park are the fill areas which rise as much as 19 feet above the surrounding terrain.

3.2.2 GEOLOGY

According to published geologic information, surficial deposits across much of the park are comprised of Holocene alluvium deposited by the Mississippi River at flood stage. These deposits are generally sand and gravel that may be inter-bedded with finer grained slack-water sediments and organic-rich layers (Howard C. Hobbs, *et al*, in Geologic Atlas of Dakota County, Minnesota, N.H. Balaban and H.C. Hobbs, eds., 1990). The depth to bedrock is between 50 and 100 feet (Bruce A. Bloomgren, *et al*, in Geologic Atlas of Dakota County, Minnesota, N.H. Balaban and H.C. Hobbs, eds., 1990).

Driller's logs for several wells completed in the area were obtained from the Minnesota Department of Health County Well Index and suggest a depth to bedrock in the range of 70 to 80 feet. Where previous investigations of the site fully penetrated fill material, the alluvial deposits encountered ranged from lean clay to fine sand.

The uppermost bedrock unit in the floodplain area is likely the St. Peter Sandstone, which crops out at the base of the cliff along the southeastern park boundary. The St. Peter ranges in thickness from about 128 to 160 feet; however the upper portion has been eroded in the floodplain area of the park. The lower portion of the St. Peter Sandstone contains multicolored beds of sandstone, siltstone and shale with inter-beds of very coarse sandstone. Beneath the St. Peter Formation lie dolostones of the Prairie Du Chien Group (John H. Mossler, in Geologic Atlas of Dakota County, Minnesota, N.H. Balaban and H.C. Hobbs, eds., 1990)

3.2.3 HYDROGEOLOGY

There has been no groundwater investigation completed within the Park to date. In general, the depth to groundwater across the floodplain portion of the park can be expected to vary with the stage of the Mississippi River, which is managed as a navigation pool above Lock and Dam #2 but has a history of inundating the park. Based on a number of site visits and a one-foot topographic survey of the park, it appears likely that the normal summer operating pool elevation is approximately 690 in the area of the Park. This likely maintains a depth to groundwater of about 10 feet across the site. Groundwater flow in the surficial deposits is likely toward the river, or may perhaps be vectored somewhat along the flow path of the river itself.

The Prairie Du Chien Group and the underlying Jordan Sandstone together comprise the most heavily used bedrock aquifer in the region. The general groundwater movement in the aquifer in the area of the Park is toward the Mississippi River, suggesting the Prairie Du Chien-Jordan aquifer discharges to the river (Roman Kanivetsky and Jane M. Cleland, in *Geologic Atlas of Ramsey County, Minnesota*, G.N. Meyer and L. Swanson, eds., 1992). A review of Minnesota Department of Health (MDH) well logs for the area suggests that the potentiometric surface of the Prairie Du Chien-Jordan aquifer is above the surface of the site.

3.3 HISTORY AND PAST LAND USE

An overall historical perspective of the general history of the area now comprising the Park can be found in a previous Bonestroo report entitled "*Lilydale Regional Park Natural Resource Management Plan*" and dated May 2009. In summary, the area was likely first settled in the early to mid 1800s and in time became the small town of Lilydale. The community included numerous homes and accessory buildings along with a number of industrial and commercial operations. These nonresidential uses included a brick yard, an automobile salvage yard and a marina. The lower Lilydale area was subject to repeated flooding, and by the late 1970s, the entire population of approximately 600 people had been relocated to the bluffs above what is now the park. A plan was developed in 1973 by the Ramsey County Open Space System to remove "Environmental Intrusions" from the Park which included buildings, wells, cesspools, secondary electrical lines, etc. This plan was apparently implemented between about 1974 and 1980, and some of the removed material was consolidated in an onsite landfill, here to fore the Lilydale Park Dump site.

The City of St. Paul acquired the park in 1984 through a land swap agreement with Ramsey County. Initially the City struggled with people using the park as a dumping ground, but it appears that the installation of guard rails along Lilydale Road/West Water Street curtailed most of the dumping problems by about 1990. A parking lot and boat ramp to the Mississippi River and several stretches of paved trail were added to the park in the 1990s, but there has been little additional improvement to the park for more than 20 years.

This RAP/CCP has been developed to address removal actions in two specific areas of the Park. The following is a summary of the available information pertaining to these two areas

3.3.1 LILYDALE MARINA DEMOLITION SITE

The Lilydale Marina Demolition site is located between the Mississippi River and Lilydale Road generally in the SW¹/₄ of the NE¹/₄ of Section 14 T28N, R23W. The location of this site is shown on Figure 1. The site covers a little more than 6 acres and includes two large waste piles each approximately 2 acres in area and rising 12 to 18 feet above the surrounding terrain. An Existing Conditions Map is included as Figure 3.

It appears that Lilydale Marina was in operation from late 1950s or early 1960s until sometime between 1980 and 1984. The former owner of Lilydale Marina brought demolition material on to the property between 1953 and 1974 to construct a boat storage area at an elevation above the regional flood threat. Waste material exposed at the surface consists of demolition debris comprised primarily of concrete, bituminous pavement and dimension stone. In places the waste material is retained by stacked concrete and stone, and by wooden utility pole retaining walls. The tops of the piles are very uneven likely as a result of differential settlement. The site fronts approximately 700 feet along the river with demolition debris extending into the river, and both up and down stream along the shoreline. The small marina building formerly located between the debris piles and near the river has been removed, and there is an abandoned underground petroleum pipeline that runs southeast to northwest between the two debris piles.

Bonestroo is not aware of any previous environmental investigation of the Lilydale Marina site. The MPCA visited the site in June 1973 and noted that demolition debris was being brought onto the site at that time. The owner apparently maintained that he was just doing some landscaping, and during a follow up visit in 1974, the MPCA noted that the site was "inactive".

3.3.2 LILYDALE PARK DUMP SITE

The Lilydale Park Dump site is located on the northwest side of Lilydale Road/West Water Street between roadway and the Mississippi River. It straddles the border between Dakota and Ramsey Counties, but appears to be located primarily in Dakota County. It is generally located in the NW¼ of the NW¼ of Section 13 T28N, R23W. The location of this dump is shown on Figure 1.

The site is an irregularly shaped area about 6¼ acres size rising about 10 to 16 feet above the surrounding terrain. The surface of the site is well vegetated with grasses and weeds but, in contrast to the surrounding landscape, it generally lacks trees. A small amount of concrete and wood can be seen protruding through the uneven surface of the landfill in several areas. An Existing Conditions Map is included as Figure 4.

The Lilydale Park Dump was accumulated within the footprint of Lilydale Auto Parts which appears to have begun as a small operation along Lilydale Road/West Water Street in the mid to late 1950s. The salvage yard was slowly expanded northwesterly away from the road, and along with a garage and office building, the facility occupied approximately 6-acres by the mid 1970s.

Fill was accumulated at the site sometime after a 1974, and it appears to have been have received final cover by 1980. Little information is available about the material deposited at the site; however, it appears that buildings and other "Environmental Intrusions" were collected from the park property and aggregated at this site in accordance with the plan developed by the Ramsey County Open Space System in 1973. It also appears that solid waste that had been dumped in a wooded area northeast of Lilydale Auto Parts site during the 1940s and 1950s may have been consolidated in the fill pile, probably sometime between 1979 and 1980.

The Lilydale Park Dump site was investigated in January 1988 by Braun Engineering Testing, Inc. (Braun) and in May 2010 by Bonestroo. Further discussion pertaining to the investigations conducted by Braun and Bonestroo is provided in the following section.

4. Previous Investigations

4.1 BRAUN ENGINEERING TESTING, INC.

In January 1988, the City of St. Paul Division of Parks and Recreation retained Braun Engineering Testing, Inc. (now Braun Intertec Corporation or “Braun”) to conduct 12 soil borings at four known waste disposal areas lying within the Park.

Braun completed two 15-foot hollow-stem auger borings on the Lilydale Park Dump site. The approximate boring locations based on the hand-drawn map included in the Braun report are shown Figure 4. Both borings encountered 13½ feet of fill, which was underlain by topsoil and/or alluvial deposits. Their boring logs indicate that the fill material consisted primarily of bricks, concrete and wood in a matrix of clay and sand soil. Braun reportedly screened soil samples recovered from these borings with a photo ionization detector (PID) and detected no organic vapors emanating from any of the samples.

One sample was composited from each boring and submitted to Braun’s laboratory for chemical analysis. Both samples were analyzed for the presence and concentration organochlorine pesticides, polychlorinated biphenyls (PCBs), and Resource Conservation and Recovery Act (RCRA) metals.

No PCBs were detected in either of the samples submitted to the laboratory for analysis. Trace concentrations of arsenic, barium, chromium, lead, mercury and selenium were detected in both samples, but among these, the only element of potential concern appears to lead, which was detected at a maximum concentration of 380 mg/kg. This concentration is slightly above the 300 mg/kg Tier 2 Recreational Soil Reference Value (SRV) for lead, but well below the Tier 1 Soil Leaching Value (SLV) of 580 mg/kg.

The organochlorine pesticide analyses detected 4,4-DDT in one of the samples at a concentration of 0.1 mg/kg, which is a concentration equal to the lower laboratory detection limit reported and well below the SRV for 4,4-DDT at 15 mg/kg.

Since Braun composited these samples, it is not known if the 380 mg/kg lead concentration or the 0.1 mg/kg 4,4-DDT concentration represent the highest concentrations present in the soils at these locations, or if there were areas of higher concentration that were diluted by compositing them with cleaner soil subsamples. Braun recommended further testing of select soil subsamples and an evaluation of risk.

4.2 BONESTROO, INC.

As noted at the beginning of this section, Bonestroo completed a Natural Resource Management Plan (NRMP) for the Park in 2009. The NRMP report included a historical overview of the park and a summary of known environmental issues. The scope of work for the NRMP included reviewing information provided by the City and the files of the MPCA pertaining to lower Lilydale; a site reconnaissance; and, a review of a series of historical air photos for the area. No physical sampling or analysis was completed as part of this study.

In May 2010, Bonestroo completed a Phase II Environmental Site Assessment (Phase II ESA) of the Lilydale Park Dump site. A copy of the Phase II ESA Report is attached as Appendix A. The project involved the excavation of three test pits at the site; observation of the materials encountered; field screening soil samples with a PID and an X-ray fluorescence analyzer (XRF); and laboratory analyses of selected soil and waste samples.

The test pits locations are shown on Figure 4. Each pit was excavated vertically to the practical working limits of the equipment at approximately 13 feet below the surface. At each test pit location, approximately 6 to 9 inches of waste-free top soil cover was underlain by demolition debris in a sandy soil matrix. Detectable organic vapors were present in soil samples collected near the base of Test Pit 1 with a maximum concentration of 5.2 parts-per-million (ppm), but no other detectable organic vapors were found to be emanating from any of the other soil samples collected and screened with the PID. The most significant contaminant detected by the XRF screening was lead, which was measured at a concentration as high as 1,500 ppm

A total of nine soil samples, including both grab and composite, were collected from the test pits and submitted for laboratory chemical analysis. Analytical parameters included Volatile Organic Compounds (VOC), Semi-VOCs (SVOC), priority pollutant metals, PCBs, organochlorine pesticides, and Diesel Range Organic Compounds (DRO). Nine samples of suspect asbestos-containing building material (ACBM) were also collected from the test pits and submitted for analysis by Polarized Light Microscopy (PLM).

The laboratory analyses detected no VOCs in any of the samples submitted; however DRO was detected in six of the nine samples at a maximum concentration of 773 mg/kg. Trace PCB concentrations were detected in three of the five samples analyzed for PCBs, but the greatest total PCB concentration was well below the SLV and applicable SRV. Organochlorine pesticides were detected at concentrations below 1 mg/kg in four of five samples analyzed for pesticides; however, the concentrations were very low and generally only nominally above the lower analytical method detection limit, which is far below the applicable SRV (where a SRV has been established). The MPCA has not established SLVs for pesticides as they generally fall under the regulatory authority of the Minnesota Department of Agriculture (MDA).

ACBMs were present in small amounts throughout the profile of each pit. The types of materials encountered (transite, vinyl composite floor tile and mastic) would generally be considered non-friable in their undamaged state; however, all of the material was damaged and incorporated with soil and other debris so that all the dump material will likely be regulated as Asbestos-containing Waste Material (ACWM). Antimony, Cadmium, Copper, Selenium and Zinc were all detected in one or more samples at concentrations above applicable regulatory limits, but aside from asbestos, the primary contaminant of concern at the site appears to be lead which was pervasive in the waste material at concentrations in excess of the applicable SRV and SLV. SVOCs in the form of Benzo(a)pyrene equivalents (BaP equivalents) are also present at the site in concentrations above the SLV and applicable SRV.

5. Cleanup Objectives

5.1 GENERAL

The general cleanup objectives for the areas of the Park addressed by this RAP/CCP are to remove enough piled solid waste to allow the initiation of the construction of the design elements and recreational amenities requested by the public and reflected in the 2009 Lilydale Regional Park Master Plan Amendment. In an effort to control disposal costs, it is the City's desire to recycle as much of the waste as is practical to construct park improvements. As there is currently no funding to complete the construction projects that would incorporate the recycled material, stockpiles may remain in the Park for some time.

All work at the site is proposed to be conducted in accordance with the provisions of this RAP/CCP and a Site Safety and Health Plan (SSHP) to be developed and submitted to the MPCA a minimum of one month prior to the initiation of field activities. Materials will be screened as they are excavated for indications of contamination. Excavated materials will be segregated for any further analysis that may be required to allow them to be reused onsite, or as may be required for offsite disposal at an appropriate facility specific to the characteristics of the material. It is anticipated that only crushed concrete and stone, and geotechnically suitable soils that do not contain asbestos and are not contaminated above the Recreational SRVs or the Tier 1 SLVs will be reused in the project. If other materials are to be reused, appropriate reuse scenarios will be developed on a case by case basis in consultation with the City and MPCA. It is understood that reuse of materials contaminated with asbestos or other contaminants at concentrations above the Recreational SRV or Tier 1 SLV may require the implementation of institutional controls.

5.2 CHEMICALS OF CONCERN AND CLEANUP GOALS

5.2.1 LILYDALE MARINA DEMOLITION SITE

As indicated, there has been no sampling or analysis conducted at the Lilydale Marina Demolition site. Nevertheless, given the relatively uniform and apparently inert nature of the material that can be observed, there is little concern of significant contamination.

Piled inert demolition debris will be processed and stockpiled in this area for future use in construction projects within the Park. The existing conditions, construction limits, site control measures, proposed stockpile location, etc. are all detailed in the Draft Plan Set included in Appendix B. The desired outcome for this area of the Park is to level the ground at an elevation of approximately 702 ft once finished with topsoil to allow the creation of a dog park. Achieving the desired outcome may or may not result in complete removal of the debris. If the monitoring and testing conducted during the removal indicates significant contamination or a regulatory conflict in leaving a specific media on the site, appropriate cleanup goals will be developed in consultation with the City and MPCA.

5.2.2 LILYDALE PARK DUMP SITE

Potential Contaminants of Concern (COC) identified at the Lilydale Park Dump site include asbestos, metals and SVOCs. The City's original plan to remove the dump site in its entirety, recycle as much of the waste material as possible for reuse in the project, and dispose of unsuitable materials off site, is no longer possible with the financial resources currently available.

The City is proposing to let bids for a project to include dismantling the Lilydale Marina Demolition site, processing the crushable material, and stockpiling that material within the footprint of that site. The bid package will include Alternate 1 to clear a corridor through the Lilydale Park Dump site to allow the relocation of Lilydale Road/West Water Street. An estimated 10,000 cubic yards of excavated waste material would be disposed of offsite as ACWM, and the corridor would be partially refilled with crushed material derived from the Lilydale Marina Demolition site to cover the exposed waste. The Alternate 1 will only be accepted and performed if the bids for both projects are within the City's budget. The scope of both the base project for the Lilydale Marina Demolition site; and Alternate 1 for the Lilydale Park Dump site are depicted on the Draft Plan Set included in Appendix B.

The measures employed to control the release of asbestos fibers during the work at the Lilydale Park Dump should be sufficient to adequately protect both onsite workers and the public from the health threats posed by the other COCs that have been identified at the site. Since the area currently occupied by the waste material will be covered by several feet of crushed concrete in preparation for the construction of the realigned roadway, direct contact with the public will not be a concern. Therefore, the MPCA's SLV's for the identified COCs will be used as a criterion for native soil confirmation sampling once all debris has been removed.

Contingencies for the identification and management of additional potential contaminants that may be encountered during the project have been developed, and if any additional contaminants are detected, appropriate cleanup goals and/or reuse scenarios will be discussed with the City and MPCA.

6. Response Actions

6.1 OVERVIEW

The Lilydale Marina Demolition site and a portion of the surrounding area will ultimately be developed as an off leash dog park. With the exception of re-vegetation and the installation of perimeter fencing, no additional redevelopment of this area is anticipated following the processing of the demolition debris and removal of the associated stockpile of crushed material. As the crushed material is intended for use in construction projects within the Park for which there is currently no funding available, the stockpile may be present at this site for a number of years. Therefore, the stockpile has been designed with 3:1 side slopes to allow the establishment of stabilizing vegetation.

If determined to be financially achievable via the bidding process, an approximately 100-foot wide by 500-foot long corridor will be cleared through the northwestern portion of the Lilydale Park Dump site during the 2010 construction season. This removal action will eventually allow Lilydale Road/West Water Street to be realigned away from Pickerel Lake, and will ultimately allow the construction of a picnic shelter closer to the lake. Neither the roadway realignment nor the picnic shelter construction is included in the project as presently proposed and as there is currently no funding available for either project, it may be several years before either is completed.

The picnic shelter will eventually be constructed more or less in the center of what is now the Lilydale Park Dump at an elevation of about 712 to protect it from flooding. It is yet to be determined if the area will be cleared of waste to allow construction on engineered fill, or if the dump material will be consolidated and covered in such a way as to allow the picnic shelter to be built on top of the waste. The roadway will need to be elevated approximately 7 feet as it approaches the picnic shelter and if this portion of the project proceeds during the 2010 construction season, it is anticipated that crushed material derived from the Lilydale Marina Demolition site will be used to backfill the excavated corridor to the elevation necessary to meet the design objectives for the re-aligned roadway.

6.2 REMOVAL ACTIONS

The means and methods of performing the work will be at the discretion of the contractor. Bonestroo will be responsible for compliance with the RAP/CCP and will dictate field decision making such as the need to stop work to evaluate risks.

It is anticipated that excavation work at the site will be conducted primarily with a tracked excavator. While a standard sand bucket should be sufficient to dig through the Lilydale Park Dump site, a hydraulic thumb may be required to manage large slabs of concrete at the Lilydale Marina Demolition site. Front end loaders and/or skid steers may also be employed as needed to stockpile and load materials. A portable crusher will be brought to the park and located within the construction limits of the Lilydale Marina Demolition site to process concrete. Crushed material will most likely be conveyed to the stockpile location, but dump trucks maybe used to relocate materials onsite, and/or to transport materials to offsite disposal facilities. The name of the excavation contractor, transporter, and any subcontractors will be submitted to the MPCA prior to implementation of this RAP/CCP.

The initial phase of the removal actions will be conducted at the Lilydale Marina Demolition site. As there is a bald eagle's nest located along the shoreline of Pickerel Lake between the Lilydale Park Dump and Lilydale Marina Demolition sites, concrete crushing in the Park will not likely occur until after the nesting season (late August). As these debris piles are sorted and processed, reusable soil and crushed materials will be stockpiled separately at the locations shown in the Draft Plan Set included in Appendix B.

If determined to be financially achievable via the bidding process, the corridor will be excavated through the Lilydale Park Dump site either following, or very near the completion of, activities at Lilydale Marina Demolition site. Delaying this portion of the project until the Marina site work is nearly complete will allow the City to evaluate their remaining contingency reserves to determine if proceeding with the remaining work remains financially prudent. Clearing the corridor through the Dump site prior to the establishment of a vegetative cover on the stockpile of crushed material allows a more efficient use of the material in the project.

If the Lilydale Dump portion of the project proceeds in 2010, it will clear debris from the roadway re-alignment corridor to allow the construction of the roadway on more structurally-suitable material. As previously indicated, it will also allow the efficient placement of recycled concrete product in an end use area minimizing the height of the stockpile. It is the intent to limit removal actions along the roadway corridor to solid waste and any soil incidental to that objective. A soil correction will probably not be required as the road may not be built for several years, and in the interim, the seven-plus feet of crushed concrete will likely act as a surcharge. It is anticipated that any material excavated from the Lilydale Park Dump site will be managed as ACWM and disposal at an appropriate facility.

6.2.1 SITE PREPARATION

It is the City's intent to keep the Park open to the public throughout the duration of the work at the Lilydale Marina Demolition site. If project proceeds to the Lilydale Park Dump site, the park will be closed as indicated on sheet T1.01 of the Draft Plan Set included in Appendix B.

Prior to the initiation of excavation activities, work area perimeters will be secured to restrict or prohibit public access as required. Work zones, decontamination corridors, and staging areas will be established and posted as required in cooperation with the selected excavation and/or abatement contractor. All appropriate notices will be given and all necessary permits and erosion control measures will be in place prior to disturbing the site.

Clearing of trees and other woody vegetation may occur in advance of the excavation work in accordance with the provisions of the agreement to be reached between the City and the excavation contractor. Any such advanced clearing will be done in a manner such that soil disturbance is minimized (i.e. no grubbing). The City has specified some very large cottonwood trees at the Lilydale Marina Demolition site for preservation, as it is apparent that fill was placed around some of the trees in this area. Trees and brush maybe chipped onsite, but will be disposed of offsite at the discretion of the contractor.

6.2.2 MATERIAL SCREENING

As materials are excavated, they will be visually monitored by a Bonestroo environmental field technician (EFT) for indications of contamination, including the presence of suspect ACWM. In addition, soil materials will be screened with a photo-ionization detector (PID) using the MPCA's polyethylene bag-headspace methodology. The homogenized bags may also be screened with an

X-Ray Fluorimeter (XRF). PID/XRF screening will occur at a frequency deemed necessary by the EFT based on the homogeneity of the material and the extent to which it has been previously characterized. In-situ XRF and/or PID screening may also be performed if deemed necessary and appropriate by the EFT.

6.2.3 SORTING AND STORAGE

The Bonestroo EFT will work with the selected contractor to identify and establish convenient locations to stockpile materials. Materials will be sorted based on anticipated management strategy; origin; homogeneity; need for additional evaluation; and indications of contamination including type and severity of contamination. Additional information pertaining to the sorting and management of potentially-contaminated or otherwise regulated media is presented in Section 7.3 of this RAP/CCP document.

6.2.4 DISPOSAL AND REUSE OF MATERIALS

In general, if laboratory analyses do not indicate the presence of contamination (i.e. asbestos <1% and all detects below Recreational SRV and SLV), and the media contains less than 10% waste with no fragments greater than 6 inches (based on visual estimation), the material will be reused on site as structural or non-structural fill. Soil media containing more than 10% waste and/or contaminant concentrations above either the Recreational SRV or SLV will be reused on a case by case basis in consultation with the City and MPCA.

It is anticipated that all ACWM, including all materials excavated from the Lilydale Park Dump site, and any other soil or soil mixture not conforming to the standards described above will be transported offsite and disposed of at a facility permitted to accept the waste. The choice of disposal facilities is at the discretion of the contractor. The name of the disposal facility(s), excavation contractor, transporter, and any subcontractors and will be submitted to the MPCA prior to implementation of this RAP/CCP.

6.2.5 CONFIRMATION SAMPLING

Upon completion of waste removal in any area, and prior to the placement of stockpiled fill materials that would be intended for use in later phases of the project, samples will be taken to document the condition of the native soil. Some over excavation into the native soil may be conducted if field observations suggest a gross contamination problem. If significant contamination of the soil beneath the waste is suspected or confirmed, appropriate cleanup goals and strategies will be developed in consultation with the City and the MPCA.

Confirmation samples will be collected at the spatial frequency specified by the MPCA for excavation floor sampling in *Risk Based Site Characterization and Sampling Guidance* (Internal Review Draft, August 1997). Analytical parameters will be appropriate for the overlying waste material removed, and will be discussed with the City and MPCA prior to analysis.

6.2.6 AIR MONITORING

Throughout the work, the ambient atmosphere in active excavation zones will be monitored periodically for ionizable organic vapors using a PID and for methane using combustible gas meter.

Dust generated during the excavation, sorting, and processing of materials may contain contaminants. Dust will be suppressed by wetting, as necessary, to achieve "no visible

emissions"; therefore, no dust monitoring is deemed necessary for the excavation of waste materials not known to, or suspected to contain asbestos.

6.2.7 EMISSIONS CONTROL PLAN

ACWM has been identified throughout the Lilydale Park Dump site and if the project proceeds to that portion of the Park, removal actions will be conducted as asbestos abatement subject to National Emissions Standards for Hazardous Air Pollutants (NESHAP) requirements specified in 40 CFR 61.145. The basic components of the required Emissions Control Plan (ECP) such as project location and description, site contacts, description of type and amount of ACWM, proposed schedule, etc., are contained elsewhere in this RAP/CCP and/or Appendices.

It is anticipated that the prime contractor selected for the project will be a licensed asbestos abatement contractor. Either the prime contractor or their licensed asbestos abatement subcontractor will submit the required notifications to the MPCA and MDH, pay the required fees, and obtain the appropriate removal and disposal permits in accordance with the requirements governing the work they are licensed to perform and the practices covered by those licenses. Neither Bonestroo nor the City wishes to dictate the means and methods by which the licensed abatement contractor will conduct their licensed activity, and nothing contained in this RAP/CCP or the project plans and specifications should be construed to direct or constrain the contractor in the performance of said activities. The abatement contractor will be responsible for the control of fugitive emissions while excavating, loading and transporting ACWM. The abatement contractor will also be responsible for any personal or ambient air monitoring required during the work; compliance with all MNOSHA requirements for their employees; and for the transportation, manifesting, and disposal of the excavated material at an appropriately licensed disposal facility.

Generally, it is anticipated that the abatement contractor will excavate the Lilydale Park Dump site with a tracked backhoe. Signage including the following text: "DANGER. ASBESTOS CANCER AND LUNG DISEASE HAZARD. AUTHORIZED PERSONNEL ONLY. RESPIRATORS AND PROTECTIVE CLOTHING ARE REQUIRED IN THIS AREA" will be posted surrounding the work area. Surface and groundwater is plentiful in the area and will likely be used to adequately wet the material as required to produce no visible emissions during excavation and loading, yet no free water in the load. Alternately, the contractor may choose to truck in water. Crushed concrete will likely be used to construct, and extend as necessary, a temporary haul road such that excavated material can be carefully loaded directly into trucks that have been lined with polyethylene sheeting. The trucks will be tarped, decontaminated if required, and labeled as specified in 40 CFR § 61.149(d)(1)(i), (ii) and (iii). Loads will be manifested as specified in 40 CFR § 61.149(d)(2)(e)(1) and transported to a solid waste disposal facility licensed to accept ACWM.

To date however, no ACWM has been identified at the Lilydale Marina Demolition site. If ACWM is identified at the Lilydale Marina Demolition site, the MPCA and MDH will be notified. The MDH requires a 5 *calendar* day advance notice prior to the removal of any ACWM. Absent confirmation of the presence of ACWM, the MDH will not accept an advance notice. The MPCA's notification period is 10 *working* days; however the MPCA may accept an advanced "courtesy notice" without ACWM confirmation. In either case, it appears that a waiting period of at least 5 calendar days will be required before work can continue in an area of the Lilydale Marina Demolition site where ACWM has been identified. Suspect ACWM will either be left undisturbed or segregated in a controlled area away from the active construction area until confirmatory analysis has been completed and the notification requirements met.

7. Construction Contingency Plan

7.1 PROJECT ORGANIZATION

A Bonestroo EFT will be onsite during all excavation activities to document compliance with the approved RAP/CCP. The EFT will monitor and screen the materials encountered, provide a preliminary onsite hazard evaluation, and have the authority to make operational decisions, such as stopping work and further evaluate risk. The EFT will be an environmental professional with, at a minimum; the training specified in 40 CFR 1910.120 and an asbestos inspector's certificate issued by the MDH.

The selected excavation contractor will employ appropriately trained personnel to perform onsite functions subject to extraordinary worker protection restrictions. This might include the training specified in 40 CFR 1910.120 and/or asbestos working training certified by the MDH for personnel operating backhoes and/or managing field operations.

Bid specifications will be developed to facilitate the development of a Site Safety and Health Plan (SSHP). The SSHP will be submitted to the MPCA a minimum of one month prior to the initiation of field activities and a copy maintained at the site at all times.

7.2 SITE CONTROL

It is the City's intent to keep the Park open to the public throughout the duration of the work at the Lilydale Marina Demolition site. If project proceeds to the Lilydale Park Dump site, the park will be closed.

Prior to the initiation of excavation activities, work area perimeters will be secured to restrict or prohibit public access as required. Work zones, decontamination corridors, and staging areas will be established and posted as required in cooperation with the selected excavation contractor. All necessary permits and erosion control measures will be in place prior to disturbing the site. The security measures employed to control the site will be monitored throughout the project for their effectiveness and will be adjusted as required to remain protective of the workers onsite and the public visiting the Park. The size, location and geometry of the work zones and staging areas may be adjusted as required based on the nature and volume of the materials encountered.

7.3 WASTE EVALUATION

All of the planned excavation will be conducted in areas of historic landfilling. Certain excavated materials may require characterization to evaluate appropriate handling, reuse or disposal alternatives. Excavated materials will be monitored for the presence of:

- Potentially Hazardous Waste (containerized wastes, batteries, powders, resins, etc.)
- Buried objects including white goods, tires, treated wood and other special wastes
- Suspect Asbestos-containing materials (ACM)
- Visible ash or clinkers
- Detectable organic vapors and/or elevated metal concentrations as indicated byPID/XRF screening
- Strong or unusual odors
- Unusual matrix soil discoloration

The Bonestroo EFT will direct responses to the conditions listed as outlined in Sections 7.3.1 through 7.3.7 of this RAP/CCP.

A supply of 55-gallon (UN 1A2) metal drums, over-pack drums, and 10 mil polyethylene sheeting for stock piling and covering materials will be maintained onsite by the selected excavation contractor. A supply of laboratory sampling containers will also be maintained on site for waste sampling.

7.3.1 DEMOLITION DEBRIS

To the extent practical, demolition waste will be segregated from recyclable concrete and potentially reusable soil, and stockpiled in the designated staging area. Alternately, demolition waste that has been adequately characterized for disposal may be loaded directly for transportation to an appropriate offsite disposal facility.

As demolition debris is excavated, it will be visually monitored for the presence of suspect ACM. Thermal systems insulation, roofing materials, ceiling and floor tile, cementitious siding and pipe, and any other suspect ACM observed by the onsite inspector will be sampled and analyzed using PLM at a frequency necessary to adequately characterize the material. If suspect friable ACM is identified in the waste, soil samples may also be collected and analyzed. Suspect ACWM will either be left undisturbed or staged in the area suspected of being impacted until confirmatory analysis has been completed and the notification requirements met.

7.3.2 POTENTIALLY HAZARDOUS WASTE

If potentially hazardous wastes such as batteries, tars, sludges, semi-solids, resins, powders, liquids, or drums and/or paint cans with contents are encountered, work in the area will be suspended pending further evaluation by the Bonestroo EFT. The situation will be assessed based on the EFT's knowledge and experience using the available onsite instrumentation and in consultation with Mr. Daniel Feldt, Sr. Certified Industrial Hygienist (CIH) at Bonestroo (262) 643-9176 (office) and (414) 305-1984 (mobile).

If deemed necessary, the material will be carefully segregated and placed on 10 mil polyethylene sheeting in the designated staging area, or packaged in drums or over-pack drums. The need for more secure storage will be evaluated on a case by case basis. These materials will be analyzed and managed appropriately offsite, and will not be reused as fill or buried in the park.

If the EFT determines that a spill of a substance has occurred that has the potential to cause pollution to the waters of the state, the EFT will immediately notify the State Duty Officer at (651) 649-5451, along with the City and the MPCA VIC Unit contacts. The EFT should be prepared to provide:

- Contractor and Consultant contact information
- Location of the spill site
- Date and time of the incident
- Estimated quantity and disposition of recovered materials
- Quantity and type of material released

7.3.3 PROHIBITED WASTES

All recyclable metal, tires, white goods, treated wood and any other prohibited waste that may be encountered at the Lilydale Marina Demolition site will be segregated from other materials and accumulated within the designated staging area. These materials will be recycled or otherwise appropriately managed offsite and will not be processed or reused as fill.

If prohibited wastes are encountered at the Lilydale Park Dump site, they may be contaminated with asbestos and effective decontamination may not be practical. If encountered, these materials will be segregated in a staging area until an appropriate disposal or decontamination strategy is developed in coordination with the, abatement contractor, the landfill operator and the MPCA.

7.3.4 REFUSE

It is likely that both decomposable organic waste (wood, paper, etc.) and resilient inorganic waste (glass, porcelain, plastic, metal, etc.) will be encountered during excavation activities at the site. This material will be evaluated to determine its suitability for reuse as fill within the project; however it is anticipated that refuse will not be reused at the site and will be disposed of offsite. Refuse determined unsuitable for reuse will be segregated and staged in the work area or in the designated area for any further characterization that may be required for offsite disposal.

7.3.5 ASH

Ash and clinkers have been found throughout the Park and may be encountered during excavation activities. Soil mixed with ash and clinkers may be used as controlled fill onsite only with the prior approval of the MPCA. This type of material, if encountered, will be segregated and appropriately characterized to determine if it meets the unrestricted recreational reuse standard for the site. If the material fails to pass this standard, reuse scenarios typically requiring restrictive covenants may be discussed with the City and the MPCA.

7.3.6 SOIL EXPORT

It is the City's desire to incorporate all excess soil and granular material that meets recreational reuse standards as structural and non-structural fill in later phases of the project. Field screening results indicating a PID response greater than 10 ppm, or a lead concentration greater than 300 ppm using the XRF will be used to segregate materials for further evaluation by laboratory analysis. If necessary to control disposal costs, material that exceeds the recreational use standard may be reused in the project on a case by case basis in consultation with the City and MPCA. It is understood that reuse of materials exceeding the unrestricted recreational use standards may invoke restrictive covenants.

If soil export is required, characterization and coordination with the MPCA and the County where the waste disposal facility is located will be necessary. Soil will be sampled in accordance with the stockpile sampling guidance provided in the MPCA's Risk Based Site Evaluation Manual (1998). Offsite disposal parameters will be dictated by the disposal facility's permit. In general, the analyses required to develop a waste profile may include: VOCs, RCRA metals, pesticides, PCBs, PAHs, and both VOCs and RCRA metals by the Toxic Characteristic Leach Procedure (TCLP).

7.3.7 STOCK PILE MANAGEMENT

Suspect ACWM, potentially hazardous wastes, and all prohibited wastes will be segregated and managed in accordance with the procedures described above. Other potentially contaminated media (based on visual and incidental olfactory indications, and including any soil exhibiting

detectable organic vapor concentrations) will be segregated based on the location from which it was excavated, the suspected type of impact, and the anticipated final management of the material.

If stockpiled away from its source, the material will be placed on polyethylene sheeting or other impervious surface as necessary. Stockpiles will be covered with polyethylene sheeting at the end of each work day and the sheeting will be secured in place. Stockpiles may be bermed as necessary to prevent stormwater run-on and/or runoff.

Stockpile samples will be analyzed as necessary to evaluate the material's suitability for reuse in the project, and/or as required for offsite disposal. Analytical parameters will be based on field observations and consultation with the City and MPCA. Typical stockpile parameters might include VOCs, SVOCs, PCBs and metals.

7.4 HAZARD ASSESSMENT

Although the available historical evidence indicates that the likelihood of exposure to contaminant levels in excess of regulatory limits is very low, the following procedures will be implemented for hazard recognition and evaluation.

7.4.1 CHEMICAL VAPOR HAZARDS

If chemical odors or visual evidence of a potential chemical hazard are noted, operations will be discontinued pending evaluation of the evidence based on Bonestroo's experience with chemical hazards, material safety data sheets, the NIOSH Pocket Guide to Chemical Hazards, and weather conditions.

7.4.2 PARTICULATE HAZARDS

A hazard from nuisance or quartz-based particulates is not expected since a "no visible emission" control program will be implemented. With respect to fibers (i.e. asbestos), the emissions control program will be implemented and relied upon to control the threat.

7.4.3 PHYSICAL HAZARDS

Heat stress is recognized as a potential hazard and will be monitored utilizing heat stress indices of radiant heat, dry-bulb temperature, relative humidity and workloads.

Since heavy machinery will be utilized at the site, employees working with or in the immediate vicinity of this equipment may be required to wear hearing protection. This will be verified by Bonestroo once the excavation activities begin at the site.

7.5 ACTION LEVELS

Action levels for airborne contaminants regulated by MNOSHA will be established at 10% of the respective PELs. Upon reaching a respective action level, the EFT will direct that operations be stopped for further evaluation and testing.

The Action Level for flammable/combustible vapors will be the NIOSH pre-set limit in the screening equipment of 10% of the lower explosive limit (LEL). Upon activating the alarm for flammables/combustibles, the EFT will direct that operations be stopped for further evaluation and testing.

The Action Level for particulates will be the observation of visible emissions for more than one (1) minute without being able to suppress the dusting with wetting procedures. Upon development of this condition, the EFT will direct that operations be stopped for further evaluation.

The Action Level for Asbestos Containing Materials (ACM) will be the visual detection of fill materials which appear to have the potential to be ACM. Upon anyone observing this condition, the EFT will direct that operations be stopped for further evaluation and possible testing.

The Action Level for Heat Stress will be established utilizing the respective table in the most recent edition of the "TLV Booklet" published by the American Conference of Governmental Industrial Hygienists (ACGIH). Upon reaching this level of heat stress, the EFT will direct that operations be stopped for further evaluation and possible implementation of remedial measures.

The Action Level for noise will be levels at or above 90 dBA for periods of greater than one (1) minute. Upon reaching this level, the EFT will order workers in the immediate area that hearing protection is mandatory for a time period to be determined by the EFT.

7.6 RECOGNITION OF HAZARDOUS MATERIALS

The potential for the presence of hazardous materials at this site has been noted and is listed accordingly in this document. Bonestroo's EFT will utilize a combination of experience, visual observations and equipment to facilitate recognizing the potential presence of hazardous materials at the site.

8. Reporting

Following the completion of the proposed removal actions, Bonestroo will prepare a RAP/CCP Implementation Report. The Implementation Report will, at a minimum, include the following:

- A summary of all field activities and screening results
- Excavated quantities by material type and location
- Quantities retained for reuse by type and source
- Analytical data for materials to be reused and as required for waste characterization
- Description of and rational for any modifications to the RAP/CCP
- Post removal confirmation sampling locations and results
- Waste manifests and disposal documentation
- Recommendations for additional investigation, response actions, or institutional controls

9. Proposed Schedule

July 31, 2010 - Advertisement for bids

August 20, 2010 - Bid awarded

September 2010 - Site Control/Erosion Control Lilydale Marina Demolition site

September 2010 - Removal actions at Lilydale Marina Demolition site

- Clear work area and initial stockpile area
- Stockpile crushed material and reusable soil
- Collect/analyze confirmatory samples from cleared Lilydale Marina Demolition site
- Transportation of unsuitable materials to offsite disposal (if required)
- Grade and seed Lilydale Marina Demolition site

September to October 2010 - Lilydale Park Dump site removal actions

- Site control/erosion control and post roadway detour
- Excavation and transportation to offsite disposal (ongoing)
- Collect/analyze confirmatory samples at Lilydale Park Dump site
- Placement of crushed material along roadway realignment corridor

October 2010 – Seed disturbed portion of Lilydale Park Dump site

November 2010 - Submit RAP/CCP Implementation Report

10. References

Balaban, N.H., and H.C. Hobbs, editors. 1990. *Geologic Atlas of Dakota County, Minnesota, County Atlas Series, Atlas C-6*. Minnesota Geological Survey

Bonestroo, Inc. May 31, 2009. *Lilydale Regional Park Natural Resource Management Plan*

Braun Engineering Testing, Inc. March 7, 1988. *Preliminary Subsurface Environmental Assessment, Lilydale Regional Park Area South of the Proposed Levee*

Delta Environmental Consultants, Inc. June 29, 2004. *Environmental Assessment Phase I, Pickerel Lake Site – Lilydale Regional Park*

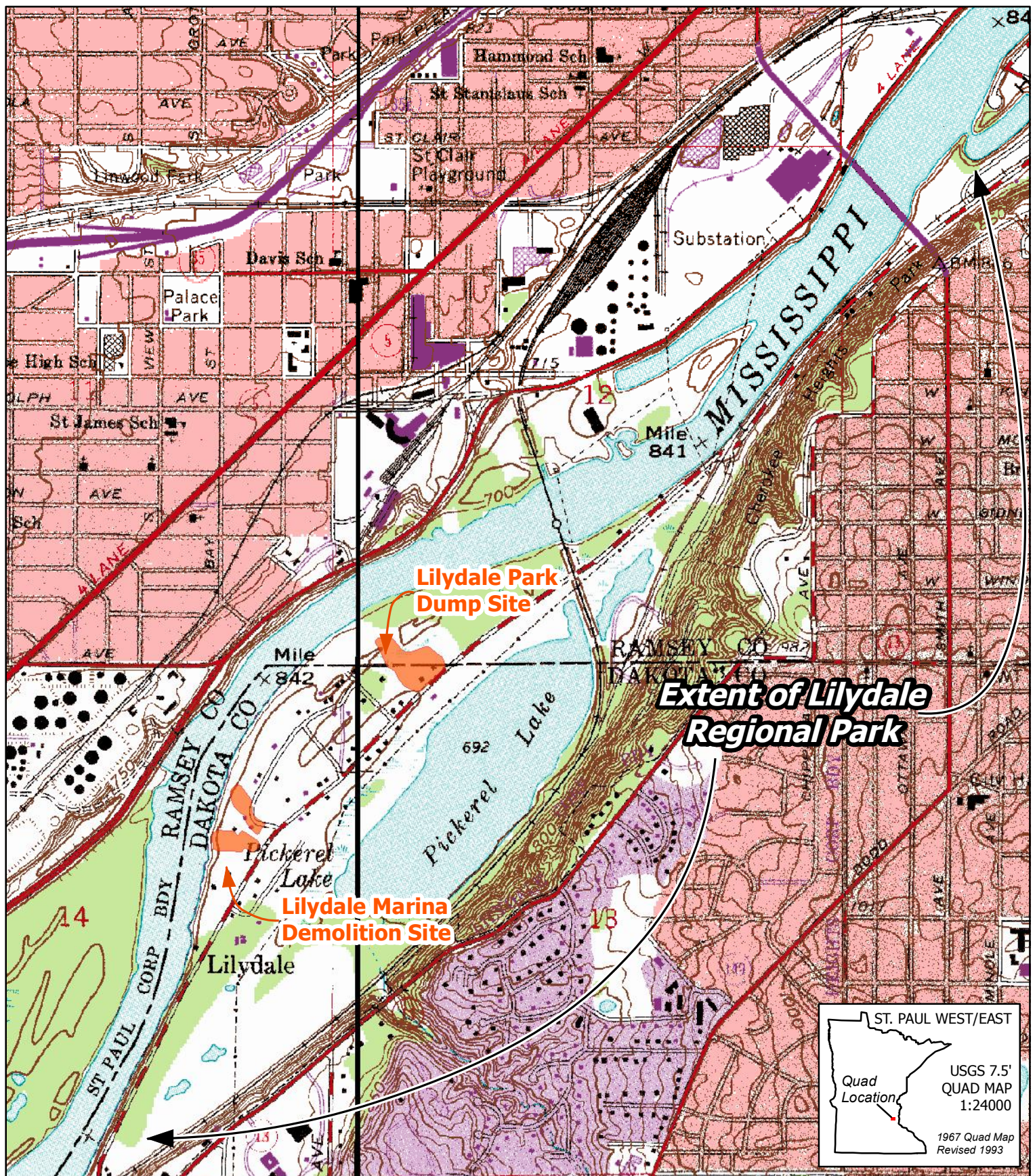
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Meyer, G.N. and L. Swanson, editors. 1992. *Geologic Atlas of Ramsey County, Minnesota, County Atlas Series, Atlas C-7*. Minnesota Geologic Survey

Minnesota Pollution Control Agency 1972-2004. Public files for the *Lilydale Park Dump Site, Lilydale Marina Demolition Site, J.C. White Demolition Site, and Kamish Demolition Site*

St. Paul Parks and Recreation Design Section, September 2009. *Master Plan Amendment, Amendment to the Lilydale/Harriet Island Regional Park Master Plan*

Figures



Response Action Plan and Construction Contingency Plan



2335 West Highway 36
St. Paul, MN 55113
(651) 636-4600

City of St. Paul
Division of Parks and Recreation

Figure 1 - Site Location

Job No.
211-09114-0

Scale
1:16000

Date
1/19/2010

PROPOSED GATEWAY
(SEE ENLARGED WATER STREET IMPROVEMENTS FOR DETAILS)

- * CREATE PARK ENTRANCE INTO LILYDALE REGIONAL PARK
- * GATEWAY TO REFLECT OVERALL CHARACTER OF LILYDALE REGIONAL PARK
- * USE OF NATURAL STONE AND HISTORIC BRICKS FROM TWIN CITY BRICK YARDS
- * VEGETATED ROADWAY MEDIAN PROVIDED TO SLOW TRAFFIC AND MARK ENTRANCE INTO PARK

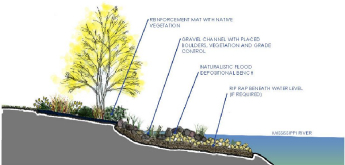
PROPOSED WILDLIFE VIEWING AREAS

- * DEVELOP VIEWING AREAS ALONG PICKEREL LAKE AND THE MISSISSIPPI RIVER
- * HIGHLIGHT DIVERSE BIRDING OPPORTUNITIES
- * PROVIDE OPPORTUNITY TO SAFELY OBSERVE WILDLIFE IN NATURAL ENVIRONMENT
- * REVEGETATE WITH PLANT MATERIAL THAT PROVIDE HABITAT AND FOOD SOURCE
- * PROVIDE LOG/RECORD FOR PARK VISITORS TO RECORD AND DOCUMENT WILDLIFE OBSERVED



MISSISSIPPI RIVERBANK RESTORATION

- * RESTORE MISSISSIPPI RIVERBANK TO NATURALIZED CONDITION
- * REMOVE EXISTING BITUMINOUS AND CONCRETE ALONG SHORELINE
- * RESTORE ENTIRE 2.5 MILES OF SHORELINE WITH EROSION PROTECTION AS NEEDED
- * PROVIDE REGIONAL TRAIL REST AREA/PULL OFFS WITH RIVER VIEWS



WATER STREET IMPROVEMENTS

- * BURY EXISTING OVERHEAD ELECTRIC LINES
- * COLLECT BLUFF SEEPAGE IN CREEK
- * REMOVE INVASIVE PLANT MATERIAL
- * STRENGTHEN VISUAL CONNECTION TO THE MISSISSIPPI RIVER
- * PROVIDE TRAIL OVERLOOKS/RESTING SPOTS

FOSSIL GROUND ENTRANCE
(SEE ENLARGED WATER STREET IMPROVEMENTS FOR DETAILS)

- * REALIGN ROAD TO ELIMINATE REGIONAL TRAIL AND ROADWAY CONFLICT
- * DEVELOP TRAIL HEAD AT ENTRANCE TO FOSSIL GROUNDS
- * PARKING LOT REDESIGNED TO ACCOMMODATE SCHOOL BUSES
- * PROVIDE INTERPRETIVE SIGNAGE AND MAPS AT TRAIL HEAD
- * SATELLITE REST ROOMS PROVIDED

RELOCATED REGIONAL TRAIL UNDER RR

- * ELIMINATING EXISTING TRAIL AND ROADWAY CONFLICT
- * REGIONAL TRAIL RELOCATED UNDER RAILROAD SWING BRIDGE
- * REGIONAL TRAIL TO FOLLOW MISSISSIPPI RIVER

PROPOSED BOARDWALK

- * PROVIDE CONNECTION TO FOSSIL GROUNDS
- * FOLLOW RAILROAD EMBANKMENT
- * MAINTAIN ACCESS TO ALL PARTS OF PICKEREL LAKE

PROPOSED LAKESHORE PICNIC/ GATHERING AREA
(SEE ENLARGED LAKESHORE PLAN FOR DETAILS)

- * REALIGN LILYDALE ROAD TO REMOVE PARKING AWAY FROM LAKESHORE
- * PROVIDE PICNIC SHELTER WITH WATER AND SANITARY SERVICE
- * SHELTER TO ACCOMMODATE SMALL GROUPS (APPROXIMATELY 50 PEOPLE)
- * SHELTER TO REFLECT SUSTAINABLE BUILDING PRACTICES AND ARCHITECTURALLY FIT INTO NATURAL LANDSCAPE

PICKEREL LAKESHORE TRAIL AND SHORELINE RESTORATION

- * TO BE CONSTRUCTED SUMMER 2009
- * REVEGETATION OF SHORELINE WITH NATIVE PLANT MATERIALS
- * RESTORATION OF CANOE LAUNCH
- * CREATE FISHING ACCESS POINTS ALONG PICKEREL LAKESHORE
- * PICNIC TABLES PROVIDED ALONG SHORELINE
- * SPLIT RAIL FENCE PROTECTS NEWLY PLANTED SHORELINE
- * SOFT TRAIL PROVIDED ALONG SECTION OF LAKESHORE

EXISTING BOAT LAUNCH

- * RESTORE BOAT LAUNCH
- * EXISTING PARKING LOT RE-CONFIGURED TO MORE APPROPRIATE SIZE
- * REMOVE INVASIVE PLANT MATERIAL TO CREATE VIEWS OF BOAT LANDING FROM PARKING AND ROADWAY

PROPOSED DOG PARK

- * LOCATED IN OLD LILYDALE MARINA DEMOLITION SITE
- * DESIGNED TO UTILIZE EXISTING BOAT LAUNCH PARKING LOT (60 SPACES)
- * DOG PARK TO BE ENTIRELY FENCED RESTRICTING ACCESS TO REST OF PARK AND MISSISSIPPI RIVER
- * PROVIDE CONSTANT EYES ON PARK
- * APPROXIMATELY 8 1/2 ACRES
- * EXISTING TREE COVER PROTECTED WHERE POSSIBLE
- * SOFT TRAILS PROVIDED FOR WALKING

EXISTING KAMISH DEMOLITION SITE

- * REMOVE EXISTING DEMOLITION SITE
- * RESTORATION TO WETLAND WILL PROVIDE CITY WITH WETLAND BANK CREDIT WHICH CAN BE SOLD \$1-2/SF
- * REMOVE UNNATURAL LANDFORM WITHIN EXISTING WETLAND

PROPOSED STORM WATER TREATMENT AREA

- * DIVERT STORM WATER FROM IVY FALLS
- * STORM WATER TREATED IN SERIES OF WETLANDS PRIOR TO ENTERING PICKEREL LAKE
- * WILL PROTECT EXISTING WATER QUALITY OF PICKEREL LAKE
- * RISK OF WATER QUALITY DETERIORATING DUE TO LARGE STORM WATER DRAINAGE AREA ENTERING PICKEREL LAKE



LEGEND

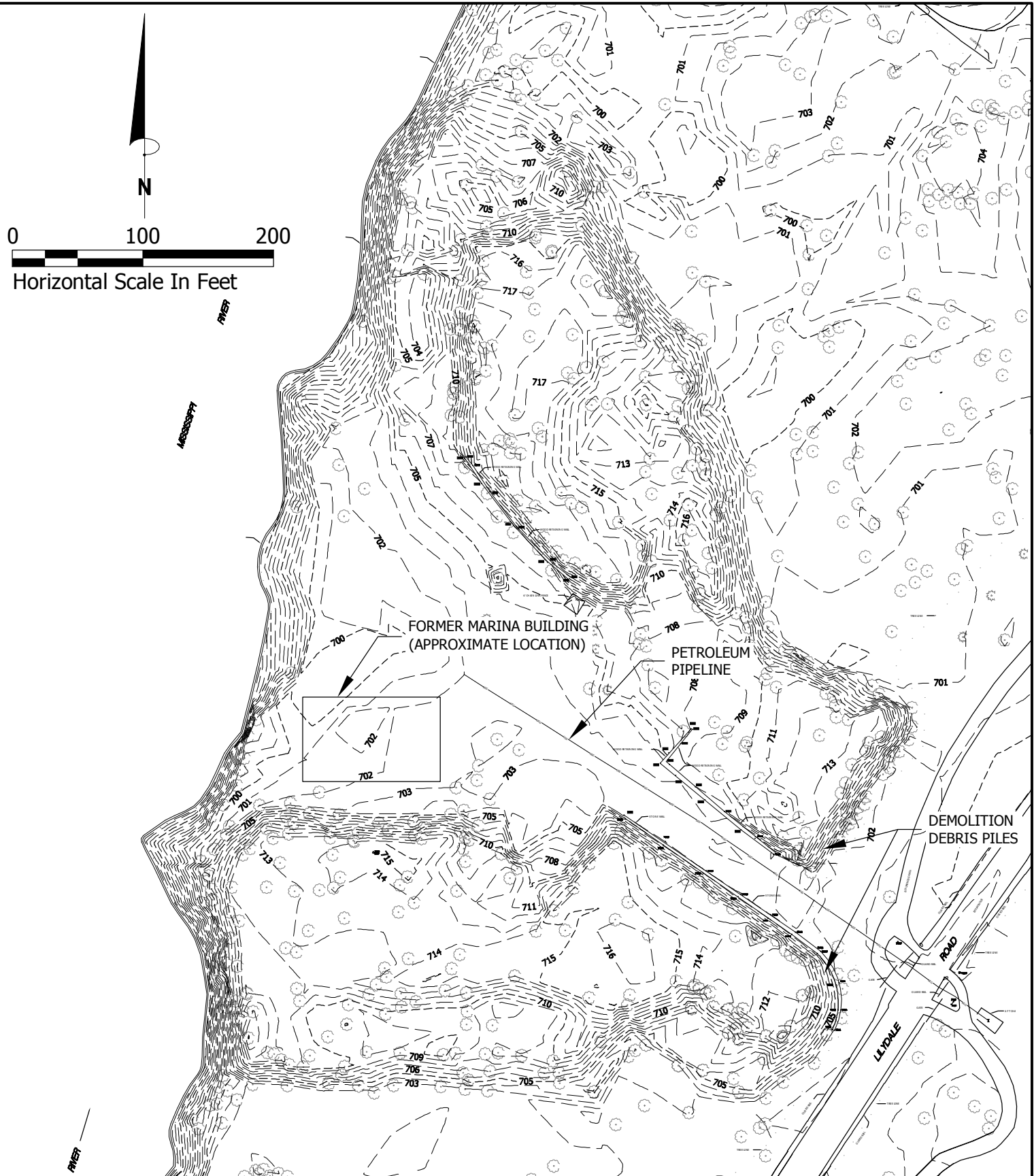
- EXISTING REGIONAL TRAIL
- PROPOSED REGIONAL TRAIL
- EXISTING SOFT TRAIL
- PROPOSED LAKESHORE TRAIL
- PROPOSED SOFT TRAIL
- EXISTING CONTOURS
- PROPOSED CONTOURS
- ✱ PROPOSED WILDLIFE VIEWING
- ✱ PROPOSED GROUP CAMPING



LILYDALE REGIONAL PARK MASTER SITE PLAN

LILYDALE REGIONAL PARK
CITY OF SAINT PAUL PARKS AND RECREATION DESIGN SECTION
JULY 1, 2009

Figure 2

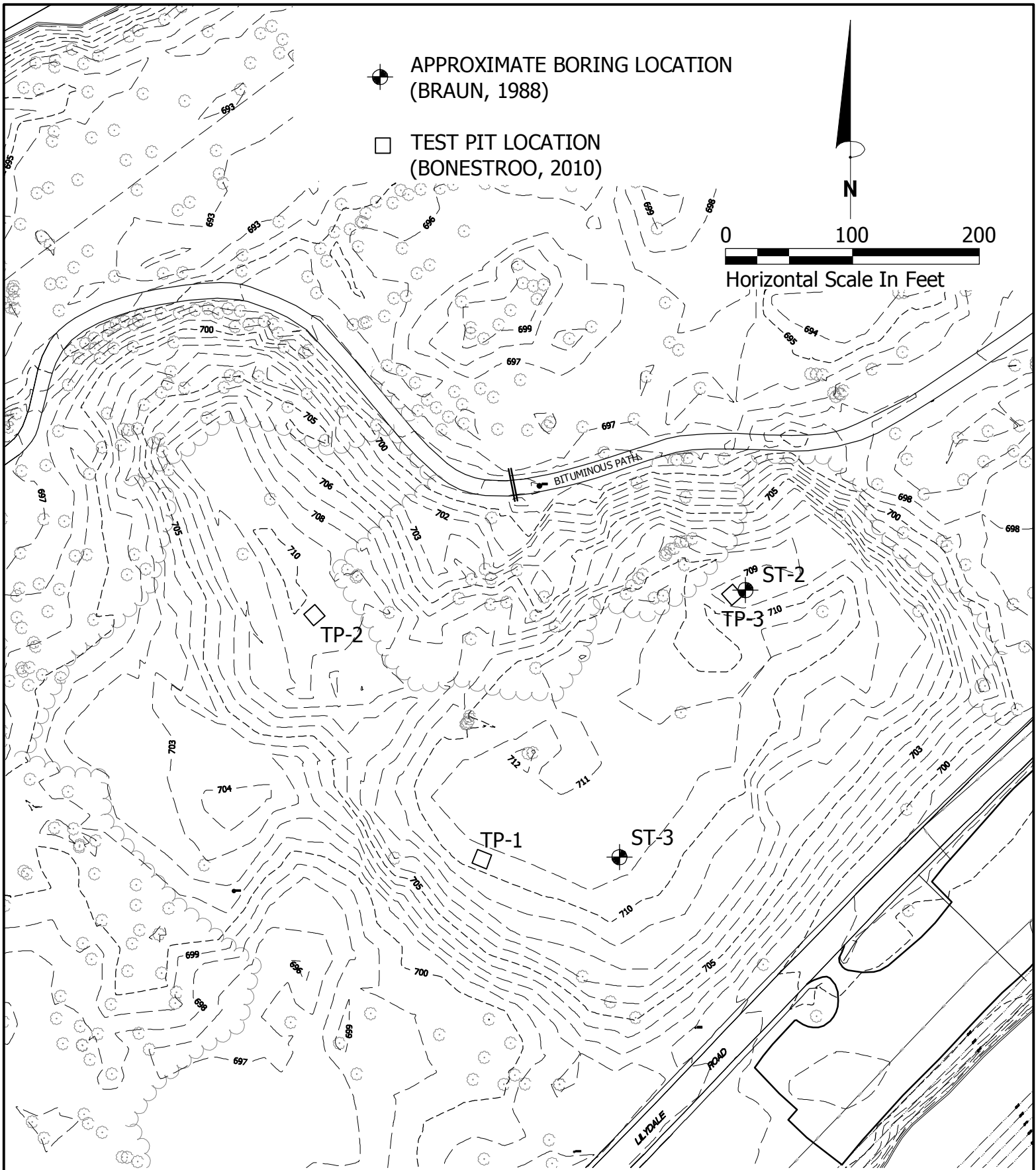


EXISTING CONDITIONS - LILYDALE MARINA DEMOLITION SITE

LILYDALE REGIONAL PARK - CITY OF ST. PAUL

RESPONSE ACTION AND CONSTRUCTION CONTINGENCY PLAN





EXISTING CONDITIONS - LILYDALE PARK DUMP SITE

LILYDALE REGIONAL PARK - CITY OF ST. PAUL

RESPONSE ACTION AND CONSTRUCTION CONTINGENCY PLAN



Appendix A

**Phase II Environmental Site Assessment
Lilydale Park Dump Site
June 10, 2010**



Phase II Environmental Site Assessment

Lilydale Park Dump Site

City of St. Paul

June 10, 2010

Project Number 000211-10116-0

June 10, 2010



Amy Hadiaris, Project Leader
Minnesota Pollution Control Agency
VIC Program
520 Lafayette Road North
St. Paul, MN 55155-4194

Shanna Schmitt, Technical Analyst
Minnesota Pollution Control Agency
VIC Program
520 Lafayette Road North
St. Paul, MN 55155-4194

Re: Phase II Environmental Site Assessment
Lilydale Park Dump Site
Bonestroo File No.: 000211-10116-0
MPCA VIC Program Project ID VP1071

Dear Mmes. Hadiaris and Schmitt:

Enclosed are two copies of the Phase II Environmental Site Assessment Report for the Lilydale Park Dump site located in Lilydale Regional Park. In summary, the project involved the excavation of three test pits at the Site on May 4, 2010, observation of the materials encountered, field screening with a photo ionization detector and an X-ray fluorescence analyzer, and laboratory analyses of selected samples. The enclosed report provides a description of the methods and results of the assessment.

Based on the results of the assessment, and on behalf of the City of St. Paul, we request that the previously submitted and approved Response Action Plan and Construction Contingency Plan (RAP/CCP) for the proposed removal actions at the park be withdrawn. The presence of asbestos in the waste material increases the off-site disposal costs such that the total remediation of the site as described in the previously-submitted RAP/CCP is no longer financially feasible.

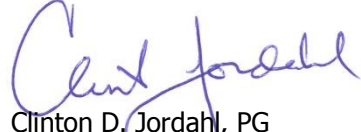
The City would like to revise the RAP/CCP to propose further consolidation and burial of the waste material associated with the Lilydale Park Dump site. Conceptually, waste material would be cleared from the proposed re-alignment of Lilydale Road/West Water Street and consolidated as non-structural fill along the northeast and southwest flanks of the existing waste pile. The accumulated fill mound will be used to elevate a proposed park picnic shelter to protect it from flood threat. Dynamic compaction or other methods might be used to reduce the volume and increase the structural stability of the waste. Then crushed material from the Lilydale Park Marina site would likely be placed on top of the pile to provide a protective cover, and possibly as a surcharge if deemed geotechnically prudent.

The City would also like to amend their request for technical assistance only, to a request for a No Association Determination for their proposed actions within the park. We realize this is a significant change from the approach to the project previously proposed, and we are requesting a meeting with VIC staff prior to the preparation and submission of a revised RAP/CCP.

We appreciate your continued support of the City's efforts to rehabilitate Lilydale Regional Park and thank you in advance for your review of the enclosed documents. Please feel free to contact me at (320) 229-5529 if you have any questions regarding this letter or enclosures.

Sincerely,

BONESTROO



Clinton D. Jordahl, PG
Geologist

Enclosure

- c: Ms. Alice Messer, City of Saint Paul Parks and Recreation (2 copies)
Mr. Stu Gross, Bonestroo
Ms. Anne Hunt, City of St. Paul
Mr. John Moriarty, Ramsey County
Mr. George Kinney, Dakota County
Ms. Teish Stafne, City of Lilydale

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1. Introduction

1.1 AUTHORIZATION

In accordance with the authorization received from the City of St. Paul (City), Bonestroo conducted a Phase II Environmental Site Assessment (Phase II ESA) at the Lilydale Park Dump site located in Lilydale Regional Park. The Site is generally located in the NW¹/₄ of the NW¹/₄ of Section 13 T28N, R23W. A Site Location Map is included as Figure 1.

1.2 PROJECT BACKGROUND

Lilydale Regional Park (Park) is an approximately 384 acre parcel lying largely within the floodplain of the Mississippi River, and includes the 100-acre spring-fed Pickerel Lake. It extends from the Smith Avenue High Bridge approximately 2.5 miles upriver to the Lilydale Pool and Yacht Club property. It is one half mile wide at its widest point and bounded on the northwest by the Mississippi River and on the southeast by a 250-foot bedrock escarpment. Much of the area comprising the Park was at one time the small town of Lilydale. The lower Lilydale area was subject to repeated flooding, and by the late 1970s, the entire population of 600 people had been relocated to the bluffs above what is now the Park. The Park will be redeveloped to provide the amenities desired by the community with a focus on the restoration, protection and interpretation of the Park's unique natural resources. Proposed Park improvements include the realignment of a portion of Lilydale Road/West Water Street and the construction of a picnic shelter along the western shore of Pickerel Lake.

The Lilydale Park Dump site (Site) lies along the western edge of Pickerel Lake at the location proposed for the picnic shelter and restrooms, and within the footprint of the proposed roadway realignment. The Site straddles the border between Dakota and Ramsey Counties, but appears to be located primarily in Dakota County. The Site is an irregularly shaped area about 6¹/₄ acres size rising about 10 to 16 feet above the surrounding terrain. A topographic map of the dump site is included as Figure 2.

The Lilydale Park Dump was accumulated within the footprint of Lilydale Auto Parts which appears to have begun as a small operation along Lilydale Road/West Water Street in the mid to late 1950s. A fill mound was accumulated at the Site sometime after 1974, and it appears to have received final cover by 1980. Little information is available about the specific nature of the material deposited at the Site; however, it appears that buildings and other "Environmental Intrusions" were collected from the park property and aggregated at the Site in accordance with a plan developed by the Ramsey County Open Space System in 1973.

In January 2010, a Response Action Plan and Construction Contingency Plan (RAP/CCP) was developed to assist the City in conducting removal actions at the Lilydale Park Dump site and the Lilydale Marina Demolition site, which is also located within the Park. The RAP/CCP addressed the removal of accumulated demolition debris and other waste material necessary to initiate the implementation of the park redevelopment plan. The removal of waste material from the Site was proposed as a necessary step to achieve the desired roadway realignment and allow the construction of a picnic shelter on structurally-suitable fill. The removal of demolition debris from the Lilydale Marina Demolition site is necessary to allow the establishment of a dog park at that

location and the floodway-fill volume credit necessary to allow the construction of the picnic shelter at an elevation above the regulatory flood protection elevation of the Mississippi River.

Additional information pertaining to the Site and the Park in general can be found in a Natural Resource Management Plan (NRMP) for the Park that was completed by Bonestroo in 2009. The NRMP report included a historical overview of the Park, a summary of known environmental issues based on information provided by the City and the files of the MPCA pertaining to lower Lilydale, and a site reconnaissance.

1.3 PROJECT OBJECTIVES

The general objective of this Phase II ESA is to reduce the uncertainty regarding the nature of the material buried at the Site; provide a better understanding of the material to be encountered during the proposed removal actions, and provide an opportunity to characterize material as may be needed to meet landfill disposal requirements.

1.4 SCOPE OF SERVICES

The following work tasks were completed by Bonestroo during this phase of the project:

- Visually inspected soil and waste materials encountered in three test pits excavated at the Site.
- Field screened soil samples collected from the test pits for the presence and relative concentrations of ionizable organic vapors using a photo-ionization detector (PID) and a polyethylene bag-headspace methodology.
- Field screened bagged and homogenized soil samples for 32 metallic elements using an X-Ray Fluorescence (XRF) analyzer.
- Collected nine samples of suspect asbestos-containing waste material (ACWM) for analysis by Polarized Light Microscopy (PLM).
- Collected nine soil samples for laboratory chemical analyses including: Volatile Organic Compounds (VOC) by Environmental Protection Agency (EPA) Method 8260; Semi-VOCs (SVOC) by EPA Method 8270; Priority pollutant metals by EPA Methods 6010/7470/7471; Polychlorinated Biphenyls (PCB) by EPA Method 8082; Organochlorine Pesticides by EPA Method 8081; and, Diesel Range Organic Compounds (DRO) by Modified WDNR Methodology.

2. Project Results

2.1 TEST PIT LOCATIONS

A total of three test pits were excavated at the Site on May 4, 2010 by Veit Companies of Rogers, Minnesota, using a Caterpillar 320C tracked excavator. The test pits were more or less evenly distributed across the top of the Site in attempt to provide as much characterization of the waste material as possible. Test pit locations are shown on Figure 2.

2.2 MATERIALS ENCOUNTERED

To minimize surface disturbance, each pit was excavated vertically to the practical working limits of the equipment at approximately 13 feet below the surface. Stratigraphic logs of the test pits are included as Figure 3. Photographs of the pits and excavated materials are included in Appendix B.

In general, 6 to 9 inches of top soil cover was encountered at each test pit location (Photograph #1). Although thin, the topsoil layer was well vegetated and appeared to be free of any waste material. The underlying material could generally be characterized as demolition debris consisting primarily of brick, concrete, stone and wood in a primarily sandy matrix (Photographs #3, #6 and #8). Lesser amounts of scrap metal, metal pipe, wire, conduit, and roofing material were included in the waste, as were small fragments of glass, vinyl composite floor tile, and transite siding. Very little household-type waste such as porcelain, glass bottles, tin cans, etc. was noted to be present in any of the test pits.

Test Pit 1 was successfully advanced to a depth of approximately 13½ feet, and about 1 foot into what appeared to be native alluvial silt. An approximately 1-foot thick black tarry layer emanating creosote-like odor and containing much embedded glass was encountered at the base of the fill material and just above native soil (Photograph #4). This stratum likely represents the working elevation of Lilydale Auto Parts.

Neither Test Pit 2 nor Test Pit 3 could be extended into native material due to excessive slumping of the irregular fill material and the limited reach of the equipment. In general, Test Pit 2 appeared to contain more wood waste than either of the other two pits. A black tarry layer similar to that encountered at the base of the fill material in Test Pit 1, but much thinner and less malodorous, was encountered at the base of the waste material in Test Pit 3. However, rather than being underlain by natural alluvial silt, the waste material at the Test Pit 3 location was underlain by a sandy fill material which included numerous sandstone fragments.

2.3 CONTAMINATION SCREENING

Soils excavated from the test pits were examined visually for staining and other apparent signs of contamination, including the presence of suspect ACWM. Incidental olfactory indications of contamination such as strong or unusual odors were also noted. In addition, the soil samples were screened for the presence and concentrations of organic vapors using a Thermo Environmental Instruments Model 580B PID equipped with a 10.6 electron-volt lamp, and a polyethylene-bag headspace procedure.

The polyethylene-bag headspace analytical procedure consisted of half-filling a new one-quart self-sealing bag with a soil sample. The bag was quickly sealed and headspace was allowed to develop for at least 10 minutes. The bag was manipulated to break up clods and shaken vigorously for 15 seconds, both at the beginning and the end of the headspace development period. After headspace development, the PID probe was inserted through the top of the bag to one-half the headspace depth. The highest reading observed on the PID was then recorded.

PID screening results are presented on Figure 3. An organic vapor concentration of 5.2 parts-per-million (ppm) was detected in the black tarry layer encountered in Test Pit 1 at a depth of approximately 12 feet. No other detectable organic vapors were found to be emanating from any of the other soil samples collected and screened at the site.

During the 10-minute headspace development period, the homogenized sample bags were screened with a Niton XL3t 700 Series XRF analyzer. The XRF was equipped with a 50kV Ag anode X-ray tube and was capable of detecting up to 32 metallic elements. The screening procedure consisted of placing the bagged soil sample on the ground or flat surface, and flattening the soil in the bag to produce a uniform soil thickness of at least one inch beneath the detector. The shutter was then opened a duration of approximately 60 seconds to take the measurement.

The XRF field screening results are presented in Table 1. The most significant contaminant detected by the XRF screening appears to be lead, which was measured at a concentration as high as 1,500 ppm with the XRF. Two measurements are included in Table 1 for samples S-6, S-8, S-10, S-15 and S-16. For each of these samples, the "a" screening result is for the bagged sample following the procedures outlined above. The "b" measurement was taken from the actual sample jar being submitted for metals analysis with the intent of providing a comparison between the metals field screening results and laboratory analytical results.

2.4 SOIL SAMPLE ANALYSES

A total of nine soil samples collected from the test pits were submitted to Pace Analytical Services (Pace) for laboratory chemical analysis. Analytical parameters included VOCs, SVOCs, priority pollutant metals, PCBs, organochlorine pesticides, and DRO. Grab samples collected from depths less than 5 feet were taken directly from the floor of the excavation. Grab samples from depths greater than 5 feet were generally collected from the backhoe bucket. A composite sample from Test Pit 3 was formed by setting aside small subsamples of material as the hole was excavated, then homogenizing the subsamples to form a composite. The samples were placed in new glass sample jars with Teflon[®]-lined lids. The soil samples collected for volatile analysis were preserved in the field with methanol. The jars were sealed, labeled, and transported to the laboratory under refrigerated conditions using chain-of-custody procedures.

Laboratory analytical results are summarized in Tables 2 through 5. The sample-specific results are included in the laboratory reports are contained in Appendix A. The following is a brief summary of the rationale for collecting and analyzing the various samples.

Test Pit 1

Sample S-3 – grab sample taken at the topsoil/waste interface at depth of about 6 inches; XRF screening was 570 ppm lead and there were no organic vapors detected. The rationale for analysis was to evaluate the soil cover for reuse. Parameters included VOCs, SVOCs, metals and DRO.

Sample S-4 – grab sample taken at a depth of about 6 feet. XRF screening was 1500 ppm lead and there were no organic vapors detected. The rationale for analysis was the apparent high lead content. Parameters included SVOCs, metals and DRO.

Sample S-6 – grab sample taken at a depth of about 12½ feet; XRF 615-750 ppm lead with an organic vapor reading of 5.2 ppm. This was a black layer with a creosote-like odor and with a lot of broken glass. This stratum likely represents the working elevation of Lilydale Auto Parts. Parameters included VOCs, SVOCs, metals, PCBs, Pesticides and DRO.

Sample S-8 – grab sample taken from native soil about a foot below the tar-like layer. XRF screening was 0-94 ppm lead with no organic vapors. Sample was analyzed to evaluate impacts to the underlying soil. Parameters included VOCs, SVOCs, metals, PCBs, Pesticides and DRO.

Test Pit 2

Sample S-10 – grab sample from a depth of about 5 feet; XRF screening was 400 to 770 ppm lead with no organic vapors. Sample was analyzed to help build waste profile. Parameters included VOCs, SVOCs, metals and DRO.

Sample S-11 – grab sample from the bottom of the pit at about 13 feet, which was at the working reach of the backhoe. Pit was terminated in waste at this depth. XRF screening was 1550 ppm lead with no organic vapors. Sample was analyzed due to apparent high lead level and to help build a waste profile. Parameters included VOCs, SVOCs, metals, PCBs, Pesticides and DRO.

Test Pit 3

Sample S-14 – grab sample from a layer of what appeared to be clean sand fill at a depth of about 11 feet. The coarseness of the sand and inclusion of small chunks of sandstone suggested it was fill as opposed to natural alluvium. XRF screening was 0 ppm lead with no organic vapors. The sides of the pit were collapsing at this depth and it was not possible to go deeper without going wider. Sample was analyzed to evaluate impacts to the soil beneath waste. Parameters included VOCs, SVOCs, metals, and DRO.

Sample S-15 – grab sample from a dark layer directly above the S-14 sand fill layer. It was similar to the layer near the bottom of Test Pit 1, but with less of a creosote odor and less incorporated glass and waste. XRF screening was 270 to 640 ppm lead with no organic vapors. Once again, likely represents the working elevation of Lilydale Auto Parts. Parameters included VOCs, SVOCs, metals, PCBs, Pesticides and DRO.

Sample S-16 – composite sample formed by collecting small sub-samples as the pit was excavated and then homogenizing the material. XRF screening was 730 to 1115 ppm lead with no organic vapors. Sample was analyzed due to apparent high lead level and to help build waste profile. Parameters included VOCs, SVOCs, metals, PCBs, Pesticides and DRO.

2.5 ASBESTOS ANALYSES

Nine samples of suspect asbestos-containing building material were collected from the test pits and submitted to Pace for PLM analysis. Suspect materials were encountered in each of the test pits and included shingles, built-up roofing, countertop material, vinyl composite floor tile, and transite siding. The results of the analyses are summarized in Table 6. More detailed layer-by-layer analytical results are presented in the microscopy report contained in Appendix A.

3. Discussion

3.1 SOILS

None of the 67 targeted VOC parameters were present in any of the soil samples collected at the Site at concentrations greater than or equal to the lower detection limit of the analytical method. DRO was detected in six of the nine samples with a maximum concentration of 773 mg/kg in the black tarry layer noted at the 12½-foot depth of TP-1. The laboratory reports higher boiling-point hydrocarbons in three of these six samples in which DRO was detected, and also in one sample in which DRO was not detected. DRO analytical results are summarized in Table 4.

PCB analytical results are summarized in Table 5. Trace PCB concentrations were detected in three of the five samples analyzed for PCBs, but the greatest total PCB concentration of 0.638 mg/kg was well below the Tier 2 Recreational Soil Reference Value (SRV) of 1.4 mg/kg, and the Tier 1 Soil Leaching Value (SLV) of 2.1 mg/kg.

Analytical results for pesticides are summarized in Table 4. Organochlorine pesticides were detected at concentrations below 1 mg/kg in four of five samples analyzed for pesticides. A total of 11 parameters were detected. Nevertheless, the concentrations were very low and generally only nominally above the lower analytical method detection limit, which is far below the applicable SRV (where a SRV has been established). The MPCA has not established SLVs for pesticides as they generally fall under the regulatory authority of the Minnesota Department of Agriculture (MDA). The MDA has prescriptive cleanup standards for pesticides currently in use or recently retired, but it does not appear that there are prescriptive cleanup standards for any of the compounds detected on the Site.

The results of the metals analyses are summarized in Table 2. Lead was detected in seven of the nine samples at concentrations in excess of the Recreational SRV for lead, and in six of the nine samples at a concentration above the Tier 1 SLV. The only two samples not exceeding a lead threshold were the samples collected from native soil and sand fill at the terminal depths of Test Pits 1 and 3, respectively. The highest concentration of 3090 mg/kg was detected in sample S-4 collected from the 6-foot depth in TP-1. This sample and the composite sample from TP-3 (S-16, 1210 mg/kg total lead) were analyzed by the Toxic Characteristic Leach Procedure (TCLP). Sample S-16 passed the TCLP for lead with a concentration of 1.9 mg/L, but S-4 failed the TCLP with a lead concentration of 7.1 mg/L.

Copper was detected at a concentration of 482 mg/kg in sample S-15, which was collected from the black-stained layer near the base of TP-3. This concentration is above the Recreational SRV for copper at 400 mg/kg; however, no other metals were detected in the soil samples collected at the Site at concentrations above their respective SRVs.

Antimony, Cadmium, Copper, Selenium and Zinc were all detected in one or more samples at concentrations above their respective Tier 1 SLVs. Total Chromium was detected in five samples at a concentration that is slightly above the SLV for Chromium VI; however, it is unlikely that the total Chromium result is due solely to the presence of Chromium VI.

SVOC analytical results are summarized in Table 3. The Recreational SRV of 2 mg/kg for Benzo(a)pyrene equivalents (BaP equivalents) was exceeded in 4 samples with the highest

concentration of 59 mg/kg detected in sample S-10, which was collected from the 5-foot depth of TP-2. It may be worth noting that TP-2 contained significantly more lumber waste than the other test pits. The Tier 1 SLV for BaP equivalents of 10.2 mg/kg was exceeded in two samples including S-10 (56.7 mg/kg) and S-16 which was the composite sample from TP-3 (18.55 mg/kg).

3.2 ABESTOS-CONTAINING WASTE MATERIAL

Six of the nine building material samples submitted for asbestos analysis contained anywhere from 5% to 20% asbestos. According to Minnesota Statutes, material containing greater than 1% asbestos is considered "asbestos-containing" and its removal and disposal is regulated under the Administrative Rules of the MPCA and the Minnesota Department of Health (MDH).

Asbestos-containing material including vinyl-composite floor tile and mastic, and transite board was found in each of the three test pits. Materials analyzed and found not to contain asbestos included roofing material and counter top material. It should be noted however that other roofing material and additional suspect asbestos-containing materials are likely to be present in areas not explored, and these materials (if encountered) should be considered asbestos-containing until analyzed to demonstrate otherwise.

4. Conclusions

Each of the test pits conducted at the Site encountered primarily building material consistent with a demolition landfill. The bulk of the material encountered at each test pit location consisted of brick in a sandy-soil matrix. There was more wood encountered at the Test Pit 2 location than in the other test pits; and more plumbing, metal and roofing encountered at the Test Pit 3 location, but there were no identifiable industrial wastes and very little household-type waste encountered at the Site.

Asbestos-containing building materials were present in small amounts throughout the profile of each pit. The soil matrix was not tested for asbestos. The types of materials encountered would generally be considered non-friable in their undamaged state; however, all the material was damaged and incorporated with soil and other debris. In its current condition, it is likely that the entire pile will need to be managed as asbestos containing waste material.

Aside from asbestos, the primary contaminant of concern at the Site appears to be lead, which was pervasive in the waste material but not detected at regulated concentrations in the underlying soils at the two locations where the underlying soil was tested. The source of the lead contamination is not known. Some lead flashing was encountered in Test Pit 2, but it seems unlikely that the presence of flashing or plumbing alone would be the cause of what appears to be such widespread lead contamination. Threats associated with direct contact with soil contaminated with lead or other metals could be mitigated by covering the waste material with additional soil; however, the threat posed to groundwater quality by lead and potentially antimony, cadmium, chromium, copper, selenium, and zinc leaching from the waste material may warrant additional protective measures.

SVOCs in the form of B(a)P equivalents are also present at the Site in concentrations that may pose a direct contact risk and potentially a risk to groundwater quality. Intuitively, measures employed to mitigate the risks posed by the metals contamination should adequately address the threats posed by the identified SVOC contamination.

5. Limitations

The analyses and conclusions submitted in this report are based on our field observations and the results of laboratory chemical analyses of performed on soil samples collected from the test pits completed for this project. Groundwater was not encountered in any of the test pits excavated at the Site, and neither the groundwater condition nor flow direction were evaluated as part of the Scope of Services for this project.

In performing its services, Bonestroo used that degree of care and skill ordinarily exercised under similar circumstances by reputable members of its profession practicing in the same location. No other warranty is made or intended.

Tables

Table 1
XRF Screening Results
Lilydale Dump #2
Lilydale Regional Park
Bonestroo Project 000211-10116-0

Sample	Sample Location	Pb	Pb Error	Ba	Ba Error	Cd	Cd Error	Cr	Cr Error	Hg	Hg Error	Se	Se Error	Ag	Ag Error	As	As Error	Mo	Mo Error	Zr	Zr Error	Sr	Sr Error	U	U Error	Rb	Rb Error	Th	Th Error	Zn	Zn Error	W	W Error
S-3	TP-1 (6 inches)	571.14*	36.34	< LOD	121.53	< LOD	17.68	155.45	28.32	< LOD	11.76	< LOD	6.51	< LOD	11.62	< LOD	36.85	< LOD	8.86	193.75	12.59	144.04	9.26	< LOD	14.3	38.08	5.82	< LOD	17.05	157.16	24.39	< LOD	80.07
S-4	TP-1 (6 feet)	1491.21	60.81	< LOD	118.01	< LOD	17.29	160.67	27.31	< LOD	13.44	< LOD	7.69	< LOD	11.02	< LOD	60.73	< LOD	9.3	140.79	12.1	139.77	9.7	< LOD	12.77	24.94	5.24	< LOD	25.8	556.95	45.65	< LOD	87.6
S-5	TP-1 (9 feet)	754.15	42.58	< LOD	123.42	< LOD	17.66	156.28	28.33	< LOD	11.93	< LOD	7.31	< LOD	11.56	< LOD	43.79	< LOD	9.16	105.29	10.62	131.75	9.14	< LOD	14.31	30.67	5.57	< LOD	18.38	388.39	37.55	< LOD	86.55
S-6a	TP-1 (12.5 feet)	617.04	40.05	361.1	90.46	< LOD	18.65	241.5	36.38	< LOD	17.99	< LOD	8.59	< LOD	11.98	< LOD	40.78	< LOD	9.8	241.09	14.45	124.98	9.22	< LOD	14.6	35.69	5.98	< LOD	18.61	5217.75	137.14	< LOD	155.96
S-6b	TP-1 (12.5 feet)	743.98	38.11	< LOD	117.99	< LOD	16.34	182.72	31.98	< LOD	15.03	< LOD	6.84	< LOD	10.6	45.33	26.37	10.13	5.58	131.83	10.22	111.63	7.65	< LOD	12.13	36.72	5.21	< LOD	17.01	5187.67	119.36	< LOD	132.19
S-8a	TP-1 (13.5 feet)	94.15	16.52	< LOD	120.28	< LOD	17.37	185.75	30.59	< LOD	10.57	< LOD	5.53	< LOD	11.01	< LOD	15.85	< LOD	8.65	181.22	11.86	129.56	8.56	< LOD	14.36	33.55	5.45	< LOD	11.52	56.43	15.75	< LOD	67.66
S-8b	TP-1 (13.5 feet)	< LOD	11.77	< LOD	122.81	< LOD	17.11	136.24	28.86	< LOD	9.65	< LOD	5.5	< LOD	10.88	< LOD	8.53	< LOD	8.85	217.18	12.85	140.6	9.02	< LOD	15.32	40.87	5.98	< LOD	8.07	44.6	14.92	< LOD	73.08
S-9	TP-2 (3 feet)	542.58	32.62	191.85	75.15	17.61	10.84	207.48	30.65	10.64	7.06	< LOD	6.13	< LOD	10.74	< LOD	31.61	< LOD	7.68	139.44	10.3	134.32	8.25	< LOD	11.77	26.29	4.59	< LOD	14.35	527.2	38.54	< LOD	63.12
S-10a	TP-2 (5 feet)	374.32	28.54	361.72	83.16	23.3	11.93	166.94	28.38	< LOD	9.09	< LOD	5.66	< LOD	11.34	< LOD	28.31	< LOD	7.99	82.79	9.12	120.3	8.13	< LOD	14.69	68.02	6.91	< LOD	13.38	332.74	32.26	< LOD	70.28
S-10b	TP-2 (5 feet)	630.04	33.03	< LOD	101.94	< LOD	14.72	162.27	27.9	< LOD	10.02	< LOD	5.78	< LOD	9.19	< LOD	33.72	< LOD	7.56	68.46	7.88	103.3	6.91	< LOD	10.31	17.02	3.77	< LOD	15.34	488.35	35.16	< LOD	69.13
S-11	TP-2 (13 feet)	1549.98	57.54	< LOD	112.88	< LOD	15.27	196.05	30.17	< LOD	12.4	< LOD	8.87	< LOD	10.16	64.11	39.41	< LOD	8.52	160.01	11.51	96	7.62	< LOD	11.61	21.75	4.67	< LOD	24.65	1466.22	67.58	< LOD	91.91
S-12	TP-3 (5 feet)	97.6	24.21	< LOD	246.31	< LOD	34.35	109.06	44.71	< LOD	29.81	< LOD	9.15	< LOD	23.85	< LOD	23.15	< LOD	12.48	20.25	9.71	19.19	5.84	< LOD	12.62	7.37	4.43	< LOD	15.8	8644.55	237.3	< LOD	280.01
S-13	TP-3 (5 feet)	618.57	38.24	400.61	85.22	< LOD	17.04	113.7	28.46	< LOD	12.45	< LOD	7.02	< LOD	11.03	< LOD	38.6	< LOD	8.7	183.97	12.52	137.57	9.18	< LOD	14.09	33.43	5.62	< LOD	18.16	324.8	34.13	< LOD	87.2
S-14	TP-3 (11 feet)	< LOD	11.18	< LOD	116.67	< LOD	16.88	176.95	25.64	< LOD	9.23	< LOD	5.07	< LOD	10.64	< LOD	7.41	< LOD	8.52	83.11	8.68	18.37	3.96	< LOD	10.85	11.36	3.7	< LOD	7.95	36.12	13.72	< LOD	70.89
S-15a	TP-3 (10 feet)	639.85	40.1	143.83	86.57	< LOD	18.52	140.75	27.16	< LOD	12.59	< LOD	6.74	< LOD	11.77	< LOD	41.42	< LOD	8.93	132.79	11.84	177.7	10.67	< LOD	14.57	32.86	5.77	< LOD	18.44	342.74	36.09	< LOD	87.16
S-15b	TP-3 (10 feet)	268.98	29.35	< LOD	127.56	< LOD	18.37	148.93	26.28	< LOD	15.04	< LOD	5.63	< LOD	11.44	< LOD	29.08	< LOD	9.99	88.42	10.62	46.59	6.47	< LOD	13.96	9.36	4.37	< LOD	15.56	1272.67	73.65	< LOD	118.56
S-16a	TP-3 Composite	730.6	42.2	< LOD	71.85	< LOD	10.54	201.67	28.32	< LOD	12.57	< LOD	7.26	< LOD	7.01	< LOD	42.79	< LOD	8.9	94.11	10.11	90.14	7.76	< LOD	12.73	17.01	4.58	< LOD	18.42	416.94	39.17	< LOD	94.3
S-16b	TP-3 Composite	1114.86	50.68	< LOD	113.49	< LOD	16.42	122.71	25.06	< LOD	11.56	< LOD	7.09	< LOD	11.06	< LOD	51.74	< LOD	8.81	95.61	10.05	89.42	7.61	< LOD	14.23	15.01	4.66	< LOD	21.86	505.38	41.86	< LOD	82.77

Sample	Sample Location	Cu	Cu Error	Ni	Ni Error	Co	Co Error	Fe	Fe Error	Mn	Mn Error	V	V Error	Ti	Ti Error	Sc	Sc Error	Ca	Ca Error	K	K Error	S	S Error	Cs	Cs Error	Te	Te Error	Sb	Sb Error	Sn	Sn Error	Pd	Pd Error
S-3	TP-1 (6 inches)	< LOD	33.09	< LOD	70.6	< LOD	160.02	12401	354.74	280.7	85.51	75.46	38.36	1311	130.91	30.82	20.42	19293	549.13	7277.4	504.82	< LOD	781.72	< LOD	20.75	< LOD	67.19	< LOD	25.03	< LOD	20.81	< LOD	15.05
S-4	TP-1 (6 feet)	< LOD	33.94	< LOD	69.99	< LOD	163.67	10690	348.78	400.3	101.89	< LOD	55.38	1172	130.56	< LOD	42.27	39490	769.79	4308.5	442.05	< LOD	851.4	< LOD	20.2	< LOD	64.13	< LOD	24.47	< LOD	20.16	< LOD	13.86
S-5	TP-1 (9 feet)	< LOD	35.06	< LOD	63.29	< LOD	158.99	10655	338.84	501.1	106.76	< LOD	64.73	1323	150.32	< LOD	39.91	34431	727.25	6264	497.69	< LOD	855.59	< LOD	20.96	< LOD	67.76	< LOD	25.34	21.8	13.95	< LOD	14.69
S-6a	TP-1 (12.5 feet)	200.12	39.59	< LOD	80.77	< LOD	224.02	20777	486.15	349.3	104.15	< LOD	89.23	1529	197.75	< LOD	34.42	23757	635.58	7484.2	539.42	< LOD	968.82	< LOD	22.31	< LOD	71.76	30.67	18.07	53.7	15.33	< LOD	15.67
S-6b	TP-1 (12.5 feet)	347.98	41.39	< LOD	66.83	< LOD	197.25	21072	427.44	505.9	101.11	< LOD	78.32	1828	181.22	< LOD	34.39	23756	628.09	10485	609.2	1386.1	705.54	< LOD	19.58	< LOD	61.99	< LOD	23.18	< LOD	20.07	< LOD	12.94
S-8a	TP-1 (13.5 feet)	< LOD	29.02	< LOD	64.31	< LOD	160.66	12651	349.33	616.8	110.01	81.84	42.67	1677	146.95	< LOD	26.99	14394	482.94	5959.7	465.47	< LOD	756.42	< LOD	20.66	< LOD	67.13	< LOD	24.73	< LOD	20.26	< LOD	15.17
S-8b	TP-1 (13.5 feet)	< LOD	31.57	< LOD	69.36	< LOD	166.27	13520	366.53	625	113.04	< LOD	68.51	2202	166.1	< LOD	27.49	15932	512.24	8376.4	539.07	< LOD	660.68	< LOD	20.84	< LOD	67.39	< LOD	24.54	< LOD	20.05	< LOD	14.56
S-9	TP-2 (3 feet)	< LOD	30.52	< LOD	52.79	< LOD	121.98	7783.9	259.53	260.1	75	68.78	41.02	1145	141.08	59.9	32.46	49809	879.88	4924.4	483.54	< LOD	1073.2	< LOD	18.81	< LOD	61.58	< LOD	22.81	25.77	12.64	< LOD	13.2
S-10a	TP-2 (5 feet)	< LOD	28.95	< LOD	60.83	< LOD	131.4	8160.1	275.8	175.4	70.02	< LOD	60.28	1658	147.11	46.73	27.15	35041	734.03	6757.7	512.22	1051.1	671.66	53.09	14	213.2	46.39	58.2	17.05	30.06	13.82	< LOD	13.99
S-10b	TP-2 (5 feet)	< LOD	25.03	< LOD	57.83	< LOD	103.64	6207.4	219.1	154.6	58.87	< LOD	53.97	944.6	126.48	< LOD	35.64	29171	669.12	5326.4	462.17	1359	674.7	< LOD	17.43	< LOD	55.84	< LOD	20.19	< LOD	16.81	< LOD	12.28
S-11	TP-2 (13 feet)	< LOD	34.82	< LOD	63.81	< LOD	138.2	9657	307.48	242.6	78.67	< LOD	68.94	2296	169.44	< LOD	34.2	24168	613.24	4652	436.46	< LOD	784.14	< LOD	19.18	< LOD	61.95	< LOD	22.81	< LOD	18.54	< LOD	12.87
S-12	TP-3 (5 feet)	8652.2	270.96	< LOD	129.69	< LOD	131.3	3061.4	256.7	293.1	121.06	< LOD	54.87	< LOD	240.34	< LOD	164.86	1E+05	3050.1	< LOD	1051.5	< LOD	3119.9	< LOD	43.15	< LOD	135.43	< LOD	49.42	< LOD	41.92	< LOD	29.83
S-13	TP-3 (5 feet)	< LOD	37.35	< LOD	71.16	< LOD	169.84	12657	363.29	473.1	104.07	< LOD	70.24	1488	164.32	64.96	38.86	69852	1066.1	13862	734.14	< LOD	1243.3	49.05	14.23	< LOD	67.49	< LOD	25.26	< LOD	20.52	< LOD	15.33
S-14	TP-3 (11 feet)	< LOD	27.03	< LOD	64.49	< LOD	92.1	4084.7	201.78	< LOD	72.69	< LOD	36.74	530.6	84.05	< LOD	10.29	1977	200.68	8485	498.62	< LOD	604.38	< LOD	20.46	< LOD	65.21	< LOD	24.24	< LOD	19.53	< LOD	14.26
S-15a	TP-3 (10 feet)	< LOD	36.3	< LOD	67.41	< LOD	188.4	15506	414.98	541.3	114.36	< LOD	62.02	1327	146.92	< LOD	46.21	48745	854.06	8279.6	561.82	< LOD	1062.8	< LOD	21.76	< LOD	70.41	< LOD	25.71	< LOD	21.15	< LOD	15.21
S-15b	TP-3 (10 feet)	271.34	46.73	< LOD	80.14	< LOD	165.62	9775.2	359.31	< LOD	112.56	< LOD	50.78	871.8	116.6	< LOD	20.07	7813	354.85	7506.9	488.73	< LOD	683.39	< LOD	21.57	< LOD	68.64	< LOD	25.98	< LOD	20.73	< LOD	15.96
S-16a	TP-3 Composite	< LOD	38.26	< LOD	67.7	< LOD	130.46	7871.8	293.37	230.5	80.71	< LOD	50.68	1200	120.66	< LOD	36.06	29331	658.81	4740.5	436.93	< LOD	766.16	< LOD	12.8	< LOD	40.11	< LOD	14.81	< LOD	11.8	< LOD	8.84
S-16b	TP-3 Composite	39.82	25.34	< LOD	61.31	< LOD	130.9	8207.8	293.62	185.9	75.5	< LOD	48.28	753.8	110.86	< LOD	39.04	34255	713.27	5597.5	470.32	< LOD	791.73	< LOD	19.56	< LOD	62.97	< LOD	23.3	< LOD	18.93	< LOD	14.06

Table 2
Metals Analysis
Lilydale Dump #2
Lilydale Regional Park
Bonestroo Project 000211-10116-0

Sample ID	Sample Location	Metals Results Reported as mg/kg ^a													
		Antimony	Arsenic	Beryllium	Cadmium	Chromium	Copper	Lead	Lead, TCLP ^a	Nickel	Selenium	Silver	Thallium	Zinc	Mercury
S-3	TP-1 (6 inches)	0.90	6.0	0.35	0.95	14.2	20.8	569	NA	11.2	1.5	<0.52	<1.0	169	0.24
S-4	TP-1 (6 feet)	6.0	10.3	0.37	6.5	20.2	37.4	3090	7.1	23.2	0.98	<0.56	<1.1	542	0.52
S-6	TP-1 (12.5 feet)	5.9	8.2	0.46	12.0	25.1	129	725	NA	29.9	2.5	<0.58	<1.2	3030	0.098
S-8	TP-1 (13.5 feet)	<0.44	3.3	0.48	0.31	14.7	10.7	37.3	NA	13.2	1.5	<0.44	<0.88	74.5	0.084
S-10	TP-2 (5 feet)	<0.65	5.8	0.37	1.5	18.1	30.6	930	NA	12.5	2.4	<0.65	<1.3	622	0.34
S-11	TP-2 (13 feet)	<0.50	4.9	0.40	1.8	18.5	23.6	1290	NA	11.6	1.4	<0.50	<1.0	1340	1.1
S-14	TP-3 (11 feet)	<0.37	1.5	<0.19	0.21	2.9	10.9	14.5	NA	1.4	1.3	<0.37	<0.75	52.8	0.019
S-15	TP-3 (10 feet)	2.4	4.8	<0.23	4.6	13.3	482	379	NA	25.9	<0.69	<0.46	<0.91	1310	0.087
S-16	TP-3 Composite	<0.45	5.7	0.25	1.9	19.9	88.3	1210	1.9	11.9	1.5	<0.45	<0.89	666	0.50
MPCA Tier 2 SRV		16	11	75	35	120 ^b	100	300	NA	800	200	200	3	12000	1.2 ^c
MPCA Tier 1 SLV		2.7	15.1	1.4	4.4	18 ^b	400	525	NA	88	1.5	3.9	NA	1500	1.6 ^c
Toxicity Characteristic		NA	NA	NA	NA	NA	NA	NA	5	NA	NA	NA	NA	NA	NA

a - TCLP analysis reported as mg/L, all other concentrations mg/kg

b - SRV and SLV listed are for Chromium VI. Analytical result are for total Chromium

c - SRV and SLV listed are for elemental Mercury and Mercury as Mercuric chloride, respectively

< - Not Detected at a concentration equal to or greater than the laboratory reporting limit indicated

NA - Not Analyzed or Not Applicable

Bold values exceed one or more applicable regulatory limit

Table 3
Semi-Volatiles Analysis^a
Lilydale Dump #2
Lilydale Regional Park
Bonestroo Project 000211-10116-0

Sample ID	Sample Location	SVOC Results Reported as mg/kg														
		Anthracene	Acenaphthylene	Benzo(b)fluoranthene	Chrysene	Pyrene	Carbazole	Fluoranthene	Benzo(a)anthracene	Benzo(g,h,i)perylene	Indeno(1,2,3-cd)pyrene	Benzo(a)pyrene	Benzo(k)fluoranthene	Phenanthrene	BaP equivalents (SLV)	BaP equivalents (SRV)
S-3	TP-1 (6 inches)	0.402	<0.377	1.54	1.31	2.30	<0.377	2.47	1.28	0.741	0.660	1.19	0.633	1.35	1.546	1.614
S-4	TP-1 (6 feet)	<4.00	<4.00	7.22	6.09	11.3	<4.00	11.1	6.31	<4.00	<4.00	5.41	<4.00	4.88	6.769	6.824
S-6	TP-1 (12.5 feet)	<4.29	<4.29	<4.29	<4.29	<4.29	<4.29	<4.29	<4.29	<4.29	<4.29	<4.29	<4.29	<4.29	NA ^b	NA ^b
S-8	TP-1 (13.5 feet)	<0.409	<0.409	<0.409	<0.409	<0.409	<0.409	<0.409	<0.409	<0.409	<0.409	<0.409	<0.409	<0.409	NA	NA
S-10	TP-2 (5 feet)	22.3	7.18	63.1	55.8	98.7	7.28	120	58.6	24.9	23.7	41.9	20.4	103	56.7	59.038
S-11	TP-2 (13 feet)	<2.10	<2.10	2.85	2.45	<2.10	<2.10	<2.10	2.33	<2.10	<2.10	2.16	<2.10	<2.10	2.68	2.703
S-14	TP-3 (11 feet)	<0.348	<0.348	<0.348	<0.348	<0.348	<0.348	<0.348	<0.348	<0.348	<0.348	<0.348	<0.348	<0.348	NA	NA
S-15	TP-3 10 feet)	<0.368	<0.368	<0.368	<0.368	<0.368	<0.368	0.372	<0.368	<0.368	<0.368	<0.368	<0.368	<0.368	NA	NA
S-16	TP-3 Composite	4.96	<4.00	17.4	15.6	28.2	<4.00	28.1	16.6	9.24	7.61	14.3	7.33	16.5	18.55	19.35
MPCA Tier 2 SRV		10,000	NA	NA	NA	1,060	NA	1,290	NA	NA	NA	NA	NA	NA	NA	2
MPCA Tier 1 SLV		942	NA	NA	NA	272	NA	295	NA	NA	NA	NA	NA	NA	10.2	NA

a - Only those compounds detected in one or more samples are tabulated. For complete results, please refer to the laboratory report in Appendix A

b - Sample was diluted due to the presence of high levels of non-target analytes or other matrix interferences

BaP - Benzo(a)pyrene

< - Not Detected at a concentration equal to or greater than the laboratory reporting limit indicated

NA - Not Analyzed or Not Applicable

Bold values exceed one or more applicable regulatory limit

Table 4
DRO and Pesticide Analysis^a
Lilydale Dump #2
Lilydale Regional Park
Bonestroo Project 000211-10116-0

Sample ID	Sample Location	Pesticide and DRO Reported as mg/kg											
		Diesel Range Organics	gamma-Chlordane	4,4'-DDD	alpha-BHC	4,4'-DDE	Heptachlor epoxide	Chlordane (Technical)	4,4'-DDT	Toxaphene	delta-BHC	Endosulfan sulfate	Endrin ketone
S-3	TP-1 (6 inches)	<10.9 ^b	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
S-4	TP-1 (6 feet)	319 ^b	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
S-6	TP-1 (12.5 feet)	773 ^b	<0.0022	0.0077	<0.0022	<0.0043	<0.0022	0.169	0.0371	<0.130	<0.0022	<0.0043	<0.0043
S-8	TP-1 (13.5 feet)	<12.0	<0.0021	<0.0041	<0.0021	<0.0041	<0.0021	<0.0413	<0.0041	<0.124	<0.0021	<0.0041	<0.0041
S-10	TP-2 (5 feet)	125	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
S-11	TP-2 (13 feet)	76.0	0.0046	<0.0042	<0.0021	0.123	0.0032	<0.0425	0.0440	0.936	<0.0021	0.0136	0.0227
S-14	TP-3 (11 feet)	<13.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
S-15	TP-3 (10 feet)	277 ^b	<0.0019	<0.0037	<0.0019	<0.0037	<0.0019	<0.0371	0.0139	<0.111	<0.0019	<0.0037	<0.0037
S-16	TP-3 Composite	504	0.0112	<0.0040	0.0048	0.0400	0.0021	0.181	0.105	0.809	0.0036	0.0159	0.0616
MPCA Tier 2 SRV		NA	NA	74	6	52	0.5	16	18	17	NA	10	NA

a - Only those compounds detected in one or more samples are tabulated. For complete results, please refer to the laboratory report in Appendix A

b - Higher boiling point hydrocarbons are present in the sample

< - Not Detected at a concentration equal to or greater than the laboratory reporting limit indicated

NA - Not Analyzed or Not Applicable

Table 5
PCB Analysis
Lilydale Dump #2
Lilydale Regional Park
Bonestroo Project 000211-10116-0

Sample ID	Sample Location	PCB Reported as ug/kg									
		PCB-1242 (Aroclor 1242)	PCB-1254 (Aroclor 1254)	PCB-1262 (Aroclor 1262)	PCB-1016 (Aroclor 1016)	PCB-1232 (Aroclor 1232)	PCB-1248 (Aroclor 1248)	PCB-1268 (Aroclor 1268)	PCB-1221 (Aroclor 1221)	PCB-1260 (Aroclor 1260)	Total PCB
S-6	TP-1 (12.5 feet)	<42.9	<42.9	<42.9	<42.9	<42.9	<42.9	<42.9	<42.9	<42.9	ND
S-8	TP-1 (13.5 feet)	<40.9	<40.9	<40.9	<40.9	<40.9	<40.9	<40.9	<40.9	<40.9	ND
S-11	TP-2 (13 feet)	<42.1	<42.1	<42.1	<42.1	<42.1	<42.1	<42.1	<42.1	147	147
S-15	TP-3 (10 feet)	<36.8	<36.8	<36.8	<36.8	<36.8	<36.8	<36.8	<36.8	154	154
S-16	TP-3 Composite	<40.0	509	<40.0	<40.0	<40.0	<40.0	<40.0	<40.0	129	638
MPCA Tier 2 SRV		NA	NA	NA	NA	NA	NA	NA	NA	NA	1400
MPCA Tier 1 SLV		NA	NA	NA	NA	NA	NA	NA	NA	NA	2100

< - Not Detected at a concentration equal to or greater than the laboratory reporting limit indicated

ND - Not Detected

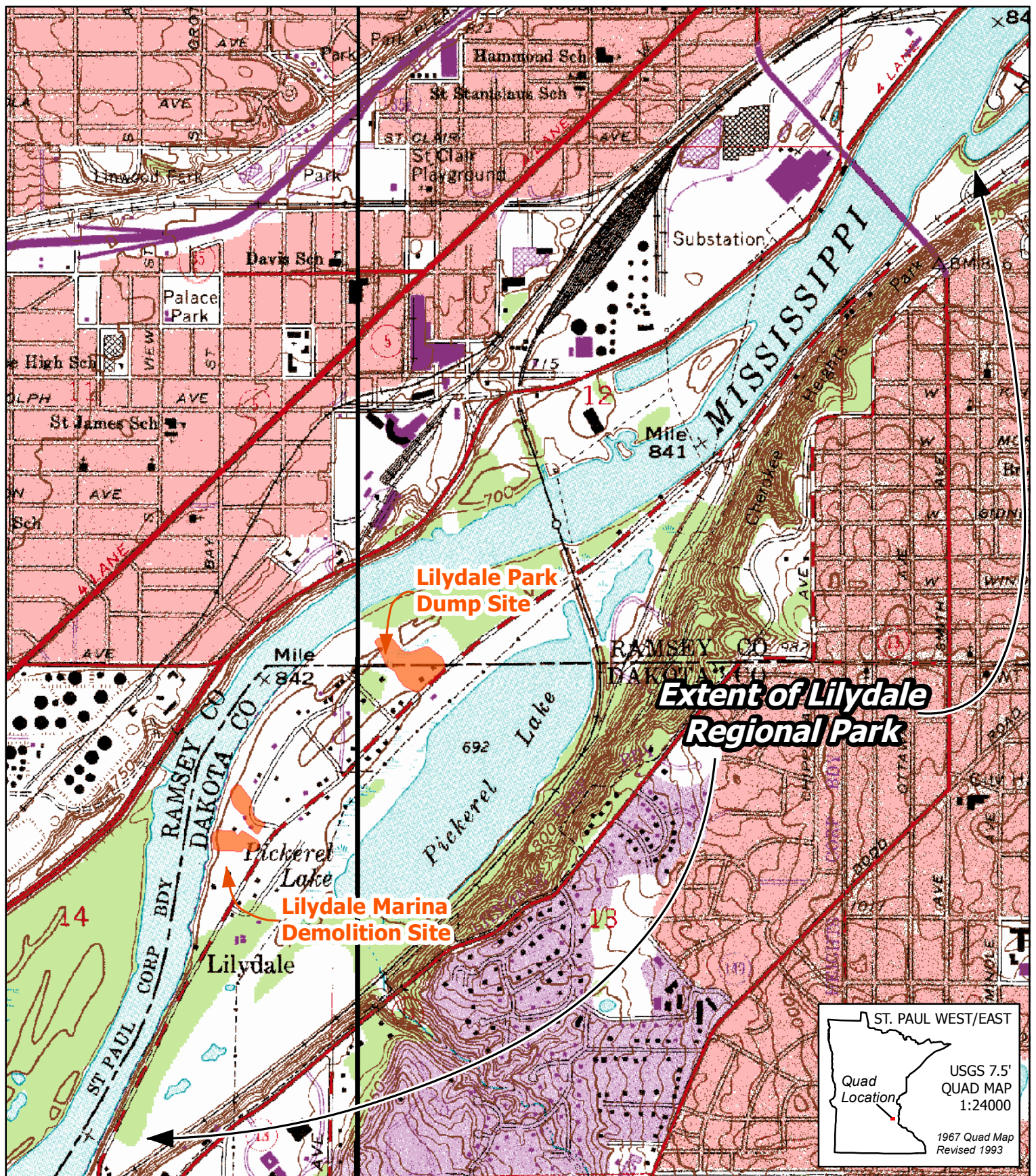
NA - Not Applicable

Table 6
Asbestos Analysis
Lilydale Dump #2
Lilydale Regional Park
Bonestroo Project 000211-10116-0

Sample ID	Sample Location	Sample Description	Asbestos Content
1	TP-1	Cementitious Board	7% Chrysotile
2	TP-1	Formica Counter Top	None Detected
3	TP-2	Vinyl Composite Floor Tile (Brown)	10% Chrysotile
4	TP-2	Vinyl Composite Floor Tile (Tan)	13% Chrysotile
5	TP-2	Vinyl Composite Floor Tile (Gray)	10% Chrysotile
6	TP-3	Vinyl Composite Floor Tile (Green)	12% Chrysotile
		Floor Tile Mastic (Black)	5% Chrysotile
7	TP-3	Cementitious Board	20% Chrysotile
8	TP-3	Shingle (Black w/White&Green)	None Detected
9	TP-3	Built-up Roofing	None Detected
Regulatory Threshold			>1%

Table 5 presents only a summary of the asbestos analysis.
Please refer to the laboratory reports for more complete and descriptive results.

Figures



Phase II Environmental Site Assessment



Bonestroo

2335 West Highway 36
St. Paul, MN 55113
(651) 636-4600

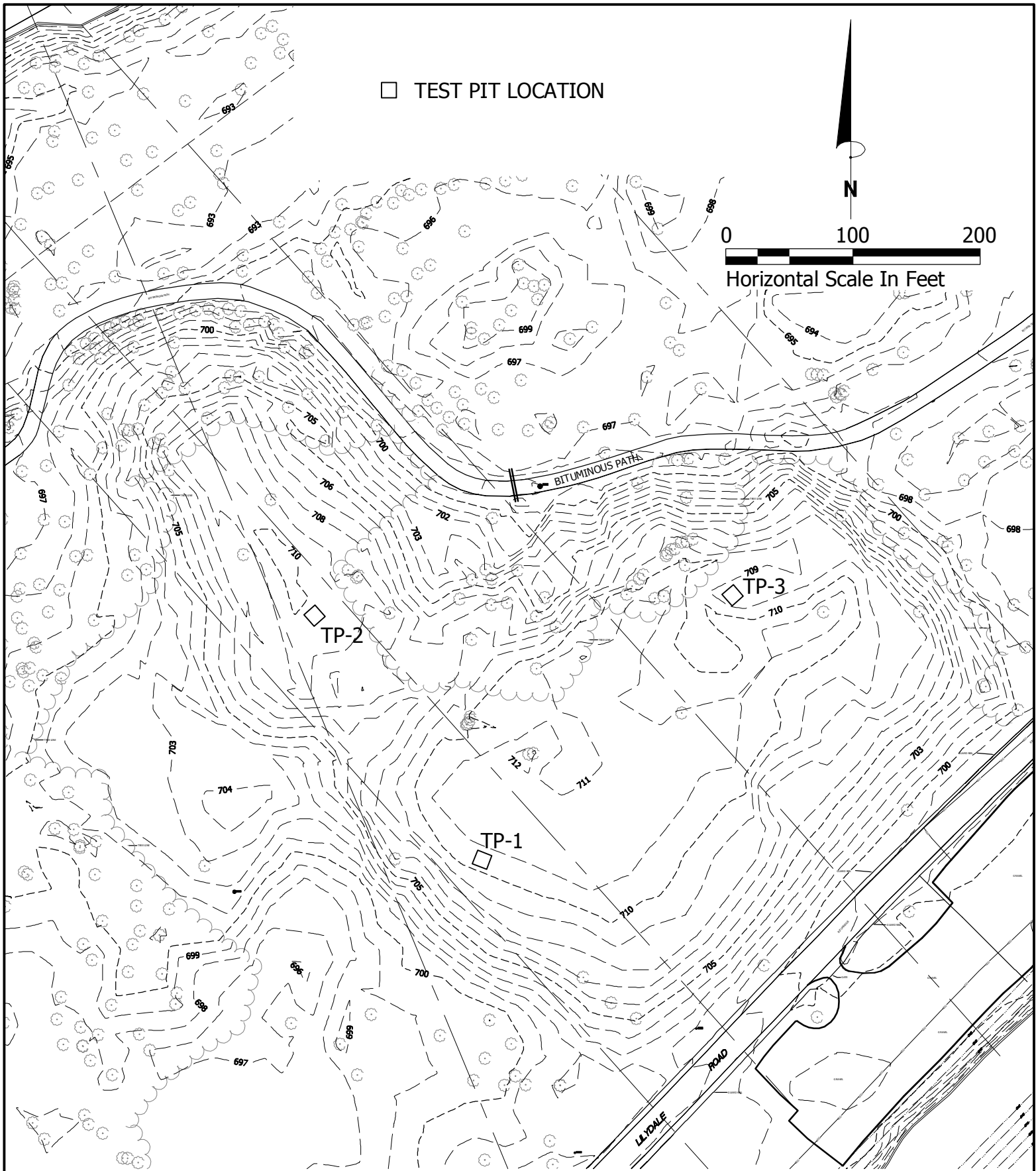
City of St. Paul
Division of Parks and Recreation

Figure 1 - Site Location

Job No.
211-09116-0

Scale
1:16000

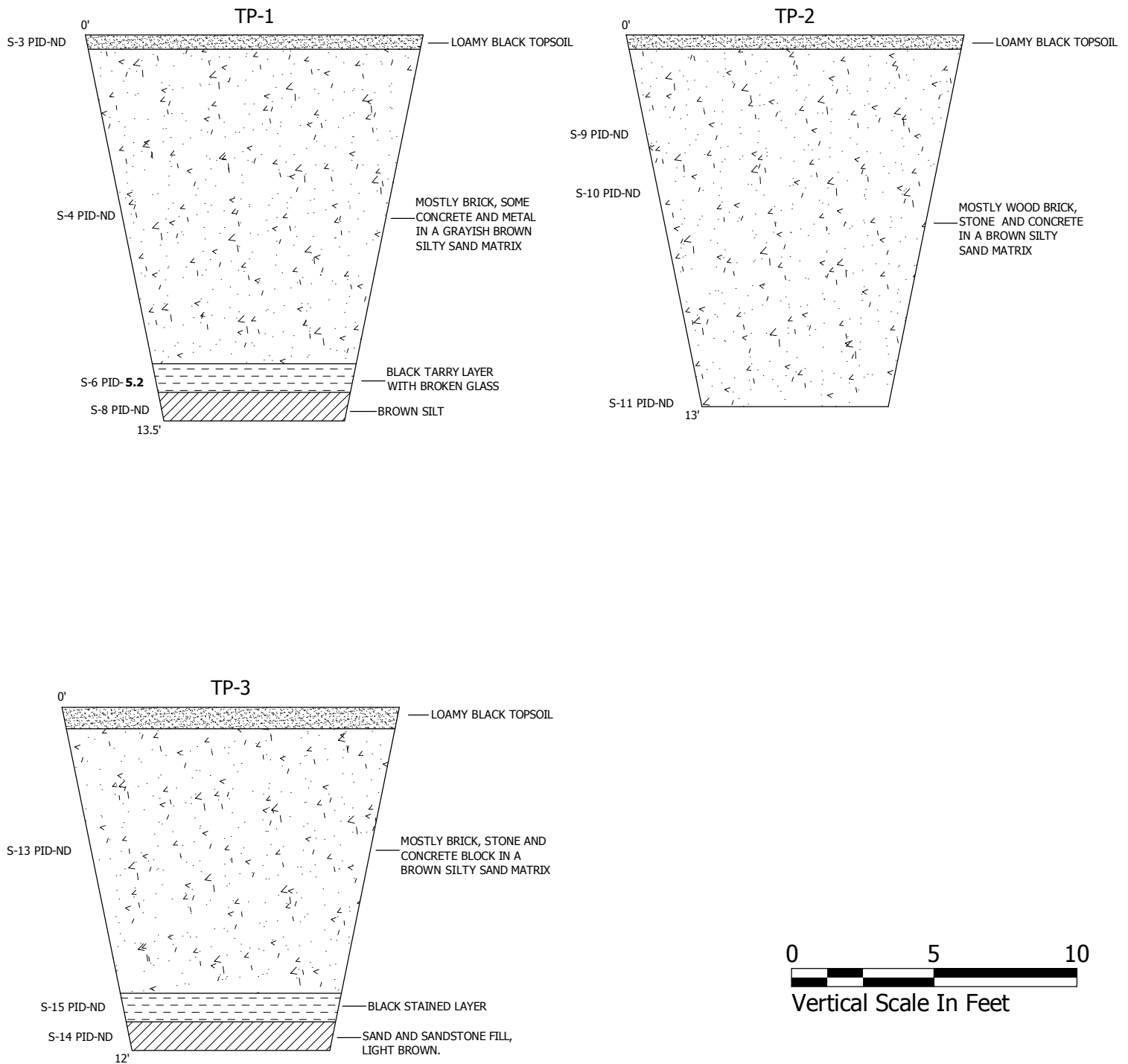
Date
6/02/2010



TEST PIT LOCATIONS - LILYDALE PARK DUMP SITE

LILYDALE REGIONAL PARK - CITY OF ST. PAUL
PHASE II ENVIRONMENTAL SITE ASSESSMENT





TEST PIT LOGS - LILYDALE PARK DUMP SITE

LILYDALE REGIONAL PARK - CITY OF ST. PAUL
PHASE II ENVIRONMENTAL SITE ASSESSMENT



Appendix A
Laboratory Analytical Reports

REPORT TO: Mr. Clint Jordahl
Bonestroo Inc.
3717 23rd St. S.
Saint Cloud, MN 56301

DATE: May 13, 2010
PAGE PROJECT NO: 10128312
PAGE: 1 of 2

REPORT OF: Building Material Analysis - 000211-10116-0
Lilydale

CASE NARRATIVE:

On May 7, 2010, our laboratory received 9 building material sample(s) from the client. The asbestos analysis was performed in accordance with EPA/600/R-93/116.

All reported percentages are "by weight" visual estimates.

1 - 5%, true concentrations may vary $\pm 2\%$ from the reported value.

5 - 10%, true concentrations may vary $\pm 9\%$ from the reported value.

10 - 50%, true concentrations may vary $\pm 15\%$ from the reported value.

50 - 100%, true concentrations may vary $\pm 15\%$ from the reported value.

The samples will be held for sixty (60) days from the date of this report.

A < sign indicates the value reported was the practical quantitation limit for this sample using the method described.
Concentrations of analyte, if present, below this were not quantifiable.

Our laboratory is accredited by the National Institute of Standards and Technology's National Voluntary Laboratory Accreditation Program (NVLAP), Laboratory Code No. 101292-0.

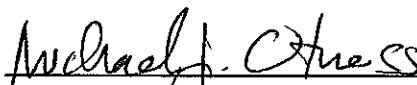
This report may not be used to claim a product endorsement by NVLAP or any agency of the U.S. government.

Project Manager

Analyst/Approved Signatory



Sherryl Adam / Project Manager
sherryl.adam@pacelabs.com



Michael J. Otness - Laboratory Technician III

REPORT OF LABORATORY ANALYSIS

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**Building Material Analysis
Asbestos Content**

Bonestroo, Inc.

000211-10116-0 Lilydale Regional Park

Pace Analytical Services, Inc.
Billings Laboratory
602 South 25th Street
Billings, MT 59101

Lab Number	Date Analyzed	Sample Identification	Sample Description			Asbestos Identification and Estimated Quantity	Non-Asbestos Material Identification
			Layers	Color	Matrix		
10128312001	5/11/2010	1	1/1	Gray	Cement Board (100%)	7% Chrysotile	93% Nonfibrous Binder
10128312002	5/11/2010	2	1/1	White	Countertop (100%)	None Detected	50% Cellulose 50% Nonfibrous Binder
10128312003	5/11/2010	3	1/1	Brown	Floor Tile (100%)	10% Chrysotile	90% Nonfibrous Binder
10128312004	5/11/2010	4	1/1	Tan	Floor Tile (100%)	13% Chrysotile	87% Nonfibrous Binder
10128312005	5/11/2010	5	1/1	Gray	Floor Tile (100%)	10% Chrysotile	90% Nonfibrous Binder
10128312006	5/11/2010	6	1/2	Green	Floor Tile (98%)	12% Chrysotile	88% Nonfibrous Binder
			2/2	Black	Mastic (2%)	5% Chrysotile	95% Nonfibrous Binder
10128312007	5/11/2010	7	1/1	Gray	Cement Board (100%)	20% Chrysotile	80% Nonfibrous Binder
10128312008	5/11/2010	8	1/1	Black	Shingle (100%)	None Detected	25% Cellulose
				White / Green	Granuals		75% Nonfibrous Binder
10128312009	5/11/2010	9	1/1	Black	Tarpaper (100%)	None Detected	20% Cellulose 80% Nonfibrous Binder

In the case of nonhomogeneous samples (samples which contain more than one visually distinct material which is not mixed), concentrations of materials are given for each layer and, where applicable, composite values are given for the entire sample. The quantification of asbestos in the sample is an estimate only due to the nature of the test method.

Section A
Required Client Information:

Section B
Required Project Information:

Section C

Company		Bonestroo	Report To:	Christ Sordehl	Attention:	S. Paul	1383544								
Address:		3717 25th St S	Copy To:		Company Name:	Master Contract									
Email To:		SKloud MN 56301			Address:	# 442795									
Phone:		Christ Sordehl @ Bonestroo: 651-229-5529	Purchase Order No.:		Price Quote Reference:										
Fax:		651-251-0252	Project Name:	Citydale Regional Park	Price Project Manager:										
Requested Due Date/TAT:			Project Number:	00211-10116-0											
<table border="1"> <tr> <td colspan="2">REGULATORY AGENCY</td> <td colspan="2"> ☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER ☐ UST ☐ RCRA ☒ OTHER <u>VIC</u> </td> </tr> <tr> <td colspan="2">Site Location</td> <td colspan="2">STATE: <u>MN</u></td> </tr> </table>								REGULATORY AGENCY		☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER ☐ UST ☐ RCRA ☒ OTHER <u>VIC</u>		Site Location		STATE: <u>MN</u>	
REGULATORY AGENCY		☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER ☐ UST ☐ RCRA ☒ OTHER <u>VIC</u>													
Site Location		STATE: <u>MN</u>													

[illegible]

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	<i>[Signature]</i>	9/6/10	3:00pm	<i>[Signature]</i>	9/10	1:50	2.8 y y y
							26

ORIGINAL	SAMPLER NAME AND SIGNATURE <i>Rick Payer</i>							Temp In °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
	PRINT Name of SAMPLER:										
	SIGNATURE of SAMPLER:										
	DATE Signed (MM/DD/YYYY):										

F-ALL-Q-020rev.07, 15-May-2007



Pace Analytical™

Shipping Tracking #	UPS	Fed Ex	984646213376
	Client		Bonestroo
	Due Date		5/4/10
	Pace WO		10128312

MT/MN Sample Transfer Condition Upon Receipt Form

[illegible]

REPORTING REQUIREMENTS/ADDITIONAL COMMENTS

[illegible]

MINNESOTA SAMPLE RECEIPT INFORMATION

Cooler Temperature: 80344042 179425		Sample Matrix:	
Arrived on Ice:	Yes ___ No <u>X</u>	Filtred volume rec'd for dissolved tests:	Yes ___ No ___ NA <u>X</u>
Custody Seal Present:	Yes ___ No <u>X</u>	Samples pH have been checked:	Yes ___ No ___ NA <u>X</u>
Short Hold Time Requested < 72 Hours:	Yes ___ No <u>X</u>	Trip Blank Present:	Yes ___ No ___ NA <u>X</u>
Rush TAT Requested:	Yes ___ No <u>X</u>	Trip Blank Custody Seals Present:	Yes ___ No ___ NA <u>X</u>
Sufficient Sample Volume:	Yes <u>X</u> No ___	Pace Trip Blank Lot #:	
Samples Arrived within Hold Time:	Yes <u>X</u> No ___	Sample Composites Required:	Yes ___ No ___ NA <u>X</u>
Containers Intact:	Yes <u>X</u> No ___	Report Samples:	Wet Wt. ___ Dry Wt. ___
		Reporting Units:	<u>n/A</u>

CUSTODY TRANSFER

Relinquished By/Affiliation	Date	Time	Accepted By Affiliation	Date	Time
<i>Fed Ex</i>	<i>5/11/10</i>	<i>0940</i>	<i>Laura Brent/Pace</i>	<i>5/11/10</i>	<i>0940</i>

① Ans 5/10/10



Sample Condition Upon Receipt

Client Name: BonestrooProject # 10128312Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☒ Commercial ☐ Pace Other _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☐ yes ☐ no Seals Intact: ☒ yes ☐ noPacking Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other _____ Temp Blank: Yes ☒ NoThermometer Used 80344042 or 179425Type of Ice: Wet Blue None ☐☐ Samples on ice, cooling process has begunCooler Temperature 25, 26Biological Tissue Is Frozen: Yes No ☒Date and Initials of person examining contents: 5/11/10

Temp should be above freezing to 6°C

Comments: NA

Chain of Custody Present:	☒ Yes ☐ No ☐ N/A	1.
Chain of Custody Filled Out:	☒ Yes ☐ No ☐ N/A	2.
Chain of Custody Relinquished:	☒ Yes ☐ No ☐ N/A	3.
Sampler Name & Signature on COC:	☒ Yes ☐ No ☐ N/A	4.
Samples Arrived within Hold Time:	☒ Yes ☐ No ☐ N/A	5.
Short Hold Time Analysis (<72hr):	☒ Yes ☐ No ☐ N/A	6.
Rush Turn Around Time Requested:	☒ Yes ☐ No ☐ N/A	7.
Sufficient Volume:	☒ Yes ☐ No ☐ N/A	8.
Correct Containers Used:	☒ Yes ☐ No ☐ N/A	9. <u>baggie</u>
-Pace Containers Used:	☒ Yes ☐ No ☐ N/A	
Containers Intact:	☒ Yes ☐ No ☐ N/A	10.
Filtered volume received for Dissolved tests	☒ Yes ☐ No ☐ N/A	11.
Sample Labels match COC:	☒ Yes ☐ No ☐ N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>SL</u>		
All containers needing acid/base preservation have been checked. Noncompliance are noted in 13.	☐ Yes ☐ No ☒ N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐ Yes ☐ No ☒ N/A	Samp #
Exceptions: VOA, Coliform, TOC, Oil and Grease, WI-DRO (water)	☐ Yes ☒ No	Initial when completed
		Lot # of added preservative
Samples checked for dechlorination:	☐ Yes ☐ No ☐ N/A	14.
Headspace in VOA Vials (>6mm):	☐ Yes ☐ No ☐ N/A	15.
Trip Blank Present:	☐ Yes ☐ No ☐ N/A	16.
Trip Blank Custody Seals Present	☐ Yes ☐ No ☐ N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

Field Data Required?

Y / NPerson Contacted: Sup ok Date/Time: _____Comments/ Resolution: Sup okProject Manager Review: [Signature]Date: 5/11/10

May 28, 2010

Mr. Clint Jordahl
Bonestroo Inc.
3717 23rd St. S.
Saint Cloud, MN 56301

RE: Project: 000211-10116-0 Lilydale Reg.
Pace Project No.: 10128303

Dear Mr. Jordahl:

Enclosed are the analytical results for sample(s) received by the laboratory on May 07, 2010. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

This report was revised on May 28, 2010 to include TCLP Lead by method 6010.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Andrea Opland

andrea.opland@pacelabs.com
Project Manager

Enclosures

REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: 000211-10116-0 Lilydale Reg.

Pace Project No.: 10128303

Minnesota Certification IDs

Alaska Certification #: UST-078
Arizona Certification #: AZ-0014
1700 Elm Street SE, Suite 200 Minneapolis, MN 55414
Wisconsin Certification #: 999407970
Washington Certification #: C754
Tennessee Certification #: 02818
Pennsylvania Certification #: 68-00563
Oregon Certification #: MN200001
North Dakota Certification #: R-036
North Carolina Certification #: 530
New York Certification #: 11647
New Jersey Certification #: MN-002

Montana Certification #: MT CERT0092
Minnesota Certification #: 027-053-137
Michigan DEQ Certification #: 9909
California Certification #: 01155CA
Florida/NELAP Certification #: E87605
Illinois Certification #: 200011
Iowa Certification #: 368
Kansas Certification #: E-10167
Louisiana Certification #: 03086
Louisiana Certification #: LA080009
Maine Certification #: 2007029

Green Bay Certification IDs

Louisiana Certification #: 04168
Kentucky Certification #: 82
Illinois Certification #: 200050
Florida/NELAP Certification #: E87948
California Certification #: 09268CA
Wisconsin DATCP Certification #: 105-444
1241 Bellevue Street Green Bay, WI 54302

South Carolina Certification #: 83006001
North Dakota Certification #: R-150
North Carolina Certification #: 503
New York Certification #: 11888
New York Certification #: 11887
Minnesota Certification #: 055-999-334
Wisconsin Certification #: 405132750

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: 000211-10116-0 Lilydale Reg.

Pace Project No.: 10128303

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10128303001	S-3	Solid	05/04/10 09:40	05/07/10 16:25
10128303002	S-4	Solid	05/04/10 10:00	05/07/10 16:25
10128303003	S-6	Solid	05/04/10 10:45	05/07/10 16:25
10128303004	S-8	Solid	05/04/10 11:08	05/07/10 16:25
10128303005	S-10	Solid	05/04/10 12:06	05/07/10 16:25
10128303006	S-11	Solid	05/04/10 12:39	05/07/10 16:25
10128303007	S-14	Solid	05/04/10 14:04	05/07/10 16:25
10128303008	S-15	Solid	05/04/10 14:28	05/07/10 16:25
10128303009	S-16	Solid	05/04/10 14:30	05/07/10 16:25
10128303010	Meoh Blank	Solid		05/07/10 16:25

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 000211-10116-0 Lilydale Reg.

Pace Project No.: 10128303

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10128303001	S-3	WI MOD DRO	KL1	2	PASI-M
		EPA 6010	IP	12	PASI-M
		EPA 7471	TEM	1	PASI-M
		% Moisture	JDL	1	PASI-M
		EPA 8270	JLR	77	PASI-M
		EPA 8260	RTP	71	PASI-M
10128303002	S-4	WI MOD DRO	KL1	2	PASI-M
		EPA 6010	IP	12	PASI-M
		EPA 6010	IP	1	PASI-M
		EPA 7471	TEM	1	PASI-M
		% Moisture	JDL	1	PASI-M
		EPA 8270	JLR	77	PASI-M
10128303003	S-6	EPA 8081	DMH	24	PASI-G
		EPA 8082	KL1	11	PASI-M
		WI MOD DRO	KL1	2	PASI-M
		EPA 6010	IP	12	PASI-M
		EPA 7471	TEM	1	PASI-M
		% Moisture	JDL	1	PASI-M
10128303004	S-8	EPA 8270	JLR	77	PASI-M
		EPA 8260	RTP	71	PASI-M
		EPA 8081	DMH	24	PASI-G
		EPA 8082	KL1	11	PASI-M
		WI MOD DRO	KL1	2	PASI-M
		EPA 6010	IP	12	PASI-M
10128303005	S-10	EPA 7471	TEM	1	PASI-M
		% Moisture	JDL	1	PASI-M
		EPA 8270	JLR	77	PASI-M
		EPA 8260	RTP	71	PASI-M
		WI MOD DRO	KL1	2	PASI-M
		EPA 6010	IP	12	PASI-M
10128303006	S-11	EPA 7471	TEM	1	PASI-M
		% Moisture	JDL	1	PASI-M
		EPA 8270	JLR	77	PASI-M
		EPA 8260	RTP	71	PASI-M
		EPA 8081	DMH	24	PASI-G
		EPA 8082	KL1	11	PASI-M
		WI MOD DRO	KL1	2	PASI-M

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 000211-10116-0 Lilydale Reg.

Pace Project No.: 10128303

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10128303007	S-14	EPA 6010	IP	12	PASI-M
		EPA 7471	TEM	1	PASI-M
		% Moisture	JDL	1	PASI-M
		EPA 8270	JLR	77	PASI-M
		EPA 8260	RTP	71	PASI-M
		WI MOD DRO	KL1	2	PASI-M
		EPA 6010	IP	12	PASI-M
		EPA 7471	TEM	1	PASI-M
		% Moisture	JDL	1	PASI-M
		EPA 8270	JLR	77	PASI-M
10128303008	S-15	EPA 8260	RTP	71	PASI-M
		EPA 8081	DMH	24	PASI-G
		EPA 8082	KL1	11	PASI-M
		WI MOD DRO	KL1	2	PASI-M
		EPA 6010	IP	12	PASI-M
		EPA 7471	TEM	1	PASI-M
		% Moisture	JDL	1	PASI-M
		EPA 8270	JLR	77	PASI-M
		EPA 8260	RTP	71	PASI-M
		EPA 8081	DMH	24	PASI-G
10128303009	S-16	EPA 8082	KL1	11	PASI-M
		WI MOD DRO	KL1	2	PASI-M
		EPA 6010	IP	12	PASI-M
		EPA 6010	IP	1	PASI-M
		EPA 7471	TEM	1	PASI-M
		% Moisture	JDL	1	PASI-M
		EPA 8270	JLR	77	PASI-M
		EPA 8260	RTP	71	PASI-M
		EPA 8260	RTP	71	PASI-M
		EPA 8260	RTP	71	PASI-M
10128303010	Meoh Blank	EPA 8260	RTP	71	PASI-M

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 000211-10116-0 Lilydale Reg.

Pace Project No.: 10128303

Sample: S-3 **Lab ID: 10128303001** Collected: 05/04/10 09:40 Received: 05/07/10 16:25 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
WIDRO GCS Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO								
Diesel Range Organics	ND mg/kg		10.9	1	05/10/10 09:58	05/12/10 21:43		
n-Triacontane (S)	74 %		50-150	1	05/10/10 09:58	05/12/10 21:43		
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Antimony	0.90 mg/kg		0.52	1	05/11/10 11:12	05/13/10 12:21	7440-36-0	
Arsenic	6.0 mg/kg		0.52	1	05/11/10 11:12	05/13/10 12:21	7440-38-2	
Beryllium	0.35 mg/kg		0.26	1	05/11/10 11:12	05/13/10 12:21	7440-41-7	
Cadmium	0.95 mg/kg		0.052	1	05/11/10 11:12	05/13/10 12:21	7440-43-9	
Chromium	14.2 mg/kg		0.52	1	05/11/10 11:12	05/13/10 12:21	7440-47-3	
Copper	20.8 mg/kg		0.52	1	05/11/10 11:12	05/13/10 12:21	7440-50-8	
Lead	569 mg/kg		0.31	1	05/11/10 11:12	05/13/10 12:21	7439-92-1	
Nickel	11.2 mg/kg		1.0	1	05/11/10 11:12	05/13/10 12:21	7440-02-0	
Selenium	1.5 mg/kg		0.79	1	05/11/10 11:12	05/13/10 12:21	7782-49-2	
Silver	ND mg/kg		0.52	1	05/11/10 11:12	05/13/10 12:21	7440-22-4	
Thallium	ND mg/kg		1.0	1	05/11/10 11:12	05/13/10 12:21	7440-28-0	
Zinc	169 mg/kg		1.0	1	05/11/10 11:12	05/13/10 12:21	7440-66-6	
7471 Mercury Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	0.24 mg/kg		0.022	1	05/14/10 14:00	05/18/10 10:29	7439-97-6	
Dry Weight Analytical Method: % Moisture								
Percent Moisture	12.4 %		0.10	1		05/10/10 00:00		
8270 MSSV Analytical Method: EPA 8270 Preparation Method: EPA 3550								
Acenaphthene	ND ug/kg		377	1	05/10/10 14:25	05/13/10 19:24	83-32-9	
Acenaphthylene	ND ug/kg		377	1	05/10/10 14:25	05/13/10 19:24	208-96-8	
Anthracene	402 ug/kg		377	1	05/10/10 14:25	05/13/10 19:24	120-12-7	
Benzidine	ND ug/kg		1830	1	05/10/10 14:25	05/13/10 19:24	92-87-5	L2,SS
Benzo(a)anthracene	1280 ug/kg		377	1	05/10/10 14:25	05/13/10 19:24	56-55-3	
Benzo(a)pyrene	1190 ug/kg		377	1	05/10/10 14:25	05/13/10 19:24	50-32-8	
Benzo(b)fluoranthene	1540 ug/kg		377	1	05/10/10 14:25	05/13/10 19:24	205-99-2	
Benzo(g,h,i)perylene	741 ug/kg		377	1	05/10/10 14:25	05/13/10 19:24	191-24-2	
Benzo(k)fluoranthene	633 ug/kg		377	1	05/10/10 14:25	05/13/10 19:24	207-08-9	
Benzoic acid	ND ug/kg		1940	1	05/10/10 14:25	05/13/10 19:24	65-85-0	
Benzyl alcohol	ND ug/kg		754	1	05/10/10 14:25	05/13/10 19:24	100-51-6	
4-Bromophenylphenyl ether	ND ug/kg		377	1	05/10/10 14:25	05/13/10 19:24	101-55-3	
Butylbenzylphthalate	ND ug/kg		377	1	05/10/10 14:25	05/13/10 19:24	85-68-7	
Carbazole	ND ug/kg		377	1	05/10/10 14:25	05/13/10 19:24	86-74-8	
4-Chloro-3-methylphenol	ND ug/kg		377	1	05/10/10 14:25	05/13/10 19:24	59-50-7	
4-Chloroaniline	ND ug/kg		377	1	05/10/10 14:25	05/13/10 19:24	106-47-8	
bis(2-Chloroethoxy)methane	ND ug/kg		377	1	05/10/10 14:25	05/13/10 19:24	111-91-1	
bis(2-Chloroethyl) ether	ND ug/kg		377	1	05/10/10 14:25	05/13/10 19:24	111-44-4	
bis(2-Chloroisopropyl) ether	ND ug/kg		377	1	05/10/10 14:25	05/13/10 19:24	108-60-1	
2-Chloronaphthalene	ND ug/kg		377	1	05/10/10 14:25	05/13/10 19:24	91-58-7	
2-Chlorophenol	ND ug/kg		377	1	05/10/10 14:25	05/13/10 19:24	95-57-8	

Date: 05/28/2010 03:17 PM

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 000211-10116-0 Lilydale Reg.

Pace Project No.: 10128303

Sample: S-3 **Lab ID: 10128303001** Collected: 05/04/10 09:40 Received: 05/07/10 16:25 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Analytical Method: EPA 8270 Preparation Method: EPA 3550								
4-Chlorophenylphenyl ether	ND	ug/kg	377	1	05/10/10 14:25	05/13/10 19:24	7005-72-3	
Chrysene	1310	ug/kg	377	1	05/10/10 14:25	05/13/10 19:24	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	377	1	05/10/10 14:25	05/13/10 19:24	53-70-3	
Dibenzofuran	ND	ug/kg	377	1	05/10/10 14:25	05/13/10 19:24	132-64-9	
1,2-Dichlorobenzene	ND	ug/kg	377	1	05/10/10 14:25	05/13/10 19:24	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	377	1	05/10/10 14:25	05/13/10 19:24	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	377	1	05/10/10 14:25	05/13/10 19:24	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/kg	765	1	05/10/10 14:25	05/13/10 19:24	91-94-1	
2,4-Dichlorophenol	ND	ug/kg	377	1	05/10/10 14:25	05/13/10 19:24	120-83-2	
Diethylphthalate	ND	ug/kg	377	1	05/10/10 14:25	05/13/10 19:24	84-66-2	
2,4-Dimethylphenol	ND	ug/kg	377	1	05/10/10 14:25	05/13/10 19:24	105-67-9	
Dimethylphthalate	ND	ug/kg	377	1	05/10/10 14:25	05/13/10 19:24	131-11-3	
Di-n-butylphthalate	ND	ug/kg	377	1	05/10/10 14:25	05/13/10 19:24	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/kg	1940	1	05/10/10 14:25	05/13/10 19:24	534-52-1	
2,4-Dinitrophenol	ND	ug/kg	1940	1	05/10/10 14:25	05/13/10 19:24	51-28-5	
2,4-Dinitrotoluene	ND	ug/kg	377	1	05/10/10 14:25	05/13/10 19:24	121-14-2	
2,6-Dinitrotoluene	ND	ug/kg	377	1	05/10/10 14:25	05/13/10 19:24	606-20-2	
Di-n-octylphthalate	ND	ug/kg	377	1	05/10/10 14:25	05/13/10 19:24	117-84-0	
1,2-Diphenylhydrazine	ND	ug/kg	1940	1	05/10/10 14:25	05/13/10 19:24	122-66-7	
bis(2-Ethylhexyl)phthalate	ND	ug/kg	377	1	05/10/10 14:25	05/13/10 19:24	117-81-7	
Fluoranthene	2470	ug/kg	377	1	05/10/10 14:25	05/13/10 19:24	206-44-0	
Fluorene	ND	ug/kg	377	1	05/10/10 14:25	05/13/10 19:24	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/kg	377	1	05/10/10 14:25	05/13/10 19:24	87-68-3	
Hexachlorobenzene	ND	ug/kg	377	1	05/10/10 14:25	05/13/10 19:24	118-74-1	
Hexachlorocyclopentadiene	ND	ug/kg	1940	1	05/10/10 14:25	05/13/10 19:24	77-47-4	
Hexachloroethane	ND	ug/kg	377	1	05/10/10 14:25	05/13/10 19:24	67-72-1	
Indeno(1,2,3-cd)pyrene	660	ug/kg	377	1	05/10/10 14:25	05/13/10 19:24	193-39-5	
Isophorone	ND	ug/kg	377	1	05/10/10 14:25	05/13/10 19:24	78-59-1	
1-Methylnaphthalene	ND	ug/kg	377	1	05/10/10 14:25	05/13/10 19:24	90-12-0	
2-Methylnaphthalene	ND	ug/kg	377	1	05/10/10 14:25	05/13/10 19:24	91-57-6	
2-Methylphenol(o-Cresol)	ND	ug/kg	377	1	05/10/10 14:25	05/13/10 19:24	95-48-7	
3&4-Methylphenol	ND	ug/kg	754	1	05/10/10 14:25	05/13/10 19:24		
Naphthalene	ND	ug/kg	377	1	05/10/10 14:25	05/13/10 19:24	91-20-3	
2-Nitroaniline	ND	ug/kg	1940	1	05/10/10 14:25	05/13/10 19:24	88-74-4	
3-Nitroaniline	ND	ug/kg	1940	1	05/10/10 14:25	05/13/10 19:24	99-09-2	
4-Nitroaniline	ND	ug/kg	1940	1	05/10/10 14:25	05/13/10 19:24	100-01-6	
Nitrobenzene	ND	ug/kg	377	1	05/10/10 14:25	05/13/10 19:24	98-95-3	
2-Nitrophenol	ND	ug/kg	377	1	05/10/10 14:25	05/13/10 19:24	88-75-5	
4-Nitrophenol	ND	ug/kg	1940	1	05/10/10 14:25	05/13/10 19:24	100-02-7	
N-Nitrosodimethylamine	ND	ug/kg	377	1	05/10/10 14:25	05/13/10 19:24	62-75-9	
N-Nitroso-di-n-propylamine	ND	ug/kg	377	1	05/10/10 14:25	05/13/10 19:24	621-64-7	
N-Nitrosodiphenylamine	ND	ug/kg	377	1	05/10/10 14:25	05/13/10 19:24	86-30-6	
Pentachlorophenol	ND	ug/kg	1940	1	05/10/10 14:25	05/13/10 19:24	87-86-5	
Phenanthrene	1350	ug/kg	377	1	05/10/10 14:25	05/13/10 19:24	85-01-8	
Phenol	ND	ug/kg	377	1	05/10/10 14:25	05/13/10 19:24	108-95-2	
Pyrene	2300	ug/kg	377	1	05/10/10 14:25	05/13/10 19:24	129-00-0	

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ANALYTICAL RESULTS

Project: 000211-10116-0 Lilydale Reg.

Pace Project No.: 10128303

Sample: S-3 **Lab ID: 10128303001** Collected: 05/04/10 09:40 Received: 05/07/10 16:25 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Analytical Method: EPA 8270 Preparation Method: EPA 3550								
Pyridine	ND	ug/kg	1940	1	05/10/10 14:25	05/13/10 19:24	110-86-1	
1,2,4-Trichlorobenzene	ND	ug/kg	377	1	05/10/10 14:25	05/13/10 19:24	120-82-1	
2,4,5-Trichlorophenol	ND	ug/kg	1940	1	05/10/10 14:25	05/13/10 19:24	95-95-4	
2,4,6-Trichlorophenol	ND	ug/kg	377	1	05/10/10 14:25	05/13/10 19:24	88-06-2	
Nitrobenzene-d5 (S)	60	%	46-139	1	05/10/10 14:25	05/13/10 19:24	4165-60-0	
2-Fluorobiphenyl (S)	68	%	59-130	1	05/10/10 14:25	05/13/10 19:24	321-60-8	
Terphenyl-d14 (S)	64	%	58-147	1	05/10/10 14:25	05/13/10 19:24	1718-51-0	
Phenol-d6 (S)	56	%	49-125	1	05/10/10 14:25	05/13/10 19:24	13127-88-3	
2-Fluorophenol (S)	56	%	43-126	1	05/10/10 14:25	05/13/10 19:24	367-12-4	
2,4,6-Tribromophenol (S)	65	%	30-150	1	05/10/10 14:25	05/13/10 19:24	118-79-6	
8260 MSV 5030 Med Level Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
Acetone	ND	ug/kg	1370	1	05/11/10 11:55	05/12/10 03:56	67-64-1	
Allyl chloride	ND	ug/kg	220	1	05/11/10 11:55	05/12/10 03:56	107-05-1	
Benzene	ND	ug/kg	22.0	1	05/11/10 11:55	05/12/10 03:56	71-43-2	
Bromobenzene	ND	ug/kg	55.0	1	05/11/10 11:55	05/12/10 03:56	108-86-1	
Bromochloromethane	ND	ug/kg	55.0	1	05/11/10 11:55	05/12/10 03:56	74-97-5	
Bromodichloromethane	ND	ug/kg	55.0	1	05/11/10 11:55	05/12/10 03:56	75-27-4	
Bromoform	ND	ug/kg	440	1	05/11/10 11:55	05/12/10 03:56	75-25-2	
Bromomethane	ND	ug/kg	550	1	05/11/10 11:55	05/12/10 03:56	74-83-9	
2-Butanone (MEK)	ND	ug/kg	550	1	05/11/10 11:55	05/12/10 03:56	78-93-3	
n-Butylbenzene	ND	ug/kg	55.0	1	05/11/10 11:55	05/12/10 03:56	104-51-8	
sec-Butylbenzene	ND	ug/kg	55.0	1	05/11/10 11:55	05/12/10 03:56	135-98-8	
tert-Butylbenzene	ND	ug/kg	55.0	1	05/11/10 11:55	05/12/10 03:56	98-06-6	
Carbon tetrachloride	ND	ug/kg	220	1	05/11/10 11:55	05/12/10 03:56	56-23-5	
Chlorobenzene	ND	ug/kg	55.0	1	05/11/10 11:55	05/12/10 03:56	108-90-7	
Chloroethane	ND	ug/kg	550	1	05/11/10 11:55	05/12/10 03:56	75-00-3	MO
Chloroform	ND	ug/kg	55.0	1	05/11/10 11:55	05/12/10 03:56	67-66-3	
Chloromethane	ND	ug/kg	220	1	05/11/10 11:55	05/12/10 03:56	74-87-3	
2-Chlorotoluene	ND	ug/kg	55.0	1	05/11/10 11:55	05/12/10 03:56	95-49-8	
4-Chlorotoluene	ND	ug/kg	55.0	1	05/11/10 11:55	05/12/10 03:56	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	220	1	05/11/10 11:55	05/12/10 03:56	96-12-8	
Dibromochloromethane	ND	ug/kg	55.0	1	05/11/10 11:55	05/12/10 03:56	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	55.0	1	05/11/10 11:55	05/12/10 03:56	106-93-4	
Dibromomethane	ND	ug/kg	55.0	1	05/11/10 11:55	05/12/10 03:56	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	55.0	1	05/11/10 11:55	05/12/10 03:56	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	55.0	1	05/11/10 11:55	05/12/10 03:56	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	55.0	1	05/11/10 11:55	05/12/10 03:56	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	55.0	1	05/11/10 11:55	05/12/10 03:56	75-71-8	
1,1-Dichloroethane	ND	ug/kg	55.0	1	05/11/10 11:55	05/12/10 03:56	75-34-3	
1,2-Dichloroethane	ND	ug/kg	55.0	1	05/11/10 11:55	05/12/10 03:56	107-06-2	
1,1-Dichloroethene	ND	ug/kg	55.0	1	05/11/10 11:55	05/12/10 03:56	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	55.0	1	05/11/10 11:55	05/12/10 03:56	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	55.0	1	05/11/10 11:55	05/12/10 03:56	156-60-5	
Dichlorofluoromethane	ND	ug/kg	55.0	1	05/11/10 11:55	05/12/10 03:56	75-43-4	
1,2-Dichloropropane	ND	ug/kg	55.0	1	05/11/10 11:55	05/12/10 03:56	78-87-5	

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ANALYTICAL RESULTS

Project: 000211-10116-0 Lilydale Reg.

Pace Project No.: 10128303

Sample: S-3 **Lab ID: 10128303001** Collected: 05/04/10 09:40 Received: 05/07/10 16:25 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5030 Med Level		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B						
1,3-Dichloropropane	ND	ug/kg	55.0	1	05/11/10 11:55	05/12/10 03:56	142-28-9	
2,2-Dichloropropane	ND	ug/kg	220	1	05/11/10 11:55	05/12/10 03:56	594-20-7	
1,1-Dichloropropene	ND	ug/kg	55.0	1	05/11/10 11:55	05/12/10 03:56	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	55.0	1	05/11/10 11:55	05/12/10 03:56	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	55.0	1	05/11/10 11:55	05/12/10 03:56	10061-02-6	
Diethyl ether (Ethyl ether)	ND	ug/kg	220	1	05/11/10 11:55	05/12/10 03:56	60-29-7	
Ethylbenzene	ND	ug/kg	55.0	1	05/11/10 11:55	05/12/10 03:56	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	220	1	05/11/10 11:55	05/12/10 03:56	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/kg	55.0	1	05/11/10 11:55	05/12/10 03:56	98-82-8	
p-Isopropyltoluene	ND	ug/kg	55.0	1	05/11/10 11:55	05/12/10 03:56	99-87-6	
Methylene Chloride	ND	ug/kg	220	1	05/11/10 11:55	05/12/10 03:56	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	550	1	05/11/10 11:55	05/12/10 03:56	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	55.0	1	05/11/10 11:55	05/12/10 03:56	1634-04-4	
Naphthalene	ND	ug/kg	220	1	05/11/10 11:55	05/12/10 03:56	91-20-3	
n-Propylbenzene	ND	ug/kg	55.0	1	05/11/10 11:55	05/12/10 03:56	103-65-1	
Styrene	ND	ug/kg	55.0	1	05/11/10 11:55	05/12/10 03:56	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	55.0	1	05/11/10 11:55	05/12/10 03:56	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	55.0	1	05/11/10 11:55	05/12/10 03:56	79-34-5	
Tetrachloroethene	ND	ug/kg	55.0	1	05/11/10 11:55	05/12/10 03:56	127-18-4	
Tetrahydrofuran	ND	ug/kg	550	1	05/11/10 11:55	05/12/10 03:56	109-99-9	
Toluene	ND	ug/kg	55.0	1	05/11/10 11:55	05/12/10 03:56	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	55.0	1	05/11/10 11:55	05/12/10 03:56	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	55.0	1	05/11/10 11:55	05/12/10 03:56	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	55.0	1	05/11/10 11:55	05/12/10 03:56	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	55.0	1	05/11/10 11:55	05/12/10 03:56	79-00-5	
Trichloroethene	ND	ug/kg	55.0	1	05/11/10 11:55	05/12/10 03:56	79-01-6	
Trichlorofluoromethane	ND	ug/kg	55.0	1	05/11/10 11:55	05/12/10 03:56	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	55.0	1	05/11/10 11:55	05/12/10 03:56	96-18-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	55.0	1	05/11/10 11:55	05/12/10 03:56	76-13-1	
1,2,4-Trimethylbenzene	ND	ug/kg	55.0	1	05/11/10 11:55	05/12/10 03:56	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	55.0	1	05/11/10 11:55	05/12/10 03:56	108-67-8	
Vinyl chloride	ND	ug/kg	22.0	1	05/11/10 11:55	05/12/10 03:56	75-01-4	
Xylene (Total)	ND	ug/kg	165	1	05/11/10 11:55	05/12/10 03:56	1330-20-7	
Dibromofluoromethane (S)	86 %		61-139	1	05/11/10 11:55	05/12/10 03:56	1868-53-7	
1,2-Dichloroethane-d4 (S)	94 %		68-136	1	05/11/10 11:55	05/12/10 03:56	17060-07-0	
Toluene-d8 (S)	91 %		68-133	1	05/11/10 11:55	05/12/10 03:56	2037-26-5	
4-Bromofluorobenzene (S)	94 %		68-126	1	05/11/10 11:55	05/12/10 03:56	460-00-4	

Sample: S-4 **Lab ID: 10128303002** Collected: 05/04/10 10:00 Received: 05/07/10 16:25 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
WIDRO GCS		Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO						
Diesel Range Organics	319	mg/kg	125	10	05/10/10 09:58	05/12/10 22:04		T6

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ANALYTICAL RESULTS

Project: 000211-10116-0 Lilydale Reg.

Pace Project No.: 10128303

Sample: S-4 **Lab ID: 10128303002** Collected: 05/04/10 10:00 Received: 05/07/10 16:25 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
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WIDRO GCS

Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO

n-Triacontane (S)	94 %		50-150	10	05/10/10 09:58	05/12/10 22:04		
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6010 MET ICP

Analytical Method: EPA 6010 Preparation Method: EPA 3050

Antimony	6.0 mg/kg		0.56	1	05/11/10 11:12	05/13/10 12:26	7440-36-0	
Arsenic	10.3 mg/kg		0.56	1	05/11/10 11:12	05/13/10 12:26	7440-38-2	
Beryllium	0.37 mg/kg		0.28	1	05/11/10 11:12	05/13/10 12:26	7440-41-7	
Cadmium	6.5 mg/kg		0.056	1	05/11/10 11:12	05/13/10 12:26	7440-43-9	
Chromium	20.2 mg/kg		0.56	1	05/11/10 11:12	05/13/10 12:26	7440-47-3	
Copper	37.4 mg/kg		0.56	1	05/11/10 11:12	05/13/10 12:26	7440-50-8	
Lead	3090 mg/kg		0.34	1	05/11/10 11:12	05/13/10 12:26	7439-92-1	
Nickel	23.2 mg/kg		1.1	1	05/11/10 11:12	05/13/10 12:26	7440-02-0	
Selenium	0.98 mg/kg		0.84	1	05/11/10 11:12	05/13/10 12:26	7782-49-2	
Silver	ND mg/kg		0.56	1	05/11/10 11:12	05/13/10 12:26	7440-22-4	
Thallium	ND mg/kg		1.1	1	05/11/10 11:12	05/13/10 12:26	7440-28-0	
Zinc	542 mg/kg		1.1	1	05/11/10 11:12	05/13/10 12:26	7440-66-6	

6010 MET ICP, TCLP

Analytical Method: EPA 6010 Preparation Method: EPA 3010

Leachate Method/Date: EPA 1311; 05/25/10 13:56

Lead	7.1 mg/L		0.015	5	05/25/10 14:21	05/26/10 10:54	7439-92-1	
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7471 Mercury

Analytical Method: EPA 7471 Preparation Method: EPA 7471

Mercury	0.52 mg/kg		0.021	1	05/14/10 14:00	05/18/10 10:34	7439-97-6	
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Dry Weight

Analytical Method: % Moisture

Percent Moisture	17.6 %		0.10	1		05/10/10 00:00		
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8270 MSSV

Analytical Method: EPA 8270 Preparation Method: EPA 3550

Acenaphthene	ND ug/kg		4000	10	05/10/10 14:25	05/13/10 14:07	83-32-9	
Acenaphthylene	ND ug/kg		4000	10	05/10/10 14:25	05/13/10 14:07	208-96-8	
Anthracene	ND ug/kg		4000	10	05/10/10 14:25	05/13/10 14:07	120-12-7	
Benzidine	ND ug/kg		19400	10	05/10/10 14:25	05/13/10 14:07	92-87-5	L2,SS
Benzo(a)anthracene	6310 ug/kg		4000	10	05/10/10 14:25	05/13/10 14:07	56-55-3	
Benzo(a)pyrene	5410 ug/kg		4000	10	05/10/10 14:25	05/13/10 14:07	50-32-8	
Benzo(b)fluoranthene	7220 ug/kg		4000	10	05/10/10 14:25	05/13/10 14:07	205-99-2	
Benzo(g,h,i)perylene	ND ug/kg		4000	10	05/10/10 14:25	05/13/10 14:07	191-24-2	
Benzo(k)fluoranthene	ND ug/kg		4000	10	05/10/10 14:25	05/13/10 14:07	207-08-9	
Benzoic acid	ND ug/kg		20600	10	05/10/10 14:25	05/13/10 14:07	65-85-0	
Benzyl alcohol	ND ug/kg		8010	10	05/10/10 14:25	05/13/10 14:07	100-51-6	
4-Bromophenylphenyl ether	ND ug/kg		4000	10	05/10/10 14:25	05/13/10 14:07	101-55-3	
Butylbenzylphthalate	ND ug/kg		4000	10	05/10/10 14:25	05/13/10 14:07	85-68-7	
Carbazole	ND ug/kg		4000	10	05/10/10 14:25	05/13/10 14:07	86-74-8	
4-Chloro-3-methylphenol	ND ug/kg		4000	10	05/10/10 14:25	05/13/10 14:07	59-50-7	
4-Chloroaniline	ND ug/kg		4000	10	05/10/10 14:25	05/13/10 14:07	106-47-8	
bis(2-Chloroethoxy)methane	ND ug/kg		4000	10	05/10/10 14:25	05/13/10 14:07	111-91-1	
bis(2-Chloroethyl) ether	ND ug/kg		4000	10	05/10/10 14:25	05/13/10 14:07	111-44-4	

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ANALYTICAL RESULTS

Project: 000211-10116-0 Lilydale Reg.

Pace Project No.: 10128303

Sample: S-4 **Lab ID: 10128303002** Collected: 05/04/10 10:00 Received: 05/07/10 16:25 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Analytical Method: EPA 8270 Preparation Method: EPA 3550								
bis(2-Chloroisopropyl) ether	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 14:07	108-60-1	
2-Chloronaphthalene	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 14:07	91-58-7	
2-Chlorophenol	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 14:07	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 14:07	7005-72-3	
Chrysene	6090	ug/kg	4000	10	05/10/10 14:25	05/13/10 14:07	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 14:07	53-70-3	
Dibenzofuran	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 14:07	132-64-9	
1,2-Dichlorobenzene	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 14:07	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 14:07	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 14:07	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/kg	8130	10	05/10/10 14:25	05/13/10 14:07	91-94-1	
2,4-Dichlorophenol	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 14:07	120-83-2	
Diethylphthalate	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 14:07	84-66-2	
2,4-Dimethylphenol	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 14:07	105-67-9	
Dimethylphthalate	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 14:07	131-11-3	
Di-n-butylphthalate	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 14:07	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/kg	20600	10	05/10/10 14:25	05/13/10 14:07	534-52-1	
2,4-Dinitrophenol	ND	ug/kg	20600	10	05/10/10 14:25	05/13/10 14:07	51-28-5	
2,4-Dinitrotoluene	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 14:07	121-14-2	
2,6-Dinitrotoluene	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 14:07	606-20-2	
Di-n-octylphthalate	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 14:07	117-84-0	
1,2-Diphenylhydrazine	ND	ug/kg	20600	10	05/10/10 14:25	05/13/10 14:07	122-66-7	
bis(2-Ethylhexyl)phthalate	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 14:07	117-81-7	
Fluoranthene	11100	ug/kg	4000	10	05/10/10 14:25	05/13/10 14:07	206-44-0	
Fluorene	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 14:07	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 14:07	87-68-3	
Hexachlorobenzene	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 14:07	118-74-1	
Hexachlorocyclopentadiene	ND	ug/kg	20600	10	05/10/10 14:25	05/13/10 14:07	77-47-4	
Hexachloroethane	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 14:07	67-72-1	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 14:07	193-39-5	
Isophorone	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 14:07	78-59-1	
1-Methylnaphthalene	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 14:07	90-12-0	
2-Methylnaphthalene	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 14:07	91-57-6	
2-Methylphenol(o-Cresol)	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 14:07	95-48-7	
3&4-Methylphenol	ND	ug/kg	8010	10	05/10/10 14:25	05/13/10 14:07		
Naphthalene	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 14:07	91-20-3	
2-Nitroaniline	ND	ug/kg	20600	10	05/10/10 14:25	05/13/10 14:07	88-74-4	
3-Nitroaniline	ND	ug/kg	20600	10	05/10/10 14:25	05/13/10 14:07	99-09-2	
4-Nitroaniline	ND	ug/kg	20600	10	05/10/10 14:25	05/13/10 14:07	100-01-6	
Nitrobenzene	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 14:07	98-95-3	
2-Nitrophenol	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 14:07	88-75-5	
4-Nitrophenol	ND	ug/kg	20600	10	05/10/10 14:25	05/13/10 14:07	100-02-7	
N-Nitrosodimethylamine	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 14:07	62-75-9	
N-Nitroso-di-n-propylamine	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 14:07	621-64-7	
N-Nitrosodiphenylamine	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 14:07	86-30-6	
Pentachlorophenol	ND	ug/kg	20600	10	05/10/10 14:25	05/13/10 14:07	87-86-5	

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ANALYTICAL RESULTS

Project: 000211-10116-0 Lilydale Reg.

Pace Project No.: 10128303

Sample: S-4 **Lab ID: 10128303002** Collected: 05/04/10 10:00 Received: 05/07/10 16:25 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Analytical Method: EPA 8270 Preparation Method: EPA 3550								
Phenanthrene	4880	ug/kg	4000	10	05/10/10 14:25	05/13/10 14:07	85-01-8	
Phenol	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 14:07	108-95-2	
Pyrene	11300	ug/kg	4000	10	05/10/10 14:25	05/13/10 14:07	129-00-0	
Pyridine	ND	ug/kg	20600	10	05/10/10 14:25	05/13/10 14:07	110-86-1	
1,2,4-Trichlorobenzene	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 14:07	120-82-1	
2,4,5-Trichlorophenol	ND	ug/kg	20600	10	05/10/10 14:25	05/13/10 14:07	95-95-4	
2,4,6-Trichlorophenol	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 14:07	88-06-2	
Nitrobenzene-d5 (S)	66	%	46-139	10	05/10/10 14:25	05/13/10 14:07	4165-60-0	D3
2-Fluorobiphenyl (S)	74	%	59-130	10	05/10/10 14:25	05/13/10 14:07	321-60-8	
Terphenyl-d14 (S)	69	%	58-147	10	05/10/10 14:25	05/13/10 14:07	1718-51-0	
Phenol-d6 (S)	61	%	49-125	10	05/10/10 14:25	05/13/10 14:07	13127-88-3	
2-Fluorophenol (S)	63	%	43-126	10	05/10/10 14:25	05/13/10 14:07	367-12-4	
2,4,6-Tribromophenol (S)	62	%	30-150	10	05/10/10 14:25	05/13/10 14:07	118-79-6	

Sample: S-6 **Lab ID: 10128303003** Collected: 05/04/10 10:45 Received: 05/07/10 16:25 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8081 GCS Pesticides Analytical Method: EPA 8081								
Aldrin	ND	ug/kg	2.2	1	05/14/10 08:51	05/18/10 01:54	309-00-2	
alpha-BHC	ND	ug/kg	2.2	1	05/14/10 08:51	05/18/10 01:54	319-84-6	
beta-BHC	ND	ug/kg	2.2	1	05/14/10 08:51	05/18/10 01:54	319-85-7	
delta-BHC	ND	ug/kg	2.2	1	05/14/10 08:51	05/18/10 01:54	319-86-8	L2
gamma-BHC (Lindane)	ND	ug/kg	2.2	1	05/14/10 08:51	05/18/10 01:54	58-89-9	
Chlordane (Technical)	169	ug/kg	43.3	1	05/14/10 08:51	05/18/10 01:54	57-74-9	
alpha-Chlordane	ND	ug/kg	2.2	1	05/14/10 08:51	05/18/10 01:54	5103-71-9	
gamma-Chlordane	ND	ug/kg	2.2	1	05/14/10 08:51	05/18/10 01:54	5103-74-2	
4,4'-DDD	7.7	ug/kg	4.3	1	05/14/10 08:51	05/18/10 01:54	72-54-8	C2
4,4'-DDE	ND	ug/kg	4.3	1	05/14/10 08:51	05/18/10 01:54	72-55-9	
4,4'-DDT	37.1	ug/kg	4.3	1	05/14/10 08:51	05/18/10 01:54	50-29-3	
Dieldrin	ND	ug/kg	4.3	1	05/14/10 08:51	05/18/10 01:54	60-57-1	
Endosulfan I	ND	ug/kg	2.2	1	05/14/10 08:51	05/18/10 01:54	959-98-8	
Endosulfan II	ND	ug/kg	4.3	1	05/14/10 08:51	05/18/10 01:54	33213-65-9	
Endosulfan sulfate	ND	ug/kg	4.3	1	05/14/10 08:51	05/18/10 01:54	1031-07-8	
Endrin	ND	ug/kg	4.3	1	05/14/10 08:51	05/18/10 01:54	72-20-8	
Endrin aldehyde	ND	ug/kg	4.3	1	05/14/10 08:51	05/18/10 01:54	7421-93-4	
Endrin ketone	ND	ug/kg	4.3	1	05/14/10 08:51	05/18/10 01:54	53494-70-5	
Heptachlor	ND	ug/kg	2.2	1	05/14/10 08:51	05/18/10 01:54	76-44-8	
Heptachlor epoxide	ND	ug/kg	2.2	1	05/14/10 08:51	05/18/10 01:54	1024-57-3	
Methoxychlor	ND	ug/kg	21.6	1	05/14/10 08:51	05/18/10 01:54	72-43-5	
Toxaphene	ND	ug/kg	130	1	05/14/10 08:51	05/18/10 01:54	8001-35-2	
Tetrachloro-m-xylene (S)	62	%-	34-130	1	05/14/10 08:51	05/18/10 01:54	877-09-8	
Decachlorobiphenyl (S)	67	%-	30-130	1	05/14/10 08:51	05/18/10 01:54	2051-24-3	

ANALYTICAL RESULTS

Project: 000211-10116-0 Lilydale Reg.

Pace Project No.: 10128303

Sample: S-6 **Lab ID: 10128303003** Collected: 05/04/10 10:45 Received: 05/07/10 16:25 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082 Preparation Method: EPA 3550								
PCB-1016 (Aroclor 1016)	ND	ug/kg	42.9	1	05/10/10 12:01	05/12/10 13:22	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/kg	42.9	1	05/10/10 12:01	05/12/10 13:22	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/kg	42.9	1	05/10/10 12:01	05/12/10 13:22	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/kg	42.9	1	05/10/10 12:01	05/12/10 13:22	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/kg	42.9	1	05/10/10 12:01	05/12/10 13:22	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	ug/kg	42.9	1	05/10/10 12:01	05/12/10 13:22	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/kg	42.9	1	05/10/10 12:01	05/12/10 13:22	11096-82-5	
PCB-1262 (Aroclor 1262)	ND	ug/kg	42.9	1	05/10/10 12:01	05/12/10 13:22	37324-23-5	
PCB-1268 (Aroclor 1268)	ND	ug/kg	42.9	1	05/10/10 12:01	05/12/10 13:22	11100-14-4	
Tetrachloro-m-xylene (S)	79	%	55-125	1	05/10/10 12:01	05/12/10 13:22	877-09-8	
Decachlorobiphenyl (S)	59	%	55-125	1	05/10/10 12:01	05/12/10 13:22	2051-24-3	

WIDRO GCS

Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO

Diesel Range Organics	773	mg/kg	128	10	05/10/10 09:58	05/13/10 13:38		T6
n-Triacontane (S)	82	%	50-150	10	05/10/10 09:58	05/13/10 13:38		

6010 MET ICP

Analytical Method: EPA 6010 Preparation Method: EPA 3050

Antimony	5.9	mg/kg	0.58	1	05/11/10 11:12	05/13/10 12:31	7440-36-0	
Arsenic	8.2	mg/kg	0.58	1	05/11/10 11:12	05/13/10 12:31	7440-38-2	
Beryllium	0.46	mg/kg	0.29	1	05/11/10 11:12	05/13/10 12:31	7440-41-7	
Cadmium	12.0	mg/kg	0.058	1	05/11/10 11:12	05/13/10 12:31	7440-43-9	
Chromium	25.1	mg/kg	0.58	1	05/11/10 11:12	05/13/10 12:31	7440-47-3	
Copper	129	mg/kg	0.58	1	05/11/10 11:12	05/13/10 12:31	7440-50-8	
Lead	725	mg/kg	0.35	1	05/11/10 11:12	05/13/10 12:31	7439-92-1	
Nickel	29.9	mg/kg	1.2	1	05/11/10 11:12	05/13/10 12:31	7440-02-0	
Selenium	2.5	mg/kg	0.87	1	05/11/10 11:12	05/13/10 12:31	7782-49-2	
Silver	ND	mg/kg	0.58	1	05/11/10 11:12	05/13/10 12:31	7440-22-4	
Thallium	ND	mg/kg	1.2	1	05/11/10 11:12	05/13/10 12:31	7440-28-0	
Zinc	3030	mg/kg	1.2	1	05/11/10 11:12	05/13/10 12:31	7440-66-6	

7471 Mercury

Analytical Method: EPA 7471 Preparation Method: EPA 7471

Mercury	0.098	mg/kg	0.024	1	05/14/10 14:00	05/18/10 10:35	7439-97-6	
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Dry Weight

Analytical Method: % Moisture

Percent Moisture	23.0	%	0.10	1		05/10/10 00:00		
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8270 MSSV

Analytical Method: EPA 8270 Preparation Method: EPA 3550

Acenaphthene	ND	ug/kg	4290	10	05/10/10 14:25	05/13/10 13:41	83-32-9	
Acenaphthylene	ND	ug/kg	4290	10	05/10/10 14:25	05/13/10 13:41	208-96-8	
Anthracene	ND	ug/kg	4290	10	05/10/10 14:25	05/13/10 13:41	120-12-7	
Benzidine	ND	ug/kg	20800	10	05/10/10 14:25	05/13/10 13:41	92-87-5	L2,SS
Benzo(a)anthracene	ND	ug/kg	4290	10	05/10/10 14:25	05/13/10 13:41	56-55-3	
Benzo(a)pyrene	ND	ug/kg	4290	10	05/10/10 14:25	05/13/10 13:41	50-32-8	
Benzo(b)fluoranthene	ND	ug/kg	4290	10	05/10/10 14:25	05/13/10 13:41	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	4290	10	05/10/10 14:25	05/13/10 13:41	191-24-2	

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ANALYTICAL RESULTS

Project: 000211-10116-0 Lilydale Reg.

Pace Project No.: 10128303

Sample: S-6 **Lab ID: 10128303003** Collected: 05/04/10 10:45 Received: 05/07/10 16:25 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Analytical Method: EPA 8270 Preparation Method: EPA 3550								
Benzo(k)fluoranthene	ND	ug/kg	4290	10	05/10/10 14:25	05/13/10 13:41	207-08-9	
Benzoic acid	ND	ug/kg	22100	10	05/10/10 14:25	05/13/10 13:41	65-85-0	
Benzyl alcohol	ND	ug/kg	8570	10	05/10/10 14:25	05/13/10 13:41	100-51-6	
4-Bromophenylphenyl ether	ND	ug/kg	4290	10	05/10/10 14:25	05/13/10 13:41	101-55-3	
Butylbenzylphthalate	ND	ug/kg	4290	10	05/10/10 14:25	05/13/10 13:41	85-68-7	
Carbazole	ND	ug/kg	4290	10	05/10/10 14:25	05/13/10 13:41	86-74-8	
4-Chloro-3-methylphenol	ND	ug/kg	4290	10	05/10/10 14:25	05/13/10 13:41	59-50-7	
4-Chloroaniline	ND	ug/kg	4290	10	05/10/10 14:25	05/13/10 13:41	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/kg	4290	10	05/10/10 14:25	05/13/10 13:41	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/kg	4290	10	05/10/10 14:25	05/13/10 13:41	111-44-4	
bis(2-Chloroisopropyl) ether	ND	ug/kg	4290	10	05/10/10 14:25	05/13/10 13:41	108-60-1	
2-Chloronaphthalene	ND	ug/kg	4290	10	05/10/10 14:25	05/13/10 13:41	91-58-7	
2-Chlorophenol	ND	ug/kg	4290	10	05/10/10 14:25	05/13/10 13:41	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/kg	4290	10	05/10/10 14:25	05/13/10 13:41	7005-72-3	
Chrysene	ND	ug/kg	4290	10	05/10/10 14:25	05/13/10 13:41	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	4290	10	05/10/10 14:25	05/13/10 13:41	53-70-3	
Dibenzofuran	ND	ug/kg	4290	10	05/10/10 14:25	05/13/10 13:41	132-64-9	
1,2-Dichlorobenzene	ND	ug/kg	4290	10	05/10/10 14:25	05/13/10 13:41	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	4290	10	05/10/10 14:25	05/13/10 13:41	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	4290	10	05/10/10 14:25	05/13/10 13:41	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/kg	8700	10	05/10/10 14:25	05/13/10 13:41	91-94-1	
2,4-Dichlorophenol	ND	ug/kg	4290	10	05/10/10 14:25	05/13/10 13:41	120-83-2	
Diethylphthalate	ND	ug/kg	4290	10	05/10/10 14:25	05/13/10 13:41	84-66-2	
2,4-Dimethylphenol	ND	ug/kg	4290	10	05/10/10 14:25	05/13/10 13:41	105-67-9	
Dimethylphthalate	ND	ug/kg	4290	10	05/10/10 14:25	05/13/10 13:41	131-11-3	
Di-n-butylphthalate	ND	ug/kg	4290	10	05/10/10 14:25	05/13/10 13:41	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/kg	22100	10	05/10/10 14:25	05/13/10 13:41	534-52-1	
2,4-Dinitrophenol	ND	ug/kg	22100	10	05/10/10 14:25	05/13/10 13:41	51-28-5	
2,4-Dinitrotoluene	ND	ug/kg	4290	10	05/10/10 14:25	05/13/10 13:41	121-14-2	
2,6-Dinitrotoluene	ND	ug/kg	4290	10	05/10/10 14:25	05/13/10 13:41	606-20-2	
Di-n-octylphthalate	ND	ug/kg	4290	10	05/10/10 14:25	05/13/10 13:41	117-84-0	
1,2-Diphenylhydrazine	ND	ug/kg	22100	10	05/10/10 14:25	05/13/10 13:41	122-66-7	
bis(2-Ethylhexyl)phthalate	ND	ug/kg	4290	10	05/10/10 14:25	05/13/10 13:41	117-81-7	
Fluoranthene	ND	ug/kg	4290	10	05/10/10 14:25	05/13/10 13:41	206-44-0	
Fluorene	ND	ug/kg	4290	10	05/10/10 14:25	05/13/10 13:41	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/kg	4290	10	05/10/10 14:25	05/13/10 13:41	87-68-3	
Hexachlorobenzene	ND	ug/kg	4290	10	05/10/10 14:25	05/13/10 13:41	118-74-1	
Hexachlorocyclopentadiene	ND	ug/kg	22100	10	05/10/10 14:25	05/13/10 13:41	77-47-4	
Hexachloroethane	ND	ug/kg	4290	10	05/10/10 14:25	05/13/10 13:41	67-72-1	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	4290	10	05/10/10 14:25	05/13/10 13:41	193-39-5	
Isophorone	ND	ug/kg	4290	10	05/10/10 14:25	05/13/10 13:41	78-59-1	
1-Methylnaphthalene	ND	ug/kg	4290	10	05/10/10 14:25	05/13/10 13:41	90-12-0	
2-Methylnaphthalene	ND	ug/kg	4290	10	05/10/10 14:25	05/13/10 13:41	91-57-6	
2-Methylphenol(o-Cresol)	ND	ug/kg	4290	10	05/10/10 14:25	05/13/10 13:41	95-48-7	
3&4-Methylphenol	ND	ug/kg	8570	10	05/10/10 14:25	05/13/10 13:41		
Naphthalene	ND	ug/kg	4290	10	05/10/10 14:25	05/13/10 13:41	91-20-3	

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ANALYTICAL RESULTS

Project: 000211-10116-0 Lilydale Reg.

Pace Project No.: 10128303

Sample: S-6 **Lab ID: 10128303003** Collected: 05/04/10 10:45 Received: 05/07/10 16:25 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Analytical Method: EPA 8270 Preparation Method: EPA 3550								
2-Nitroaniline	ND	ug/kg	22100	10	05/10/10 14:25	05/13/10 13:41	88-74-4	
3-Nitroaniline	ND	ug/kg	22100	10	05/10/10 14:25	05/13/10 13:41	99-09-2	
4-Nitroaniline	ND	ug/kg	22100	10	05/10/10 14:25	05/13/10 13:41	100-01-6	
Nitrobenzene	ND	ug/kg	4290	10	05/10/10 14:25	05/13/10 13:41	98-95-3	
2-Nitrophenol	ND	ug/kg	4290	10	05/10/10 14:25	05/13/10 13:41	88-75-5	
4-Nitrophenol	ND	ug/kg	22100	10	05/10/10 14:25	05/13/10 13:41	100-02-7	
N-Nitrosodimethylamine	ND	ug/kg	4290	10	05/10/10 14:25	05/13/10 13:41	62-75-9	
N-Nitroso-di-n-propylamine	ND	ug/kg	4290	10	05/10/10 14:25	05/13/10 13:41	621-64-7	
N-Nitrosodiphenylamine	ND	ug/kg	4290	10	05/10/10 14:25	05/13/10 13:41	86-30-6	
Pentachlorophenol	ND	ug/kg	22100	10	05/10/10 14:25	05/13/10 13:41	87-86-5	
Phenanthrene	ND	ug/kg	4290	10	05/10/10 14:25	05/13/10 13:41	85-01-8	
Phenol	ND	ug/kg	4290	10	05/10/10 14:25	05/13/10 13:41	108-95-2	
Pyrene	ND	ug/kg	4290	10	05/10/10 14:25	05/13/10 13:41	129-00-0	
Pyridine	ND	ug/kg	22100	10	05/10/10 14:25	05/13/10 13:41	110-86-1	
1,2,4-Trichlorobenzene	ND	ug/kg	4290	10	05/10/10 14:25	05/13/10 13:41	120-82-1	
2,4,5-Trichlorophenol	ND	ug/kg	22100	10	05/10/10 14:25	05/13/10 13:41	95-95-4	
2,4,6-Trichlorophenol	ND	ug/kg	4290	10	05/10/10 14:25	05/13/10 13:41	88-06-2	
Nitrobenzene-d5 (S)	79 %		46-139	10	05/10/10 14:25	05/13/10 13:41	4165-60-0	D3
2-Fluorobiphenyl (S)	94 %		59-130	10	05/10/10 14:25	05/13/10 13:41	321-60-8	
Terphenyl-d14 (S)	86 %		58-147	10	05/10/10 14:25	05/13/10 13:41	1718-51-0	
Phenol-d6 (S)	77 %		49-125	10	05/10/10 14:25	05/13/10 13:41	13127-88-3	
2-Fluorophenol (S)	78 %		43-126	10	05/10/10 14:25	05/13/10 13:41	367-12-4	
2,4,6-Tribromophenol (S)	85 %		30-150	10	05/10/10 14:25	05/13/10 13:41	118-79-6	

8260 MSV 5030 Med Level

Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B

Acetone	ND	ug/kg	1590	1	05/11/10 11:55	05/12/10 04:17	67-64-1	
Allyl chloride	ND	ug/kg	254	1	05/11/10 11:55	05/12/10 04:17	107-05-1	
Benzene	ND	ug/kg	25.4	1	05/11/10 11:55	05/12/10 04:17	71-43-2	
Bromobenzene	ND	ug/kg	63.5	1	05/11/10 11:55	05/12/10 04:17	108-86-1	
Bromochloromethane	ND	ug/kg	63.5	1	05/11/10 11:55	05/12/10 04:17	74-97-5	
Bromodichloromethane	ND	ug/kg	63.5	1	05/11/10 11:55	05/12/10 04:17	75-27-4	
Bromoform	ND	ug/kg	508	1	05/11/10 11:55	05/12/10 04:17	75-25-2	
Bromomethane	ND	ug/kg	635	1	05/11/10 11:55	05/12/10 04:17	74-83-9	
2-Butanone (MEK)	ND	ug/kg	635	1	05/11/10 11:55	05/12/10 04:17	78-93-3	
n-Butylbenzene	ND	ug/kg	63.5	1	05/11/10 11:55	05/12/10 04:17	104-51-8	
sec-Butylbenzene	ND	ug/kg	63.5	1	05/11/10 11:55	05/12/10 04:17	135-98-8	
tert-Butylbenzene	ND	ug/kg	63.5	1	05/11/10 11:55	05/12/10 04:17	98-06-6	
Carbon tetrachloride	ND	ug/kg	254	1	05/11/10 11:55	05/12/10 04:17	56-23-5	
Chlorobenzene	ND	ug/kg	63.5	1	05/11/10 11:55	05/12/10 04:17	108-90-7	
Chloroethane	ND	ug/kg	635	1	05/11/10 11:55	05/12/10 04:17	75-00-3	
Chloroform	ND	ug/kg	63.5	1	05/11/10 11:55	05/12/10 04:17	67-66-3	
Chloromethane	ND	ug/kg	254	1	05/11/10 11:55	05/12/10 04:17	74-87-3	
2-Chlorotoluene	ND	ug/kg	63.5	1	05/11/10 11:55	05/12/10 04:17	95-49-8	
4-Chlorotoluene	ND	ug/kg	63.5	1	05/11/10 11:55	05/12/10 04:17	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	254	1	05/11/10 11:55	05/12/10 04:17	96-12-8	
Dibromochloromethane	ND	ug/kg	63.5	1	05/11/10 11:55	05/12/10 04:17	124-48-1	

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ANALYTICAL RESULTS

Project: 000211-10116-0 Lilydale Reg.

Pace Project No.: 10128303

Sample: S-6 **Lab ID: 10128303003** Collected: 05/04/10 10:45 Received: 05/07/10 16:25 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5030 Med Level		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B						
1,2-Dibromoethane (EDB)	ND	ug/kg	63.5	1	05/11/10 11:55	05/12/10 04:17	106-93-4	
Dibromomethane	ND	ug/kg	63.5	1	05/11/10 11:55	05/12/10 04:17	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	63.5	1	05/11/10 11:55	05/12/10 04:17	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	63.5	1	05/11/10 11:55	05/12/10 04:17	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	63.5	1	05/11/10 11:55	05/12/10 04:17	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	63.5	1	05/11/10 11:55	05/12/10 04:17	75-71-8	
1,1-Dichloroethane	ND	ug/kg	63.5	1	05/11/10 11:55	05/12/10 04:17	75-34-3	
1,2-Dichloroethane	ND	ug/kg	63.5	1	05/11/10 11:55	05/12/10 04:17	107-06-2	
1,1-Dichloroethene	ND	ug/kg	63.5	1	05/11/10 11:55	05/12/10 04:17	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	63.5	1	05/11/10 11:55	05/12/10 04:17	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	63.5	1	05/11/10 11:55	05/12/10 04:17	156-60-5	
Dichlorofluoromethane	ND	ug/kg	63.5	1	05/11/10 11:55	05/12/10 04:17	75-43-4	
1,2-Dichloropropane	ND	ug/kg	63.5	1	05/11/10 11:55	05/12/10 04:17	78-87-5	
1,3-Dichloropropane	ND	ug/kg	63.5	1	05/11/10 11:55	05/12/10 04:17	142-28-9	
2,2-Dichloropropane	ND	ug/kg	254	1	05/11/10 11:55	05/12/10 04:17	594-20-7	
1,1-Dichloropropene	ND	ug/kg	63.5	1	05/11/10 11:55	05/12/10 04:17	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	63.5	1	05/11/10 11:55	05/12/10 04:17	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	63.5	1	05/11/10 11:55	05/12/10 04:17	10061-02-6	
Diethyl ether (Ethyl ether)	ND	ug/kg	254	1	05/11/10 11:55	05/12/10 04:17	60-29-7	
Ethylbenzene	ND	ug/kg	63.5	1	05/11/10 11:55	05/12/10 04:17	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	254	1	05/11/10 11:55	05/12/10 04:17	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/kg	63.5	1	05/11/10 11:55	05/12/10 04:17	98-82-8	
p-Isopropyltoluene	ND	ug/kg	63.5	1	05/11/10 11:55	05/12/10 04:17	99-87-6	
Methylene Chloride	ND	ug/kg	254	1	05/11/10 11:55	05/12/10 04:17	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	635	1	05/11/10 11:55	05/12/10 04:17	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	63.5	1	05/11/10 11:55	05/12/10 04:17	1634-04-4	
Naphthalene	ND	ug/kg	254	1	05/11/10 11:55	05/12/10 04:17	91-20-3	
n-Propylbenzene	ND	ug/kg	63.5	1	05/11/10 11:55	05/12/10 04:17	103-65-1	
Styrene	ND	ug/kg	63.5	1	05/11/10 11:55	05/12/10 04:17	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	63.5	1	05/11/10 11:55	05/12/10 04:17	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	63.5	1	05/11/10 11:55	05/12/10 04:17	79-34-5	
Tetrachloroethene	ND	ug/kg	63.5	1	05/11/10 11:55	05/12/10 04:17	127-18-4	
Tetrahydrofuran	ND	ug/kg	635	1	05/11/10 11:55	05/12/10 04:17	109-99-9	
Toluene	ND	ug/kg	63.5	1	05/11/10 11:55	05/12/10 04:17	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	63.5	1	05/11/10 11:55	05/12/10 04:17	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	63.5	1	05/11/10 11:55	05/12/10 04:17	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	63.5	1	05/11/10 11:55	05/12/10 04:17	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	63.5	1	05/11/10 11:55	05/12/10 04:17	79-00-5	
Trichloroethene	ND	ug/kg	63.5	1	05/11/10 11:55	05/12/10 04:17	79-01-6	
Trichlorofluoromethane	ND	ug/kg	63.5	1	05/11/10 11:55	05/12/10 04:17	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	63.5	1	05/11/10 11:55	05/12/10 04:17	96-18-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	63.5	1	05/11/10 11:55	05/12/10 04:17	76-13-1	
1,2,4-Trimethylbenzene	ND	ug/kg	63.5	1	05/11/10 11:55	05/12/10 04:17	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	63.5	1	05/11/10 11:55	05/12/10 04:17	108-67-8	
Vinyl chloride	ND	ug/kg	25.4	1	05/11/10 11:55	05/12/10 04:17	75-01-4	
Xylene (Total)	ND	ug/kg	190	1	05/11/10 11:55	05/12/10 04:17	1330-20-7	

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ANALYTICAL RESULTS

Project: 000211-10116-0 Lilydale Reg.

Pace Project No.: 10128303

Sample: S-6 **Lab ID: 10128303003** Collected: 05/04/10 10:45 Received: 05/07/10 16:25 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5030 Med Level		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B						
Dibromofluoromethane (S)	86 %		61-139	1	05/11/10 11:55	05/12/10 04:17	1868-53-7	
1,2-Dichloroethane-d4 (S)	94 %		68-136	1	05/11/10 11:55	05/12/10 04:17	17060-07-0	
Toluene-d8 (S)	91 %		68-133	1	05/11/10 11:55	05/12/10 04:17	2037-26-5	
4-Bromofluorobenzene (S)	88 %		68-126	1	05/11/10 11:55	05/12/10 04:17	460-00-4	

Sample: S-8 **Lab ID: 10128303004** Collected: 05/04/10 11:08 Received: 05/07/10 16:25 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8081 GCS Pesticides		Analytical Method: EPA 8081						
Aldrin	ND ug/kg		2.1	1	05/14/10 08:51	05/18/10 02:48	309-00-2	
alpha-BHC	ND ug/kg		2.1	1	05/14/10 08:51	05/18/10 02:48	319-84-6	
beta-BHC	ND ug/kg		2.1	1	05/14/10 08:51	05/18/10 02:48	319-85-7	
delta-BHC	ND ug/kg		2.1	1	05/14/10 08:51	05/18/10 02:48	319-86-8	L2
gamma-BHC (Lindane)	ND ug/kg		2.1	1	05/14/10 08:51	05/18/10 02:48	58-89-9	
Chlordane (Technical)	ND ug/kg		41.3	1	05/14/10 08:51	05/18/10 02:48	57-74-9	
alpha-Chlordane	ND ug/kg		2.1	1	05/14/10 08:51	05/18/10 02:48	5103-71-9	
gamma-Chlordane	ND ug/kg		2.1	1	05/14/10 08:51	05/18/10 02:48	5103-74-2	
4,4'-DDD	ND ug/kg		4.1	1	05/14/10 08:51	05/18/10 02:48	72-54-8	
4,4'-DDE	ND ug/kg		4.1	1	05/14/10 08:51	05/18/10 02:48	72-55-9	
4,4'-DDT	ND ug/kg		4.1	1	05/14/10 08:51	05/18/10 02:48	50-29-3	
Dieldrin	ND ug/kg		4.1	1	05/14/10 08:51	05/18/10 02:48	60-57-1	
Endosulfan I	ND ug/kg		2.1	1	05/14/10 08:51	05/18/10 02:48	959-98-8	
Endosulfan II	ND ug/kg		4.1	1	05/14/10 08:51	05/18/10 02:48	33213-65-9	
Endosulfan sulfate	ND ug/kg		4.1	1	05/14/10 08:51	05/18/10 02:48	1031-07-8	
Endrin	ND ug/kg		4.1	1	05/14/10 08:51	05/18/10 02:48	72-20-8	
Endrin aldehyde	ND ug/kg		4.1	1	05/14/10 08:51	05/18/10 02:48	7421-93-4	
Endrin ketone	ND ug/kg		4.1	1	05/14/10 08:51	05/18/10 02:48	53494-70-5	
Heptachlor	ND ug/kg		2.1	1	05/14/10 08:51	05/18/10 02:48	76-44-8	
Heptachlor epoxide	ND ug/kg		2.1	1	05/14/10 08:51	05/18/10 02:48	1024-57-3	
Methoxychlor	ND ug/kg		20.6	1	05/14/10 08:51	05/18/10 02:48	72-43-5	
Toxaphene	ND ug/kg		124	1	05/14/10 08:51	05/18/10 02:48	8001-35-2	
Tetrachloro-m-xylene (S)	58 %-		34-130	1	05/14/10 08:51	05/18/10 02:48	877-09-8	
Decachlorobiphenyl (S)	60 %-		30-130	1	05/14/10 08:51	05/18/10 02:48	2051-24-3	

8082 GCS PCB Analytical Method: EPA 8082 Preparation Method: EPA 3550

PCB-1016 (Aroclor 1016)	ND ug/kg		40.9	1	05/10/10 12:01	05/12/10 13:06	12674-11-2	
PCB-1221 (Aroclor 1221)	ND ug/kg		40.9	1	05/10/10 12:01	05/12/10 13:06	11104-28-2	
PCB-1232 (Aroclor 1232)	ND ug/kg		40.9	1	05/10/10 12:01	05/12/10 13:06	11141-16-5	
PCB-1242 (Aroclor 1242)	ND ug/kg		40.9	1	05/10/10 12:01	05/12/10 13:06	53469-21-9	
PCB-1248 (Aroclor 1248)	ND ug/kg		40.9	1	05/10/10 12:01	05/12/10 13:06	12672-29-6	
PCB-1254 (Aroclor 1254)	ND ug/kg		40.9	1	05/10/10 12:01	05/12/10 13:06	11097-69-1	
PCB-1260 (Aroclor 1260)	ND ug/kg		40.9	1	05/10/10 12:01	05/12/10 13:06	11096-82-5	
PCB-1262 (Aroclor 1262)	ND ug/kg		40.9	1	05/10/10 12:01	05/12/10 13:06	37324-23-5	

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ANALYTICAL RESULTS

Project: 000211-10116-0 Lilydale Reg.

Pace Project No.: 10128303

Sample: S-8 **Lab ID: 10128303004** Collected: 05/04/10 11:08 Received: 05/07/10 16:25 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082 Preparation Method: EPA 3550								
PCB-1268 (Aroclor 1268)	ND ug/kg		40.9	1	05/10/10 12:01	05/12/10 13:06	11100-14-4	
Tetrachloro-m-xylene (S)	73 %		55-125	1	05/10/10 12:01	05/12/10 13:06	877-09-8	
Decachlorobiphenyl (S)	55 %		55-125	1	05/10/10 12:01	05/12/10 13:06	2051-24-3	
WIDRO GCS Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO								
Diesel Range Organics	ND mg/kg		12.0	1	05/10/10 09:58	05/12/10 21:29		
n-Triacontane (S)	89 %		50-150	1	05/10/10 09:58	05/12/10 21:29		
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Antimony	ND mg/kg		0.44	1	05/11/10 11:12	05/13/10 12:36	7440-36-0	
Arsenic	3.3 mg/kg		0.44	1	05/11/10 11:12	05/13/10 12:36	7440-38-2	
Beryllium	0.48 mg/kg		0.22	1	05/11/10 11:12	05/13/10 12:36	7440-41-7	
Cadmium	0.31 mg/kg		0.044	1	05/11/10 11:12	05/13/10 12:36	7440-43-9	
Chromium	14.7 mg/kg		0.44	1	05/11/10 11:12	05/13/10 12:36	7440-47-3	
Copper	10.7 mg/kg		0.44	1	05/11/10 11:12	05/13/10 12:36	7440-50-8	
Lead	37.3 mg/kg		0.27	1	05/11/10 11:12	05/13/10 12:36	7439-92-1	
Nickel	13.2 mg/kg		0.88	1	05/11/10 11:12	05/13/10 12:36	7440-02-0	
Selenium	1.5 mg/kg		0.66	1	05/11/10 11:12	05/13/10 12:36	7782-49-2	
Silver	ND mg/kg		0.44	1	05/11/10 11:12	05/13/10 12:36	7440-22-4	
Thallium	ND mg/kg		0.88	1	05/11/10 11:12	05/13/10 12:36	7440-28-0	
Zinc	74.5 mg/kg		0.88	1	05/11/10 11:12	05/13/10 12:36	7440-66-6	
7471 Mercury Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	0.084 mg/kg		0.022	1	05/14/10 14:00	05/18/10 10:36	7439-97-6	
Dry Weight Analytical Method: % Moisture								
Percent Moisture	19.2 %		0.10	1		05/10/10 00:00		
8270 MSSV Analytical Method: EPA 8270 Preparation Method: EPA 3550								
Acenaphthene	ND ug/kg		409	1	05/10/10 14:25	05/13/10 11:30	83-32-9	
Acenaphthylene	ND ug/kg		409	1	05/10/10 14:25	05/13/10 11:30	208-96-8	
Anthracene	ND ug/kg		409	1	05/10/10 14:25	05/13/10 11:30	120-12-7	
Benzidine	ND ug/kg		1980	1	05/10/10 14:25	05/13/10 11:30	92-87-5	L2,SS
Benzo(a)anthracene	ND ug/kg		409	1	05/10/10 14:25	05/13/10 11:30	56-55-3	
Benzo(a)pyrene	ND ug/kg		409	1	05/10/10 14:25	05/13/10 11:30	50-32-8	
Benzo(b)fluoranthene	ND ug/kg		409	1	05/10/10 14:25	05/13/10 11:30	205-99-2	
Benzo(g,h,i)perylene	ND ug/kg		409	1	05/10/10 14:25	05/13/10 11:30	191-24-2	
Benzo(k)fluoranthene	ND ug/kg		409	1	05/10/10 14:25	05/13/10 11:30	207-08-9	
Benzoic acid	ND ug/kg		2110	1	05/10/10 14:25	05/13/10 11:30	65-85-0	
Benzyl alcohol	ND ug/kg		817	1	05/10/10 14:25	05/13/10 11:30	100-51-6	
4-Bromophenylphenyl ether	ND ug/kg		409	1	05/10/10 14:25	05/13/10 11:30	101-55-3	
Butylbenzylphthalate	ND ug/kg		409	1	05/10/10 14:25	05/13/10 11:30	85-68-7	
Carbazole	ND ug/kg		409	1	05/10/10 14:25	05/13/10 11:30	86-74-8	
4-Chloro-3-methylphenol	ND ug/kg		409	1	05/10/10 14:25	05/13/10 11:30	59-50-7	
4-Chloroaniline	ND ug/kg		409	1	05/10/10 14:25	05/13/10 11:30	106-47-8	

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ANALYTICAL RESULTS

Project: 000211-10116-0 Lilydale Reg.

Pace Project No.: 10128303

Sample: S-8 **Lab ID: 10128303004** Collected: 05/04/10 11:08 Received: 05/07/10 16:25 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Analytical Method: EPA 8270 Preparation Method: EPA 3550								
bis(2-Chloroethoxy)methane	ND ug/kg		409	1	05/10/10 14:25	05/13/10 11:30	111-91-1	
bis(2-Chloroethyl) ether	ND ug/kg		409	1	05/10/10 14:25	05/13/10 11:30	111-44-4	
bis(2-Chloroisopropyl) ether	ND ug/kg		409	1	05/10/10 14:25	05/13/10 11:30	108-60-1	
2-Chloronaphthalene	ND ug/kg		409	1	05/10/10 14:25	05/13/10 11:30	91-58-7	
2-Chlorophenol	ND ug/kg		409	1	05/10/10 14:25	05/13/10 11:30	95-57-8	
4-Chlorophenylphenyl ether	ND ug/kg		409	1	05/10/10 14:25	05/13/10 11:30	7005-72-3	
Chrysene	ND ug/kg		409	1	05/10/10 14:25	05/13/10 11:30	218-01-9	
Dibenz(a,h)anthracene	ND ug/kg		409	1	05/10/10 14:25	05/13/10 11:30	53-70-3	
Dibenzofuran	ND ug/kg		409	1	05/10/10 14:25	05/13/10 11:30	132-64-9	
1,2-Dichlorobenzene	ND ug/kg		409	1	05/10/10 14:25	05/13/10 11:30	95-50-1	
1,3-Dichlorobenzene	ND ug/kg		409	1	05/10/10 14:25	05/13/10 11:30	541-73-1	
1,4-Dichlorobenzene	ND ug/kg		409	1	05/10/10 14:25	05/13/10 11:30	106-46-7	
3,3'-Dichlorobenzidine	ND ug/kg		830	1	05/10/10 14:25	05/13/10 11:30	91-94-1	
2,4-Dichlorophenol	ND ug/kg		409	1	05/10/10 14:25	05/13/10 11:30	120-83-2	
Diethylphthalate	ND ug/kg		409	1	05/10/10 14:25	05/13/10 11:30	84-66-2	
2,4-Dimethylphenol	ND ug/kg		409	1	05/10/10 14:25	05/13/10 11:30	105-67-9	
Dimethylphthalate	ND ug/kg		409	1	05/10/10 14:25	05/13/10 11:30	131-11-3	
Di-n-butylphthalate	ND ug/kg		409	1	05/10/10 14:25	05/13/10 11:30	84-74-2	
4,6-Dinitro-2-methylphenol	ND ug/kg		2110	1	05/10/10 14:25	05/13/10 11:30	534-52-1	
2,4-Dinitrophenol	ND ug/kg		2110	1	05/10/10 14:25	05/13/10 11:30	51-28-5	
2,4-Dinitrotoluene	ND ug/kg		409	1	05/10/10 14:25	05/13/10 11:30	121-14-2	
2,6-Dinitrotoluene	ND ug/kg		409	1	05/10/10 14:25	05/13/10 11:30	606-20-2	
Di-n-octylphthalate	ND ug/kg		409	1	05/10/10 14:25	05/13/10 11:30	117-84-0	
1,2-Diphenylhydrazine	ND ug/kg		2110	1	05/10/10 14:25	05/13/10 11:30	122-66-7	
bis(2-Ethylhexyl)phthalate	ND ug/kg		409	1	05/10/10 14:25	05/13/10 11:30	117-81-7	
Fluoranthene	ND ug/kg		409	1	05/10/10 14:25	05/13/10 11:30	206-44-0	
Fluorene	ND ug/kg		409	1	05/10/10 14:25	05/13/10 11:30	86-73-7	
Hexachloro-1,3-butadiene	ND ug/kg		409	1	05/10/10 14:25	05/13/10 11:30	87-68-3	
Hexachlorobenzene	ND ug/kg		409	1	05/10/10 14:25	05/13/10 11:30	118-74-1	
Hexachlorocyclopentadiene	ND ug/kg		2110	1	05/10/10 14:25	05/13/10 11:30	77-47-4	
Hexachloroethane	ND ug/kg		409	1	05/10/10 14:25	05/13/10 11:30	67-72-1	
Indeno(1,2,3-cd)pyrene	ND ug/kg		409	1	05/10/10 14:25	05/13/10 11:30	193-39-5	
Isophorone	ND ug/kg		409	1	05/10/10 14:25	05/13/10 11:30	78-59-1	
1-Methylnaphthalene	ND ug/kg		409	1	05/10/10 14:25	05/13/10 11:30	90-12-0	
2-Methylnaphthalene	ND ug/kg		409	1	05/10/10 14:25	05/13/10 11:30	91-57-6	
2-Methylphenol(o-Cresol)	ND ug/kg		409	1	05/10/10 14:25	05/13/10 11:30	95-48-7	
3&4-Methylphenol	ND ug/kg		817	1	05/10/10 14:25	05/13/10 11:30		
Naphthalene	ND ug/kg		409	1	05/10/10 14:25	05/13/10 11:30	91-20-3	
2-Nitroaniline	ND ug/kg		2110	1	05/10/10 14:25	05/13/10 11:30	88-74-4	
3-Nitroaniline	ND ug/kg		2110	1	05/10/10 14:25	05/13/10 11:30	99-09-2	
4-Nitroaniline	ND ug/kg		2110	1	05/10/10 14:25	05/13/10 11:30	100-01-6	
Nitrobenzene	ND ug/kg		409	1	05/10/10 14:25	05/13/10 11:30	98-95-3	
2-Nitrophenol	ND ug/kg		409	1	05/10/10 14:25	05/13/10 11:30	88-75-5	
4-Nitrophenol	ND ug/kg		2110	1	05/10/10 14:25	05/13/10 11:30	100-02-7	
N-Nitrosodimethylamine	ND ug/kg		409	1	05/10/10 14:25	05/13/10 11:30	62-75-9	
N-Nitroso-di-n-propylamine	ND ug/kg		409	1	05/10/10 14:25	05/13/10 11:30	621-64-7	

Date: 05/28/2010 03:17 PM

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ANALYTICAL RESULTS

Project: 000211-10116-0 Lilydale Reg.

Pace Project No.: 10128303

Sample: S-8 **Lab ID: 10128303004** Collected: 05/04/10 11:08 Received: 05/07/10 16:25 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Analytical Method: EPA 8270 Preparation Method: EPA 3550								
N-Nitrosodiphenylamine	ND ug/kg		409	1	05/10/10 14:25	05/13/10 11:30	86-30-6	
Pentachlorophenol	ND ug/kg		2110	1	05/10/10 14:25	05/13/10 11:30	87-86-5	
Phenanthrene	ND ug/kg		409	1	05/10/10 14:25	05/13/10 11:30	85-01-8	
Phenol	ND ug/kg		409	1	05/10/10 14:25	05/13/10 11:30	108-95-2	
Pyrene	ND ug/kg		409	1	05/10/10 14:25	05/13/10 11:30	129-00-0	
Pyridine	ND ug/kg		2110	1	05/10/10 14:25	05/13/10 11:30	110-86-1	
1,2,4-Trichlorobenzene	ND ug/kg		409	1	05/10/10 14:25	05/13/10 11:30	120-82-1	
2,4,5-Trichlorophenol	ND ug/kg		2110	1	05/10/10 14:25	05/13/10 11:30	95-95-4	
2,4,6-Trichlorophenol	ND ug/kg		409	1	05/10/10 14:25	05/13/10 11:30	88-06-2	
Nitrobenzene-d5 (S)	76 %		46-139	1	05/10/10 14:25	05/13/10 11:30	4165-60-0	
2-Fluorobiphenyl (S)	78 %		59-130	1	05/10/10 14:25	05/13/10 11:30	321-60-8	
Terphenyl-d14 (S)	82 %		58-147	1	05/10/10 14:25	05/13/10 11:30	1718-51-0	
Phenol-d6 (S)	65 %		49-125	1	05/10/10 14:25	05/13/10 11:30	13127-88-3	
2-Fluorophenol (S)	69 %		43-126	1	05/10/10 14:25	05/13/10 11:30	367-12-4	
2,4,6-Tribromophenol (S)	78 %		30-150	1	05/10/10 14:25	05/13/10 11:30	118-79-6	

8260 MSV 5030 Med Level

Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B

Acetone	ND ug/kg		1610	1	05/11/10 11:55	05/12/10 04:57	67-64-1	
Allyl chloride	ND ug/kg		257	1	05/11/10 11:55	05/12/10 04:57	107-05-1	
Benzene	ND ug/kg		25.7	1	05/11/10 11:55	05/12/10 04:57	71-43-2	
Bromobenzene	ND ug/kg		64.3	1	05/11/10 11:55	05/12/10 04:57	108-86-1	
Bromochloromethane	ND ug/kg		64.3	1	05/11/10 11:55	05/12/10 04:57	74-97-5	
Bromodichloromethane	ND ug/kg		64.3	1	05/11/10 11:55	05/12/10 04:57	75-27-4	
Bromoform	ND ug/kg		514	1	05/11/10 11:55	05/12/10 04:57	75-25-2	
Bromomethane	ND ug/kg		643	1	05/11/10 11:55	05/12/10 04:57	74-83-9	
2-Butanone (MEK)	ND ug/kg		643	1	05/11/10 11:55	05/12/10 04:57	78-93-3	
n-Butylbenzene	ND ug/kg		64.3	1	05/11/10 11:55	05/12/10 04:57	104-51-8	
sec-Butylbenzene	ND ug/kg		64.3	1	05/11/10 11:55	05/12/10 04:57	135-98-8	
tert-Butylbenzene	ND ug/kg		64.3	1	05/11/10 11:55	05/12/10 04:57	98-06-6	
Carbon tetrachloride	ND ug/kg		257	1	05/11/10 11:55	05/12/10 04:57	56-23-5	
Chlorobenzene	ND ug/kg		64.3	1	05/11/10 11:55	05/12/10 04:57	108-90-7	
Chloroethane	ND ug/kg		643	1	05/11/10 11:55	05/12/10 04:57	75-00-3	
Chloroform	ND ug/kg		64.3	1	05/11/10 11:55	05/12/10 04:57	67-66-3	
Chloromethane	ND ug/kg		257	1	05/11/10 11:55	05/12/10 04:57	74-87-3	
2-Chlorotoluene	ND ug/kg		64.3	1	05/11/10 11:55	05/12/10 04:57	95-49-8	
4-Chlorotoluene	ND ug/kg		64.3	1	05/11/10 11:55	05/12/10 04:57	106-43-4	
1,2-Dibromo-3-chloropropane	ND ug/kg		257	1	05/11/10 11:55	05/12/10 04:57	96-12-8	
Dibromochloromethane	ND ug/kg		64.3	1	05/11/10 11:55	05/12/10 04:57	124-48-1	
1,2-Dibromoethane (EDB)	ND ug/kg		64.3	1	05/11/10 11:55	05/12/10 04:57	106-93-4	
Dibromomethane	ND ug/kg		64.3	1	05/11/10 11:55	05/12/10 04:57	74-95-3	
1,2-Dichlorobenzene	ND ug/kg		64.3	1	05/11/10 11:55	05/12/10 04:57	95-50-1	
1,3-Dichlorobenzene	ND ug/kg		64.3	1	05/11/10 11:55	05/12/10 04:57	541-73-1	
1,4-Dichlorobenzene	ND ug/kg		64.3	1	05/11/10 11:55	05/12/10 04:57	106-46-7	
Dichlorodifluoromethane	ND ug/kg		64.3	1	05/11/10 11:55	05/12/10 04:57	75-71-8	
1,1-Dichloroethane	ND ug/kg		64.3	1	05/11/10 11:55	05/12/10 04:57	75-34-3	
1,2-Dichloroethane	ND ug/kg		64.3	1	05/11/10 11:55	05/12/10 04:57	107-06-2	

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REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 000211-10116-0 Lilydale Reg.

Pace Project No.: 10128303

Sample: S-8 **Lab ID: 10128303004** Collected: 05/04/10 11:08 Received: 05/07/10 16:25 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5030 Med Level		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B						
1,1-Dichloroethene	ND ug/kg	64.3	1	05/11/10 11:55	05/12/10 04:57	75-35-4		
cis-1,2-Dichloroethene	ND ug/kg	64.3	1	05/11/10 11:55	05/12/10 04:57	156-59-2		
trans-1,2-Dichloroethene	ND ug/kg	64.3	1	05/11/10 11:55	05/12/10 04:57	156-60-5		
Dichlorofluoromethane	ND ug/kg	64.3	1	05/11/10 11:55	05/12/10 04:57	75-43-4		
1,2-Dichloropropane	ND ug/kg	64.3	1	05/11/10 11:55	05/12/10 04:57	78-87-5		
1,3-Dichloropropane	ND ug/kg	64.3	1	05/11/10 11:55	05/12/10 04:57	142-28-9		
2,2-Dichloropropane	ND ug/kg	257	1	05/11/10 11:55	05/12/10 04:57	594-20-7		
1,1-Dichloropropene	ND ug/kg	64.3	1	05/11/10 11:55	05/12/10 04:57	563-58-6		
cis-1,3-Dichloropropene	ND ug/kg	64.3	1	05/11/10 11:55	05/12/10 04:57	10061-01-5		
trans-1,3-Dichloropropene	ND ug/kg	64.3	1	05/11/10 11:55	05/12/10 04:57	10061-02-6		
Diethyl ether (Ethyl ether)	ND ug/kg	257	1	05/11/10 11:55	05/12/10 04:57	60-29-7		
Ethylbenzene	ND ug/kg	64.3	1	05/11/10 11:55	05/12/10 04:57	100-41-4		
Hexachloro-1,3-butadiene	ND ug/kg	257	1	05/11/10 11:55	05/12/10 04:57	87-68-3		
Isopropylbenzene (Cumene)	ND ug/kg	64.3	1	05/11/10 11:55	05/12/10 04:57	98-82-8		
p-Isopropyltoluene	ND ug/kg	64.3	1	05/11/10 11:55	05/12/10 04:57	99-87-6		
Methylene Chloride	ND ug/kg	257	1	05/11/10 11:55	05/12/10 04:57	75-09-2		
4-Methyl-2-pentanone (MIBK)	ND ug/kg	643	1	05/11/10 11:55	05/12/10 04:57	108-10-1		
Methyl-tert-butyl ether	ND ug/kg	64.3	1	05/11/10 11:55	05/12/10 04:57	1634-04-4		
Naphthalene	ND ug/kg	257	1	05/11/10 11:55	05/12/10 04:57	91-20-3		
n-Propylbenzene	ND ug/kg	64.3	1	05/11/10 11:55	05/12/10 04:57	103-65-1		
Styrene	ND ug/kg	64.3	1	05/11/10 11:55	05/12/10 04:57	100-42-5		
1,1,1,2-Tetrachloroethane	ND ug/kg	64.3	1	05/11/10 11:55	05/12/10 04:57	630-20-6		
1,1,2,2-Tetrachloroethane	ND ug/kg	64.3	1	05/11/10 11:55	05/12/10 04:57	79-34-5		
Tetrachloroethene	ND ug/kg	64.3	1	05/11/10 11:55	05/12/10 04:57	127-18-4		
Tetrahydrofuran	ND ug/kg	643	1	05/11/10 11:55	05/12/10 04:57	109-99-9		
Toluene	ND ug/kg	64.3	1	05/11/10 11:55	05/12/10 04:57	108-88-3		
1,2,3-Trichlorobenzene	ND ug/kg	64.3	1	05/11/10 11:55	05/12/10 04:57	87-61-6		
1,2,4-Trichlorobenzene	ND ug/kg	64.3	1	05/11/10 11:55	05/12/10 04:57	120-82-1		
1,1,1-Trichloroethane	ND ug/kg	64.3	1	05/11/10 11:55	05/12/10 04:57	71-55-6		
1,1,2-Trichloroethane	ND ug/kg	64.3	1	05/11/10 11:55	05/12/10 04:57	79-00-5		
Trichloroethene	ND ug/kg	64.3	1	05/11/10 11:55	05/12/10 04:57	79-01-6		
Trichlorofluoromethane	ND ug/kg	64.3	1	05/11/10 11:55	05/12/10 04:57	75-69-4		
1,2,3-Trichloropropane	ND ug/kg	64.3	1	05/11/10 11:55	05/12/10 04:57	96-18-4		
1,1,2-Trichlorotrifluoroethane	ND ug/kg	64.3	1	05/11/10 11:55	05/12/10 04:57	76-13-1		
1,2,4-Trimethylbenzene	ND ug/kg	64.3	1	05/11/10 11:55	05/12/10 04:57	95-63-6		
1,3,5-Trimethylbenzene	ND ug/kg	64.3	1	05/11/10 11:55	05/12/10 04:57	108-67-8		
Vinyl chloride	ND ug/kg	25.7	1	05/11/10 11:55	05/12/10 04:57	75-01-4		
Xylene (Total)	ND ug/kg	193	1	05/11/10 11:55	05/12/10 04:57	1330-20-7		
Dibromofluoromethane (S)	87 %	61-139	1	05/11/10 11:55	05/12/10 04:57	1868-53-7		
1,2-Dichloroethane-d4 (S)	97 %	68-136	1	05/11/10 11:55	05/12/10 04:57	17060-07-0		
Toluene-d8 (S)	95 %	68-133	1	05/11/10 11:55	05/12/10 04:57	2037-26-5		
4-Bromofluorobenzene (S)	96 %	68-126	1	05/11/10 11:55	05/12/10 04:57	460-00-4		

ANALYTICAL RESULTS

Project: 000211-10116-0 Lilydale Reg.

Pace Project No.: 10128303

Sample: S-10 **Lab ID: 10128303005** Collected: 05/04/10 12:06 Received: 05/07/10 16:25 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
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WIDRO GCS

Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO

Diesel Range Organics	125 mg/kg		67.0	5	05/10/10 09:58	05/13/10 13:17		
n-Triacontane (S)	100 %		50-150	5	05/10/10 09:58	05/13/10 13:17		

6010 MET ICP

Analytical Method: EPA 6010 Preparation Method: EPA 3050

Antimony	ND mg/kg		0.65	1	05/11/10 11:12	05/13/10 12:41	7440-36-0	
Arsenic	5.8 mg/kg		0.65	1	05/11/10 11:12	05/13/10 12:41	7440-38-2	
Beryllium	0.37 mg/kg		0.32	1	05/11/10 11:12	05/13/10 12:41	7440-41-7	
Cadmium	1.5 mg/kg		0.065	1	05/11/10 11:12	05/13/10 12:41	7440-43-9	
Chromium	18.1 mg/kg		0.65	1	05/11/10 11:12	05/13/10 12:41	7440-47-3	
Copper	30.6 mg/kg		0.65	1	05/11/10 11:12	05/13/10 12:41	7440-50-8	
Lead	930 mg/kg		0.39	1	05/11/10 11:12	05/13/10 12:41	7439-92-1	
Nickel	12.5 mg/kg		1.3	1	05/11/10 11:12	05/13/10 12:41	7440-02-0	
Selenium	2.4 mg/kg		0.97	1	05/11/10 11:12	05/13/10 12:41	7782-49-2	
Silver	ND mg/kg		0.65	1	05/11/10 11:12	05/13/10 12:41	7440-22-4	
Thallium	ND mg/kg		1.3	1	05/11/10 11:12	05/13/10 12:41	7440-28-0	
Zinc	622 mg/kg		1.3	1	05/11/10 11:12	05/13/10 12:41	7440-66-6	

7471 Mercury

Analytical Method: EPA 7471 Preparation Method: EPA 7471

Mercury	0.34 mg/kg		0.026	1	05/14/10 14:00	05/18/10 10:38	7439-97-6	
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Dry Weight

Analytical Method: % Moisture

Percent Moisture	26.5 %		0.10	1		05/10/10 00:00		
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8270 MSSV

Analytical Method: EPA 8270 Preparation Method: EPA 3550

Acenaphthene	ND ug/kg		4490	10	05/10/10 14:25	05/13/10 13:15	83-32-9	
Acenaphthylene	7180 ug/kg		4490	10	05/10/10 14:25	05/13/10 13:15	208-96-8	
Anthracene	22300 ug/kg		4490	10	05/10/10 14:25	05/13/10 13:15	120-12-7	
Benzidine	ND ug/kg		21800	10	05/10/10 14:25	05/13/10 13:15	92-87-5	L2,SS
Benzo(a)anthracene	58600 ug/kg		4490	10	05/10/10 14:25	05/13/10 13:15	56-55-3	
Benzo(a)pyrene	41900 ug/kg		4490	10	05/10/10 14:25	05/13/10 13:15	50-32-8	
Benzo(b)fluoranthene	63100 ug/kg		4490	10	05/10/10 14:25	05/13/10 13:15	205-99-2	
Benzo(g,h,i)perylene	24900 ug/kg		4490	10	05/10/10 14:25	05/13/10 13:15	191-24-2	
Benzo(k)fluoranthene	20400 ug/kg		4490	10	05/10/10 14:25	05/13/10 13:15	207-08-9	
Benzoic acid	ND ug/kg		23100	10	05/10/10 14:25	05/13/10 13:15	65-85-0	
Benzyl alcohol	ND ug/kg		8980	10	05/10/10 14:25	05/13/10 13:15	100-51-6	
4-Bromophenylphenyl ether	ND ug/kg		4490	10	05/10/10 14:25	05/13/10 13:15	101-55-3	
Butylbenzylphthalate	ND ug/kg		4490	10	05/10/10 14:25	05/13/10 13:15	85-68-7	
Carbazole	7280 ug/kg		4490	10	05/10/10 14:25	05/13/10 13:15	86-74-8	
4-Chloro-3-methylphenol	ND ug/kg		4490	10	05/10/10 14:25	05/13/10 13:15	59-50-7	
4-Chloroaniline	ND ug/kg		4490	10	05/10/10 14:25	05/13/10 13:15	106-47-8	
bis(2-Chloroethoxy)methane	ND ug/kg		4490	10	05/10/10 14:25	05/13/10 13:15	111-91-1	
bis(2-Chloroethyl) ether	ND ug/kg		4490	10	05/10/10 14:25	05/13/10 13:15	111-44-4	
bis(2-Chloroisopropyl) ether	ND ug/kg		4490	10	05/10/10 14:25	05/13/10 13:15	108-60-1	
2-Chloronaphthalene	ND ug/kg		4490	10	05/10/10 14:25	05/13/10 13:15	91-58-7	
2-Chlorophenol	ND ug/kg		4490	10	05/10/10 14:25	05/13/10 13:15	95-57-8	

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ANALYTICAL RESULTS

Project: 000211-10116-0 Lilydale Reg.

Pace Project No.: 10128303

Sample: S-10 **Lab ID: 10128303005** Collected: 05/04/10 12:06 Received: 05/07/10 16:25 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Analytical Method: EPA 8270 Preparation Method: EPA 3550								
4-Chlorophenylphenyl ether	ND	ug/kg	4490	10	05/10/10 14:25	05/13/10 13:15	7005-72-3	
Chrysene	55800	ug/kg	4490	10	05/10/10 14:25	05/13/10 13:15	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	4490	10	05/10/10 14:25	05/13/10 13:15	53-70-3	
Dibenzofuran	ND	ug/kg	4490	10	05/10/10 14:25	05/13/10 13:15	132-64-9	
1,2-Dichlorobenzene	ND	ug/kg	4490	10	05/10/10 14:25	05/13/10 13:15	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	4490	10	05/10/10 14:25	05/13/10 13:15	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	4490	10	05/10/10 14:25	05/13/10 13:15	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/kg	9120	10	05/10/10 14:25	05/13/10 13:15	91-94-1	
2,4-Dichlorophenol	ND	ug/kg	4490	10	05/10/10 14:25	05/13/10 13:15	120-83-2	
Diethylphthalate	ND	ug/kg	4490	10	05/10/10 14:25	05/13/10 13:15	84-66-2	
2,4-Dimethylphenol	ND	ug/kg	4490	10	05/10/10 14:25	05/13/10 13:15	105-67-9	
Dimethylphthalate	ND	ug/kg	4490	10	05/10/10 14:25	05/13/10 13:15	131-11-3	
Di-n-butylphthalate	ND	ug/kg	4490	10	05/10/10 14:25	05/13/10 13:15	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/kg	23100	10	05/10/10 14:25	05/13/10 13:15	534-52-1	
2,4-Dinitrophenol	ND	ug/kg	23100	10	05/10/10 14:25	05/13/10 13:15	51-28-5	
2,4-Dinitrotoluene	ND	ug/kg	4490	10	05/10/10 14:25	05/13/10 13:15	121-14-2	
2,6-Dinitrotoluene	ND	ug/kg	4490	10	05/10/10 14:25	05/13/10 13:15	606-20-2	
Di-n-octylphthalate	ND	ug/kg	4490	10	05/10/10 14:25	05/13/10 13:15	117-84-0	
1,2-Diphenylhydrazine	ND	ug/kg	23100	10	05/10/10 14:25	05/13/10 13:15	122-66-7	
bis(2-Ethylhexyl)phthalate	ND	ug/kg	4490	10	05/10/10 14:25	05/13/10 13:15	117-81-7	
Fluoranthene	120000	ug/kg	22400	50	05/10/10 14:25	05/13/10 18:57	206-44-0	
Fluorene	ND	ug/kg	4490	10	05/10/10 14:25	05/13/10 13:15	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/kg	4490	10	05/10/10 14:25	05/13/10 13:15	87-68-3	
Hexachlorobenzene	ND	ug/kg	4490	10	05/10/10 14:25	05/13/10 13:15	118-74-1	
Hexachlorocyclopentadiene	ND	ug/kg	23100	10	05/10/10 14:25	05/13/10 13:15	77-47-4	
Hexachloroethane	ND	ug/kg	4490	10	05/10/10 14:25	05/13/10 13:15	67-72-1	
Indeno(1,2,3-cd)pyrene	23700	ug/kg	4490	10	05/10/10 14:25	05/13/10 13:15	193-39-5	
Isophorone	ND	ug/kg	4490	10	05/10/10 14:25	05/13/10 13:15	78-59-1	
1-Methylnaphthalene	ND	ug/kg	4490	10	05/10/10 14:25	05/13/10 13:15	90-12-0	
2-Methylnaphthalene	ND	ug/kg	4490	10	05/10/10 14:25	05/13/10 13:15	91-57-6	
2-Methylphenol(o-Cresol)	ND	ug/kg	4490	10	05/10/10 14:25	05/13/10 13:15	95-48-7	
3&4-Methylphenol	ND	ug/kg	8980	10	05/10/10 14:25	05/13/10 13:15		
Naphthalene	ND	ug/kg	4490	10	05/10/10 14:25	05/13/10 13:15	91-20-3	
2-Nitroaniline	ND	ug/kg	23100	10	05/10/10 14:25	05/13/10 13:15	88-74-4	
3-Nitroaniline	ND	ug/kg	23100	10	05/10/10 14:25	05/13/10 13:15	99-09-2	
4-Nitroaniline	ND	ug/kg	23100	10	05/10/10 14:25	05/13/10 13:15	100-01-6	
Nitrobenzene	ND	ug/kg	4490	10	05/10/10 14:25	05/13/10 13:15	98-95-3	
2-Nitrophenol	ND	ug/kg	4490	10	05/10/10 14:25	05/13/10 13:15	88-75-5	
4-Nitrophenol	ND	ug/kg	23100	10	05/10/10 14:25	05/13/10 13:15	100-02-7	
N-Nitrosodimethylamine	ND	ug/kg	4490	10	05/10/10 14:25	05/13/10 13:15	62-75-9	
N-Nitroso-di-n-propylamine	ND	ug/kg	4490	10	05/10/10 14:25	05/13/10 13:15	621-64-7	
N-Nitrosodiphenylamine	ND	ug/kg	4490	10	05/10/10 14:25	05/13/10 13:15	86-30-6	
Pentachlorophenol	ND	ug/kg	23100	10	05/10/10 14:25	05/13/10 13:15	87-86-5	
Phenanthrene	103000	ug/kg	22400	50	05/10/10 14:25	05/13/10 18:57	85-01-8	
Phenol	ND	ug/kg	4490	10	05/10/10 14:25	05/13/10 13:15	108-95-2	
Pyrene	98700	ug/kg	22400	50	05/10/10 14:25	05/13/10 18:57	129-00-0	

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ANALYTICAL RESULTS

Project: 000211-10116-0 Lilydale Reg.

Pace Project No.: 10128303

Sample: S-10 **Lab ID: 10128303005** Collected: 05/04/10 12:06 Received: 05/07/10 16:25 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Analytical Method: EPA 8270 Preparation Method: EPA 3550								
Pyridine	ND	ug/kg	23100	10	05/10/10 14:25	05/13/10 13:15	110-86-1	
1,2,4-Trichlorobenzene	ND	ug/kg	4490	10	05/10/10 14:25	05/13/10 13:15	120-82-1	
2,4,5-Trichlorophenol	ND	ug/kg	23100	10	05/10/10 14:25	05/13/10 13:15	95-95-4	
2,4,6-Trichlorophenol	ND	ug/kg	4490	10	05/10/10 14:25	05/13/10 13:15	88-06-2	
Nitrobenzene-d5 (S)	78	%	46-139	10	05/10/10 14:25	05/13/10 13:15	4165-60-0	D3
2-Fluorobiphenyl (S)	90	%	59-130	10	05/10/10 14:25	05/13/10 13:15	321-60-8	
Terphenyl-d14 (S)	89	%	58-147	10	05/10/10 14:25	05/13/10 13:15	1718-51-0	
Phenol-d6 (S)	75	%	49-125	10	05/10/10 14:25	05/13/10 13:15	13127-88-3	
2-Fluorophenol (S)	73	%	43-126	10	05/10/10 14:25	05/13/10 13:15	367-12-4	
2,4,6-Tribromophenol (S)	79	%	30-150	10	05/10/10 14:25	05/13/10 13:15	118-79-6	

8260 MSV 5030 Med Level

Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B

Acetone	ND	ug/kg	1760	1	05/11/10 11:55	05/12/10 05:18	67-64-1	
Allyl chloride	ND	ug/kg	282	1	05/11/10 11:55	05/12/10 05:18	107-05-1	
Benzene	ND	ug/kg	28.2	1	05/11/10 11:55	05/12/10 05:18	71-43-2	
Bromobenzene	ND	ug/kg	70.5	1	05/11/10 11:55	05/12/10 05:18	108-86-1	
Bromochloromethane	ND	ug/kg	70.5	1	05/11/10 11:55	05/12/10 05:18	74-97-5	
Bromodichloromethane	ND	ug/kg	70.5	1	05/11/10 11:55	05/12/10 05:18	75-27-4	
Bromoform	ND	ug/kg	564	1	05/11/10 11:55	05/12/10 05:18	75-25-2	
Bromomethane	ND	ug/kg	705	1	05/11/10 11:55	05/12/10 05:18	74-83-9	
2-Butanone (MEK)	ND	ug/kg	705	1	05/11/10 11:55	05/12/10 05:18	78-93-3	
n-Butylbenzene	ND	ug/kg	70.5	1	05/11/10 11:55	05/12/10 05:18	104-51-8	
sec-Butylbenzene	ND	ug/kg	70.5	1	05/11/10 11:55	05/12/10 05:18	135-98-8	
tert-Butylbenzene	ND	ug/kg	70.5	1	05/11/10 11:55	05/12/10 05:18	98-06-6	
Carbon tetrachloride	ND	ug/kg	282	1	05/11/10 11:55	05/12/10 05:18	56-23-5	
Chlorobenzene	ND	ug/kg	70.5	1	05/11/10 11:55	05/12/10 05:18	108-90-7	
Chloroethane	ND	ug/kg	705	1	05/11/10 11:55	05/12/10 05:18	75-00-3	
Chloroform	ND	ug/kg	70.5	1	05/11/10 11:55	05/12/10 05:18	67-66-3	
Chloromethane	ND	ug/kg	282	1	05/11/10 11:55	05/12/10 05:18	74-87-3	
2-Chlorotoluene	ND	ug/kg	70.5	1	05/11/10 11:55	05/12/10 05:18	95-49-8	
4-Chlorotoluene	ND	ug/kg	70.5	1	05/11/10 11:55	05/12/10 05:18	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	282	1	05/11/10 11:55	05/12/10 05:18	96-12-8	
Dibromochloromethane	ND	ug/kg	70.5	1	05/11/10 11:55	05/12/10 05:18	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	70.5	1	05/11/10 11:55	05/12/10 05:18	106-93-4	
Dibromomethane	ND	ug/kg	70.5	1	05/11/10 11:55	05/12/10 05:18	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	70.5	1	05/11/10 11:55	05/12/10 05:18	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	70.5	1	05/11/10 11:55	05/12/10 05:18	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	70.5	1	05/11/10 11:55	05/12/10 05:18	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	70.5	1	05/11/10 11:55	05/12/10 05:18	75-71-8	
1,1-Dichloroethane	ND	ug/kg	70.5	1	05/11/10 11:55	05/12/10 05:18	75-34-3	
1,2-Dichloroethane	ND	ug/kg	70.5	1	05/11/10 11:55	05/12/10 05:18	107-06-2	
1,1-Dichloroethene	ND	ug/kg	70.5	1	05/11/10 11:55	05/12/10 05:18	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	70.5	1	05/11/10 11:55	05/12/10 05:18	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	70.5	1	05/11/10 11:55	05/12/10 05:18	156-60-5	
Dichlorofluoromethane	ND	ug/kg	70.5	1	05/11/10 11:55	05/12/10 05:18	75-43-4	
1,2-Dichloropropane	ND	ug/kg	70.5	1	05/11/10 11:55	05/12/10 05:18	78-87-5	

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ANALYTICAL RESULTS

Project: 000211-10116-0 Lilydale Reg.

Pace Project No.: 10128303

Sample: S-10 **Lab ID: 10128303005** Collected: 05/04/10 12:06 Received: 05/07/10 16:25 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5030 Med Level		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B						
1,3-Dichloropropane	ND ug/kg		70.5	1	05/11/10 11:55	05/12/10 05:18	142-28-9	
2,2-Dichloropropane	ND ug/kg		282	1	05/11/10 11:55	05/12/10 05:18	594-20-7	
1,1-Dichloropropene	ND ug/kg		70.5	1	05/11/10 11:55	05/12/10 05:18	563-58-6	
cis-1,3-Dichloropropene	ND ug/kg		70.5	1	05/11/10 11:55	05/12/10 05:18	10061-01-5	
trans-1,3-Dichloropropene	ND ug/kg		70.5	1	05/11/10 11:55	05/12/10 05:18	10061-02-6	
Diethyl ether (Ethyl ether)	ND ug/kg		282	1	05/11/10 11:55	05/12/10 05:18	60-29-7	
Ethylbenzene	ND ug/kg		70.5	1	05/11/10 11:55	05/12/10 05:18	100-41-4	
Hexachloro-1,3-butadiene	ND ug/kg		282	1	05/11/10 11:55	05/12/10 05:18	87-68-3	
Isopropylbenzene (Cumene)	ND ug/kg		70.5	1	05/11/10 11:55	05/12/10 05:18	98-82-8	
p-Isopropyltoluene	ND ug/kg		70.5	1	05/11/10 11:55	05/12/10 05:18	99-87-6	
Methylene Chloride	ND ug/kg		282	1	05/11/10 11:55	05/12/10 05:18	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND ug/kg		705	1	05/11/10 11:55	05/12/10 05:18	108-10-1	
Methyl-tert-butyl ether	ND ug/kg		70.5	1	05/11/10 11:55	05/12/10 05:18	1634-04-4	
Naphthalene	ND ug/kg		282	1	05/11/10 11:55	05/12/10 05:18	91-20-3	
n-Propylbenzene	ND ug/kg		70.5	1	05/11/10 11:55	05/12/10 05:18	103-65-1	
Styrene	ND ug/kg		70.5	1	05/11/10 11:55	05/12/10 05:18	100-42-5	
1,1,1,2-Tetrachloroethane	ND ug/kg		70.5	1	05/11/10 11:55	05/12/10 05:18	630-20-6	
1,1,2,2-Tetrachloroethane	ND ug/kg		70.5	1	05/11/10 11:55	05/12/10 05:18	79-34-5	
Tetrachloroethene	ND ug/kg		70.5	1	05/11/10 11:55	05/12/10 05:18	127-18-4	
Tetrahydrofuran	ND ug/kg		705	1	05/11/10 11:55	05/12/10 05:18	109-99-9	
Toluene	ND ug/kg		70.5	1	05/11/10 11:55	05/12/10 05:18	108-88-3	
1,2,3-Trichlorobenzene	ND ug/kg		70.5	1	05/11/10 11:55	05/12/10 05:18	87-61-6	
1,2,4-Trichlorobenzene	ND ug/kg		70.5	1	05/11/10 11:55	05/12/10 05:18	120-82-1	
1,1,1-Trichloroethane	ND ug/kg		70.5	1	05/11/10 11:55	05/12/10 05:18	71-55-6	
1,1,2-Trichloroethane	ND ug/kg		70.5	1	05/11/10 11:55	05/12/10 05:18	79-00-5	
Trichloroethene	ND ug/kg		70.5	1	05/11/10 11:55	05/12/10 05:18	79-01-6	
Trichlorofluoromethane	ND ug/kg		70.5	1	05/11/10 11:55	05/12/10 05:18	75-69-4	
1,2,3-Trichloropropane	ND ug/kg		70.5	1	05/11/10 11:55	05/12/10 05:18	96-18-4	
1,1,2-Trichlorotrifluoroethane	ND ug/kg		70.5	1	05/11/10 11:55	05/12/10 05:18	76-13-1	
1,2,4-Trimethylbenzene	ND ug/kg		70.5	1	05/11/10 11:55	05/12/10 05:18	95-63-6	
1,3,5-Trimethylbenzene	ND ug/kg		70.5	1	05/11/10 11:55	05/12/10 05:18	108-67-8	
Vinyl chloride	ND ug/kg		28.2	1	05/11/10 11:55	05/12/10 05:18	75-01-4	
Xylene (Total)	ND ug/kg		211	1	05/11/10 11:55	05/12/10 05:18	1330-20-7	
Dibromofluoromethane (S)	66 %		61-139	1	05/11/10 11:55	05/12/10 05:18	1868-53-7	
1,2-Dichloroethane-d4 (S)	76 %		68-136	1	05/11/10 11:55	05/12/10 05:18	17060-07-0	
Toluene-d8 (S)	72 %		68-133	1	05/11/10 11:55	05/12/10 05:18	2037-26-5	
4-Bromofluorobenzene (S)	78 %		68-126	1	05/11/10 11:55	05/12/10 05:18	460-00-4	

Sample: S-11 **Lab ID: 10128303006** Collected: 05/04/10 12:39 Received: 05/07/10 16:25 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8081 GCS Pesticides		Analytical Method: EPA 8081						
Aldrin	ND ug/kg		2.1	1	05/14/10 08:51	05/18/10 03:15	309-00-2	

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ANALYTICAL RESULTS

Project: 000211-10116-0 Lilydale Reg.

Pace Project No.: 10128303

Sample: S-11 **Lab ID: 10128303006** Collected: 05/04/10 12:39 Received: 05/07/10 16:25 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8081 GCS Pesticides		Analytical Method: EPA 8081						
alpha-BHC	ND	ug/kg	2.1	1	05/14/10 08:51	05/18/10 03:15	319-84-6	
beta-BHC	ND	ug/kg	2.1	1	05/14/10 08:51	05/18/10 03:15	319-85-7	
delta-BHC	ND	ug/kg	2.1	1	05/14/10 08:51	05/18/10 03:15	319-86-8	L2
gamma-BHC (Lindane)	ND	ug/kg	2.1	1	05/14/10 08:51	05/18/10 03:15	58-89-9	
Chlordane (Technical)	ND	ug/kg	42.5	1	05/14/10 08:51	05/18/10 03:15	57-74-9	
alpha-Chlordane	ND	ug/kg	2.1	1	05/14/10 08:51	05/18/10 03:15	5103-71-9	
gamma-Chlordane	4.6	ug/kg	2.1	1	05/14/10 08:51	05/18/10 03:15	5103-74-2	
4,4'-DDD	ND	ug/kg	4.2	1	05/14/10 08:51	05/18/10 03:15	72-54-8	
4,4'-DDE	123	ug/kg	21.2	5	05/14/10 08:51	05/18/10 03:51	72-55-9	
4,4'-DDT	44.0	ug/kg	4.2	1	05/14/10 08:51	05/18/10 03:15	50-29-3	
Dieldrin	ND	ug/kg	4.2	1	05/14/10 08:51	05/18/10 03:15	60-57-1	
Endosulfan I	ND	ug/kg	2.1	1	05/14/10 08:51	05/18/10 03:15	959-98-8	
Endosulfan II	ND	ug/kg	4.2	1	05/14/10 08:51	05/18/10 03:15	33213-65-9	
Endosulfan sulfate	13.6	ug/kg	4.2	1	05/14/10 08:51	05/18/10 03:15	1031-07-8	C2
Endrin	ND	ug/kg	4.2	1	05/14/10 08:51	05/18/10 03:15	72-20-8	
Endrin aldehyde	ND	ug/kg	4.2	1	05/14/10 08:51	05/18/10 03:15	7421-93-4	
Endrin ketone	22.7	ug/kg	4.2	1	05/14/10 08:51	05/18/10 03:15	53494-70-5	C2
Heptachlor	ND	ug/kg	2.1	1	05/14/10 08:51	05/18/10 03:15	76-44-8	
Heptachlor epoxide	3.2	ug/kg	2.1	1	05/14/10 08:51	05/18/10 03:15	1024-57-3	
Methoxychlor	ND	ug/kg	21.2	1	05/14/10 08:51	05/18/10 03:15	72-43-5	
Toxaphene	936	ug/kg	127	1	05/14/10 08:51	05/18/10 03:15	8001-35-2	C2
Tetrachloro-m-xylene (S)	54	%-	34-130	1	05/14/10 08:51	05/18/10 03:15	877-09-8	
Decachlorobiphenyl (S)	148	%-	30-130	1	05/14/10 08:51	05/18/10 03:15	2051-24-3	S0

8082 GCS PCB

Analytical Method: EPA 8082 Preparation Method: EPA 3550

PCB-1016 (Aroclor 1016)	ND	ug/kg	42.1	1	05/10/10 12:01	05/12/10 13:54	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/kg	42.1	1	05/10/10 12:01	05/12/10 13:54	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/kg	42.1	1	05/10/10 12:01	05/12/10 13:54	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/kg	42.1	1	05/10/10 12:01	05/12/10 13:54	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/kg	42.1	1	05/10/10 12:01	05/12/10 13:54	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	ug/kg	42.1	1	05/10/10 12:01	05/12/10 13:54	11097-69-1	
PCB-1260 (Aroclor 1260)	147	ug/kg	42.1	1	05/10/10 12:01	05/12/10 13:54	11096-82-5	
PCB-1262 (Aroclor 1262)	ND	ug/kg	42.1	1	05/10/10 12:01	05/12/10 13:54	37324-23-5	
PCB-1268 (Aroclor 1268)	ND	ug/kg	42.1	1	05/10/10 12:01	05/12/10 13:54	11100-14-4	
Tetrachloro-m-xylene (S)	89	%	55-125	1	05/10/10 12:01	05/12/10 13:54	877-09-8	
Decachlorobiphenyl (S)	120	%	55-125	1	05/10/10 12:01	05/12/10 13:54	2051-24-3	

WIDRO GCS

Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO

Diesel Range Organics	76.0	mg/kg	65.0	5	05/10/10 09:58	05/13/10 13:24	
n-Triacontane (S)	81	%	50-150	5	05/10/10 09:58	05/13/10 13:24	

6010 MET ICP

Analytical Method: EPA 6010 Preparation Method: EPA 3050

Antimony	ND	mg/kg	0.50	1	05/11/10 11:12	05/13/10 12:46	7440-36-0
Arsenic	4.9	mg/kg	0.50	1	05/11/10 11:12	05/13/10 12:46	7440-38-2
Beryllium	0.40	mg/kg	0.25	1	05/11/10 11:12	05/13/10 12:46	7440-41-7

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ANALYTICAL RESULTS

Project: 000211-10116-0 Lilydale Reg.

Pace Project No.: 10128303

Sample: S-11 **Lab ID: 10128303006** Collected: 05/04/10 12:39 Received: 05/07/10 16:25 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Cadmium	1.8	mg/kg	0.050	1	05/11/10 11:12	05/13/10 12:46	7440-43-9	
Chromium	18.5	mg/kg	0.50	1	05/11/10 11:12	05/13/10 12:46	7440-47-3	
Copper	23.6	mg/kg	0.50	1	05/11/10 11:12	05/13/10 12:46	7440-50-8	
Lead	1290	mg/kg	0.30	1	05/11/10 11:12	05/13/10 12:46	7439-92-1	
Nickel	11.6	mg/kg	1.0	1	05/11/10 11:12	05/13/10 12:46	7440-02-0	
Selenium	1.4	mg/kg	0.75	1	05/11/10 11:12	05/13/10 12:46	7782-49-2	
Silver	ND	mg/kg	0.50	1	05/11/10 11:12	05/13/10 12:46	7440-22-4	
Thallium	ND	mg/kg	1.0	1	05/11/10 11:12	05/13/10 12:46	7440-28-0	
Zinc	1340	mg/kg	1.0	1	05/11/10 11:12	05/13/10 12:46	7440-66-6	
7471 Mercury Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	1.1	mg/kg	0.022	1	05/14/10 14:00	05/18/10 10:39	7439-97-6	
Dry Weight Analytical Method: % Moisture								
Percent Moisture	21.6	%	0.10	1		05/10/10 00:00		
8270 MSSV Analytical Method: EPA 8270 Preparation Method: EPA 3550								
Acenaphthene	ND	ug/kg	2100	1	05/10/10 14:25	05/13/10 18:04	83-32-9	
Acenaphthylene	ND	ug/kg	2100	1	05/10/10 14:25	05/13/10 18:04	208-96-8	
Anthracene	ND	ug/kg	2100	1	05/10/10 14:25	05/13/10 18:04	120-12-7	
Benidine	ND	ug/kg	10200	1	05/10/10 14:25	05/13/10 18:04	92-87-5	L2,SS
Benzo(a)anthracene	2330	ug/kg	2100	1	05/10/10 14:25	05/13/10 18:04	56-55-3	
Benzo(a)pyrene	2160	ug/kg	2100	1	05/10/10 14:25	05/13/10 18:04	50-32-8	
Benzo(b)fluoranthene	2850	ug/kg	2100	1	05/10/10 14:25	05/13/10 18:04	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	2100	1	05/10/10 14:25	05/13/10 18:04	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	2100	1	05/10/10 14:25	05/13/10 18:04	207-08-9	
Benzoic acid	ND	ug/kg	10800	1	05/10/10 14:25	05/13/10 18:04	65-85-0	
Benzyl alcohol	ND	ug/kg	4210	1	05/10/10 14:25	05/13/10 18:04	100-51-6	
4-Bromophenylphenyl ether	ND	ug/kg	2100	1	05/10/10 14:25	05/13/10 18:04	101-55-3	
Butylbenzylphthalate	ND	ug/kg	2100	1	05/10/10 14:25	05/13/10 18:04	85-68-7	
Carbazole	ND	ug/kg	2100	1	05/10/10 14:25	05/13/10 18:04	86-74-8	
4-Chloro-3-methylphenol	ND	ug/kg	2100	1	05/10/10 14:25	05/13/10 18:04	59-50-7	
4-Chloroaniline	ND	ug/kg	2100	1	05/10/10 14:25	05/13/10 18:04	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/kg	2100	1	05/10/10 14:25	05/13/10 18:04	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/kg	2100	1	05/10/10 14:25	05/13/10 18:04	111-44-4	
bis(2-Chloroisopropyl) ether	ND	ug/kg	2100	1	05/10/10 14:25	05/13/10 18:04	108-60-1	
2-Chloronaphthalene	ND	ug/kg	2100	1	05/10/10 14:25	05/13/10 18:04	91-58-7	
2-Chlorophenol	ND	ug/kg	2100	1	05/10/10 14:25	05/13/10 18:04	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/kg	2100	1	05/10/10 14:25	05/13/10 18:04	7005-72-3	
Chrysene	2450	ug/kg	2100	1	05/10/10 14:25	05/13/10 18:04	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	2100	1	05/10/10 14:25	05/13/10 18:04	53-70-3	
Dibenzofuran	ND	ug/kg	2100	1	05/10/10 14:25	05/13/10 18:04	132-64-9	
1,2-Dichlorobenzene	ND	ug/kg	2100	1	05/10/10 14:25	05/13/10 18:04	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	2100	1	05/10/10 14:25	05/13/10 18:04	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	2100	1	05/10/10 14:25	05/13/10 18:04	106-46-7	

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ANALYTICAL RESULTS

Project: 000211-10116-0 Lilydale Reg.

Pace Project No.: 10128303

Sample: S-11 **Lab ID: 10128303006** Collected: 05/04/10 12:39 Received: 05/07/10 16:25 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Analytical Method: EPA 8270 Preparation Method: EPA 3550								
3,3'-Dichlorobenzidine	ND	ug/kg	4270	1	05/10/10 14:25	05/13/10 18:04	91-94-1	
2,4-Dichlorophenol	ND	ug/kg	2100	1	05/10/10 14:25	05/13/10 18:04	120-83-2	
Diethylphthalate	ND	ug/kg	2100	1	05/10/10 14:25	05/13/10 18:04	84-66-2	
2,4-Dimethylphenol	ND	ug/kg	2100	1	05/10/10 14:25	05/13/10 18:04	105-67-9	
Dimethylphthalate	ND	ug/kg	2100	1	05/10/10 14:25	05/13/10 18:04	131-11-3	
Di-n-butylphthalate	ND	ug/kg	2100	1	05/10/10 14:25	05/13/10 18:04	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/kg	10800	1	05/10/10 14:25	05/13/10 18:04	534-52-1	
2,4-Dinitrophenol	ND	ug/kg	10800	1	05/10/10 14:25	05/13/10 18:04	51-28-5	
2,4-Dinitrotoluene	ND	ug/kg	2100	1	05/10/10 14:25	05/13/10 18:04	121-14-2	
2,6-Dinitrotoluene	ND	ug/kg	2100	1	05/10/10 14:25	05/13/10 18:04	606-20-2	
Di-n-octylphthalate	ND	ug/kg	2100	1	05/10/10 14:25	05/13/10 18:04	117-84-0	
1,2-Diphenylhydrazine	ND	ug/kg	10800	1	05/10/10 14:25	05/13/10 18:04	122-66-7	
bis(2-Ethylhexyl)phthalate	ND	ug/kg	2100	1	05/10/10 14:25	05/13/10 18:04	117-81-7	
Fluoranthene	ND	ug/kg	2100	1	05/10/10 14:25	05/13/10 18:04	206-44-0	
Fluorene	ND	ug/kg	2100	1	05/10/10 14:25	05/13/10 18:04	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/kg	2100	1	05/10/10 14:25	05/13/10 18:04	87-68-3	
Hexachlorobenzene	ND	ug/kg	2100	1	05/10/10 14:25	05/13/10 18:04	118-74-1	
Hexachlorocyclopentadiene	ND	ug/kg	10800	1	05/10/10 14:25	05/13/10 18:04	77-47-4	
Hexachloroethane	ND	ug/kg	2100	1	05/10/10 14:25	05/13/10 18:04	67-72-1	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	2100	1	05/10/10 14:25	05/13/10 18:04	193-39-5	
Isophorone	ND	ug/kg	2100	1	05/10/10 14:25	05/13/10 18:04	78-59-1	
1-Methylnaphthalene	ND	ug/kg	2100	1	05/10/10 14:25	05/13/10 18:04	90-12-0	
2-Methylnaphthalene	ND	ug/kg	2100	1	05/10/10 14:25	05/13/10 18:04	91-57-6	
2-Methylphenol(o-Cresol)	ND	ug/kg	2100	1	05/10/10 14:25	05/13/10 18:04	95-48-7	
3&4-Methylphenol	ND	ug/kg	4210	1	05/10/10 14:25	05/13/10 18:04		
Naphthalene	ND	ug/kg	2100	1	05/10/10 14:25	05/13/10 18:04	91-20-3	
2-Nitroaniline	ND	ug/kg	10800	1	05/10/10 14:25	05/13/10 18:04	88-74-4	
3-Nitroaniline	ND	ug/kg	10800	1	05/10/10 14:25	05/13/10 18:04	99-09-2	
4-Nitroaniline	ND	ug/kg	10800	1	05/10/10 14:25	05/13/10 18:04	100-01-6	
Nitrobenzene	ND	ug/kg	2100	1	05/10/10 14:25	05/13/10 18:04	98-95-3	
2-Nitrophenol	ND	ug/kg	2100	1	05/10/10 14:25	05/13/10 18:04	88-75-5	
4-Nitrophenol	ND	ug/kg	10800	1	05/10/10 14:25	05/13/10 18:04	100-02-7	
N-Nitrosodimethylamine	ND	ug/kg	2100	1	05/10/10 14:25	05/13/10 18:04	62-75-9	
N-Nitroso-di-n-propylamine	ND	ug/kg	2100	1	05/10/10 14:25	05/13/10 18:04	621-64-7	
N-Nitrosodiphenylamine	ND	ug/kg	2100	1	05/10/10 14:25	05/13/10 18:04	86-30-6	
Pentachlorophenol	ND	ug/kg	10800	1	05/10/10 14:25	05/13/10 18:04	87-86-5	
Phenanthrene	ND	ug/kg	2100	1	05/10/10 14:25	05/13/10 18:04	85-01-8	
Phenol	ND	ug/kg	2100	1	05/10/10 14:25	05/13/10 18:04	108-95-2	
Pyrene	ND	ug/kg	2100	1	05/10/10 14:25	05/13/10 18:04	129-00-0	
Pyridine	ND	ug/kg	10800	1	05/10/10 14:25	05/13/10 18:04	110-86-1	
1,2,4-Trichlorobenzene	ND	ug/kg	2100	1	05/10/10 14:25	05/13/10 18:04	120-82-1	
2,4,5-Trichlorophenol	ND	ug/kg	10800	1	05/10/10 14:25	05/13/10 18:04	95-95-4	
2,4,6-Trichlorophenol	ND	ug/kg	2100	1	05/10/10 14:25	05/13/10 18:04	88-06-2	
Nitrobenzene-d5 (S)	65 %		46-139	1	05/10/10 14:25	05/13/10 18:04	4165-60-0	P3
2-Fluorobiphenyl (S)	75 %		59-130	1	05/10/10 14:25	05/13/10 18:04	321-60-8	
Terphenyl-d14 (S)	71 %		58-147	1	05/10/10 14:25	05/13/10 18:04	1718-51-0	

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ANALYTICAL RESULTS

Project: 000211-10116-0 Lilydale Reg.

Pace Project No.: 10128303

Sample: S-11 **Lab ID: 10128303006** Collected: 05/04/10 12:39 Received: 05/07/10 16:25 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Analytical Method: EPA 8270 Preparation Method: EPA 3550								
Phenol-d6 (S)	61 %		49-125	1	05/10/10 14:25	05/13/10 18:04	13127-88-3	
2-Fluorophenol (S)	60 %		43-126	1	05/10/10 14:25	05/13/10 18:04	367-12-4	
2,4,6-Tribromophenol (S)	68 %		30-150	1	05/10/10 14:25	05/13/10 18:04	118-79-6	
8260 MSV 5030 Med Level Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
Acetone	ND ug/kg		1550	1	05/11/10 11:55	05/12/10 05:38	67-64-1	
Allyl chloride	ND ug/kg		248	1	05/11/10 11:55	05/12/10 05:38	107-05-1	
Benzene	ND ug/kg		24.8	1	05/11/10 11:55	05/12/10 05:38	71-43-2	
Bromobenzene	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 05:38	108-86-1	
Bromochloromethane	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 05:38	74-97-5	
Bromodichloromethane	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 05:38	75-27-4	
Bromoform	ND ug/kg		497	1	05/11/10 11:55	05/12/10 05:38	75-25-2	
Bromomethane	ND ug/kg		621	1	05/11/10 11:55	05/12/10 05:38	74-83-9	
2-Butanone (MEK)	ND ug/kg		621	1	05/11/10 11:55	05/12/10 05:38	78-93-3	
n-Butylbenzene	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 05:38	104-51-8	
sec-Butylbenzene	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 05:38	135-98-8	
tert-Butylbenzene	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 05:38	98-06-6	
Carbon tetrachloride	ND ug/kg		248	1	05/11/10 11:55	05/12/10 05:38	56-23-5	
Chlorobenzene	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 05:38	108-90-7	
Chloroethane	ND ug/kg		621	1	05/11/10 11:55	05/12/10 05:38	75-00-3	
Chloroform	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 05:38	67-66-3	
Chloromethane	ND ug/kg		248	1	05/11/10 11:55	05/12/10 05:38	74-87-3	
2-Chlorotoluene	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 05:38	95-49-8	
4-Chlorotoluene	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 05:38	106-43-4	
1,2-Dibromo-3-chloropropane	ND ug/kg		248	1	05/11/10 11:55	05/12/10 05:38	96-12-8	
Dibromochloromethane	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 05:38	124-48-1	
1,2-Dibromoethane (EDB)	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 05:38	106-93-4	
Dibromomethane	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 05:38	74-95-3	
1,2-Dichlorobenzene	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 05:38	95-50-1	
1,3-Dichlorobenzene	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 05:38	541-73-1	
1,4-Dichlorobenzene	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 05:38	106-46-7	
Dichlorodifluoromethane	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 05:38	75-71-8	
1,1-Dichloroethane	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 05:38	75-34-3	
1,2-Dichloroethane	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 05:38	107-06-2	
1,1-Dichloroethene	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 05:38	75-35-4	
cis-1,2-Dichloroethene	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 05:38	156-59-2	
trans-1,2-Dichloroethene	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 05:38	156-60-5	
Dichlorofluoromethane	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 05:38	75-43-4	
1,2-Dichloropropane	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 05:38	78-87-5	
1,3-Dichloropropane	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 05:38	142-28-9	
2,2-Dichloropropane	ND ug/kg		248	1	05/11/10 11:55	05/12/10 05:38	594-20-7	
1,1-Dichloropropene	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 05:38	563-58-6	
cis-1,3-Dichloropropene	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 05:38	10061-01-5	
trans-1,3-Dichloropropene	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 05:38	10061-02-6	
Diethyl ether (Ethyl ether)	ND ug/kg		248	1	05/11/10 11:55	05/12/10 05:38	60-29-7	
Ethylbenzene	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 05:38	100-41-4	

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ANALYTICAL RESULTS

Project: 000211-10116-0 Lilydale Reg.

Pace Project No.: 10128303

Sample: S-11 **Lab ID: 10128303006** Collected: 05/04/10 12:39 Received: 05/07/10 16:25 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5030 Med Level		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B						
Hexachloro-1,3-butadiene	ND ug/kg		248	1	05/11/10 11:55	05/12/10 05:38	87-68-3	
Isopropylbenzene (Cumene)	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 05:38	98-82-8	
p-Isopropyltoluene	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 05:38	99-87-6	
Methylene Chloride	ND ug/kg		248	1	05/11/10 11:55	05/12/10 05:38	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND ug/kg		621	1	05/11/10 11:55	05/12/10 05:38	108-10-1	
Methyl-tert-butyl ether	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 05:38	1634-04-4	
Naphthalene	ND ug/kg		248	1	05/11/10 11:55	05/12/10 05:38	91-20-3	
n-Propylbenzene	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 05:38	103-65-1	
Styrene	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 05:38	100-42-5	
1,1,1,2-Tetrachloroethane	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 05:38	630-20-6	
1,1,2,2-Tetrachloroethane	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 05:38	79-34-5	
Tetrachloroethene	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 05:38	127-18-4	
Tetrahydrofuran	ND ug/kg		621	1	05/11/10 11:55	05/12/10 05:38	109-99-9	
Toluene	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 05:38	108-88-3	
1,2,3-Trichlorobenzene	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 05:38	87-61-6	
1,2,4-Trichlorobenzene	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 05:38	120-82-1	
1,1,1-Trichloroethane	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 05:38	71-55-6	
1,1,2-Trichloroethane	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 05:38	79-00-5	
Trichloroethene	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 05:38	79-01-6	
Trichlorofluoromethane	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 05:38	75-69-4	
1,2,3-Trichloropropane	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 05:38	96-18-4	
1,1,2-Trichlorotrifluoroethane	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 05:38	76-13-1	
1,2,4-Trimethylbenzene	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 05:38	95-63-6	
1,3,5-Trimethylbenzene	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 05:38	108-67-8	
Vinyl chloride	ND ug/kg		24.8	1	05/11/10 11:55	05/12/10 05:38	75-01-4	
Xylene (Total)	ND ug/kg		186	1	05/11/10 11:55	05/12/10 05:38	1330-20-7	
Dibromofluoromethane (S)	85 %		61-139	1	05/11/10 11:55	05/12/10 05:38	1868-53-7	
1,2-Dichloroethane-d4 (S)	95 %		68-136	1	05/11/10 11:55	05/12/10 05:38	17060-07-0	
Toluene-d8 (S)	86 %		68-133	1	05/11/10 11:55	05/12/10 05:38	2037-26-5	
4-Bromofluorobenzene (S)	88 %		68-126	1	05/11/10 11:55	05/12/10 05:38	460-00-4	

Sample: S-14 **Lab ID: 10128303007** Collected: 05/04/10 14:04 Received: 05/07/10 16:25 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
WIDRO GCS		Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO						
Diesel Range Organics	ND mg/kg		13.2	1	05/10/10 09:58	05/12/10 21:36		
n-Triacontane (S)	88 %		50-150	1	05/10/10 09:58	05/12/10 21:36		
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3050						
Antimony	ND mg/kg		0.37	1	05/11/10 11:12	05/13/10 12:51	7440-36-0	
Arsenic	1.5 mg/kg		0.37	1	05/11/10 11:12	05/13/10 12:51	7440-38-2	
Beryllium	ND mg/kg		0.19	1	05/11/10 11:12	05/13/10 12:51	7440-41-7	
Cadmium	0.21 mg/kg		0.037	1	05/11/10 11:12	05/13/10 12:51	7440-43-9	

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ANALYTICAL RESULTS

Project: 000211-10116-0 Lilydale Reg.

Pace Project No.: 10128303

Sample: S-14 **Lab ID: 10128303007** Collected: 05/04/10 14:04 Received: 05/07/10 16:25 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Chromium	2.9	mg/kg	0.37	1	05/11/10 11:12	05/13/10 12:51	7440-47-3	
Copper	10.9	mg/kg	0.37	1	05/11/10 11:12	05/13/10 12:51	7440-50-8	
Lead	14.5	mg/kg	0.22	1	05/11/10 11:12	05/13/10 12:51	7439-92-1	
Nickel	1.4	mg/kg	0.75	1	05/11/10 11:12	05/13/10 12:51	7440-02-0	
Selenium	1.3	mg/kg	0.56	1	05/11/10 11:12	05/13/10 12:51	7782-49-2	
Silver	ND	mg/kg	0.37	1	05/11/10 11:12	05/13/10 12:51	7440-22-4	
Thallium	ND	mg/kg	0.75	1	05/11/10 11:12	05/13/10 12:51	7440-28-0	
Zinc	52.8	mg/kg	0.75	1	05/11/10 11:12	05/13/10 12:51	7440-66-6	
7471 Mercury Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	0.019	mg/kg	0.019	1	05/14/10 14:00	05/18/10 10:40	7439-97-6	
Dry Weight Analytical Method: % Moisture								
Percent Moisture	5.2	%	0.10	1		05/10/10 00:00		
8270 MSSV Analytical Method: EPA 8270 Preparation Method: EPA 3550								
Acenaphthene	ND	ug/kg	348	1	05/10/10 14:25	05/13/10 11:04	83-32-9	
Acenaphthylene	ND	ug/kg	348	1	05/10/10 14:25	05/13/10 11:04	208-96-8	
Anthracene	ND	ug/kg	348	1	05/10/10 14:25	05/13/10 11:04	120-12-7	
Benzidine	ND	ug/kg	1690	1	05/10/10 14:25	05/13/10 11:04	92-87-5	L2,SS
Benzo(a)anthracene	ND	ug/kg	348	1	05/10/10 14:25	05/13/10 11:04	56-55-3	
Benzo(a)pyrene	ND	ug/kg	348	1	05/10/10 14:25	05/13/10 11:04	50-32-8	
Benzo(b)fluoranthene	ND	ug/kg	348	1	05/10/10 14:25	05/13/10 11:04	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	348	1	05/10/10 14:25	05/13/10 11:04	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	348	1	05/10/10 14:25	05/13/10 11:04	207-08-9	
Benzoic acid	ND	ug/kg	1790	1	05/10/10 14:25	05/13/10 11:04	65-85-0	
Benzyl alcohol	ND	ug/kg	696	1	05/10/10 14:25	05/13/10 11:04	100-51-6	
4-Bromophenylphenyl ether	ND	ug/kg	348	1	05/10/10 14:25	05/13/10 11:04	101-55-3	
Butylbenzylphthalate	ND	ug/kg	348	1	05/10/10 14:25	05/13/10 11:04	85-68-7	
Carbazole	ND	ug/kg	348	1	05/10/10 14:25	05/13/10 11:04	86-74-8	
4-Chloro-3-methylphenol	ND	ug/kg	348	1	05/10/10 14:25	05/13/10 11:04	59-50-7	
4-Chloroaniline	ND	ug/kg	348	1	05/10/10 14:25	05/13/10 11:04	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/kg	348	1	05/10/10 14:25	05/13/10 11:04	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/kg	348	1	05/10/10 14:25	05/13/10 11:04	111-44-4	
bis(2-Chloroisopropyl) ether	ND	ug/kg	348	1	05/10/10 14:25	05/13/10 11:04	108-60-1	
2-Chloronaphthalene	ND	ug/kg	348	1	05/10/10 14:25	05/13/10 11:04	91-58-7	
2-Chlorophenol	ND	ug/kg	348	1	05/10/10 14:25	05/13/10 11:04	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/kg	348	1	05/10/10 14:25	05/13/10 11:04	7005-72-3	
Chrysene	ND	ug/kg	348	1	05/10/10 14:25	05/13/10 11:04	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	348	1	05/10/10 14:25	05/13/10 11:04	53-70-3	
Dibenzofuran	ND	ug/kg	348	1	05/10/10 14:25	05/13/10 11:04	132-64-9	
1,2-Dichlorobenzene	ND	ug/kg	348	1	05/10/10 14:25	05/13/10 11:04	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	348	1	05/10/10 14:25	05/13/10 11:04	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	348	1	05/10/10 14:25	05/13/10 11:04	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/kg	707	1	05/10/10 14:25	05/13/10 11:04	91-94-1	

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ANALYTICAL RESULTS

Project: 000211-10116-0 Lilydale Reg.

Pace Project No.: 10128303

Sample: S-14 Lab ID: 10128303007 Collected: 05/04/10 14:04 Received: 05/07/10 16:25 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Analytical Method: EPA 8270 Preparation Method: EPA 3550								
2,4-Dichlorophenol	ND ug/kg		348	1	05/10/10 14:25	05/13/10 11:04	120-83-2	
Diethylphthalate	ND ug/kg		348	1	05/10/10 14:25	05/13/10 11:04	84-66-2	
2,4-Dimethylphenol	ND ug/kg		348	1	05/10/10 14:25	05/13/10 11:04	105-67-9	
Dimethylphthalate	ND ug/kg		348	1	05/10/10 14:25	05/13/10 11:04	131-11-3	
Di-n-butylphthalate	ND ug/kg		348	1	05/10/10 14:25	05/13/10 11:04	84-74-2	
4,6-Dinitro-2-methylphenol	ND ug/kg		1790	1	05/10/10 14:25	05/13/10 11:04	534-52-1	
2,4-Dinitrophenol	ND ug/kg		1790	1	05/10/10 14:25	05/13/10 11:04	51-28-5	
2,4-Dinitrotoluene	ND ug/kg		348	1	05/10/10 14:25	05/13/10 11:04	121-14-2	
2,6-Dinitrotoluene	ND ug/kg		348	1	05/10/10 14:25	05/13/10 11:04	606-20-2	
Di-n-octylphthalate	ND ug/kg		348	1	05/10/10 14:25	05/13/10 11:04	117-84-0	
1,2-Diphenylhydrazine	ND ug/kg		1790	1	05/10/10 14:25	05/13/10 11:04	122-66-7	
bis(2-Ethylhexyl)phthalate	ND ug/kg		348	1	05/10/10 14:25	05/13/10 11:04	117-81-7	
Fluoranthene	ND ug/kg		348	1	05/10/10 14:25	05/13/10 11:04	206-44-0	
Fluorene	ND ug/kg		348	1	05/10/10 14:25	05/13/10 11:04	86-73-7	
Hexachloro-1,3-butadiene	ND ug/kg		348	1	05/10/10 14:25	05/13/10 11:04	87-68-3	
Hexachlorobenzene	ND ug/kg		348	1	05/10/10 14:25	05/13/10 11:04	118-74-1	
Hexachlorocyclopentadiene	ND ug/kg		1790	1	05/10/10 14:25	05/13/10 11:04	77-47-4	
Hexachloroethane	ND ug/kg		348	1	05/10/10 14:25	05/13/10 11:04	67-72-1	
Indeno(1,2,3-cd)pyrene	ND ug/kg		348	1	05/10/10 14:25	05/13/10 11:04	193-39-5	
Isophorone	ND ug/kg		348	1	05/10/10 14:25	05/13/10 11:04	78-59-1	
1-Methylnaphthalene	ND ug/kg		348	1	05/10/10 14:25	05/13/10 11:04	90-12-0	
2-Methylnaphthalene	ND ug/kg		348	1	05/10/10 14:25	05/13/10 11:04	91-57-6	
2-Methylphenol(o-Cresol)	ND ug/kg		348	1	05/10/10 14:25	05/13/10 11:04	95-48-7	
3&4-Methylphenol	ND ug/kg		696	1	05/10/10 14:25	05/13/10 11:04		
Naphthalene	ND ug/kg		348	1	05/10/10 14:25	05/13/10 11:04	91-20-3	
2-Nitroaniline	ND ug/kg		1790	1	05/10/10 14:25	05/13/10 11:04	88-74-4	
3-Nitroaniline	ND ug/kg		1790	1	05/10/10 14:25	05/13/10 11:04	99-09-2	
4-Nitroaniline	ND ug/kg		1790	1	05/10/10 14:25	05/13/10 11:04	100-01-6	
Nitrobenzene	ND ug/kg		348	1	05/10/10 14:25	05/13/10 11:04	98-95-3	
2-Nitrophenol	ND ug/kg		348	1	05/10/10 14:25	05/13/10 11:04	88-75-5	
4-Nitrophenol	ND ug/kg		1790	1	05/10/10 14:25	05/13/10 11:04	100-02-7	
N-Nitrosodimethylamine	ND ug/kg		348	1	05/10/10 14:25	05/13/10 11:04	62-75-9	
N-Nitroso-di-n-propylamine	ND ug/kg		348	1	05/10/10 14:25	05/13/10 11:04	621-64-7	
N-Nitrosodiphenylamine	ND ug/kg		348	1	05/10/10 14:25	05/13/10 11:04	86-30-6	
Pentachlorophenol	ND ug/kg		1790	1	05/10/10 14:25	05/13/10 11:04	87-86-5	
Phenanthrene	ND ug/kg		348	1	05/10/10 14:25	05/13/10 11:04	85-01-8	
Phenol	ND ug/kg		348	1	05/10/10 14:25	05/13/10 11:04	108-95-2	
Pyrene	ND ug/kg		348	1	05/10/10 14:25	05/13/10 11:04	129-00-0	
Pyridine	ND ug/kg		1790	1	05/10/10 14:25	05/13/10 11:04	110-86-1	
1,2,4-Trichlorobenzene	ND ug/kg		348	1	05/10/10 14:25	05/13/10 11:04	120-82-1	
2,4,5-Trichlorophenol	ND ug/kg		1790	1	05/10/10 14:25	05/13/10 11:04	95-95-4	
2,4,6-Trichlorophenol	ND ug/kg		348	1	05/10/10 14:25	05/13/10 11:04	88-06-2	
Nitrobenzene-d5 (S)	68 %		46-139	1	05/10/10 14:25	05/13/10 11:04	4165-60-0	
2-Fluorobiphenyl (S)	71 %		59-130	1	05/10/10 14:25	05/13/10 11:04	321-60-8	
Terphenyl-d14 (S)	76 %		58-147	1	05/10/10 14:25	05/13/10 11:04	1718-51-0	
Phenol-d6 (S)	59 %		49-125	1	05/10/10 14:25	05/13/10 11:04	13127-88-3	

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ANALYTICAL RESULTS

Project: 000211-10116-0 Lilydale Reg.

Pace Project No.: 10128303

Sample: S-14 **Lab ID: 10128303007** Collected: 05/04/10 14:04 Received: 05/07/10 16:25 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Analytical Method: EPA 8270 Preparation Method: EPA 3550								
2-Fluorophenol (S)	62 %		43-126	1	05/10/10 14:25	05/13/10 11:04	367-12-4	
2,4,6-Tribromophenol (S)	72 %		30-150	1	05/10/10 14:25	05/13/10 11:04	118-79-6	
8260 MSV 5030 Med Level Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
Acetone	ND ug/kg		1280	1	05/11/10 11:55	05/12/10 05:59	67-64-1	
Allyl chloride	ND ug/kg		205	1	05/11/10 11:55	05/12/10 05:59	107-05-1	
Benzene	ND ug/kg		20.5	1	05/11/10 11:55	05/12/10 05:59	71-43-2	
Bromobenzene	ND ug/kg		51.3	1	05/11/10 11:55	05/12/10 05:59	108-86-1	
Bromochloromethane	ND ug/kg		51.3	1	05/11/10 11:55	05/12/10 05:59	74-97-5	
Bromodichloromethane	ND ug/kg		51.3	1	05/11/10 11:55	05/12/10 05:59	75-27-4	
Bromoform	ND ug/kg		410	1	05/11/10 11:55	05/12/10 05:59	75-25-2	
Bromomethane	ND ug/kg		513	1	05/11/10 11:55	05/12/10 05:59	74-83-9	
2-Butanone (MEK)	ND ug/kg		513	1	05/11/10 11:55	05/12/10 05:59	78-93-3	
n-Butylbenzene	ND ug/kg		51.3	1	05/11/10 11:55	05/12/10 05:59	104-51-8	
sec-Butylbenzene	ND ug/kg		51.3	1	05/11/10 11:55	05/12/10 05:59	135-98-8	
tert-Butylbenzene	ND ug/kg		51.3	1	05/11/10 11:55	05/12/10 05:59	98-06-6	
Carbon tetrachloride	ND ug/kg		205	1	05/11/10 11:55	05/12/10 05:59	56-23-5	
Chlorobenzene	ND ug/kg		51.3	1	05/11/10 11:55	05/12/10 05:59	108-90-7	
Chloroethane	ND ug/kg		513	1	05/11/10 11:55	05/12/10 05:59	75-00-3	
Chloroform	ND ug/kg		51.3	1	05/11/10 11:55	05/12/10 05:59	67-66-3	
Chloromethane	ND ug/kg		205	1	05/11/10 11:55	05/12/10 05:59	74-87-3	
2-Chlorotoluene	ND ug/kg		51.3	1	05/11/10 11:55	05/12/10 05:59	95-49-8	
4-Chlorotoluene	ND ug/kg		51.3	1	05/11/10 11:55	05/12/10 05:59	106-43-4	
1,2-Dibromo-3-chloropropane	ND ug/kg		205	1	05/11/10 11:55	05/12/10 05:59	96-12-8	
Dibromochloromethane	ND ug/kg		51.3	1	05/11/10 11:55	05/12/10 05:59	124-48-1	
1,2-Dibromoethane (EDB)	ND ug/kg		51.3	1	05/11/10 11:55	05/12/10 05:59	106-93-4	
Dibromomethane	ND ug/kg		51.3	1	05/11/10 11:55	05/12/10 05:59	74-95-3	
1,2-Dichlorobenzene	ND ug/kg		51.3	1	05/11/10 11:55	05/12/10 05:59	95-50-1	
1,3-Dichlorobenzene	ND ug/kg		51.3	1	05/11/10 11:55	05/12/10 05:59	541-73-1	
1,4-Dichlorobenzene	ND ug/kg		51.3	1	05/11/10 11:55	05/12/10 05:59	106-46-7	
Dichlorodifluoromethane	ND ug/kg		51.3	1	05/11/10 11:55	05/12/10 05:59	75-71-8	
1,1-Dichloroethane	ND ug/kg		51.3	1	05/11/10 11:55	05/12/10 05:59	75-34-3	
1,2-Dichloroethane	ND ug/kg		51.3	1	05/11/10 11:55	05/12/10 05:59	107-06-2	
1,1-Dichloroethene	ND ug/kg		51.3	1	05/11/10 11:55	05/12/10 05:59	75-35-4	
cis-1,2-Dichloroethene	ND ug/kg		51.3	1	05/11/10 11:55	05/12/10 05:59	156-59-2	
trans-1,2-Dichloroethene	ND ug/kg		51.3	1	05/11/10 11:55	05/12/10 05:59	156-60-5	
Dichlorofluoromethane	ND ug/kg		51.3	1	05/11/10 11:55	05/12/10 05:59	75-43-4	
1,2-Dichloropropane	ND ug/kg		51.3	1	05/11/10 11:55	05/12/10 05:59	78-87-5	
1,3-Dichloropropane	ND ug/kg		51.3	1	05/11/10 11:55	05/12/10 05:59	142-28-9	
2,2-Dichloropropane	ND ug/kg		205	1	05/11/10 11:55	05/12/10 05:59	594-20-7	
1,1-Dichloropropene	ND ug/kg		51.3	1	05/11/10 11:55	05/12/10 05:59	563-58-6	
cis-1,3-Dichloropropene	ND ug/kg		51.3	1	05/11/10 11:55	05/12/10 05:59	10061-01-5	
trans-1,3-Dichloropropene	ND ug/kg		51.3	1	05/11/10 11:55	05/12/10 05:59	10061-02-6	
Diethyl ether (Ethyl ether)	ND ug/kg		205	1	05/11/10 11:55	05/12/10 05:59	60-29-7	
Ethylbenzene	ND ug/kg		51.3	1	05/11/10 11:55	05/12/10 05:59	100-41-4	
Hexachloro-1,3-butadiene	ND ug/kg		205	1	05/11/10 11:55	05/12/10 05:59	87-68-3	

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ANALYTICAL RESULTS

Project: 000211-10116-0 Lilydale Reg.

Pace Project No.: 10128303

Sample: S-14 **Lab ID: 10128303007** Collected: 05/04/10 14:04 Received: 05/07/10 16:25 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5030 Med Level		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B						
Isopropylbenzene (Cumene)	ND	ug/kg	51.3	1	05/11/10 11:55	05/12/10 05:59	98-82-8	
p-Isopropyltoluene	ND	ug/kg	51.3	1	05/11/10 11:55	05/12/10 05:59	99-87-6	
Methylene Chloride	ND	ug/kg	205	1	05/11/10 11:55	05/12/10 05:59	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	51.3	1	05/11/10 11:55	05/12/10 05:59	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	51.3	1	05/11/10 11:55	05/12/10 05:59	1634-04-4	
Naphthalene	ND	ug/kg	205	1	05/11/10 11:55	05/12/10 05:59	91-20-3	
n-Propylbenzene	ND	ug/kg	51.3	1	05/11/10 11:55	05/12/10 05:59	103-65-1	
Styrene	ND	ug/kg	51.3	1	05/11/10 11:55	05/12/10 05:59	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	51.3	1	05/11/10 11:55	05/12/10 05:59	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	51.3	1	05/11/10 11:55	05/12/10 05:59	79-34-5	
Tetrachloroethene	ND	ug/kg	51.3	1	05/11/10 11:55	05/12/10 05:59	127-18-4	
Tetrahydrofuran	ND	ug/kg	51.3	1	05/11/10 11:55	05/12/10 05:59	109-99-9	
Toluene	ND	ug/kg	51.3	1	05/11/10 11:55	05/12/10 05:59	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	51.3	1	05/11/10 11:55	05/12/10 05:59	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	51.3	1	05/11/10 11:55	05/12/10 05:59	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	51.3	1	05/11/10 11:55	05/12/10 05:59	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	51.3	1	05/11/10 11:55	05/12/10 05:59	79-00-5	
Trichloroethene	ND	ug/kg	51.3	1	05/11/10 11:55	05/12/10 05:59	79-01-6	
Trichlorofluoromethane	ND	ug/kg	51.3	1	05/11/10 11:55	05/12/10 05:59	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	51.3	1	05/11/10 11:55	05/12/10 05:59	96-18-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	51.3	1	05/11/10 11:55	05/12/10 05:59	76-13-1	
1,2,4-Trimethylbenzene	ND	ug/kg	51.3	1	05/11/10 11:55	05/12/10 05:59	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	51.3	1	05/11/10 11:55	05/12/10 05:59	108-67-8	
Vinyl chloride	ND	ug/kg	20.5	1	05/11/10 11:55	05/12/10 05:59	75-01-4	
Xylene (Total)	ND	ug/kg	154	1	05/11/10 11:55	05/12/10 05:59	1330-20-7	
Dibromofluoromethane (S)	95 %		61-139	1	05/11/10 11:55	05/12/10 05:59	1868-53-7	
1,2-Dichloroethane-d4 (S)	105 %		68-136	1	05/11/10 11:55	05/12/10 05:59	17060-07-0	
Toluene-d8 (S)	102 %		68-133	1	05/11/10 11:55	05/12/10 05:59	2037-26-5	
4-Bromofluorobenzene (S)	106 %		68-126	1	05/11/10 11:55	05/12/10 05:59	460-00-4	

Sample: S-15 **Lab ID: 10128303008** Collected: 05/04/10 14:28 Received: 05/07/10 16:25 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8081 GCS Pesticides		Analytical Method: EPA 8081						
Aldrin	ND	ug/kg	1.9	1	05/14/10 08:51	05/18/10 04:29	309-00-2	
alpha-BHC	ND	ug/kg	1.9	1	05/14/10 08:51	05/18/10 04:29	319-84-6	
beta-BHC	ND	ug/kg	1.9	1	05/14/10 08:51	05/18/10 04:29	319-85-7	
delta-BHC	ND	ug/kg	1.9	1	05/14/10 08:51	05/18/10 04:29	319-86-8	L2
gamma-BHC (Lindane)	ND	ug/kg	1.9	1	05/14/10 08:51	05/18/10 04:29	58-89-9	
Chlordane (Technical)	ND	ug/kg	37.1	1	05/14/10 08:51	05/18/10 04:29	57-74-9	
alpha-Chlordane	ND	ug/kg	1.9	1	05/14/10 08:51	05/18/10 04:29	5103-71-9	
gamma-Chlordane	ND	ug/kg	1.9	1	05/14/10 08:51	05/18/10 04:29	5103-74-2	
4,4'-DDD	ND	ug/kg	3.7	1	05/14/10 08:51	05/18/10 04:29	72-54-8	

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ANALYTICAL RESULTS

Project: 000211-10116-0 Lilydale Reg.

Pace Project No.: 10128303

Sample: S-15 **Lab ID: 10128303008** Collected: 05/04/10 14:28 Received: 05/07/10 16:25 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8081 GCS Pesticides		Analytical Method: EPA 8081						
4,4'-DDE	ND	ug/kg	3.7	1	05/14/10 08:51	05/18/10 04:29	72-55-9	
4,4'-DDT	13.9	ug/kg	3.7	1	05/14/10 08:51	05/18/10 04:29	50-29-3	
Dieldrin	ND	ug/kg	3.7	1	05/14/10 08:51	05/18/10 04:29	60-57-1	
Endosulfan I	ND	ug/kg	1.9	1	05/14/10 08:51	05/18/10 04:29	959-98-8	
Endosulfan II	ND	ug/kg	3.7	1	05/14/10 08:51	05/18/10 04:29	33213-65-9	
Endosulfan sulfate	ND	ug/kg	3.7	1	05/14/10 08:51	05/18/10 04:29	1031-07-8	
Endrin	ND	ug/kg	3.7	1	05/14/10 08:51	05/18/10 04:29	72-20-8	
Endrin aldehyde	ND	ug/kg	3.7	1	05/14/10 08:51	05/18/10 04:29	7421-93-4	
Endrin ketone	ND	ug/kg	3.7	1	05/14/10 08:51	05/18/10 04:29	53494-70-5	
Heptachlor	ND	ug/kg	1.9	1	05/14/10 08:51	05/18/10 04:29	76-44-8	
Heptachlor epoxide	ND	ug/kg	1.9	1	05/14/10 08:51	05/18/10 04:29	1024-57-3	
Methoxychlor	ND	ug/kg	18.6	1	05/14/10 08:51	05/18/10 04:29	72-43-5	
Toxaphene	ND	ug/kg	111	1	05/14/10 08:51	05/18/10 04:29	8001-35-2	
Tetrachloro-m-xylene (S)	61 %-		34-130	1	05/14/10 08:51	05/18/10 04:29	877-09-8	
Decachlorobiphenyl (S)	68 %-		30-130	1	05/14/10 08:51	05/18/10 04:29	2051-24-3	

8082 GCS PCB

Analytical Method: EPA 8082 Preparation Method: EPA 3550

PCB-1016 (Aroclor 1016)	ND	ug/kg	36.8	1	05/10/10 12:01	05/12/10 13:38	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/kg	36.8	1	05/10/10 12:01	05/12/10 13:38	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/kg	36.8	1	05/10/10 12:01	05/12/10 13:38	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/kg	36.8	1	05/10/10 12:01	05/12/10 13:38	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/kg	36.8	1	05/10/10 12:01	05/12/10 13:38	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	ug/kg	36.8	1	05/10/10 12:01	05/12/10 13:38	11097-69-1	
PCB-1260 (Aroclor 1260)	154	ug/kg	36.8	1	05/10/10 12:01	05/12/10 13:38	11096-82-5	
PCB-1262 (Aroclor 1262)	ND	ug/kg	36.8	1	05/10/10 12:01	05/12/10 13:38	37324-23-5	
PCB-1268 (Aroclor 1268)	ND	ug/kg	36.8	1	05/10/10 12:01	05/12/10 13:38	11100-14-4	
Tetrachloro-m-xylene (S)	81 %		55-125	1	05/10/10 12:01	05/12/10 13:38	877-09-8	
Decachlorobiphenyl (S)	72 %		55-125	1	05/10/10 12:01	05/12/10 13:38	2051-24-3	

WIDRO GCS

Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO

Diesel Range Organics	277	mg/kg	20.5	2	05/10/10 09:58	05/12/10 21:57		T6
n-Triacontane (S)	90 %		50-150	2	05/10/10 09:58	05/12/10 21:57		

6010 MET ICP

Analytical Method: EPA 6010 Preparation Method: EPA 3050

Antimony	2.4	mg/kg	0.46	1	05/11/10 11:12	05/13/10 12:57	7440-36-0	
Arsenic	4.8	mg/kg	0.46	1	05/11/10 11:12	05/13/10 12:57	7440-38-2	
Beryllium	ND	mg/kg	0.23	1	05/11/10 11:12	05/13/10 12:57	7440-41-7	
Cadmium	4.6	mg/kg	0.046	1	05/11/10 11:12	05/13/10 12:57	7440-43-9	
Chromium	13.3	mg/kg	0.46	1	05/11/10 11:12	05/13/10 12:57	7440-47-3	
Copper	482	mg/kg	0.46	1	05/11/10 11:12	05/13/10 12:57	7440-50-8	
Lead	379	mg/kg	0.27	1	05/11/10 11:12	05/13/10 12:57	7439-92-1	
Nickel	25.9	mg/kg	0.91	1	05/11/10 11:12	05/13/10 12:57	7440-02-0	
Selenium	ND	mg/kg	0.69	1	05/11/10 11:12	05/13/10 12:57	7782-49-2	
Silver	ND	mg/kg	0.46	1	05/11/10 11:12	05/13/10 12:57	7440-22-4	
Thallium	ND	mg/kg	0.91	1	05/11/10 11:12	05/13/10 12:57	7440-28-0	

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ANALYTICAL RESULTS

Project: 000211-10116-0 Lilydale Reg.

Pace Project No.: 10128303

Sample: S-15 **Lab ID: 10128303008** Collected: 05/04/10 14:28 Received: 05/07/10 16:25 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Zinc	1310	mg/kg	0.91	1	05/11/10 11:12	05/13/10 12:57	7440-66-6	
7471 Mercury Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	0.087	mg/kg	0.021	1	05/14/10 14:00	05/18/10 10:45	7439-97-6	
Dry Weight Analytical Method: % Moisture								
Percent Moisture	10.3	%	0.10	1		05/10/10 00:00		
8270 MSSV Analytical Method: EPA 8270 Preparation Method: EPA 3550								
Acenaphthene	ND	ug/kg	368	1	05/10/10 14:25	05/13/10 18:31	83-32-9	
Acenaphthylene	ND	ug/kg	368	1	05/10/10 14:25	05/13/10 18:31	208-96-8	
Anthracene	ND	ug/kg	368	1	05/10/10 14:25	05/13/10 18:31	120-12-7	
Benzidine	ND	ug/kg	1780	1	05/10/10 14:25	05/13/10 18:31	92-87-5	L2,SS
Benzo(a)anthracene	ND	ug/kg	368	1	05/10/10 14:25	05/13/10 18:31	56-55-3	
Benzo(a)pyrene	ND	ug/kg	368	1	05/10/10 14:25	05/13/10 18:31	50-32-8	
Benzo(b)fluoranthene	ND	ug/kg	368	1	05/10/10 14:25	05/13/10 18:31	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	368	1	05/10/10 14:25	05/13/10 18:31	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	368	1	05/10/10 14:25	05/13/10 18:31	207-08-9	
Benzoic acid	ND	ug/kg	1890	1	05/10/10 14:25	05/13/10 18:31	65-85-0	
Benzyl alcohol	ND	ug/kg	735	1	05/10/10 14:25	05/13/10 18:31	100-51-6	
4-Bromophenylphenyl ether	ND	ug/kg	368	1	05/10/10 14:25	05/13/10 18:31	101-55-3	
Butylbenzylphthalate	ND	ug/kg	368	1	05/10/10 14:25	05/13/10 18:31	85-68-7	
Carbazole	ND	ug/kg	368	1	05/10/10 14:25	05/13/10 18:31	86-74-8	
4-Chloro-3-methylphenol	ND	ug/kg	368	1	05/10/10 14:25	05/13/10 18:31	59-50-7	
4-Chloroaniline	ND	ug/kg	368	1	05/10/10 14:25	05/13/10 18:31	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/kg	368	1	05/10/10 14:25	05/13/10 18:31	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/kg	368	1	05/10/10 14:25	05/13/10 18:31	111-44-4	
bis(2-Chloroisopropyl) ether	ND	ug/kg	368	1	05/10/10 14:25	05/13/10 18:31	108-60-1	
2-Chloronaphthalene	ND	ug/kg	368	1	05/10/10 14:25	05/13/10 18:31	91-58-7	
2-Chlorophenol	ND	ug/kg	368	1	05/10/10 14:25	05/13/10 18:31	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/kg	368	1	05/10/10 14:25	05/13/10 18:31	7005-72-3	
Chrysene	ND	ug/kg	368	1	05/10/10 14:25	05/13/10 18:31	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	368	1	05/10/10 14:25	05/13/10 18:31	53-70-3	
Dibenzofuran	ND	ug/kg	368	1	05/10/10 14:25	05/13/10 18:31	132-64-9	
1,2-Dichlorobenzene	ND	ug/kg	368	1	05/10/10 14:25	05/13/10 18:31	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	368	1	05/10/10 14:25	05/13/10 18:31	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	368	1	05/10/10 14:25	05/13/10 18:31	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/kg	747	1	05/10/10 14:25	05/13/10 18:31	91-94-1	
2,4-Dichlorophenol	ND	ug/kg	368	1	05/10/10 14:25	05/13/10 18:31	120-83-2	
Diethylphthalate	ND	ug/kg	368	1	05/10/10 14:25	05/13/10 18:31	84-66-2	
2,4-Dimethylphenol	ND	ug/kg	368	1	05/10/10 14:25	05/13/10 18:31	105-67-9	
Dimethylphthalate	ND	ug/kg	368	1	05/10/10 14:25	05/13/10 18:31	131-11-3	
Di-n-butylphthalate	ND	ug/kg	368	1	05/10/10 14:25	05/13/10 18:31	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/kg	1890	1	05/10/10 14:25	05/13/10 18:31	534-52-1	
2,4-Dinitrophenol	ND	ug/kg	1890	1	05/10/10 14:25	05/13/10 18:31	51-28-5	

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ANALYTICAL RESULTS

Project: 000211-10116-0 Lilydale Reg.

Pace Project No.: 10128303

Sample: S-15 **Lab ID: 10128303008** Collected: 05/04/10 14:28 Received: 05/07/10 16:25 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Analytical Method: EPA 8270 Preparation Method: EPA 3550								
2,4-Dinitrotoluene	ND	ug/kg	368	1	05/10/10 14:25	05/13/10 18:31	121-14-2	
2,6-Dinitrotoluene	ND	ug/kg	368	1	05/10/10 14:25	05/13/10 18:31	606-20-2	
Di-n-octylphthalate	ND	ug/kg	368	1	05/10/10 14:25	05/13/10 18:31	117-84-0	
1,2-Diphenylhydrazine	ND	ug/kg	1890	1	05/10/10 14:25	05/13/10 18:31	122-66-7	
bis(2-Ethylhexyl)phthalate	ND	ug/kg	368	1	05/10/10 14:25	05/13/10 18:31	117-81-7	
Fluoranthene	372	ug/kg	368	1	05/10/10 14:25	05/13/10 18:31	206-44-0	
Fluorene	ND	ug/kg	368	1	05/10/10 14:25	05/13/10 18:31	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/kg	368	1	05/10/10 14:25	05/13/10 18:31	87-68-3	
Hexachlorobenzene	ND	ug/kg	368	1	05/10/10 14:25	05/13/10 18:31	118-74-1	
Hexachlorocyclopentadiene	ND	ug/kg	1890	1	05/10/10 14:25	05/13/10 18:31	77-47-4	
Hexachloroethane	ND	ug/kg	368	1	05/10/10 14:25	05/13/10 18:31	67-72-1	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	368	1	05/10/10 14:25	05/13/10 18:31	193-39-5	
Isophorone	ND	ug/kg	368	1	05/10/10 14:25	05/13/10 18:31	78-59-1	
1-Methylnaphthalene	ND	ug/kg	368	1	05/10/10 14:25	05/13/10 18:31	90-12-0	
2-Methylnaphthalene	ND	ug/kg	368	1	05/10/10 14:25	05/13/10 18:31	91-57-6	
2-Methylphenol(o-Cresol)	ND	ug/kg	368	1	05/10/10 14:25	05/13/10 18:31	95-48-7	
3&4-Methylphenol	ND	ug/kg	735	1	05/10/10 14:25	05/13/10 18:31		
Naphthalene	ND	ug/kg	368	1	05/10/10 14:25	05/13/10 18:31	91-20-3	
2-Nitroaniline	ND	ug/kg	1890	1	05/10/10 14:25	05/13/10 18:31	88-74-4	
3-Nitroaniline	ND	ug/kg	1890	1	05/10/10 14:25	05/13/10 18:31	99-09-2	
4-Nitroaniline	ND	ug/kg	1890	1	05/10/10 14:25	05/13/10 18:31	100-01-6	
Nitrobenzene	ND	ug/kg	368	1	05/10/10 14:25	05/13/10 18:31	98-95-3	
2-Nitrophenol	ND	ug/kg	368	1	05/10/10 14:25	05/13/10 18:31	88-75-5	
4-Nitrophenol	ND	ug/kg	1890	1	05/10/10 14:25	05/13/10 18:31	100-02-7	
N-Nitrosodimethylamine	ND	ug/kg	368	1	05/10/10 14:25	05/13/10 18:31	62-75-9	
N-Nitroso-di-n-propylamine	ND	ug/kg	368	1	05/10/10 14:25	05/13/10 18:31	621-64-7	
N-Nitrosodiphenylamine	ND	ug/kg	368	1	05/10/10 14:25	05/13/10 18:31	86-30-6	
Pentachlorophenol	ND	ug/kg	1890	1	05/10/10 14:25	05/13/10 18:31	87-86-5	
Phenanthrene	ND	ug/kg	368	1	05/10/10 14:25	05/13/10 18:31	85-01-8	
Phenol	ND	ug/kg	368	1	05/10/10 14:25	05/13/10 18:31	108-95-2	
Pyrene	ND	ug/kg	368	1	05/10/10 14:25	05/13/10 18:31	129-00-0	
Pyridine	ND	ug/kg	1890	1	05/10/10 14:25	05/13/10 18:31	110-86-1	
1,2,4-Trichlorobenzene	ND	ug/kg	368	1	05/10/10 14:25	05/13/10 18:31	120-82-1	
2,4,5-Trichlorophenol	ND	ug/kg	1890	1	05/10/10 14:25	05/13/10 18:31	95-95-4	
2,4,6-Trichlorophenol	ND	ug/kg	368	1	05/10/10 14:25	05/13/10 18:31	88-06-2	
Nitrobenzene-d5 (S)	61 %		46-139	1	05/10/10 14:25	05/13/10 18:31	4165-60-0	
2-Fluorobiphenyl (S)	69 %		59-130	1	05/10/10 14:25	05/13/10 18:31	321-60-8	
Terphenyl-d14 (S)	64 %		58-147	1	05/10/10 14:25	05/13/10 18:31	1718-51-0	
Phenol-d6 (S)	58 %		49-125	1	05/10/10 14:25	05/13/10 18:31	13127-88-3	
2-Fluorophenol (S)	56 %		43-126	1	05/10/10 14:25	05/13/10 18:31	367-12-4	
2,4,6-Tribromophenol (S)	65 %		30-150	1	05/10/10 14:25	05/13/10 18:31	118-79-6	

8260 MSV 5030 Med Level

Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B

Acetone	ND	ug/kg	1370	1	05/11/10 11:55	05/12/10 06:20	67-64-1	
Allyl chloride	ND	ug/kg	219	1	05/11/10 11:55	05/12/10 06:20	107-05-1	
Benzene	ND	ug/kg	21.9	1	05/11/10 11:55	05/12/10 06:20	71-43-2	

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ANALYTICAL RESULTS

Project: 000211-10116-0 Lilydale Reg.

Pace Project No.: 10128303

Sample: S-15 **Lab ID: 10128303008** Collected: 05/04/10 14:28 Received: 05/07/10 16:25 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5030 Med Level		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B						
Bromobenzene	ND	ug/kg	54.7	1	05/11/10 11:55	05/12/10 06:20	108-86-1	
Bromochloromethane	ND	ug/kg	54.7	1	05/11/10 11:55	05/12/10 06:20	74-97-5	
Bromodichloromethane	ND	ug/kg	54.7	1	05/11/10 11:55	05/12/10 06:20	75-27-4	
Bromoform	ND	ug/kg	438	1	05/11/10 11:55	05/12/10 06:20	75-25-2	
Bromomethane	ND	ug/kg	547	1	05/11/10 11:55	05/12/10 06:20	74-83-9	
2-Butanone (MEK)	ND	ug/kg	547	1	05/11/10 11:55	05/12/10 06:20	78-93-3	
n-Butylbenzene	ND	ug/kg	54.7	1	05/11/10 11:55	05/12/10 06:20	104-51-8	
sec-Butylbenzene	ND	ug/kg	54.7	1	05/11/10 11:55	05/12/10 06:20	135-98-8	
tert-Butylbenzene	ND	ug/kg	54.7	1	05/11/10 11:55	05/12/10 06:20	98-06-6	
Carbon tetrachloride	ND	ug/kg	219	1	05/11/10 11:55	05/12/10 06:20	56-23-5	
Chlorobenzene	ND	ug/kg	54.7	1	05/11/10 11:55	05/12/10 06:20	108-90-7	
Chloroethane	ND	ug/kg	547	1	05/11/10 11:55	05/12/10 06:20	75-00-3	
Chloroform	ND	ug/kg	54.7	1	05/11/10 11:55	05/12/10 06:20	67-66-3	
Chloromethane	ND	ug/kg	219	1	05/11/10 11:55	05/12/10 06:20	74-87-3	
2-Chlorotoluene	ND	ug/kg	54.7	1	05/11/10 11:55	05/12/10 06:20	95-49-8	
4-Chlorotoluene	ND	ug/kg	54.7	1	05/11/10 11:55	05/12/10 06:20	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	219	1	05/11/10 11:55	05/12/10 06:20	96-12-8	
Dibromochloromethane	ND	ug/kg	54.7	1	05/11/10 11:55	05/12/10 06:20	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	54.7	1	05/11/10 11:55	05/12/10 06:20	106-93-4	
Dibromomethane	ND	ug/kg	54.7	1	05/11/10 11:55	05/12/10 06:20	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	54.7	1	05/11/10 11:55	05/12/10 06:20	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	54.7	1	05/11/10 11:55	05/12/10 06:20	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	54.7	1	05/11/10 11:55	05/12/10 06:20	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	54.7	1	05/11/10 11:55	05/12/10 06:20	75-71-8	
1,1-Dichloroethane	ND	ug/kg	54.7	1	05/11/10 11:55	05/12/10 06:20	75-34-3	
1,2-Dichloroethane	ND	ug/kg	54.7	1	05/11/10 11:55	05/12/10 06:20	107-06-2	
1,1-Dichloroethene	ND	ug/kg	54.7	1	05/11/10 11:55	05/12/10 06:20	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	54.7	1	05/11/10 11:55	05/12/10 06:20	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	54.7	1	05/11/10 11:55	05/12/10 06:20	156-60-5	
Dichlorofluoromethane	ND	ug/kg	54.7	1	05/11/10 11:55	05/12/10 06:20	75-43-4	
1,2-Dichloropropane	ND	ug/kg	54.7	1	05/11/10 11:55	05/12/10 06:20	78-87-5	
1,3-Dichloropropane	ND	ug/kg	54.7	1	05/11/10 11:55	05/12/10 06:20	142-28-9	
2,2-Dichloropropane	ND	ug/kg	219	1	05/11/10 11:55	05/12/10 06:20	594-20-7	
1,1-Dichloropropene	ND	ug/kg	54.7	1	05/11/10 11:55	05/12/10 06:20	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	54.7	1	05/11/10 11:55	05/12/10 06:20	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	54.7	1	05/11/10 11:55	05/12/10 06:20	10061-02-6	
Diethyl ether (Ethyl ether)	ND	ug/kg	219	1	05/11/10 11:55	05/12/10 06:20	60-29-7	
Ethylbenzene	ND	ug/kg	54.7	1	05/11/10 11:55	05/12/10 06:20	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	219	1	05/11/10 11:55	05/12/10 06:20	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/kg	54.7	1	05/11/10 11:55	05/12/10 06:20	98-82-8	
p-Isopropyltoluene	ND	ug/kg	54.7	1	05/11/10 11:55	05/12/10 06:20	99-87-6	
Methylene Chloride	ND	ug/kg	219	1	05/11/10 11:55	05/12/10 06:20	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	547	1	05/11/10 11:55	05/12/10 06:20	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	54.7	1	05/11/10 11:55	05/12/10 06:20	1634-04-4	
Naphthalene	ND	ug/kg	219	1	05/11/10 11:55	05/12/10 06:20	91-20-3	
n-Propylbenzene	ND	ug/kg	54.7	1	05/11/10 11:55	05/12/10 06:20	103-65-1	

Date: 05/28/2010 03:17 PM

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ANALYTICAL RESULTS

Project: 000211-10116-0 Lilydale Reg.

Pace Project No.: 10128303

Sample: S-15 **Lab ID: 10128303008** Collected: 05/04/10 14:28 Received: 05/07/10 16:25 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5030 Med Level		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B						
Styrene	ND	ug/kg	54.7	1	05/11/10 11:55	05/12/10 06:20	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	54.7	1	05/11/10 11:55	05/12/10 06:20	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	54.7	1	05/11/10 11:55	05/12/10 06:20	79-34-5	
Tetrachloroethene	ND	ug/kg	54.7	1	05/11/10 11:55	05/12/10 06:20	127-18-4	
Tetrahydrofuran	ND	ug/kg	54.7	1	05/11/10 11:55	05/12/10 06:20	109-99-9	
Toluene	ND	ug/kg	54.7	1	05/11/10 11:55	05/12/10 06:20	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	54.7	1	05/11/10 11:55	05/12/10 06:20	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	54.7	1	05/11/10 11:55	05/12/10 06:20	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	54.7	1	05/11/10 11:55	05/12/10 06:20	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	54.7	1	05/11/10 11:55	05/12/10 06:20	79-00-5	
Trichloroethene	ND	ug/kg	54.7	1	05/11/10 11:55	05/12/10 06:20	79-01-6	
Trichlorofluoromethane	ND	ug/kg	54.7	1	05/11/10 11:55	05/12/10 06:20	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	54.7	1	05/11/10 11:55	05/12/10 06:20	96-18-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	54.7	1	05/11/10 11:55	05/12/10 06:20	76-13-1	
1,2,4-Trimethylbenzene	ND	ug/kg	54.7	1	05/11/10 11:55	05/12/10 06:20	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	54.7	1	05/11/10 11:55	05/12/10 06:20	108-67-8	
Vinyl chloride	ND	ug/kg	21.9	1	05/11/10 11:55	05/12/10 06:20	75-01-4	
Xylene (Total)	ND	ug/kg	164	1	05/11/10 11:55	05/12/10 06:20	1330-20-7	
Dibromofluoromethane (S)	95	%	61-139	1	05/11/10 11:55	05/12/10 06:20	1868-53-7	
1,2-Dichloroethane-d4 (S)	103	%	68-136	1	05/11/10 11:55	05/12/10 06:20	17060-07-0	
Toluene-d8 (S)	102	%	68-133	1	05/11/10 11:55	05/12/10 06:20	2037-26-5	
4-Bromofluorobenzene (S)	104	%	68-126	1	05/11/10 11:55	05/12/10 06:20	460-00-4	

Sample: S-16 **Lab ID: 10128303009** Collected: 05/04/10 14:30 Received: 05/07/10 16:25 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8081 GCS Pesticides		Analytical Method: EPA 8081						
Aldrin	ND	ug/kg	2.0	1	05/14/10 08:51	05/18/10 04:56	309-00-2	
alpha-BHC	4.8	ug/kg	2.0	1	05/14/10 08:51	05/18/10 04:56	319-84-6	C2
beta-BHC	ND	ug/kg	2.0	1	05/14/10 08:51	05/18/10 04:56	319-85-7	
delta-BHC	3.6	ug/kg	2.0	1	05/14/10 08:51	05/18/10 04:56	319-86-8	L2
gamma-BHC (Lindane)	ND	ug/kg	2.0	1	05/14/10 08:51	05/18/10 04:56	58-89-9	
Chlordane (Technical)	181	ug/kg	40.4	1	05/14/10 08:51	05/18/10 04:56	57-74-9	C2
alpha-Chlordane	ND	ug/kg	2.0	1	05/14/10 08:51	05/18/10 04:56	5103-71-9	
gamma-Chlordane	11.2	ug/kg	2.0	1	05/14/10 08:51	05/18/10 04:56	5103-74-2	C2
4,4'-DDD	ND	ug/kg	4.0	1	05/14/10 08:51	05/18/10 04:56	72-54-8	
4,4'-DDE	40.0	ug/kg	20.2	5	05/14/10 08:51	05/18/10 05:33	72-55-9	C2
4,4'-DDT	105	ug/kg	20.2	5	05/14/10 08:51	05/18/10 05:33	50-29-3	
Dieldrin	ND	ug/kg	4.0	1	05/14/10 08:51	05/18/10 04:56	60-57-1	
Endosulfan I	ND	ug/kg	2.0	1	05/14/10 08:51	05/18/10 04:56	959-98-8	
Endosulfan II	ND	ug/kg	4.0	1	05/14/10 08:51	05/18/10 04:56	33213-65-9	
Endosulfan sulfate	15.9	ug/kg	4.0	1	05/14/10 08:51	05/18/10 04:56	1031-07-8	C2
Endrin	ND	ug/kg	4.0	1	05/14/10 08:51	05/18/10 04:56	72-20-8	

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REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 000211-10116-0 Lilydale Reg.

Pace Project No.: 10128303

Sample: S-16 **Lab ID: 10128303009** Collected: 05/04/10 14:30 Received: 05/07/10 16:25 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8081 GCS Pesticides		Analytical Method: EPA 8081						
Endrin aldehyde	ND	ug/kg	4.0	1	05/14/10 08:51	05/18/10 04:56	7421-93-4	
Endrin ketone	61.6	ug/kg	4.0	1	05/14/10 08:51	05/18/10 04:56	53494-70-5	C2
Heptachlor	ND	ug/kg	2.0	1	05/14/10 08:51	05/18/10 04:56	76-44-8	
Heptachlor epoxide	2.1	ug/kg	2.0	1	05/14/10 08:51	05/18/10 04:56	1024-57-3	
Methoxychlor	ND	ug/kg	20.2	1	05/14/10 08:51	05/18/10 04:56	72-43-5	
Toxaphene	809	ug/kg	606	5	05/14/10 08:51	05/18/10 05:33	8001-35-2	C2
Tetrachloro-m-xylene (S)	55 %	-	34-130	1	05/14/10 08:51	05/18/10 04:56	877-09-8	
Decachlorobiphenyl (S)	95 %	-	30-130	1	05/14/10 08:51	05/18/10 04:56	2051-24-3	

8082 GCS PCB

Analytical Method: EPA 8082 Preparation Method: EPA 3550

PCB-1016 (Aroclor 1016)	ND	ug/kg	40.0	1	05/10/10 12:01	05/12/10 14:10	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/kg	40.0	1	05/10/10 12:01	05/12/10 14:10	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/kg	40.0	1	05/10/10 12:01	05/12/10 14:10	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/kg	40.0	1	05/10/10 12:01	05/12/10 14:10	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/kg	40.0	1	05/10/10 12:01	05/12/10 14:10	12672-29-6	
PCB-1254 (Aroclor 1254)	509	ug/kg	40.0	1	05/10/10 12:01	05/12/10 14:10	11097-69-1	
PCB-1260 (Aroclor 1260)	129	ug/kg	40.0	1	05/10/10 12:01	05/12/10 14:10	11096-82-5	
PCB-1262 (Aroclor 1262)	ND	ug/kg	40.0	1	05/10/10 12:01	05/12/10 14:10	37324-23-5	
PCB-1268 (Aroclor 1268)	ND	ug/kg	40.0	1	05/10/10 12:01	05/12/10 14:10	11100-14-4	
Tetrachloro-m-xylene (S)	74 %		55-125	1	05/10/10 12:01	05/12/10 14:10	877-09-8	
Decachlorobiphenyl (S)	92 %		55-125	1	05/10/10 12:01	05/12/10 14:10	2051-24-3	

WIDRO GCS

Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO

Diesel Range Organics	504	mg/kg	307	5	05/10/10 09:58	05/13/10 13:31		
n-Triacontane (S)	0 %		50-150	5	05/10/10 09:58	05/13/10 13:31		S4

6010 MET ICP

Analytical Method: EPA 6010 Preparation Method: EPA 3050

Antimony	ND	mg/kg	0.45	1	05/11/10 11:12	05/13/10 13:01	7440-36-0	
Arsenic	5.7	mg/kg	0.45	1	05/11/10 11:12	05/13/10 13:01	7440-38-2	
Beryllium	0.25	mg/kg	0.22	1	05/11/10 11:12	05/13/10 13:01	7440-41-7	
Cadmium	1.9	mg/kg	0.045	1	05/11/10 11:12	05/13/10 13:01	7440-43-9	
Chromium	19.9	mg/kg	0.45	1	05/11/10 11:12	05/13/10 13:01	7440-47-3	
Copper	88.3	mg/kg	0.45	1	05/11/10 11:12	05/13/10 13:01	7440-50-8	
Lead	1210	mg/kg	0.27	1	05/11/10 11:12	05/13/10 13:01	7439-92-1	
Nickel	11.9	mg/kg	0.89	1	05/11/10 11:12	05/13/10 13:01	7440-02-0	
Selenium	1.5	mg/kg	0.67	1	05/11/10 11:12	05/13/10 13:01	7782-49-2	
Silver	ND	mg/kg	0.45	1	05/11/10 11:12	05/13/10 13:01	7440-22-4	
Thallium	ND	mg/kg	0.89	1	05/11/10 11:12	05/13/10 13:01	7440-28-0	
Zinc	666	mg/kg	0.89	1	05/11/10 11:12	05/13/10 13:01	7440-66-6	

6010 MET ICP, TCLP

Analytical Method: EPA 6010 Preparation Method: EPA 3010

Leachate Method/Date: EPA 1311; 05/25/10 13:56

Lead	1.9	mg/L	0.015	5	05/25/10 14:21	05/26/10 11:14	7439-92-1	
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ANALYTICAL RESULTS

Project: 000211-10116-0 Lilydale Reg.

Pace Project No.: 10128303

Sample: S-16 **Lab ID: 10128303009** Collected: 05/04/10 14:30 Received: 05/07/10 16:25 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
7471 Mercury Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	0.50	mg/kg	0.022	1	05/14/10 14:00	05/18/10 10:46	7439-97-6	
Dry Weight Analytical Method: % Moisture								
Percent Moisture	17.5	%	0.10	1		05/10/10 00:00		
8270 MSSV Analytical Method: EPA 8270 Preparation Method: EPA 3550								
Acenaphthene	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 12:22	83-32-9	
Acenaphthylene	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 12:22	208-96-8	
Anthracene	4960	ug/kg	4000	10	05/10/10 14:25	05/13/10 12:22	120-12-7	
Benidine	ND	ug/kg	19400	10	05/10/10 14:25	05/13/10 12:22	92-87-5	L2,SS
Benzo(a)anthracene	16600	ug/kg	4000	10	05/10/10 14:25	05/13/10 12:22	56-55-3	
Benzo(a)pyrene	14300	ug/kg	4000	10	05/10/10 14:25	05/13/10 12:22	50-32-8	
Benzo(b)fluoranthene	17400	ug/kg	4000	10	05/10/10 14:25	05/13/10 12:22	205-99-2	
Benzo(g,h,i)perylene	9240	ug/kg	4000	10	05/10/10 14:25	05/13/10 12:22	191-24-2	
Benzo(k)fluoranthene	7330	ug/kg	4000	10	05/10/10 14:25	05/13/10 12:22	207-08-9	
Benzoic acid	ND	ug/kg	20600	10	05/10/10 14:25	05/13/10 12:22	65-85-0	
Benzyl alcohol	ND	ug/kg	8000	10	05/10/10 14:25	05/13/10 12:22	100-51-6	
4-Bromophenylphenyl ether	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 12:22	101-55-3	
Butylbenzylphthalate	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 12:22	85-68-7	
Carbazole	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 12:22	86-74-8	
4-Chloro-3-methylphenol	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 12:22	59-50-7	
4-Chloroaniline	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 12:22	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 12:22	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 12:22	111-44-4	
bis(2-Chloroisopropyl) ether	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 12:22	108-60-1	
2-Chloronaphthalene	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 12:22	91-58-7	
2-Chlorophenol	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 12:22	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 12:22	7005-72-3	
Chrysene	15600	ug/kg	4000	10	05/10/10 14:25	05/13/10 12:22	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 12:22	53-70-3	
Dibenzofuran	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 12:22	132-64-9	
1,2-Dichlorobenzene	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 12:22	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 12:22	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 12:22	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/kg	8120	10	05/10/10 14:25	05/13/10 12:22	91-94-1	
2,4-Dichlorophenol	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 12:22	120-83-2	
Diethylphthalate	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 12:22	84-66-2	
2,4-Dimethylphenol	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 12:22	105-67-9	
Dimethylphthalate	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 12:22	131-11-3	
Di-n-butylphthalate	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 12:22	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/kg	20600	10	05/10/10 14:25	05/13/10 12:22	534-52-1	
2,4-Dinitrophenol	ND	ug/kg	20600	10	05/10/10 14:25	05/13/10 12:22	51-28-5	
2,4-Dinitrotoluene	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 12:22	121-14-2	
2,6-Dinitrotoluene	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 12:22	606-20-2	
Di-n-octylphthalate	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 12:22	117-84-0	

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ANALYTICAL RESULTS

Project: 000211-10116-0 Lilydale Reg.

Pace Project No.: 10128303

Sample: S-16 **Lab ID: 10128303009** Collected: 05/04/10 14:30 Received: 05/07/10 16:25 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Analytical Method: EPA 8270 Preparation Method: EPA 3550								
1,2-Diphenylhydrazine	ND	ug/kg	20600	10	05/10/10 14:25	05/13/10 12:22	122-66-7	
bis(2-Ethylhexyl)phthalate	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 12:22	117-81-7	
Fluoranthene	28100	ug/kg	4000	10	05/10/10 14:25	05/13/10 12:22	206-44-0	
Fluorene	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 12:22	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 12:22	87-68-3	
Hexachlorobenzene	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 12:22	118-74-1	
Hexachlorocyclopentadiene	ND	ug/kg	20600	10	05/10/10 14:25	05/13/10 12:22	77-47-4	
Hexachloroethane	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 12:22	67-72-1	
Indeno(1,2,3-cd)pyrene	7610	ug/kg	4000	10	05/10/10 14:25	05/13/10 12:22	193-39-5	
Isophorone	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 12:22	78-59-1	
1-Methylnaphthalene	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 12:22	90-12-0	
2-Methylnaphthalene	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 12:22	91-57-6	
2-Methylphenol(o-Cresol)	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 12:22	95-48-7	
3&4-Methylphenol	ND	ug/kg	8000	10	05/10/10 14:25	05/13/10 12:22		
Naphthalene	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 12:22	91-20-3	
2-Nitroaniline	ND	ug/kg	20600	10	05/10/10 14:25	05/13/10 12:22	88-74-4	
3-Nitroaniline	ND	ug/kg	20600	10	05/10/10 14:25	05/13/10 12:22	99-09-2	
4-Nitroaniline	ND	ug/kg	20600	10	05/10/10 14:25	05/13/10 12:22	100-01-6	
Nitrobenzene	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 12:22	98-95-3	
2-Nitrophenol	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 12:22	88-75-5	
4-Nitrophenol	ND	ug/kg	20600	10	05/10/10 14:25	05/13/10 12:22	100-02-7	
N-Nitrosodimethylamine	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 12:22	62-75-9	
N-Nitroso-di-n-propylamine	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 12:22	621-64-7	
N-Nitrosodiphenylamine	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 12:22	86-30-6	
Pentachlorophenol	ND	ug/kg	20600	10	05/10/10 14:25	05/13/10 12:22	87-86-5	
Phenanthrene	16500	ug/kg	4000	10	05/10/10 14:25	05/13/10 12:22	85-01-8	
Phenol	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 12:22	108-95-2	
Pyrene	28200	ug/kg	4000	10	05/10/10 14:25	05/13/10 12:22	129-00-0	
Pyridine	ND	ug/kg	20600	10	05/10/10 14:25	05/13/10 12:22	110-86-1	
1,2,4-Trichlorobenzene	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 12:22	120-82-1	
2,4,5-Trichlorophenol	ND	ug/kg	20600	10	05/10/10 14:25	05/13/10 12:22	95-95-4	
2,4,6-Trichlorophenol	ND	ug/kg	4000	10	05/10/10 14:25	05/13/10 12:22	88-06-2	
Nitrobenzene-d5 (S)	85 %		46-139	10	05/10/10 14:25	05/13/10 12:22	4165-60-0	D4
2-Fluorobiphenyl (S)	98 %		59-130	10	05/10/10 14:25	05/13/10 12:22	321-60-8	
Terphenyl-d14 (S)	91 %		58-147	10	05/10/10 14:25	05/13/10 12:22	1718-51-0	
Phenol-d6 (S)	80 %		49-125	10	05/10/10 14:25	05/13/10 12:22	13127-88-3	
2-Fluorophenol (S)	80 %		43-126	10	05/10/10 14:25	05/13/10 12:22	367-12-4	
2,4,6-Tribromophenol (S)	87 %		30-150	10	05/10/10 14:25	05/13/10 12:22	118-79-6	

8260 MSV 5030 Med Level

Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B

Acetone	ND	ug/kg	1550	1	05/11/10 11:55	05/12/10 06:40	67-64-1	
Allyl chloride	ND	ug/kg	248	1	05/11/10 11:55	05/12/10 06:40	107-05-1	
Benzene	ND	ug/kg	24.8	1	05/11/10 11:55	05/12/10 06:40	71-43-2	
Bromobenzene	ND	ug/kg	62.1	1	05/11/10 11:55	05/12/10 06:40	108-86-1	
Bromochloromethane	ND	ug/kg	62.1	1	05/11/10 11:55	05/12/10 06:40	74-97-5	
Bromodichloromethane	ND	ug/kg	62.1	1	05/11/10 11:55	05/12/10 06:40	75-27-4	

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ANALYTICAL RESULTS

Project: 000211-10116-0 Lilydale Reg.

Pace Project No.: 10128303

Sample: S-16 **Lab ID: 10128303009** Collected: 05/04/10 14:30 Received: 05/07/10 16:25 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5030 Med Level		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B						
Bromoform	ND ug/kg		497	1	05/11/10 11:55	05/12/10 06:40	75-25-2	
Bromomethane	ND ug/kg		621	1	05/11/10 11:55	05/12/10 06:40	74-83-9	
2-Butanone (MEK)	ND ug/kg		621	1	05/11/10 11:55	05/12/10 06:40	78-93-3	
n-Butylbenzene	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 06:40	104-51-8	
sec-Butylbenzene	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 06:40	135-98-8	
tert-Butylbenzene	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 06:40	98-06-6	
Carbon tetrachloride	ND ug/kg		248	1	05/11/10 11:55	05/12/10 06:40	56-23-5	
Chlorobenzene	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 06:40	108-90-7	
Chloroethane	ND ug/kg		621	1	05/11/10 11:55	05/12/10 06:40	75-00-3	
Chloroform	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 06:40	67-66-3	
Chloromethane	ND ug/kg		248	1	05/11/10 11:55	05/12/10 06:40	74-87-3	
2-Chlorotoluene	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 06:40	95-49-8	
4-Chlorotoluene	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 06:40	106-43-4	
1,2-Dibromo-3-chloropropane	ND ug/kg		248	1	05/11/10 11:55	05/12/10 06:40	96-12-8	
Dibromochloromethane	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 06:40	124-48-1	
1,2-Dibromoethane (EDB)	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 06:40	106-93-4	
Dibromomethane	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 06:40	74-95-3	
1,2-Dichlorobenzene	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 06:40	95-50-1	
1,3-Dichlorobenzene	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 06:40	541-73-1	
1,4-Dichlorobenzene	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 06:40	106-46-7	
Dichlorodifluoromethane	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 06:40	75-71-8	
1,1-Dichloroethane	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 06:40	75-34-3	
1,2-Dichloroethane	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 06:40	107-06-2	
1,1-Dichloroethene	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 06:40	75-35-4	
cis-1,2-Dichloroethene	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 06:40	156-59-2	
trans-1,2-Dichloroethene	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 06:40	156-60-5	
Dichlorofluoromethane	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 06:40	75-43-4	
1,2-Dichloropropane	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 06:40	78-87-5	
1,3-Dichloropropane	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 06:40	142-28-9	
2,2-Dichloropropane	ND ug/kg		248	1	05/11/10 11:55	05/12/10 06:40	594-20-7	
1,1-Dichloropropene	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 06:40	563-58-6	
cis-1,3-Dichloropropene	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 06:40	10061-01-5	
trans-1,3-Dichloropropene	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 06:40	10061-02-6	
Diethyl ether (Ethyl ether)	ND ug/kg		248	1	05/11/10 11:55	05/12/10 06:40	60-29-7	
Ethylbenzene	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 06:40	100-41-4	
Hexachloro-1,3-butadiene	ND ug/kg		248	1	05/11/10 11:55	05/12/10 06:40	87-68-3	
Isopropylbenzene (Cumene)	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 06:40	98-82-8	
p-Isopropyltoluene	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 06:40	99-87-6	
Methylene Chloride	ND ug/kg		248	1	05/11/10 11:55	05/12/10 06:40	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND ug/kg		621	1	05/11/10 11:55	05/12/10 06:40	108-10-1	
Methyl-tert-butyl ether	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 06:40	1634-04-4	
Naphthalene	ND ug/kg		248	1	05/11/10 11:55	05/12/10 06:40	91-20-3	
n-Propylbenzene	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 06:40	103-65-1	
Styrene	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 06:40	100-42-5	
1,1,1,2-Tetrachloroethane	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 06:40	630-20-6	
1,1,2,2-Tetrachloroethane	ND ug/kg		62.1	1	05/11/10 11:55	05/12/10 06:40	79-34-5	

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ANALYTICAL RESULTS

Project: 000211-10116-0 Lilydale Reg.

Pace Project No.: 10128303

Sample: S-16 **Lab ID: 10128303009** Collected: 05/04/10 14:30 Received: 05/07/10 16:25 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5030 Med Level		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B						
Tetrachloroethene	ND	ug/kg	62.1	1	05/11/10 11:55	05/12/10 06:40	127-18-4	
Tetrahydrofuran	ND	ug/kg	62.1	1	05/11/10 11:55	05/12/10 06:40	109-99-9	
Toluene	ND	ug/kg	62.1	1	05/11/10 11:55	05/12/10 06:40	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	62.1	1	05/11/10 11:55	05/12/10 06:40	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	62.1	1	05/11/10 11:55	05/12/10 06:40	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	62.1	1	05/11/10 11:55	05/12/10 06:40	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	62.1	1	05/11/10 11:55	05/12/10 06:40	79-00-5	
Trichloroethene	ND	ug/kg	62.1	1	05/11/10 11:55	05/12/10 06:40	79-01-6	
Trichlorofluoromethane	ND	ug/kg	62.1	1	05/11/10 11:55	05/12/10 06:40	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	62.1	1	05/11/10 11:55	05/12/10 06:40	96-18-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	62.1	1	05/11/10 11:55	05/12/10 06:40	76-13-1	
1,2,4-Trimethylbenzene	ND	ug/kg	62.1	1	05/11/10 11:55	05/12/10 06:40	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	62.1	1	05/11/10 11:55	05/12/10 06:40	108-67-8	
Vinyl chloride	ND	ug/kg	24.8	1	05/11/10 11:55	05/12/10 06:40	75-01-4	
Xylene (Total)	ND	ug/kg	186	1	05/11/10 11:55	05/12/10 06:40	1330-20-7	
Dibromofluoromethane (S)	90 %		61-139	1	05/11/10 11:55	05/12/10 06:40	1868-53-7	
1,2-Dichloroethane-d4 (S)	101 %		68-136	1	05/11/10 11:55	05/12/10 06:40	17060-07-0	
Toluene-d8 (S)	95 %		68-133	1	05/11/10 11:55	05/12/10 06:40	2037-26-5	
4-Bromofluorobenzene (S)	96 %		68-126	1	05/11/10 11:55	05/12/10 06:40	460-00-4	

Sample: Meoh Blank **Lab ID: 10128303010** Collected: Received: 05/07/10 16:25 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5030 Med Level		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B						
Acetone	ND	ug/kg	1250	1	05/11/10 11:55	05/12/10 02:34	67-64-1	
Allyl chloride	ND	ug/kg	200	1	05/11/10 11:55	05/12/10 02:34	107-05-1	
Benzene	ND	ug/kg	20.0	1	05/11/10 11:55	05/12/10 02:34	71-43-2	
Bromobenzene	ND	ug/kg	50.0	1	05/11/10 11:55	05/12/10 02:34	108-86-1	
Bromochloromethane	ND	ug/kg	50.0	1	05/11/10 11:55	05/12/10 02:34	74-97-5	
Bromodichloromethane	ND	ug/kg	50.0	1	05/11/10 11:55	05/12/10 02:34	75-27-4	
Bromoform	ND	ug/kg	400	1	05/11/10 11:55	05/12/10 02:34	75-25-2	
Bromomethane	ND	ug/kg	500	1	05/11/10 11:55	05/12/10 02:34	74-83-9	
2-Butanone (MEK)	ND	ug/kg	500	1	05/11/10 11:55	05/12/10 02:34	78-93-3	
n-Butylbenzene	ND	ug/kg	50.0	1	05/11/10 11:55	05/12/10 02:34	104-51-8	
sec-Butylbenzene	ND	ug/kg	50.0	1	05/11/10 11:55	05/12/10 02:34	135-98-8	
tert-Butylbenzene	ND	ug/kg	50.0	1	05/11/10 11:55	05/12/10 02:34	98-06-6	
Carbon tetrachloride	ND	ug/kg	200	1	05/11/10 11:55	05/12/10 02:34	56-23-5	
Chlorobenzene	ND	ug/kg	50.0	1	05/11/10 11:55	05/12/10 02:34	108-90-7	
Chloroethane	ND	ug/kg	500	1	05/11/10 11:55	05/12/10 02:34	75-00-3	
Chloroform	ND	ug/kg	50.0	1	05/11/10 11:55	05/12/10 02:34	67-66-3	
Chloromethane	ND	ug/kg	200	1	05/11/10 11:55	05/12/10 02:34	74-87-3	
2-Chlorotoluene	ND	ug/kg	50.0	1	05/11/10 11:55	05/12/10 02:34	95-49-8	
4-Chlorotoluene	ND	ug/kg	50.0	1	05/11/10 11:55	05/12/10 02:34	106-43-4	

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ANALYTICAL RESULTS

Project: 000211-10116-0 Lilydale Reg.

Pace Project No.: 10128303

Sample: Meoh Blank Lab ID: 10128303010 Collected: Received: 05/07/10 16:25 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5030 Med Level		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B						
1,2-Dibromo-3-chloropropane	ND ug/kg		200	1	05/11/10 11:55	05/12/10 02:34	96-12-8	
Dibromochloromethane	ND ug/kg		50.0	1	05/11/10 11:55	05/12/10 02:34	124-48-1	
1,2-Dibromoethane (EDB)	ND ug/kg		50.0	1	05/11/10 11:55	05/12/10 02:34	106-93-4	
Dibromomethane	ND ug/kg		50.0	1	05/11/10 11:55	05/12/10 02:34	74-95-3	
1,2-Dichlorobenzene	ND ug/kg		50.0	1	05/11/10 11:55	05/12/10 02:34	95-50-1	
1,3-Dichlorobenzene	ND ug/kg		50.0	1	05/11/10 11:55	05/12/10 02:34	541-73-1	
1,4-Dichlorobenzene	ND ug/kg		50.0	1	05/11/10 11:55	05/12/10 02:34	106-46-7	
Dichlorodifluoromethane	ND ug/kg		50.0	1	05/11/10 11:55	05/12/10 02:34	75-71-8	
1,1-Dichloroethane	ND ug/kg		50.0	1	05/11/10 11:55	05/12/10 02:34	75-34-3	
1,2-Dichloroethane	ND ug/kg		50.0	1	05/11/10 11:55	05/12/10 02:34	107-06-2	
1,1-Dichloroethene	ND ug/kg		50.0	1	05/11/10 11:55	05/12/10 02:34	75-35-4	
cis-1,2-Dichloroethene	ND ug/kg		50.0	1	05/11/10 11:55	05/12/10 02:34	156-59-2	
trans-1,2-Dichloroethene	ND ug/kg		50.0	1	05/11/10 11:55	05/12/10 02:34	156-60-5	
Dichlorofluoromethane	ND ug/kg		50.0	1	05/11/10 11:55	05/12/10 02:34	75-43-4	
1,2-Dichloropropane	ND ug/kg		50.0	1	05/11/10 11:55	05/12/10 02:34	78-87-5	
1,3-Dichloropropane	ND ug/kg		50.0	1	05/11/10 11:55	05/12/10 02:34	142-28-9	
2,2-Dichloropropane	ND ug/kg		200	1	05/11/10 11:55	05/12/10 02:34	594-20-7	
1,1-Dichloropropene	ND ug/kg		50.0	1	05/11/10 11:55	05/12/10 02:34	563-58-6	
cis-1,3-Dichloropropene	ND ug/kg		50.0	1	05/11/10 11:55	05/12/10 02:34	10061-01-5	
trans-1,3-Dichloropropene	ND ug/kg		50.0	1	05/11/10 11:55	05/12/10 02:34	10061-02-6	
Diethyl ether (Ethyl ether)	ND ug/kg		200	1	05/11/10 11:55	05/12/10 02:34	60-29-7	
Ethylbenzene	ND ug/kg		50.0	1	05/11/10 11:55	05/12/10 02:34	100-41-4	
Hexachloro-1,3-butadiene	ND ug/kg		200	1	05/11/10 11:55	05/12/10 02:34	87-68-3	
Isopropylbenzene (Cumene)	ND ug/kg		50.0	1	05/11/10 11:55	05/12/10 02:34	98-82-8	
p-Isopropyltoluene	ND ug/kg		50.0	1	05/11/10 11:55	05/12/10 02:34	99-87-6	
Methylene Chloride	ND ug/kg		200	1	05/11/10 11:55	05/12/10 02:34	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND ug/kg		500	1	05/11/10 11:55	05/12/10 02:34	108-10-1	
Methyl-tert-butyl ether	ND ug/kg		50.0	1	05/11/10 11:55	05/12/10 02:34	1634-04-4	
Naphthalene	ND ug/kg		200	1	05/11/10 11:55	05/12/10 02:34	91-20-3	
n-Propylbenzene	ND ug/kg		50.0	1	05/11/10 11:55	05/12/10 02:34	103-65-1	
Styrene	ND ug/kg		50.0	1	05/11/10 11:55	05/12/10 02:34	100-42-5	
1,1,1,2-Tetrachloroethane	ND ug/kg		50.0	1	05/11/10 11:55	05/12/10 02:34	630-20-6	
1,1,2,2-Tetrachloroethane	ND ug/kg		50.0	1	05/11/10 11:55	05/12/10 02:34	79-34-5	
Tetrachloroethene	ND ug/kg		50.0	1	05/11/10 11:55	05/12/10 02:34	127-18-4	
Tetrahydrofuran	ND ug/kg		500	1	05/11/10 11:55	05/12/10 02:34	109-99-9	
Toluene	ND ug/kg		50.0	1	05/11/10 11:55	05/12/10 02:34	108-88-3	
1,2,3-Trichlorobenzene	ND ug/kg		50.0	1	05/11/10 11:55	05/12/10 02:34	87-61-6	
1,2,4-Trichlorobenzene	ND ug/kg		50.0	1	05/11/10 11:55	05/12/10 02:34	120-82-1	
1,1,1-Trichloroethane	ND ug/kg		50.0	1	05/11/10 11:55	05/12/10 02:34	71-55-6	
1,1,2-Trichloroethane	ND ug/kg		50.0	1	05/11/10 11:55	05/12/10 02:34	79-00-5	
Trichloroethene	ND ug/kg		50.0	1	05/11/10 11:55	05/12/10 02:34	79-01-6	
Trichlorofluoromethane	ND ug/kg		50.0	1	05/11/10 11:55	05/12/10 02:34	75-69-4	
1,2,3-Trichloropropane	ND ug/kg		50.0	1	05/11/10 11:55	05/12/10 02:34	96-18-4	
1,1,2-Trichlorotrifluoroethane	ND ug/kg		50.0	1	05/11/10 11:55	05/12/10 02:34	76-13-1	
1,2,4-Trimethylbenzene	ND ug/kg		50.0	1	05/11/10 11:55	05/12/10 02:34	95-63-6	
1,3,5-Trimethylbenzene	ND ug/kg		50.0	1	05/11/10 11:55	05/12/10 02:34	108-67-8	

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ANALYTICAL RESULTS

Project: 000211-10116-0 Lilydale Reg.

Pace Project No.: 10128303

Sample: Meoh Blank **Lab ID: 10128303010** Collected: Received: 05/07/10 16:25 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5030 Med Level		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B						
Vinyl chloride	ND	ug/kg	20.0	1	05/11/10 11:55	05/12/10 02:34	75-01-4	
Xylene (Total)	ND	ug/kg	150	1	05/11/10 11:55	05/12/10 02:34	1330-20-7	
Dibromofluoromethane (S)	96	%	61-139	1	05/11/10 11:55	05/12/10 02:34	1868-53-7	
1,2-Dichloroethane-d4 (S)	107	%	68-136	1	05/11/10 11:55	05/12/10 02:34	17060-07-0	
Toluene-d8 (S)	100	%	68-133	1	05/11/10 11:55	05/12/10 02:34	2037-26-5	
4-Bromofluorobenzene (S)	105	%	68-126	1	05/11/10 11:55	05/12/10 02:34	460-00-4	

QUALITY CONTROL DATA

Project: 000211-10116-0 Lilydale Reg.

Pace Project No.: 10128303

QC Batch: GCSV/7268 Analysis Method: EPA 8081
QC Batch Method: EPA 8081 Analysis Description: 8081 GCS Pesticides
Associated Lab Samples: 10128303003, 10128303004, 10128303006, 10128303008, 10128303009

METHOD BLANK: 299719 Matrix: Solid

Associated Lab Samples: 10128303003, 10128303004, 10128303006, 10128303008, 10128303009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
4,4'-DDD	ug/kg	ND	3.3	05/17/10 21:26	
4,4'-DDE	ug/kg	ND	3.3	05/17/10 21:26	
4,4'-DDT	ug/kg	ND	3.3	05/17/10 21:26	
Aldrin	ug/kg	ND	1.7	05/17/10 21:26	
alpha-BHC	ug/kg	ND	1.7	05/17/10 21:26	
alpha-Chlordane	ug/kg	ND	1.7	05/17/10 21:26	
beta-BHC	ug/kg	ND	1.7	05/17/10 21:26	
Chlordane (Technical)	ug/kg	ND	33.3	05/17/10 21:26	
delta-BHC	ug/kg	ND	1.7	05/17/10 21:26	
Dieldrin	ug/kg	ND	3.3	05/17/10 21:26	
Endosulfan I	ug/kg	ND	1.7	05/17/10 21:26	
Endosulfan II	ug/kg	ND	3.3	05/17/10 21:26	
Endosulfan sulfate	ug/kg	ND	3.3	05/17/10 21:26	
Endrin	ug/kg	ND	3.3	05/17/10 21:26	
Endrin aldehyde	ug/kg	ND	3.3	05/17/10 21:26	
Endrin ketone	ug/kg	ND	3.3	05/17/10 21:26	
gamma-BHC (Lindane)	ug/kg	ND	1.7	05/17/10 21:26	
gamma-Chlordane	ug/kg	ND	1.7	05/17/10 21:26	
Heptachlor	ug/kg	ND	1.7	05/17/10 21:26	
Heptachlor epoxide	ug/kg	ND	1.7	05/17/10 21:26	
Methoxychlor	ug/kg	ND	16.7	05/17/10 21:26	
Toxaphene	ug/kg	ND	100	05/17/10 21:26	
Decachlorobiphenyl (S)	%-	72	30-130	05/17/10 21:26	
Tetrachloro-m-xylene (S)	%-	58	34-130	05/17/10 21:26	

LABORATORY CONTROL SAMPLE: 299720

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
4,4'-DDD	ug/kg	26.7	19.2	72	49-130	
4,4'-DDE	ug/kg	26.7	19.2	72	55-130	
4,4'-DDT	ug/kg	26.7	21.4	80	55-130	
Aldrin	ug/kg	13.3	11.1	83	54-130	
alpha-BHC	ug/kg	13.3	10.1	75	51-131	
alpha-Chlordane	ug/kg	13.3	10.8	81	70-130	
beta-BHC	ug/kg	13.3	9.7	73	47-130	
Chlordane (Technical)	ug/kg		ND			
delta-BHC	ug/kg	13.3	5.8	43	52-130	L0
Dieldrin	ug/kg	26.7	20.2	76	59-130	
Endosulfan I	ug/kg	13.3	10.2	76	51-130	
Endosulfan II	ug/kg	26.7	21.2	80	55-130	
Endosulfan sulfate	ug/kg	26.7	19.6	73	56-130	

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QUALITY CONTROL DATA

Project: 000211-10116-0 Lilydale Reg.

Pace Project No.: 10128303

LABORATORY CONTROL SAMPLE: 299720

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Endrin	ug/kg	26.7	21.2	80	59-130	
Endrin aldehyde	ug/kg	26.7	17.6	66	52-130	
Endrin ketone	ug/kg	26.7	21.4	80	57-130	
gamma-BHC (Lindane)	ug/kg	13.3	9.4	71	53-130	
gamma-Chlordane	ug/kg	13.3	9.6	72	59-130	
Heptachlor	ug/kg	13.3	11.3	85	59-130	
Heptachlor epoxide	ug/kg	13.3	9.7	73	55-130	
Methoxychlor	ug/kg	133	114	85	56-130	
Toxaphene	ug/kg		ND			
Decachlorobiphenyl (S)	%-			77	30-130	
Tetrachloro-m-xylene (S)	%-			65	34-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 299721 299722

Parameter	Units	4031772002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
4,4'-DDD	ug/kg	<1.7	29.3	29.3	19.9	22.0	67	75	17-142	10	26	
4,4'-DDE	ug/kg	<1.1	29.3	29.3	21.8	25.7	73	86	22-135	17	20	
4,4'-DDT	ug/kg	<1.7	29.3	29.3	21.1	23.7	72	81	10-145	12	22	
Aldrin	ug/kg	<0.49	14.6	14.6	9.9	11.9	68	81	30-130	18	25	
alpha-BHC	ug/kg	<0.89	14.6	14.6	10.2	11.7	68	78	29-138	14	32	
alpha-Chlordane	ug/kg	<0.68	14.6	14.6	10.5	11.7	70	78	10-198	10	99	
beta-BHC	ug/kg	<1.3	14.6	14.6	10.2	11.8	67	78	15-141	15	33	
Chlordane (Technical)	ug/kg	<13.9			ND	ND					20	
delta-BHC	ug/kg	<0.70	14.6	14.6	7.4	8.8	50	60	25-134	18	27	
Dieldrin	ug/kg	<1.3	29.3	29.3	19.6	22.1	67	75	23-136	12	26	
Endosulfan I	ug/kg	<0.48	14.6	14.6	7.1	8.1	48	55	27-130	13	73	
Endosulfan II	ug/kg	<1.4	29.3	29.3	19.7	21.5	67	73	10-155	9	30	
Endosulfan sulfate	ug/kg	<0.91	29.3	29.3	17.8	20.3	59	68	33-130	13	22	
Endrin	ug/kg	<1.1	29.3	29.3	21.2	23.9	72	82	17-171	12	67	
Endrin aldehyde	ug/kg	<2.4	29.3	29.3	18.1	20.4	62	70	10-139	12	27	
Endrin ketone	ug/kg	<1.4	29.3	29.3	20.1	23.7	68	81	20-134	17	23	
gamma-BHC (Lindane)	ug/kg	0.52J	14.6	14.6	10.6	12.1	69	79	29-130	13	25	
gamma-Chlordane	ug/kg	<0.63	14.6	14.6	8.9	10.2	58	66	10-150	13	29	
Heptachlor	ug/kg	<0.58	14.6	14.6	11.8	13.1	78	87	43-130	11	27	
Heptachlor epoxide	ug/kg	<0.49	14.6	14.6	9.9	11.1	68	76	26-130	11	20	
Methoxychlor	ug/kg	<5.5	146	146	111	124	76	85	33-130	11	20	
Toxaphene	ug/kg	<24.7			ND	ND					20	
Decachlorobiphenyl (S)	%-						62	67	30-130			
Tetrachloro-m-xylene (S)	%-						61	69	34-130			

QUALITY CONTROL DATA

Project: 000211-10116-0 Lilydale Reg.

Pace Project No.: 10128303

QC Batch: OEXT/12890 Analysis Method: EPA 8082
QC Batch Method: EPA 3550 Analysis Description: 8082 GCS PCB
Associated Lab Samples: 10128303003, 10128303004, 10128303006, 10128303008, 10128303009

METHOD BLANK: 787249 Matrix: Solid
Associated Lab Samples: 10128303003, 10128303004, 10128303006, 10128303008, 10128303009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	ND	33.0	05/12/10 11:46	
PCB-1221 (Aroclor 1221)	ug/kg	ND	33.0	05/12/10 11:46	
PCB-1232 (Aroclor 1232)	ug/kg	ND	33.0	05/12/10 11:46	
PCB-1242 (Aroclor 1242)	ug/kg	ND	33.0	05/12/10 11:46	
PCB-1248 (Aroclor 1248)	ug/kg	ND	33.0	05/12/10 11:46	
PCB-1254 (Aroclor 1254)	ug/kg	ND	33.0	05/12/10 11:46	
PCB-1260 (Aroclor 1260)	ug/kg	ND	33.0	05/12/10 11:46	
PCB-1262 (Aroclor 1262)	ug/kg	ND	33.0	05/12/10 11:46	
PCB-1268 (Aroclor 1268)	ug/kg	ND	33.0	05/12/10 11:46	
Decachlorobiphenyl (S)	%	85	55-125	05/12/10 11:46	
Tetrachloro-m-xylene (S)	%	80	55-125	05/12/10 11:46	

LABORATORY CONTROL SAMPLE: 787250

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	667	550	82	68-125	
PCB-1260 (Aroclor 1260)	ug/kg	667	561	84	64-125	
Decachlorobiphenyl (S)	%			86	55-125	
Tetrachloro-m-xylene (S)	%			87	55-125	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 787251 787252

Parameter	Units	10128212002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
PCB-1016 (Aroclor 1016)	ug/kg	ND	712	712	503	479	71	67	43-128	5	30	
PCB-1260 (Aroclor 1260)	ug/kg	ND	712	712	378	359	53	50	36-126	5	30	
Decachlorobiphenyl (S)	%						58	55	55-125			
Tetrachloro-m-xylene (S)	%						68	65	55-125			

QUALITY CONTROL DATA

Project: 000211-10116-0 Lilydale Reg.

Pace Project No.: 10128303

QC Batch:	OEXT/12886	Analysis Method:	WI MOD DRO
QC Batch Method:	WI MOD DRO	Analysis Description:	WIDRO GCS
Associated Lab Samples:	10128303001, 10128303002, 10128303003, 10128303004, 10128303005, 10128303006, 10128303007, 10128303008, 10128303009		

METHOD BLANK:	786984	Matrix:	Solid
Associated Lab Samples:	10128303001, 10128303002, 10128303003, 10128303004, 10128303005, 10128303006, 10128303007, 10128303008, 10128303009		

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diesel Range Organics	mg/kg	ND	5.0	05/12/10 19:59	
n-Triacontane (S)	%	81	50-150	05/12/10 19:59	

LABORATORY CONTROL SAMPLE & LCSD:		786985	786986							
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Diesel Range Organics	mg/kg	80	72.0	80.0	90	100	70-120	11	20	
n-Triacontane (S)	%				83	81	50-150			

QUALITY CONTROL DATA

Project: 000211-10116-0 Lilydale Reg.

Pace Project No.: 10128303

QC Batch:	MPRP/20398	Analysis Method:	EPA 6010
QC Batch Method:	EPA 3050	Analysis Description:	6010 MET
Associated Lab Samples:	10128303001, 10128303002, 10128303003, 10128303004, 10128303005, 10128303006, 10128303007, 10128303008, 10128303009		

METHOD BLANK: 787523 Matrix: Solid

Associated Lab Samples: 10128303001, 10128303002, 10128303003, 10128303004, 10128303005, 10128303006, 10128303007, 10128303008, 10128303009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony	mg/kg	ND	0.45	05/13/10 11:19	
Arsenic	mg/kg	ND	0.45	05/13/10 11:19	
Beryllium	mg/kg	ND	0.23	05/13/10 11:19	
Cadmium	mg/kg	ND	0.045	05/13/10 11:19	
Chromium	mg/kg	ND	0.45	05/13/10 11:19	
Copper	mg/kg	ND	0.45	05/13/10 11:19	
Lead	mg/kg	ND	0.27	05/13/10 11:19	
Nickel	mg/kg	ND	0.90	05/13/10 11:19	
Selenium	mg/kg	ND	0.68	05/13/10 11:19	
Silver	mg/kg	ND	0.45	05/13/10 11:19	
Thallium	mg/kg	ND	0.90	05/13/10 11:19	
Zinc	mg/kg	ND	0.90	05/13/10 11:19	

LABORATORY CONTROL SAMPLE: 787524

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/kg	42.7	40.0	94	80-120	
Arsenic	mg/kg	42.7	39.2	92	80-120	
Beryllium	mg/kg	42.7	42.3	99	80-120	
Cadmium	mg/kg	42.7	40.1	94	80-120	
Chromium	mg/kg	42.7	40.1	94	80-120	
Copper	mg/kg	42.7	39.7	93	80-120	
Lead	mg/kg	42.7	39.9	93	80-120	
Nickel	mg/kg	42.7	40.2	94	80-120	
Selenium	mg/kg	42.7	39.9	93	80-120	
Silver	mg/kg	21.4	19.0	89	80-120	
Thallium	mg/kg	42.7	39.7	93	80-120	
Zinc	mg/kg	42.7	43.1	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 787525 787526

Parameter	Units	10128311001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/kg		48	37.5	57.1	34.2	119	91	75-125	50	30	R1
Arsenic	mg/kg	0.42	48	37.5	57.7	34.8	119	92	75-125	49	30	R1
Beryllium	mg/kg	ND	48	37.5	60.8	35.3	126	94	75-125	53	30	M0, R1
Cadmium	mg/kg	ND	48	37.5	56.6	33.9	118	90	75-125	50	30	R1
Chromium	mg/kg	3.8	48	37.5	63.5	38.9	124	93	75-125	48	30	R1

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QUALITY CONTROL DATA

Project: 000211-10116-0 Lilydale Reg.

Pace Project No.: 10128303

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 787525 787526											
Parameter	Units	10128311001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
Copper	mg/kg	3.8	48	37.5	63.6	39.2	125	94	75-125	48	30 R1
Lead	mg/kg	2.5	48	37.5	61.0	37.2	122	92	75-125	48	30 R1
Nickel	mg/kg	2.8	48	37.5	60.5	36.8	120	91	75-125	49	30 R1
Selenium	mg/kg	0.87	48	37.5	57.0	34.2	117	89	75-125	50	30 R1
Silver	mg/kg		24	18.8	27.0	16.0	112	85	75-125	51	30 R1
Thallium	mg/kg	ND	48	37.5	55.1	33.1	115	88	75-125	50	30 R1
Zinc	mg/kg	5.4	48	37.5	70.0	42.3	135	98	75-125	49	30 M0,R1

MATRIX SPIKE SAMPLE: 787527							
Parameter	Units	10128432009 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Antimony	mg/kg		ND	44.9	39.7	88	75-125
Arsenic	mg/kg		3.0	44.9	45.1	94	75-125
Beryllium	mg/kg		ND	44.9	44.6	99	75-125
Cadmium	mg/kg		0.063	44.9	40.8	91	75-125
Chromium	mg/kg		10.7	44.9	49.3	86	75-125
Copper	mg/kg		7.6	44.9	48.4	91	75-125
Lead	mg/kg		2.9	44.9	42.1	87	75-125
Nickel	mg/kg		9.8	44.9	47.2	83	75-125
Selenium	mg/kg		1.6	44.9	44.0	94	75-125
Silver	mg/kg		ND	22.5	19.3	86	75-125
Thallium	mg/kg		ND	44.9	37.1	83	75-125
Zinc	mg/kg		13.8	44.9	52.7	87	75-125

QUALITY CONTROL DATA

Project: 000211-10116-0 Lilydale Reg.

Pace Project No.: 10128303

QC Batch: MPRP/20648

Analysis Method: EPA 6010

QC Batch Method: EPA 3010

Analysis Description: 6010 MET TCLP

Associated Lab Samples: 10128303002, 10128303009

METHOD BLANK: 796270

Matrix: Water

Associated Lab Samples: 10128303002, 10128303009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Lead	mg/L	ND	0.015	05/26/10 10:41	

LABORATORY CONTROL SAMPLE: 796271

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Lead	mg/L	1	0.98	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 796272

796273

Parameter	Units	10128303002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lead	mg/L	7.1	1	1	8.2	8.0	117	98	75-125	2	30	

MATRIX SPIKE SAMPLE: 796274

Parameter	Units	10129409002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Lead	mg/L	ND	1	0.95	95	75-125	

QUALITY CONTROL DATA

Project: 000211-10116-0 Lilydale Reg.

Pace Project No.: 10128303

QC Batch:	MERP/4446	Analysis Method:	EPA 7471
QC Batch Method:	EPA 7471	Analysis Description:	7471 Mercury
Associated Lab Samples:	10128303001, 10128303002, 10128303003, 10128303004, 10128303005, 10128303006, 10128303007, 10128303008, 10128303009		

METHOD BLANK:	789004	Matrix:	Solid
Associated Lab Samples:	10128303001, 10128303002, 10128303003, 10128303004, 10128303005, 10128303006, 10128303007, 10128303008, 10128303009		

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	mg/kg	ND	0.019	05/18/10 11:47	

LABORATORY CONTROL SAMPLE: 789005						
Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/kg	.47	0.50	107	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 789006												789007	
Parameter	Units	10128294004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
Mercury	mg/kg	1.9	7.2	6.2	10.5	9.2	119	119	80-120	13	20		

MATRIX SPIKE SAMPLE: 789008							
Parameter	Units	10128552002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Mercury	mg/kg	<0.020	.55	0.64	112	80-120	

QUALITY CONTROL DATA

Project: 000211-10116-0 Lilydale Reg.

Pace Project No.: 10128303

QC Batch: MPRP/20382

Analysis Method: % Moisture

QC Batch Method: % Moisture

Analysis Description: Dry Weight/Percent Moisture

Associated Lab Samples: 10128303001, 10128303002

SAMPLE DUPLICATE: 787205

Parameter	Units	10128216002 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	13.1	12.9	2	30	

SAMPLE DUPLICATE: 787284

Parameter	Units	10128294004 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	93.1	93.0	.1	30	

QUALITY CONTROL DATA

Project: 000211-10116-0 Lilydale Reg.

Pace Project No.: 10128303

QC Batch: MPRP/20388

Analysis Method: % Moisture

QC Batch Method: % Moisture

Analysis Description: Dry Weight/Percent Moisture

Associated Lab Samples: 10128303003, 10128303004, 10128303005, 10128303006, 10128303007, 10128303008, 10128303009

SAMPLE DUPLICATE: 787293

Parameter	Units	10128320003 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	4.5	4.7	4	30	

SAMPLE DUPLICATE: 787299

Parameter	Units	10128377001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	17.6	17.4	1	30	

QUALITY CONTROL DATA

Project: 000211-10116-0 Lilydale Reg.

Pace Project No.: 10128303

QC Batch:	OEXT/12891	Analysis Method:	EPA 8270
QC Batch Method:	EPA 3550	Analysis Description:	8270 Solid MSSV
Associated Lab Samples:	10128303001, 10128303002, 10128303003, 10128303004, 10128303005, 10128303006, 10128303007, 10128303008, 10128303009		

METHOD BLANK: 787324 Matrix: Solid

Associated Lab Samples: 10128303001, 10128303002, 10128303003, 10128303004, 10128303005, 10128303006, 10128303007, 10128303008, 10128303009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trichlorobenzene	ug/kg	ND	330	05/11/10 17:45	
1,2-Dichlorobenzene	ug/kg	ND	330	05/11/10 17:45	
1,2-Diphenylhydrazine	ug/kg	ND	1700	05/11/10 17:45	
1,3-Dichlorobenzene	ug/kg	ND	330	05/11/10 17:45	
1,4-Dichlorobenzene	ug/kg	ND	330	05/11/10 17:45	
1-Methylnaphthalene	ug/kg	ND	330	05/11/10 17:45	
2,4,5-Trichlorophenol	ug/kg	ND	1700	05/11/10 17:45	
2,4,6-Trichlorophenol	ug/kg	ND	330	05/11/10 17:45	
2,4-Dichlorophenol	ug/kg	ND	330	05/11/10 17:45	
2,4-Dimethylphenol	ug/kg	ND	330	05/11/10 17:45	
2,4-Dinitrophenol	ug/kg	ND	1700	05/11/10 17:45	
2,4-Dinitrotoluene	ug/kg	ND	330	05/11/10 17:45	
2,6-Dinitrotoluene	ug/kg	ND	330	05/11/10 17:45	
2-Chloronaphthalene	ug/kg	ND	330	05/11/10 17:45	
2-Chlorophenol	ug/kg	ND	330	05/11/10 17:45	
2-Methylnaphthalene	ug/kg	ND	330	05/11/10 17:45	
2-Methylphenol(o-Cresol)	ug/kg	ND	330	05/11/10 17:45	
2-Nitroaniline	ug/kg	ND	1700	05/11/10 17:45	
2-Nitrophenol	ug/kg	ND	330	05/11/10 17:45	
3&4-Methylphenol	ug/kg	ND	660	05/11/10 17:45	
3,3'-Dichlorobenzidine	ug/kg	ND	670	05/11/10 17:45	
3-Nitroaniline	ug/kg	ND	1700	05/11/10 17:45	
4,6-Dinitro-2-methylphenol	ug/kg	ND	1700	05/11/10 17:45	
4-Bromophenylphenyl ether	ug/kg	ND	330	05/11/10 17:45	
4-Chloro-3-methylphenol	ug/kg	ND	330	05/11/10 17:45	
4-Chloroaniline	ug/kg	ND	330	05/11/10 17:45	
4-Chlorophenylphenyl ether	ug/kg	ND	330	05/11/10 17:45	
4-Nitroaniline	ug/kg	ND	1700	05/11/10 17:45	
4-Nitrophenol	ug/kg	ND	1700	05/11/10 17:45	
Acenaphthene	ug/kg	ND	330	05/11/10 17:45	
Acenaphthylene	ug/kg	ND	330	05/11/10 17:45	
Anthracene	ug/kg	ND	330	05/11/10 17:45	
Benzidine	ug/kg	ND	1600	05/11/10 17:45	SS
Benzo(a)anthracene	ug/kg	ND	330	05/11/10 17:45	
Benzo(a)pyrene	ug/kg	ND	330	05/11/10 17:45	
Benzo(b)fluoranthene	ug/kg	ND	330	05/11/10 17:45	
Benzo(g,h,i)perylene	ug/kg	ND	330	05/11/10 17:45	
Benzo(k)fluoranthene	ug/kg	ND	330	05/11/10 17:45	
Benzoic acid	ug/kg	ND	1700	05/11/10 17:45	
Benzyl alcohol	ug/kg	ND	660	05/11/10 17:45	
bis(2-Chloroethoxy)methane	ug/kg	ND	330	05/11/10 17:45	

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QUALITY CONTROL DATA

Project: 000211-10116-0 Lilydale Reg.

Pace Project No.: 10128303

METHOD BLANK: 787324

Matrix: Solid

Associated Lab Samples: 10128303001, 10128303002, 10128303003, 10128303004, 10128303005, 10128303006, 10128303007, 10128303008, 10128303009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
bis(2-Chloroethyl) ether	ug/kg	ND	330	05/11/10 17:45	
bis(2-Chloroisopropyl) ether	ug/kg	ND	330	05/11/10 17:45	
bis(2-Ethylhexyl)phthalate	ug/kg	ND	330	05/11/10 17:45	
Butylbenzylphthalate	ug/kg	ND	330	05/11/10 17:45	
Carbazole	ug/kg	ND	330	05/11/10 17:45	
Chrysene	ug/kg	ND	330	05/11/10 17:45	
Di-n-butylphthalate	ug/kg	ND	330	05/11/10 17:45	
Di-n-octylphthalate	ug/kg	ND	330	05/11/10 17:45	
Dibenz(a,h)anthracene	ug/kg	ND	330	05/11/10 17:45	
Dibenzofuran	ug/kg	ND	330	05/11/10 17:45	
Diethylphthalate	ug/kg	ND	330	05/11/10 17:45	
Dimethylphthalate	ug/kg	ND	330	05/11/10 17:45	
Fluoranthene	ug/kg	ND	330	05/11/10 17:45	
Fluorene	ug/kg	ND	330	05/11/10 17:45	
Hexachloro-1,3-butadiene	ug/kg	ND	330	05/11/10 17:45	
Hexachlorobenzene	ug/kg	ND	330	05/11/10 17:45	
Hexachlorocyclopentadiene	ug/kg	ND	1700	05/11/10 17:45	
Hexachloroethane	ug/kg	ND	330	05/11/10 17:45	
Indeno(1,2,3-cd)pyrene	ug/kg	ND	330	05/11/10 17:45	
Isophorone	ug/kg	ND	330	05/11/10 17:45	
N-Nitroso-di-n-propylamine	ug/kg	ND	330	05/11/10 17:45	
N-Nitrosodimethylamine	ug/kg	ND	330	05/11/10 17:45	
N-Nitrosodiphenylamine	ug/kg	ND	330	05/11/10 17:45	
Naphthalene	ug/kg	ND	330	05/11/10 17:45	
Nitrobenzene	ug/kg	ND	330	05/11/10 17:45	
Pentachlorophenol	ug/kg	ND	1700	05/11/10 17:45	
Phenanthrene	ug/kg	ND	330	05/11/10 17:45	
Phenol	ug/kg	ND	330	05/11/10 17:45	
Pyrene	ug/kg	ND	330	05/11/10 17:45	
Pyridine	ug/kg	ND	1700	05/11/10 17:45	
2,4,6-Tribromophenol (S)	%	79	30-150	05/11/10 17:45	
2-Fluorobiphenyl (S)	%	80	59-130	05/11/10 17:45	
2-Fluorophenol (S)	%	75	43-126	05/11/10 17:45	
Nitrobenzene-d5 (S)	%	82	46-139	05/11/10 17:45	
Phenol-d6 (S)	%	78	49-125	05/11/10 17:45	
Terphenyl-d14 (S)	%	79	58-147	05/11/10 17:45	

LABORATORY CONTROL SAMPLE: 787325

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trichlorobenzene	ug/kg	1670	1420	85	56-125	
1,2-Dichlorobenzene	ug/kg	1670	1380	83	53-125	
1,2-Diphenylhydrazine	ug/kg	1670	1560J	93	52-134	
1,3-Dichlorobenzene	ug/kg	1670	1370	82	49-125	

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QUALITY CONTROL DATA

Project: 000211-10116-0 Lilydale Reg.

Pace Project No.: 10128303

LABORATORY CONTROL SAMPLE: 787325

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dichlorobenzene	ug/kg	1670	1390	84	51-125	
1-Methylnaphthalene	ug/kg	1670	1440	86	59-125	
2,4,5-Trichlorophenol	ug/kg	1670	1510J	90	64-125	
2,4,6-Trichlorophenol	ug/kg	1670	1480	89	59-125	
2,4-Dichlorophenol	ug/kg	1670	1390	84	60-125	
2,4-Dimethylphenol	ug/kg	1670	1340	81	30-129	
2,4-Dinitrophenol	ug/kg	1670	1440J	87	30-126	
2,4-Dinitrotoluene	ug/kg	1670	1630	98	62-127	
2,6-Dinitrotoluene	ug/kg	1670	1510	91	65-125	
2-Chloronaphthalene	ug/kg	1670	1470	88	64-125	
2-Chlorophenol	ug/kg	1670	1380	83	57-125	
2-Methylnaphthalene	ug/kg	1670	1460	88	62-125	
2-Methylphenol(o-Cresol)	ug/kg	1670	1360	82	50-125	
2-Nitroaniline	ug/kg	1670	1570J	94	30-138	
2-Nitrophenol	ug/kg	1670	1390	84	60-125	
3&4-Methylphenol	ug/kg	1670	1430	86	56-125	
3,3'-Dichlorobenzidine	ug/kg	1670	1350	81	30-125	
3-Nitroaniline	ug/kg	1670	1110J	66	58-128	
4,6-Dinitro-2-methylphenol	ug/kg	1670	1580J	95	39-125	
4-Bromophenylphenyl ether	ug/kg	1670	1510	91	66-125	
4-Chloro-3-methylphenol	ug/kg	1670	1480	89	59-125	
4-Chloroaniline	ug/kg	1670	771	46	30-125	
4-Chlorophenylphenyl ether	ug/kg	1670	1540	92	64-125	
4-Nitroaniline	ug/kg	1670	1460J	88	48-130	
4-Nitrophenol	ug/kg	1670	1550J	93	48-130	
Acenaphthene	ug/kg	1670	1520	91	64-125	
Acenaphthylene	ug/kg	1670	1430	86	58-125	
Anthracene	ug/kg	1670	1490	89	65-125	
Benzidine	ug/kg	1670	ND	12	30-125	L0,SS
Benzo(a)anthracene	ug/kg	1670	1520	91	66-125	
Benzo(a)pyrene	ug/kg	1670	1550	93	58-125	
Benzo(b)fluoranthene	ug/kg	1670	1540	92	60-125	
Benzo(g,h,i)perylene	ug/kg	1670	1500	90	60-125	
Benzo(k)fluoranthene	ug/kg	1670	1600	96	60-125	
Benzoic acid	ug/kg	1670	1240J	75	30-125	
Benzyl alcohol	ug/kg	1670	1440	87	50-125	
bis(2-Chloroethoxy)methane	ug/kg	1670	1420	85	62-125	
bis(2-Chloroethyl) ether	ug/kg	1670	1390	83	51-125	
bis(2-Chloroisopropyl) ether	ug/kg	1670	1320	79	37-127	
bis(2-Ethylhexyl)phthalate	ug/kg	1670	1590	95	63-137	
Butylbenzylphthalate	ug/kg	1670	1520	91	60-132	
Carbazole	ug/kg	1670	1480	89	59-125	
Chrysene	ug/kg	1670	1540	92	66-125	
Di-n-butylphthalate	ug/kg	1670	1510	90	65-137	
Di-n-octylphthalate	ug/kg	1670	1660	100	54-140	
Dibenz(a,h)anthracene	ug/kg	1670	1550	93	60-125	
Dibenzofuran	ug/kg	1670	1460	88	64-125	
Diethylphthalate	ug/kg	1670	1560	94	62-125	

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QUALITY CONTROL DATA

Project: 000211-10116-0 Lilydale Reg.

Pace Project No.: 10128303

LABORATORY CONTROL SAMPLE: 787325

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dimethylphthalate	ug/kg	1670	1550	93	66-125	
Fluoranthene	ug/kg	1670	1600	96	66-125	
Fluorene	ug/kg	1670	1510	91	64-125	
Hexachloro-1,3-butadiene	ug/kg	1670	1440	86	49-126	
Hexachlorobenzene	ug/kg	1670	1530	92	64-125	
Hexachlorocyclopentadiene	ug/kg	1670	1430J	86	30-125	
Hexachloroethane	ug/kg	1670	1390	84	45-125	
Indeno(1,2,3-cd)pyrene	ug/kg	1670	1520	91	59-126	
Isophorone	ug/kg	1670	1430	86	56-127	
N-Nitroso-di-n-propylamine	ug/kg	1670	1400	84	54-125	
N-Nitrosodimethylamine	ug/kg	1670	1310	79	31-130	
N-Nitrosodiphenylamine	ug/kg	1670	1530	92	56-125	
Naphthalene	ug/kg	1670	1340	80	57-125	
Nitrobenzene	ug/kg	1670	1430	86	54-125	
Pentachlorophenol	ug/kg	1670	1430J	86	39-125	
Phenanthrene	ug/kg	1670	1540	92	67-125	
Phenol	ug/kg	1670	1380	83	60-125	
Pyrene	ug/kg	1670	1510	91	63-127	
Pyridine	ug/kg	1670	968J	58	30-125	
2,4,6-Tribromophenol (S)	%			89	30-150	
2-Fluorobiphenyl (S)	%			82	59-130	
2-Fluorophenol (S)	%			79	43-126	
Nitrobenzene-d5 (S)	%			82	46-139	
Phenol-d6 (S)	%			78	49-125	
Terphenyl-d14 (S)	%			84	58-147	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 787326

787327

Parameter	Units	10128296005		MS		MSD		MS	MSD	% Rec	% Rec	% Rec	Limits	RPD	Max RPD	Qual
		Result	Conc.	Spike Conc.	Conc.	Result	Result	Result	Result							
1,2,4-Trichlorobenzene	ug/kg	ND	1890	1890	1890	1450	1430	77	76	46-125	2	30				
1,2-Dichlorobenzene	ug/kg	ND	1890	1890	1890	1410	1390	75	74	42-125	2	30				
1,2-Diphenylhydrazine	ug/kg	ND	1890	1890	1890	1700J	1670J	90	89	50-138		30				
1,3-Dichlorobenzene	ug/kg	ND	1890	1890	1890	1390	1370	74	73	37-125	1	30				
1,4-Dichlorobenzene	ug/kg	ND	1890	1890	1890	1420	1400	75	75	31-125	1	30				
1-Methylnaphthalene	ug/kg	ND	1890	1890	1890	1550	1510	82	80	47-130	3	30				
2,4,5-Trichlorophenol	ug/kg	ND	1890	1890	1890	1630J	1610J	87	86	33-142		30				
2,4,6-Trichlorophenol	ug/kg	ND	1890	1890	1890	1610	1600	86	85	46-133	.7	30				
2,4-Dichlorophenol	ug/kg	ND	1890	1890	1890	1560	1490	83	79	43-128	5	30				
2,4-Dimethylphenol	ug/kg	ND	1890	1890	1890	1570	1500	83	79	30-138	5	30				
2,4-Dinitrophenol	ug/kg	ND	1890	1890	1890	1490J	1470J	79	78	30-150		30				
2,4-Dinitrotoluene	ug/kg	ND	1890	1890	1890	1730	1720	92	91	41-138	.4	30				
2,6-Dinitrotoluene	ug/kg	ND	1890	1890	1890	1610	1580	86	84	38-135	2	30				
2-Chloronaphthalene	ug/kg	ND	1890	1890	1890	1620	1560	86	83	56-125	3	30				
2-Chlorophenol	ug/kg	ND	1890	1890	1890	1440	1390	76	74	45-125	4	30				
2-Methylnaphthalene	ug/kg	ND	1890	1890	1890	1560	1490	83	79	46-136	4	30				
2-Methylphenol(o-Cresol)	ug/kg	ND	1890	1890	1890	1500	1430	80	76	45-125	5	30				

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QUALITY CONTROL DATA

Project: 000211-10116-0 Lilydale Reg.

Pace Project No.: 10128303

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 787326 787327												
Parameter	10128296005		MS	MSD	MS	MSD	MS	MSD	% Rec	Max		Qual
	Units	Result	Spike	Spike						Result	Result	
			Conc.	Conc.					Limits			
2-Nitroaniline	ug/kg	ND	1890	1890	1690J	1650J	90	88	30-150		30	
2-Nitrophenol	ug/kg	ND	1890	1890	1460	1420	77	75	30-129	3	30	
3&4-Methylphenol	ug/kg	ND	1890	1890	1570	1510	84	80	44-126	4	30	
3,3'-Dichlorobenzidine	ug/kg	ND	1890	1890	1550	1540	83	82	30-137	1	30	
3-Nitroaniline	ug/kg	ND	1890	1890	1150J	1190J	61	63	43-140		30	
4,6-Dinitro-2-methylphenol	ug/kg	ND	1890	1890	1620J	1610J	86	85	30-150		30	
4-Bromophenylphenyl ether	ug/kg	ND	1890	1890	1650	1640	88	87	53-132	.6	30	
4-Chloro-3-methylphenol	ug/kg	ND	1890	1890	1620	1580	86	84	47-134	2	30	
4-Chloroaniline	ug/kg	ND	1890	1890	843	815	45	43	30-125	3	30	
4-Chlorophenylphenyl ether	ug/kg	ND	1890	1890	1630	1620	87	86	59-125	.7	30	
4-Nitroaniline	ug/kg	ND	1890	1890	1490J	1440J	79	77	30-150		30	
4-Nitrophenol	ug/kg	ND	1890	1890	1670J	1660J	88	88	36-149		30	
Acenaphthene	ug/kg	ND	1890	1890	1640	1630	87	87	30-150	.6	30	
Acenaphthylene	ug/kg	ND	1890	1890	1490	1460	79	78	52-136	2	30	
Anthracene	ug/kg	ND	1890	1890	1580	1600	84	85	30-150	1	30	
Benzidine	ug/kg	ND	1890	1890	ND	ND	26	26	30-125		30	M0, SS
Benzo(a)anthracene	ug/kg	ND	1890	1890	1630	1620	87	86	30-150	.3	30	
Benzo(a)pyrene	ug/kg	ND	1890	1890	1640	1650	87	88	30-150	.8	30	
Benzo(b)fluoranthene	ug/kg	ND	1890	1890	1640	1650	87	87	30-150	.3	30	
Benzo(g,h,i)perylene	ug/kg	ND	1890	1890	1610	1590	85	85	30-150	1	30	
Benzo(k)fluoranthene	ug/kg	ND	1890	1890	1710	1680	91	90	30-150	2	30	
Benzoic acid	ug/kg	ND	1890	1890	1270J	1320J	67	70	30-150		30	
Benzyl alcohol	ug/kg	ND	1890	1890	1490	1460	79	78	30-143	2	30	
bis(2-Chloroethoxy)methane	ug/kg	ND	1890	1890	1480	1420	79	76	38-127	4	30	
bis(2-Chloroethyl) ether	ug/kg	ND	1890	1890	1450	1410	77	75	33-125	2	30	
bis(2-Chloroisopropyl) ether	ug/kg	ND	1890	1890	1350	1350	72	72	44-125	.2	30	
bis(2-Ethylhexyl)phthalate	ug/kg	ND	1890	1890	1700	1690	77	76	40-150	.7	30	
Butylbenzylphthalate	ug/kg	ND	1890	1890	1630	1640	87	87	33-148	.6	30	
Carbazole	ug/kg	ND	1890	1890	1580	1590	84	85	62-133	1	30	
Chrysene	ug/kg	ND	1890	1890	1620	1640	86	87	30-150	1	30	
Di-n-butylphthalate	ug/kg	ND	1890	1890	1570	1570	84	84	45-150	.05	30	
Di-n-octylphthalate	ug/kg	ND	1890	1890	1770	1740	94	93	42-144	1	30	
Dibenz(a,h)anthracene	ug/kg	ND	1890	1890	1660	1650	88	87	30-150	.9	30	
Dibenzofuran	ug/kg	ND	1890	1890	1560	1540	83	82	56-136	.9	30	
Diethylphthalate	ug/kg	ND	1890	1890	1670	1660	89	88	53-134	.9	30	
Dimethylphthalate	ug/kg	ND	1890	1890	1640	1630	87	87	52-129	.2	30	
Fluoranthene	ug/kg	ND	1890	1890	1690	1720	90	91	30-150	2	30	
Fluorene	ug/kg	ND	1890	1890	1610	1600	86	85	54-139	.9	30	
Hexachloro-1,3-butadiene	ug/kg	ND	1890	1890	1460	1440	77	76	33-134	1	30	
Hexachlorobenzene	ug/kg	ND	1890	1890	1630	1660	87	88	51-130	2	30	
Hexachlorocyclopentadiene	ug/kg	ND	1890	1890	1400J	1360J	75	72	30-137		30	
Hexachloroethane	ug/kg	ND	1890	1890	1420	1380	75	73	30-125	2	30	
Indeno(1,2,3-cd)pyrene	ug/kg	ND	1890	1890	1630	1630	87	87	30-150	.1	30	
Isophorone	ug/kg	ND	1890	1890	1520	1470	81	78	43-129	3	30	
N-Nitroso-di-n-propylamine	ug/kg	ND	1890	1890	1470	1410	78	75	40-129	4	30	
N-Nitrosodimethylamine	ug/kg	ND	1890	1890	1330	1320	71	70	30-135	.7	30	
N-Nitrosodiphenylamine	ug/kg	ND	1890	1890	1670	1670	89	89	50-133	.04	30	

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QUALITY CONTROL DATA

Project: 000211-10116-0 Lilydale Reg.

Pace Project No.: 10128303

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 787326 787327												
Parameter	Units	10128296005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
Naphthalene	ug/kg	ND	1890	1890	1370	1340	73	71	49-125	2	30	
Nitrobenzene	ug/kg	ND	1890	1890	1480	1430	79	76	44-125	3	30	
Pentachlorophenol	ug/kg	ND	1890	1890	1590J	1610J	84	86	30-138		30	
Phenanthrene	ug/kg	ND	1890	1890	1630	1650	86	88	30-150	1	30	
Phenol	ug/kg	ND	1890	1890	1460	1420	78	76	51-125	3	30	
Pyrene	ug/kg	ND	1890	1890	1630	1620	87	86	30-150	.4	30	
Pyridine	ug/kg	ND	1890	1890	1070J	1040J	57	55	30-125		30	
2,4,6-Tribromophenol (S)	%						86	87	30-150			
2-Fluorobiphenyl (S)	%						79	77	59-130			
2-Fluorophenol (S)	%						73	71	43-126			
Nitrobenzene-d5 (S)	%						75	73	46-139			
Phenol-d6 (S)	%						74	72	49-125			
Terphenyl-d14 (S)	%						81	81	58-147			

QUALITY CONTROL DATA

Project: 000211-10116-0 Lilydale Reg.

Pace Project No.: 10128303

QC Batch:	MSV/14496	Analysis Method:	EPA 8260
QC Batch Method:	EPA 5035/5030B	Analysis Description:	8260 MSV 5030 Med Level
Associated Lab Samples:	10128303001, 10128303003, 10128303004, 10128303005, 10128303006, 10128303007, 10128303008, 10128303009, 10128303010		

METHOD BLANK: 787705 Matrix: Solid

Associated Lab Samples: 10128303001, 10128303003, 10128303004, 10128303005, 10128303006, 10128303007, 10128303008, 10128303009, 10128303010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	50.0	05/12/10 02:14	
1,1,1-Trichloroethane	ug/kg	ND	50.0	05/12/10 02:14	
1,1,2,2-Tetrachloroethane	ug/kg	ND	50.0	05/12/10 02:14	
1,1,2-Trichloroethane	ug/kg	ND	50.0	05/12/10 02:14	
1,1,2-Trichlorotrifluoroethane	ug/kg	ND	50.0	05/12/10 02:14	
1,1-Dichloroethane	ug/kg	ND	50.0	05/12/10 02:14	
1,1-Dichloroethene	ug/kg	ND	50.0	05/12/10 02:14	
1,1-Dichloropropene	ug/kg	ND	50.0	05/12/10 02:14	
1,2,3-Trichlorobenzene	ug/kg	ND	50.0	05/12/10 02:14	
1,2,3-Trichloropropane	ug/kg	ND	50.0	05/12/10 02:14	
1,2,4-Trichlorobenzene	ug/kg	ND	50.0	05/12/10 02:14	
1,2,4-Trimethylbenzene	ug/kg	ND	50.0	05/12/10 02:14	
1,2-Dibromo-3-chloropropane	ug/kg	ND	200	05/12/10 02:14	
1,2-Dibromoethane (EDB)	ug/kg	ND	50.0	05/12/10 02:14	
1,2-Dichlorobenzene	ug/kg	ND	50.0	05/12/10 02:14	
1,2-Dichloroethane	ug/kg	ND	50.0	05/12/10 02:14	
1,2-Dichloropropane	ug/kg	ND	50.0	05/12/10 02:14	
1,3,5-Trimethylbenzene	ug/kg	ND	50.0	05/12/10 02:14	
1,3-Dichlorobenzene	ug/kg	ND	50.0	05/12/10 02:14	
1,3-Dichloropropane	ug/kg	ND	50.0	05/12/10 02:14	
1,4-Dichlorobenzene	ug/kg	ND	50.0	05/12/10 02:14	
2,2-Dichloropropane	ug/kg	ND	200	05/12/10 02:14	
2-Butanone (MEK)	ug/kg	ND	500	05/12/10 02:14	
2-Chlorotoluene	ug/kg	ND	50.0	05/12/10 02:14	
4-Chlorotoluene	ug/kg	ND	50.0	05/12/10 02:14	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	500	05/12/10 02:14	
Acetone	ug/kg	ND	1250	05/12/10 02:14	
Allyl chloride	ug/kg	ND	200	05/12/10 02:14	
Benzene	ug/kg	ND	20.0	05/12/10 02:14	
Bromobenzene	ug/kg	ND	50.0	05/12/10 02:14	
Bromochloromethane	ug/kg	ND	50.0	05/12/10 02:14	
Bromodichloromethane	ug/kg	ND	50.0	05/12/10 02:14	
Bromoform	ug/kg	ND	400	05/12/10 02:14	
Bromomethane	ug/kg	ND	500	05/12/10 02:14	
Carbon tetrachloride	ug/kg	ND	200	05/12/10 02:14	
Chlorobenzene	ug/kg	ND	50.0	05/12/10 02:14	
Chloroethane	ug/kg	ND	500	05/12/10 02:14	
Chloroform	ug/kg	ND	50.0	05/12/10 02:14	
Chloromethane	ug/kg	ND	200	05/12/10 02:14	
cis-1,2-Dichloroethene	ug/kg	ND	50.0	05/12/10 02:14	
cis-1,3-Dichloropropene	ug/kg	ND	50.0	05/12/10 02:14	

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QUALITY CONTROL DATA

Project: 000211-10116-0 Lilydale Reg.

Pace Project No.: 10128303

METHOD BLANK: 787705

Matrix: Solid

Associated Lab Samples: 10128303001, 10128303003, 10128303004, 10128303005, 10128303006, 10128303007, 10128303008, 10128303009, 10128303010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Dibromochloromethane	ug/kg	ND	50.0	05/12/10 02:14	
Dibromomethane	ug/kg	ND	50.0	05/12/10 02:14	
Dichlorodifluoromethane	ug/kg	ND	50.0	05/12/10 02:14	
Dichlorofluoromethane	ug/kg	ND	50.0	05/12/10 02:14	
Diethyl ether (Ethyl ether)	ug/kg	ND	200	05/12/10 02:14	
Ethylbenzene	ug/kg	ND	50.0	05/12/10 02:14	
Hexachloro-1,3-butadiene	ug/kg	ND	200	05/12/10 02:14	
Isopropylbenzene (Cumene)	ug/kg	ND	50.0	05/12/10 02:14	
Methyl-tert-butyl ether	ug/kg	ND	50.0	05/12/10 02:14	
Methylene Chloride	ug/kg	ND	200	05/12/10 02:14	
n-Butylbenzene	ug/kg	ND	50.0	05/12/10 02:14	
n-Propylbenzene	ug/kg	ND	50.0	05/12/10 02:14	
Naphthalene	ug/kg	ND	200	05/12/10 02:14	
p-Isopropyltoluene	ug/kg	ND	50.0	05/12/10 02:14	
sec-Butylbenzene	ug/kg	ND	50.0	05/12/10 02:14	
Styrene	ug/kg	ND	50.0	05/12/10 02:14	
tert-Butylbenzene	ug/kg	ND	50.0	05/12/10 02:14	
Tetrachloroethene	ug/kg	ND	50.0	05/12/10 02:14	
Tetrahydrofuran	ug/kg	ND	500	05/12/10 02:14	
Toluene	ug/kg	ND	50.0	05/12/10 02:14	
trans-1,2-Dichloroethene	ug/kg	ND	50.0	05/12/10 02:14	
trans-1,3-Dichloropropene	ug/kg	ND	50.0	05/12/10 02:14	
Trichloroethene	ug/kg	ND	50.0	05/12/10 02:14	
Trichlorofluoromethane	ug/kg	ND	50.0	05/12/10 02:14	
Vinyl chloride	ug/kg	ND	20.0	05/12/10 02:14	
Xylene (Total)	ug/kg	ND	150	05/12/10 02:14	
1,2-Dichloroethane-d4 (S)	%	108	68-136	05/12/10 02:14	
4-Bromofluorobenzene (S)	%	106	68-126	05/12/10 02:14	
Dibromofluoromethane (S)	%	100	61-139	05/12/10 02:14	
Toluene-d8 (S)	%	105	68-133	05/12/10 02:14	

LABORATORY CONTROL SAMPLE & LCSD: 787706

787707

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	1000	962	970	96	97	75-125	.8	20	
1,1,1-Trichloroethane	ug/kg	1000	1080	1060	108	106	75-130	2	20	
1,1,2,2-Tetrachloroethane	ug/kg	1000	965	1010	97	101	70-139	5	20	
1,1,2-Trichloroethane	ug/kg	1000	963	965	96	97	75-125	.3	20	
1,1,2-Trichlorotrifluoroethane	ug/kg	1000	1200	1220	120	122	58-142	1	20	
1,1-Dichloroethane	ug/kg	1000	1070	1070	107	107	75-126	.3	20	
1,1-Dichloroethene	ug/kg	1000	1220	1200	122	120	71-127	2	20	
1,1-Dichloropropene	ug/kg	1000	1110	1080	111	108	75-125	3	20	
1,2,3-Trichlorobenzene	ug/kg	1000	1080	1050	108	105	75-133	2	20	
1,2,3-Trichloropropane	ug/kg	1000	1050	1110	105	111	75-126	6	20	

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QUALITY CONTROL DATA

Project: 000211-10116-0 Lilydale Reg.

Pace Project No.: 10128303

LABORATORY CONTROL SAMPLE & LCSD: 787706			787707								
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers	
1,2,4-Trichlorobenzene	ug/kg	1000	1110	1060	111	106	75-134	5	20		
1,2,4-Trimethylbenzene	ug/kg	1000	1080	1060	108	106	75-136	1	20		
1,2-Dibromo-3-chloropropane	ug/kg	1000	1120	1170	112	117	69-136	4	20		
1,2-Dibromoethane (EDB)	ug/kg	1000	1010	1040	101	104	75-125	2	20		
1,2-Dichlorobenzene	ug/kg	1000	1040	1020	104	102	75-125	2	20		
1,2-Dichloroethane	ug/kg	1000	1020	1030	102	103	75-135	.2	20		
1,2-Dichloropropane	ug/kg	1000	1060	1010	106	101	75-125	5	20		
1,3,5-Trimethylbenzene	ug/kg	1000	1110	1090	111	109	75-136	1	20		
1,3-Dichlorobenzene	ug/kg	1000	1070	1050	107	105	75-125	2	20		
1,3-Dichloropropane	ug/kg	1000	1020	1060	102	106	75-125	3	20		
1,4-Dichlorobenzene	ug/kg	1000	1060	1050	106	105	75-125	.4	20		
2,2-Dichloropropane	ug/kg	1000	934	925	93	93	30-150	1	20		
2-Butanone (MEK)	ug/kg	1000	1090	1010	109	101	49-149	7	20		
2-Chlorotoluene	ug/kg	1000	1100	1070	110	107	75-125	2	20		
4-Chlorotoluene	ug/kg	1000	1070	1070	107	107	75-126	.4	20		
4-Methyl-2-pentanone (MIBK)	ug/kg	1000	1090	1050	109	105	73-134	4	20		
Acetone	ug/kg	2500	2520	2520	101	101	57-150	.05	20		
Allyl chloride	ug/kg	1000	1070	1040	107	104	69-139	3	20		
Benzene	ug/kg	1000	1040	1040	104	104	75-130	.2	20		
Bromobenzene	ug/kg	1000	1010	1040	101	104	75-125	2	20		
Bromochloromethane	ug/kg	1000	1080	1100	108	110	75-125	2	20		
Bromodichloromethane	ug/kg	1000	1030	1050	103	105	75-130	2	20		
Bromoform	ug/kg	2000	1830	1900	92	95	75-128	4	20		
Bromomethane	ug/kg	1000	832	813	83	81	47-150	2	20		
Carbon tetrachloride	ug/kg	1000	1100	1110	110	111	67-138	.9	20		
Chlorobenzene	ug/kg	1000	1050	1030	105	103	75-125	3	20		
Chloroethane	ug/kg	1000	938	886	94	89	54-150	6	20		
Chloroform	ug/kg	1000	1070	1060	107	106	75-131	.7	20		
Chloromethane	ug/kg	1000	802	800	80	80	65-126	.2	20		
cis-1,2-Dichloroethene	ug/kg	1000	1130	1040	113	104	75-125	8	20		
cis-1,3-Dichloropropene	ug/kg	1000	1030	1030	103	103	75-125	.1	20		
Dibromochloromethane	ug/kg	1000	996	1010	100	101	75-125	2	20		
Dibromomethane	ug/kg	1000	999	1040	100	104	75-125	4	20		
Dichlorodifluoromethane	ug/kg	1000	776	744	78	74	37-125	4	20		
Dichlorofluoromethane	ug/kg	1000	1180	1160	118	116	30-150	2	20		
Diethyl ether (Ethyl ether)	ug/kg	1000	936	1020	94	102	67-135	9	20		
Ethylbenzene	ug/kg	1000	1080	1070	108	107	75-125	1	20		
Hexachloro-1,3-butadiene	ug/kg	1000	1210	1160	121	116	75-150	4	20		
Isopropylbenzene (Cumene)	ug/kg	1000	1080	1060	108	106	75-125	2	20		
Methyl-tert-butyl ether	ug/kg	1000	1020	1030	102	103	75-133	.9	20		
Methylene Chloride	ug/kg	1000	1040	1090	104	109	75-130	4	20		
n-Butylbenzene	ug/kg	1000	1170	1130	117	113	75-138	3	20		
n-Propylbenzene	ug/kg	1000	1120	1120	112	112	75-129	.4	20		
Naphthalene	ug/kg	1000	1200	1150	120	115	73-128	5	20		
p-Isopropyltoluene	ug/kg	1000	1120	1120	112	112	75-134	.2	20		
sec-Butylbenzene	ug/kg	1000	1120	1110	112	111	75-133	.5	20		
Styrene	ug/kg	1000	1030	1030	103	103	75-125	.07	20		
tert-Butylbenzene	ug/kg	1000	1130	1100	113	110	75-130	3	20		

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QUALITY CONTROL DATA

Project: 000211-10116-0 Lilydale Reg.

Pace Project No.: 10128303

LABORATORY CONTROL SAMPLE & LCSD: 787706		787707								
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Tetrachloroethene	ug/kg	1000	1030	1040	103	104	75-125	.3	20	
Tetrahydrofuran	ug/kg	10000	10800	11000	108	110	75-133	2	20	
Toluene	ug/kg	1000	1050	1040	105	104	75-125	.4	20	
trans-1,2-Dichloroethene	ug/kg	1000	1190	1170	119	117	75-125	2	20	
trans-1,3-Dichloropropene	ug/kg	1000	1010	1020	101	102	65-129	.6	20	
Trichloroethene	ug/kg	1000	1070	1060	107	106	75-132	.4	20	
Trichlorofluoromethane	ug/kg	1000	1020	1010	102	101	30-150	.8	20	
Vinyl chloride	ug/kg	1000	815	807	81	81	65-125	1	20	
Xylene (Total)	ug/kg	3000	3160	3140	105	105	75-125	.6	20	
1,2-Dichloroethane-d4 (S)	%				104	104	68-136			
4-Bromofluorobenzene (S)	%				104	104	68-126			
Dibromofluoromethane (S)	%				96	97	61-139			
Toluene-d8 (S)	%				102	102	68-133			

MATRIX SPIKE SAMPLE: 787708

Parameter	Units	10128303001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	1110	998	90	74-133	
1,1,1-Trichloroethane	ug/kg	ND	1110	1160	105	73-150	
1,1,2,2-Tetrachloroethane	ug/kg	ND	1110	1040	94	65-145	
1,1,2-Trichloroethane	ug/kg	ND	1110	1030	93	71-145	
1,1,2-Trichlorotrifluoroethane	ug/kg	ND	1110	1260	114	30-150	
1,1-Dichloroethane	ug/kg	ND	1110	1100	100	71-150	
1,1-Dichloroethene	ug/kg	ND	1110	1290	116	75-150	
1,1-Dichloropropene	ug/kg	ND	1110	1140	103	30-150	
1,2,3-Trichlorobenzene	ug/kg	ND	1110	1100	99	30-150	
1,2,3-Trichloropropane	ug/kg	ND	1110	1070	97	30-150	
1,2,4-Trichlorobenzene	ug/kg	ND	1110	1090	99	75-145	
1,2,4-Trimethylbenzene	ug/kg	ND	1110	1140	103	71-150	
1,2-Dibromo-3-chloropropane	ug/kg	ND	1110	1300	117	65-136	
1,2-Dibromoethane (EDB)	ug/kg	ND	1110	1080	98	75-145	
1,2-Dichlorobenzene	ug/kg	ND	1110	1050	95	75-140	
1,2-Dichloroethane	ug/kg	ND	1110	1100	99	73-146	
1,2-Dichloropropane	ug/kg	ND	1110	1040	94	75-147	
1,3,5-Trimethylbenzene	ug/kg	ND	1110	1170	106	70-150	
1,3-Dichlorobenzene	ug/kg	ND	1110	1110	100	75-141	
1,3-Dichloropropane	ug/kg	ND	1110	1100	99	30-150	
1,4-Dichlorobenzene	ug/kg	ND	1110	1090	98	75-139	
2,2-Dichloropropane	ug/kg	ND	1110	1010	92	30-150	
2-Butanone (MEK)	ug/kg	ND	1110	1280	115	41-150	
2-Chlorotoluene	ug/kg	ND	1110	1120	101	30-150	
4-Chlorotoluene	ug/kg	ND	1110	1130	102	30-150	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	1110	1090	99	60-150	
Acetone	ug/kg	ND	2760	2930	106	51-150	
Allyl chloride	ug/kg	ND	1110	1140	103	30-150	
Benzene	ug/kg	ND	1110	1080	98	73-150	
Bromobenzene	ug/kg	ND	1110	1050	95	30-150	

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QUALITY CONTROL DATA

Project: 000211-10116-0 Lilydale Reg.

Pace Project No.: 10128303

MATRIX SPIKE SAMPLE: 787708		10128303001	Spike	MS	MS	% Rec	Qualifiers
Parameter	Units	Result	Conc.	Result	% Rec	Limits	
Bromochloromethane	ug/kg	ND	1110	1100	100	30-150	
Bromodichloromethane	ug/kg	ND	1110	1070	97	71-138	
Bromoform	ug/kg	ND	2220	2060	93	64-128	
Bromomethane	ug/kg	ND	1110	941	85	30-150	
Carbon tetrachloride	ug/kg	ND	1110	1190	108	67-150	
Chlorobenzene	ug/kg	ND	1110	1050	95	74-142	
Chloroethane	ug/kg	ND	1110	1720	155	30-150	MO
Chloroform	ug/kg	ND	1110	1130	102	74-150	
Chloromethane	ug/kg	ND	1110	828	75	50-150	
cis-1,2-Dichloroethene	ug/kg	ND	1110	1150	104	75-147	
cis-1,3-Dichloropropene	ug/kg	ND	1110	1080	98	68-133	
Dibromochloromethane	ug/kg	ND	1110	1050	95	71-128	
Dibromomethane	ug/kg	ND	1110	1040	94	69-137	
Dichlorodifluoromethane	ug/kg	ND	1110	747	68	50-150	
Dichlorofluoromethane	ug/kg	ND	1110	1210	110	50-150	
Diethyl ether (Ethyl ether)	ug/kg	ND	1110	1050	95	30-150	
Ethylbenzene	ug/kg	ND	1110	1110	101	74-150	
Hexachloro-1,3-butadiene	ug/kg	ND	1110	1260	114	54-150	
Isopropylbenzene (Cumene)	ug/kg	ND	1110	1130	102	75-150	
Methyl-tert-butyl ether	ug/kg	ND	1110	1060	96	70-142	
Methylene Chloride	ug/kg	ND	1110	1100	100	67-144	
n-Butylbenzene	ug/kg	ND	1110	1180	107	55-150	
n-Propylbenzene	ug/kg	ND	1110	1170	106	50-150	
Naphthalene	ug/kg	ND	1110	1230	111	64-150	
p-Isopropyltoluene	ug/kg	ND	1110	1150	104	75-138	
sec-Butylbenzene	ug/kg	ND	1110	1170	106	75-144	
Styrene	ug/kg	ND	1110	1060	96	75-144	
tert-Butylbenzene	ug/kg	ND	1110	1150	104	54-150	
Tetrachloroethene	ug/kg	ND	1110	1120	102	75-150	
Tetrahydrofuran	ug/kg	ND	11100	11800	107	50-150	
Toluene	ug/kg	ND	1110	1110	101	73-144	
trans-1,2-Dichloroethene	ug/kg	ND	1110	1200	109	75-150	
trans-1,3-Dichloropropene	ug/kg	ND	1110	1120	101	66-127	
Trichloroethene	ug/kg	ND	1110	1110	100	75-150	
Trichlorofluoromethane	ug/kg	ND	1110	1070	96	50-150	
Vinyl chloride	ug/kg	ND	1110	806	73	44-150	
Xylene (Total)	ug/kg	ND	3310	3300	99	75-148	
1,2-Dichloroethane-d4 (S)	%				100	68-136	
4-Bromofluorobenzene (S)	%				97	68-126	
Dibromofluoromethane (S)	%				92	61-139	
Toluene-d8 (S)	%				98	68-133	

SAMPLE DUPLICATE: 787709

Parameter	Units	10128303003	Dup	RPD	Max	Qualifiers
		Result	Result		RPD	
1,1,1,2-Tetrachloroethane	ug/kg	ND	ND		30	
1,1,1-Trichloroethane	ug/kg	ND	ND		30	

Date: 05/28/2010 03:17 PM

REPORT OF LABORATORY ANALYSIS

Page 67 of 70

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QUALITY CONTROL DATA

Project: 000211-10116-0 Lilydale Reg.

Pace Project No.: 10128303

SAMPLE DUPLICATE: 787709

Parameter	Units	10128303003 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,2,2-Tetrachloroethane	ug/kg	ND	ND		30	
1,1,2-Trichloroethane	ug/kg	ND	ND		30	
1,1,2-Trichlorotrifluoroethane	ug/kg	ND	ND		30	
1,1-Dichloroethane	ug/kg	ND	ND		30	
1,1-Dichloroethene	ug/kg	ND	ND		30	
1,1-Dichloropropene	ug/kg	ND	ND		30	
1,2,3-Trichlorobenzene	ug/kg	ND	ND		30	
1,2,3-Trichloropropane	ug/kg	ND	ND		30	
1,2,4-Trichlorobenzene	ug/kg	ND	ND		30	
1,2,4-Trimethylbenzene	ug/kg	ND	ND		30	
1,2-Dibromo-3-chloropropane	ug/kg	ND	ND		30	
1,2-Dibromoethane (EDB)	ug/kg	ND	ND		30	
1,2-Dichlorobenzene	ug/kg	ND	ND		30	
1,2-Dichloroethane	ug/kg	ND	ND		30	
1,2-Dichloropropane	ug/kg	ND	ND		30	
1,3,5-Trimethylbenzene	ug/kg	ND	ND		30	
1,3-Dichlorobenzene	ug/kg	ND	ND		30	
1,3-Dichloropropane	ug/kg	ND	ND		30	
1,4-Dichlorobenzene	ug/kg	ND	ND		30	
2,2-Dichloropropane	ug/kg	ND	ND		30	
2-Butanone (MEK)	ug/kg	ND	ND		30	
2-Chlorotoluene	ug/kg	ND	ND		30	
4-Chlorotoluene	ug/kg	ND	ND		30	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	ND		30	
Acetone	ug/kg	ND	ND		30	
Allyl chloride	ug/kg	ND	ND		30	
Benzene	ug/kg	ND	ND		30	
Bromobenzene	ug/kg	ND	ND		30	
Bromochloromethane	ug/kg	ND	ND		30	
Bromodichloromethane	ug/kg	ND	ND		30	
Bromoform	ug/kg	ND	ND		30	
Bromomethane	ug/kg	ND	ND		30	
Carbon tetrachloride	ug/kg	ND	ND		30	
Chlorobenzene	ug/kg	ND	ND		30	
Chloroethane	ug/kg	ND	ND		30	
Chloroform	ug/kg	ND	ND		30	
Chloromethane	ug/kg	ND	ND		30	
cis-1,2-Dichloroethene	ug/kg	ND	ND		30	
cis-1,3-Dichloropropene	ug/kg	ND	ND		30	
Dibromochloromethane	ug/kg	ND	ND		30	
Dibromomethane	ug/kg	ND	ND		30	
Dichlorodifluoromethane	ug/kg	ND	ND		30	
Dichlorofluoromethane	ug/kg	ND	ND		30	
Diethyl ether (Ethyl ether)	ug/kg	ND	ND		30	
Ethylbenzene	ug/kg	ND	ND		30	
Hexachloro-1,3-butadiene	ug/kg	ND	ND		30	
Isopropylbenzene (Cumene)	ug/kg	ND	ND		30	
Methyl-tert-butyl ether	ug/kg	ND	ND		30	

Date: 05/28/2010 03:17 PM

REPORT OF LABORATORY ANALYSIS

Page 68 of 70

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QUALITY CONTROL DATA

Project: 000211-10116-0 Lilydale Reg.

Pace Project No.: 10128303

SAMPLE DUPLICATE: 787709

Parameter	Units	10128303003 Result	Dup Result	RPD	Max RPD	Qualifiers
Methylene Chloride	ug/kg	ND	ND		30	
n-Butylbenzene	ug/kg	ND	ND		30	
n-Propylbenzene	ug/kg	ND	ND		30	
Naphthalene	ug/kg	ND	ND		30	
p-Isopropyltoluene	ug/kg	ND	ND		30	
sec-Butylbenzene	ug/kg	ND	ND		30	
Styrene	ug/kg	ND	ND		30	
tert-Butylbenzene	ug/kg	ND	ND		30	
Tetrachloroethene	ug/kg	ND	ND		30	
Tetrahydrofuran	ug/kg	ND	ND		30	
Toluene	ug/kg	ND	28.6J		30	
trans-1,2-Dichloroethene	ug/kg	ND	ND		30	
trans-1,3-Dichloropropene	ug/kg	ND	ND		30	
Trichloroethene	ug/kg	ND	ND		30	
Trichlorofluoromethane	ug/kg	ND	ND		30	
Vinyl chloride	ug/kg	ND	ND		30	
Xylene (Total)	ug/kg	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	94	98	3		
4-Bromofluorobenzene (S)	%	88	95	6		
Dibromofluoromethane (S)	%	86	91	4		
Toluene-d8 (S)	%	91	94	3		

QUALIFIERS

Project: 000211-10116-0 Lilydale Reg.

Pace Project No.: 10128303

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

LABORATORIES

PASI-G Pace Analytical Services - Green Bay

PASI-M Pace Analytical Services - Minneapolis

ANALYTE QUALIFIERS

C2	Relative percent difference between results from each column was greater than 40%. The lower of the two results was reported.
D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
D4	Sample was diluted due to the presence of high levels of target analytes.
L0	Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
L2	Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results may be biased low.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
P3	Sample extract could not be concentrated to the routine final volume, resulting in elevated reporting limits.
R1	RPD value was outside control limits.
S0	Surrogate recovery outside laboratory control limits.
S4	Surrogate recovery not evaluated against control limits due to sample dilution.
SS	This analyte did not meet the secondary source verification criteria for the initial calibration. The reported result should be considered an estimated value.
T6	High boiling point hydrocarbons are present in the sample.

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A

Required Client Information:

Company: Bonestroo
Address: 3717 23rd St. S
Email To: St. Cloud, MN 56301
Phone: 320-229-5829
Requested Due Date/TAT: 3/30/2016

Section B

Required Project Information:

Report To: Clint Jordahl
Copy To: St. Paul
Purchase Order No.: Master Contract
Project Name: \$442795
Project Number: 22868-3

Section C

Invoice Information:

Attention: St. Paul
Company Name: Master Contract
Address: \$442795
Pace Quote Reference: 22868-3
Pace Project Manager: 22868-3
Pace Profile #:

Page:

1 of 2

1383545

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER NYC

Site Location

STATE: MN

Requested Analysis Filtered (Y/N)

Y/N

Residual Chlorine (Y/N)

Y/N

Pace Project No. / Lab I.D.

001

002

003

004

005

006

007

008

009

010

Section D

Required Client Information

MATRIX CODE
Drinking Water DW
Waste Water WW
Product P
Soil/Solid SL
Oil OL
Wipe WP
Air AR
Tissue TS
Other OT

SAMPLE ID

(A-Z, 0-9 /, -)

Sample IDs MUST BE UNIQUE

ITEM #

1

2

3

4

5

6

7

8

9

10

11

12

S-3

S-4

S-6

S-8

S-10

S-11

S-14

S-15

S-16

meat Blank

SL

1

1

1

1

1

1

1

1

1

DATE

5/4/10

1000

1045

1108

1206

1239

1404

1428

1430

DATE

5/4/10

1000

1045

1108

1206

1239

1404

1428

1430

DATE

5/6/10

3pm

DATE

5/7/10

150

28

26

DATE

5/7/10

150

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DATE

5/7/10

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DATE

5/7/10

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26

ADDITIONAL COMMENTS

71 of 72

RELINQUISHED BY / AFFILIATION

DATE

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TIME

RELINQUISHED BY / AFFILIATION

DATE

TIME

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER:

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER:

DATE Signed

(MM/DD/YYYY):

DATE Signed

(MM/DD/YYYY):

Temp in °C

Received on

Ice (Y/N)

Custody

Sealed Cooler

(Y/N)

Temp in °C

Received on

Ice (Y/N)

Custody

Sealed Cooler

(Y/N)

Temp in °C

Received on

Ice (Y/N)

Custody

Sealed Cooler

(Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days

Sample Condition Upon Receipt

Client Name: BonestrooProject # 1162803Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☒ Commercial ☐ Pace Other _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☒ yes ☐ no Seals Intact: ☒ yes ☐ noPacking Material: ☐ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other _____ Temp Blank: Yes ☐ No ☒Thermometer Used 80344042 or 179425Type of Ice: Wet ☐ Blue ☐ None ☐☐ Samples on ice, cooling process has begunCooler Temperature 2.8, 2.6Biological Tissue Is Frozen: Yes ☐ No ☒Date and Initials of person examining contents: 5/7/10 SL

Temp should be above freezing to 6°C

Comments: WT

Chain of Custody Present:	☒ Yes ☐ No ☐ N/A	1.
Chain of Custody Filled Out:	☒ Yes ☐ No ☐ N/A	2.
Chain of Custody Relinquished:	☒ Yes ☐ No ☐ N/A	3.
Sampler Name & Signature on COC:	☒ Yes ☐ No ☐ N/A	4.
Samples Arrived within Hold Time:	☒ Yes ☐ No ☐ N/A	5.
Short Hold Time Analysis (<72hr):	☐ Yes ☒ No ☐ N/A	6.
Rush Turn Around Time Requested:	☐ Yes ☒ No ☐ N/A	7.
Sufficient Volume:	☒ Yes ☐ No ☐ N/A	8.
Correct Containers Used:	☒ Yes ☐ No ☐ N/A	9.
-Pace Containers Used:	☒ Yes ☐ No ☐ N/A	
Containers Intact:	☒ Yes ☐ No ☐ N/A	10.
Filtered volume received for Dissolved tests	☐ Yes ☐ No ☒ N/A	11.
Sample Labels match COC:	☒ Yes ☐ No ☐ N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>SL</u>		
All containers needing acid/base preservation have been checked. Noncompliance are noted in 13.	☐ Yes ☐ No ☐ N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐ Yes ☐ No ☐ N/A	
Exceptions: VOA, Coliform, TOC, Oil and Grease, WI-DRO (water)	☐ Yes ☒ No	
		Initial when completed
		Lot # of added preservative
Samples checked for dechlorination:	☐ Yes ☐ No ☒ N/A	14.
Headspace in VOA Vials (>6mm):	☐ Yes ☐ No ☒ N/A	15.
Trip Blank Present:	☒ Yes ☐ No ☐ N/A	16. <u>1 SL TB</u>
Trip Blank Custody Seals Present	☒ Yes ☐ No ☐ N/A	
Pace Trip Blank Lot # (if purchased): <u>02210-3</u>		

Client Notification/ Resolution:

Field Data Required?

Y / (N)Person Contacted: SL

Date/Time: _____

Comments/ Resolution: SLProject Manager Review: SLDate: 5/11/10

Appendix B
Site Photographs



Photograph #1

Subject: Extent of topsoil cover at Test Pit 1 location (fairly typical of all test pits)



Photograph #2

Subject: Test Pit 1



Photograph #3
Subject: Test Pit 1 material



Photograph #4
Subject: Black tarry layer from approximately 12-foot depth in TP-1



Photograph #5
Subject: Test Pit 2



Photograph #6
Subject: Test Pit 2 material



Photograph #7
Subject: Test Pit 3

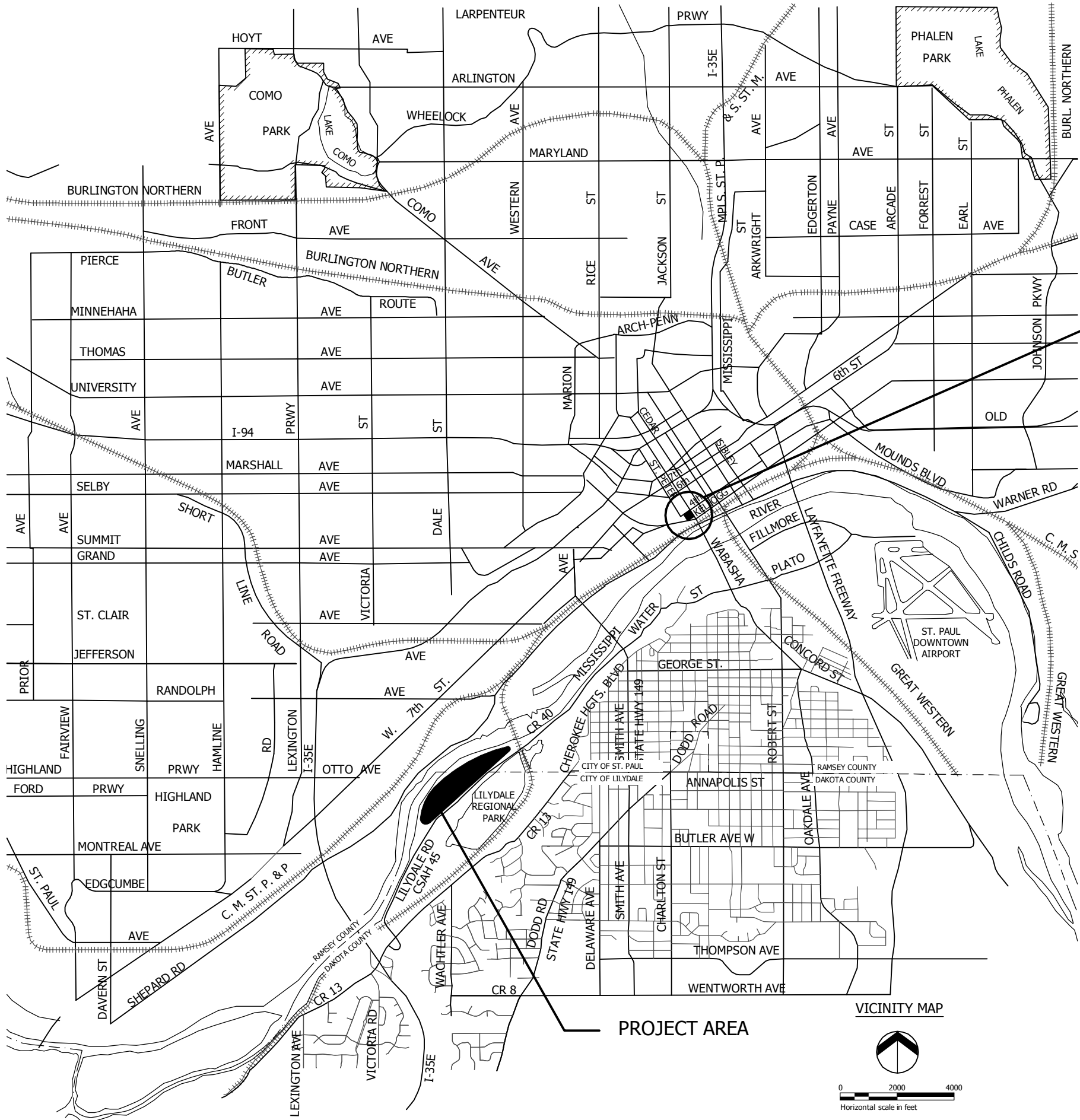


Photograph #8
Subject: Test Pit 3 material

Appendix B

**Draft Plan Set
Lilydale Regional Park
Environmental Cleanup
July 15, 2010**

K:\211121101160\CAD\DWG\211101160_G001.dwg 7/15/2010 8:16:40 AM



DRAFT



2335 Highway 36 W
St. Paul, MN 55113
Ph: 651-636-4600
Fax: 651-636-1311

www.bonestroo.com
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I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT
WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION
AND THAT I AM A DULY LICENSED ENGINEER
UNDER THE LAWS OF THE STATE OF MINNESOTA
PRINT NAME: DARREN T. AMUNDSEN
SIGNATURE: _____
DATE: JULY 15, 2010 LIC. NO. 49924

CITY HALL
BID SITE

LILYDALE REGIONAL PARK ENVIRONMENTAL CLEAN UP 2010

SHEET NUMBER

G0.01
G0.02
C0.01
C0.02
C2.01
C2.02
C2.03
C2.04
C3.01
C6.01
C8.01
T1.01
T1.02

SHEET TITLE

TITLE SHEET
LEGEND
EXISTING CONDITIONS/EAGLE NEST GUIDELINES
STAGING AND HAUL ROUTE PLAN
TEMPORARY EROSION CONTROL PLAN - MARINA DEMOLITION SITE
TEMPORARY EROSION CONTROL PLAN - PARK DUMP SITE - ALTERNATE 1
PERMANENT EROSION CONTROL PLAN - MARINA DEMOLITION SITE
PERMANENT EROSION CONTROL PLAN - PARK DUMP SITE - ALTERNATE 1
GRADING PLAN - MARINA DEMOLITION SITE
PARK DUMP SITE - ALTERNATE 1 - FUTURE LILYDALE ROAD PREPARATION
STANDARD DETAILS/TYPICAL SECTIONS
TRAFFIC CONTROL PLAN
DETOUR PLAN - ALTERNATE 1

THIS PLAN SET CONTAINS 13 SHEETS

PROJECT CONTACT INFO

LANDSCAPE ARCHITECT
ALICE MESSER
CITY OF SAINT PAUL
651-266-6412
ALICE.MESSER@CI.STPAUL.MN.US

PROJECT ENGINEER
DARREN AMUNDSEN
BONESTROO
651-604-4894
DARREN.AMUNDSEN@BONESTROO.COM

LILYDALE REGIONAL PARK ENVIRONMENTAL CLEAN UP

SAINT PAUL, MINNESOTA

TITLE SHEET

NO. REVISION DATE

SURVEY
DRAWN KMS
DESIGNED DTA
APPROVED DTA
PROJ. NO. 211101160

SHEET NUMBER
G0.01

	STORM SEWER APRON		PEDESTAL CATV
	BASKETBALL POST		PEDESTAL COMMUNICATIONS
	BARRICADE PERMANENT		POST INDICATOR VALVE
	BENCH		POLE-COMMUNICATIONS
	BOOSTER STATION		POLE-GUY
	BUILDING LOWEST OPENING		POLE-LIGHT
	BURIAL CONTROL MONUMENT		POLE-POWER
	BUSH DECIDUOUS		POLE-UTILITY
	CATCH BASIN BEEHIVE		POLE-UTILITY SERVICE
	CURB BOX		POST
	CATCH BASIN		PROPANE TANK
	COLUMN		PICNIC TABLE
	CONTROL BOX SIGNAL		SAMPLING WELL
	CLEAN OUT (SEWER)		ROCK
	CULVERT END		RR SIGNAL CONTROL BOX
	DRINKING FOUNTAIN		RR CROSSING GATE
	ENERGY DISSIPATER		RR SIGNAL
	FLAG POLE		REGULATION STATION GAS
	FUEL PUMP		SATELLITE DISH
	GUY WIRE		SEPTIC TANK
	GRILL		SEPTIC VENT
	HANDICAP SPACE		SEPTIC DRAIN FIELD
	HANDHOLE		SIGN
	FIRE HYDRANT		SOIL BORING
	HYDRANT PVMNT MARKER (REFLECTOR)		STAND PIPE GAS
	HYDRANT VALVE		SPIGOT WATER
	INLET (SMALL DIA.)		SPRINKLER HEAD
	LIFT STATION CONTROL PANEL		SPRINKLER VALVE BOX
	LIFT STATION DRY WELL		STUMP
	LIFT STATION WET WELL		SERVICE-GAS POINT ON LINE
	LIGHT YARD		SERVICE-SANITARY SEWER POINT ON LINE
	LOOP DETECTOR		SERVICE-STORM SEWER POINT ON LINE
	MAIL BOX		SERVICE-WATER POINT ON LINE
	MAIL RELAY BOX		TELEPHONE BOOTH
	MANHOLE-AIR RELEASE		TRANSMISSION TOWER ELECTRIC
	MANHOLE-HEAT		TEST PIT LOC
	MANHOLE-GAS		TRANSFORMER POWER
	MANHOLE-POWER		TREE DEAD
	MANHOLE-SANITARY SEWER		TREE-CONIFEROUS
	MANHOLE-STORM SEWER		TREE-DECIDUOUS
	MANHOLE-COMMUNICATIONS		TREE-FRUIT
	MANHOLE-UNKNOWN		TRASH CAN
	MANHOLE-WATER		TRAFFIC SIGNAL
	METER POWER		VALVE GAS
	METER GAS		VALVE
	ORDINARY HIGH WATER MARK		VENT GAS
	OUTLET CONTROL STRUCTURE		WATER REDUCER
	PARK		

AIR CONTROL X	
	BACKSIGHT CONTROL POINT
	GPS CONTROL POINT
	JUDICIAL LAND MONUMENT
	MONUMENT COMPUTED
	MONUMENT IRON FOUND
	MONUMENT IRON SET
	RESECTED POINT
	ROW MONUMENT
	ROW MARKER POST
	SECTION CORNER
	TRAVERSE CONTROL POINT
	BENCH MARK LOCATION

CTV-D	CTV-D	CTV-D	CABLE TV QUALITY LEVEL D
CTV-C	CTV-C	CTV-C	CABLE TV QUALITY LEVEL C
CTV-B	CTV-B	CTV-B	CABLE TV QUALITY LEVEL B
CTV-A	CTV-A	CTV-A	CABLE TV QUALITY LEVEL A
FO-D	FO-D	FO-D	FIBER OPTIC QUALITY LEVEL D
FO-C	FO-C	FO-C	FIBER OPTIC QUALITY LEVEL C
FO-B	FO-B	FO-B	FIBER OPTIC QUALITY LEVEL B
FO-A	FO-A	FO-A	FIBER OPTIC QUALITY LEVEL A
E-D	E-D	E-D	POWER QUALITY LEVEL D
E-C	E-C	E-C	POWER QUALITY LEVEL C
E-B	E-B	E-B	POWER QUALITY LEVEL B
E-A	E-A	E-A	POWER QUALITY LEVEL A
G-D	G-D	G-D	GAS QUALITY LEVEL D
G-C	G-C	G-C	GAS QUALITY LEVEL C
G-B	G-B	G-B	GAS QUALITY LEVEL B
G-A	G-A	G-A	GAS QUALITY LEVEL A
C-D	C-D	C-D	COMMUNICATION QUALITY LEVEL D
C-C	C-C	C-C	COMMUNICATION QUALITY LEVEL C
C-B	C-B	C-B	COMMUNICATION QUALITY LEVEL B
C-A	C-A	C-A	COMMUNICATION QUALITY LEVEL A
OHP	OHP	OHP	OVERHEAD POWER
OHT	OHT	OHT	OVERHEAD COMMUNICATION
OHU	OHU	OHU	OVERHEAD UTILITIES

_____ FM _____ FM _____ FM _____	FORCE MAIN
_____ > _____ > _____ > _____	SANITARY SEWER
_____ _____ _____ _____ _____	SANITARY SERVICE
_____ >> _____ >> _____ >> _____ >> _____	STORM SEWER
_____ _____ _____ _____ _____	WATER MAIN
_____ _____ _____ _____ _____ _____	WATER SERVICE

The diagram illustrates a cross-section of a road profile. It features several horizontal lines representing different elevations:

- EXISTING CONTOUR MINOR**: The topmost dashed line.
- EXISTING CONTOUR MAJOR**: The second dashed line from the top.
- PROPOSED CONTOUR MINOR**: The third dashed line from the top.
- PROPOSED CONTOUR MAJOR**: The fourth dashed line from the top.
- PROPOSED GRADING LIMITS / SLOPE LIMITS**: A solid line with a dotted pattern below it.
- PROPOSED SPOT ELEVATION**: A solid horizontal line at the bottom.

 Elevation labels on the right side of the profile include 952, 950, 952, and 950. Horizontal distance markers at the bottom indicate 'x 953.53' and 'x STA:5+67.19 980.87'. A scale of '1:4' is provided at the bottom left, and the text 'RISE:RUN (SLOPE)' is at the bottom right.

	RETAINING WALL
	FENCE - BARBED WIRE
	FENCE - CHAIN LINK
	FENCE - DECORATIVE
	FENCE - STOCKADE
	FENCE - WOOD
	FENCE - ELECTRIC
	GUARD RAIL
	TREE LINE
	WETLAND

	BOUNDARY
	CENTERLINE
	EXISTING EASEMENT LINE
	PROPOSED EASEMENT LINE
	FLOOD PLAIN BOUNDARY
	EXISTING LOT LINE
	PROPOSED LOT LINE
	EXISTING RIGHT-OF-WAY
	PROPOSED RIGHT-OF-WAY
	SETBACK LINE
	SECTION LINE
	QUARTER SECTION LINE
	SIXTEENTH SECTION LINE

EXISTING
PROPOSED
FUTURE
DEMOLITION

AD	ALGEBRAIC DIFFERENCE
BV	BUTTERFLY VALVE
BVCE	BEGIN VERTICAL CURVE ELEVATION
BVCS	BEGIN VERTICAL CURVE STATION
CL	CENTER LINE
CL	CLASS
CMP	CORRUGATED METAL PIPE
C.O.	CHANGE ORDER
DIP	DUCTILE IRON PIPE
EL/ELEV	ELEVATION
EVCE	END VERTICAL CURVE ELEVATION
EVCS	END VERTICAL CURVE STATION
EX	EXISTING
FES	FLARED END SECTION
F/F	FACE TO FACE
FM	FORCE MAIN
F.O.	FIELD ORDER
GV	GATE VALVE
HP	HIGH POINT
HWL	HIGH WATER LEVEL
INV	INVERT
K	CURVE COEFFICIENT
LP	LOW POINT
MH	MANHOLE (SANITARY)
NTS	NOT TO SCALE
NWL	NORMAL WATER LEVEL
PC	POINT OF CURVE
PCC	COMPOUND CURVE
PI	POINT OF INTERSECTION
PL	PROPERTY LINE
PPVC	PERFORATED POLYVINYL CHLORIDE PIPE
PRC	POINT OF REVERSE CURVE
PT	POINT OF TANGENT
PVC	POLYVINYL CHLORIDE PIPE
PVI	POINT OF VERTICAL INTERSECTION
R	RADIUS
RCP	REINFORCED CONCRETE PIPE
R/W	RIGHT-OF-WAY
SS	STORM SEWER STRUCTURE
STA	STATION
TCE	TEMPORARY CONSTRUCTION EASEMENT
TNH	TOP NUT HYDRANT
TYP	TYPICAL
VC	VERTICAL CURVE
WM	WATER MAIN

	BITUMINOUS
	CONCRETE
	GRAVEL
	GROUND

DRAFT



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 UNDER THE LAWS OF THE STATE OF MINNESOTA

PRINT NAME: DARREN T. AMUNDSEN

SIGNATURE: _____

DATE: JULY 15, 2010 LIC. NO. 00024

LILYDALE REGIONAL PARK ENVIRONMENTAL CLEAN UP

SAINT PAUL, MINNESOTA

LEGEND

NO.	REVISION	DATE
-----	----------	------

SURVEY	
DRAWN	KSP
DESIGNED	DT
APPROVED	DT
PROJ. NO.	211101160

SHEET NUMBER

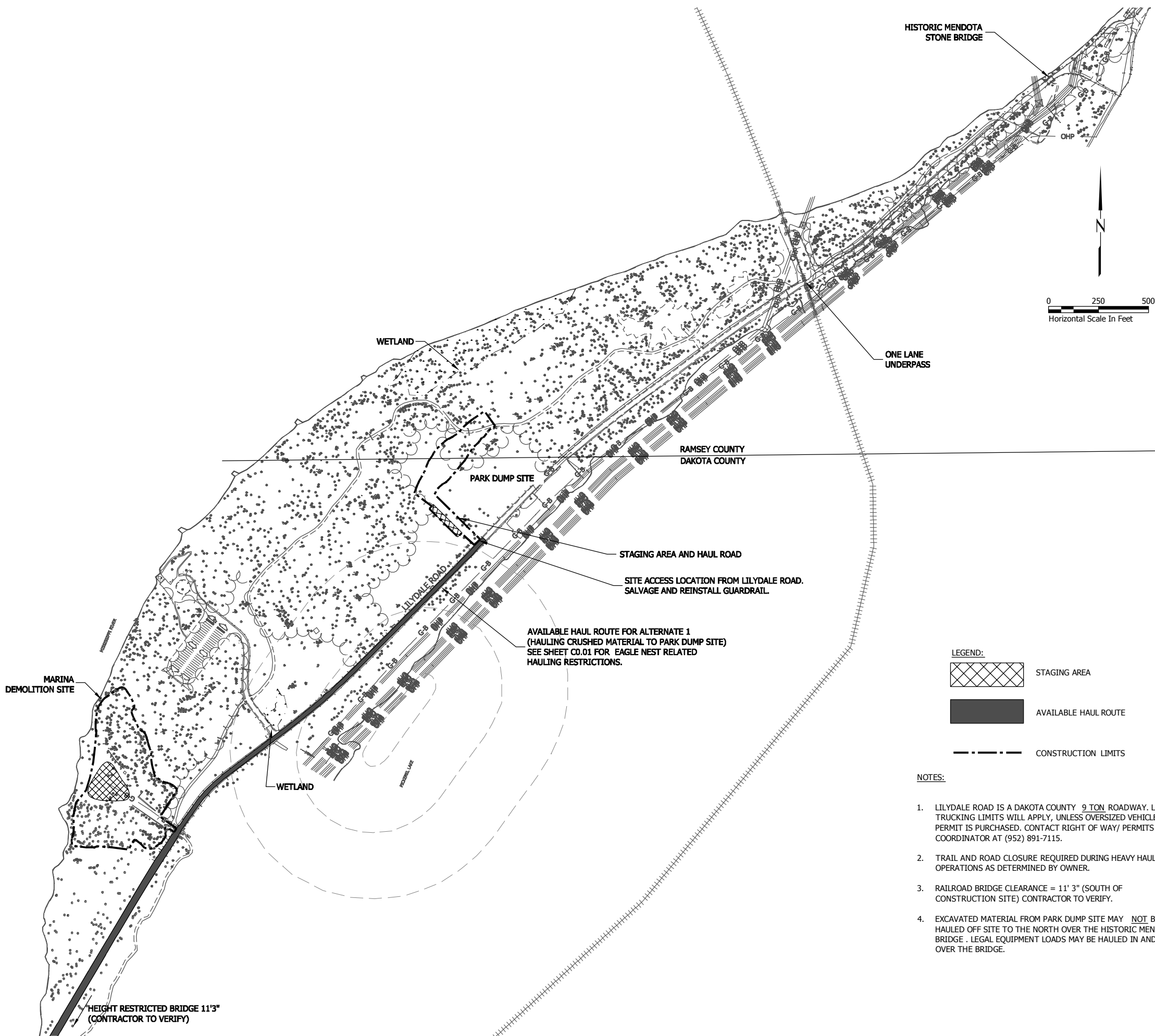
G0.02

AN EAGLES NEST IS LOCATED NEAR THE PROJECT SITE. FEDERAL LAW PROTECTS BALD EAGLES FROM HARASSMENT AND DISTURBANCE. THE FOLLOWING GUIDELINES SHOULD BE ADHERED TO IN ORDER TO ASSURE COMPLIANCE WITH THE LAW:

- DRAFT**



DRAFT



LEGEND:



STAGING AREA



AVAILABLE HAUL ROUTE



CONSTRUCTION LIMITS

NOTES:

- LILYDALE ROAD IS A DAKOTA COUNTY 9 TON ROADWAY. LEGAL TRUCKING LIMITS WILL APPLY, UNLESS OVERSIZED VEHICLE PERMIT IS PURCHASED. CONTACT RIGHT OF WAY/ PERMITS COORDINATOR AT (952) 891-7115.
- TRAIL AND ROAD CLOSURE REQUIRED DURING HEAVY HAULING OPERATIONS AS DETERMINED BY OWNER.
- RAILROAD BRIDGE CLEARANCE = 11' 3" (SOUTH OF CONSTRUCTION SITE) CONTRACTOR TO VERIFY.
- EXCAVATED MATERIAL FROM PARK DUMP SITE MAY NOT BE HAULED OFF SITE TO THE NORTH OVER THE HISTORIC MENDOTA BRIDGE. LEGAL EQUIPMENT LOADS MAY BE HAULED IN AND OUT OVER THE BRIDGE.



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SIGNATURE: _____
DATE: JULY 15, 2010 LIC. NO. 49924

LILYDALE REGIONAL PARK ENVIRONMENTAL CLEAN UP

SAINT PAUL, MINNESOTA

STAGING AND HAUL ROUTE PLAN

NO.	REVISION	DATE

SURVEY	KMS
DRAWN	DTA
DESIGNED	DTA
APPROVED	DTA
PROJ. NO.	211101160

SHEET NUMBER
C0.02

———— MS ————— MACHINE SLICED SILT FENCE

 CONSTRUCTION ENTRANCE / EXIT

NOTES:

1. PROTECT ALL TREES OUTSIDE OF THE CONSTRUCTION LIMITS UNLESS DIRECTED OTHERWISE BY THE OWNER.
2. CONTRACTOR IS TO PERFORM STREET SWEEPING DAILY AND AS DIRECTED BY OWNER.

**GENERAL LOCATION OF TEMPORARY SEDIMENT
BASINS COORDINATE LOCATION WITH
CONSTRUCTION OPERATIONS. ADDITIONAL
BASINS MAY BE REQUIRED BASED ON GRADING
AND STAGING OPERATIONS.**

CONSTRUCTION LIMITS - MAINTAIN 10' WIDE
FLAT BENCH AT TOE (703) OF SLOPE THEN
BLEND STOCKPILE TO EXISTING GROUND.

660' EAGLES NEST BUFFER



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DATE: JULY 15, 2010 LIC. NO. 40924

LILYDALE REGIONAL PARK ENVIRONMENTAL CLEAN UP

SAINT PAUL, MINNESOTA
LILYDALE MARINA DEMOLITION SITE
TEMPORARY EROSION AND SEDIMENT CONTROL PLAN

NO.	REVISION	DATE
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SURVEY	
DRAWN	KMW
DESIGNED	CAJ
APPROVED	DTA
PROJ. NO.	211101160

SHEET NUMBER
C2.01

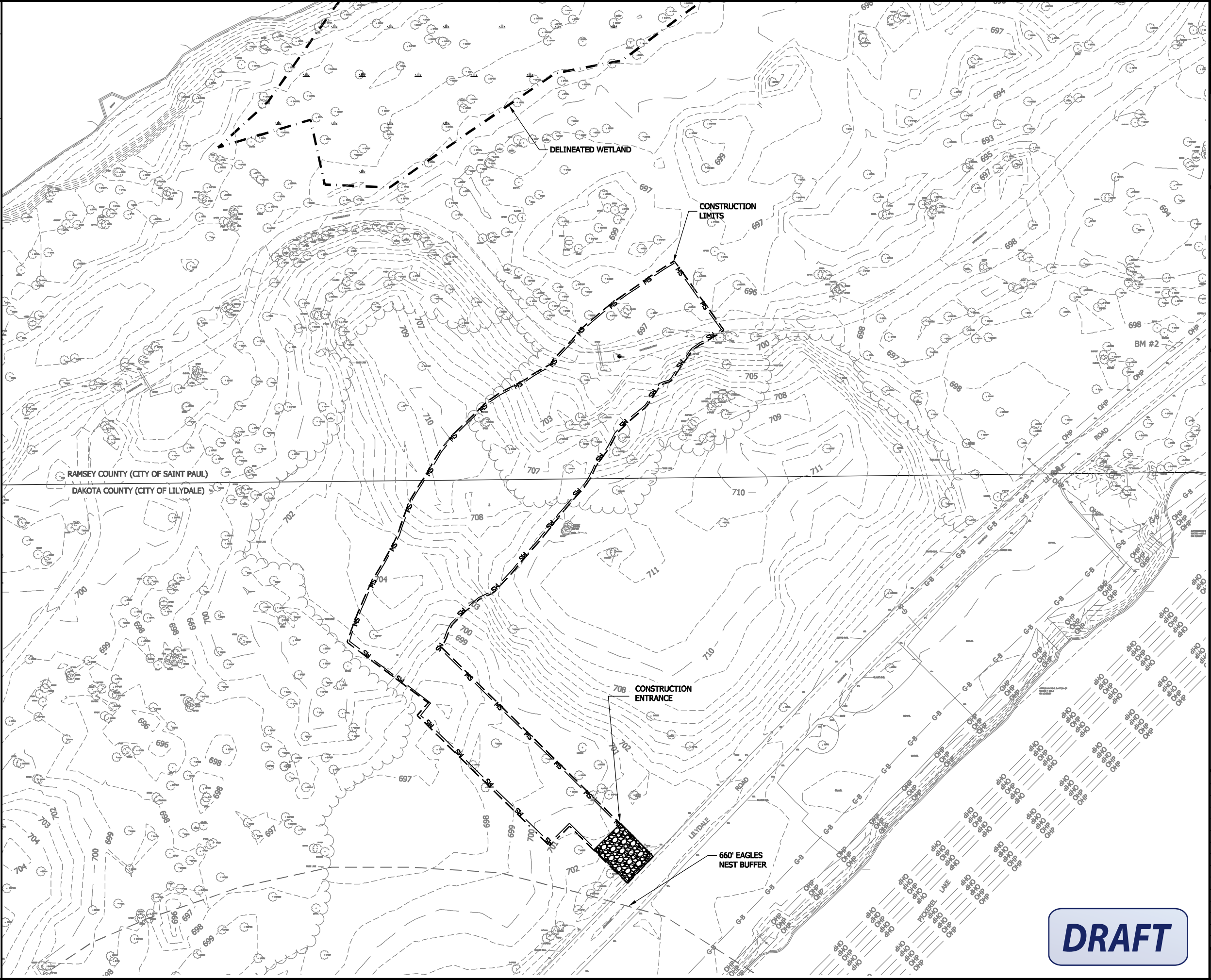
DRAFT

EROSION CONTROL LEGEND

	MS		MACHINE SLICED SILT FENCE
			CONSTRUCTION ENTRANCE / EXIT

 CONSTRUCTION ENTRANCE / EXIT

1. PROTECT ALL TREES OUTSIDE OF THE CONSTRUCTION LIMITS UNLESS DIRECTED OTHERWISE BY THE OWNER.
2. CONTRACTOR IS TO PERFORM STREET SWEEPING DAILY AND AS DIRECTED BY OWNER.



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SIGNATURE: _____

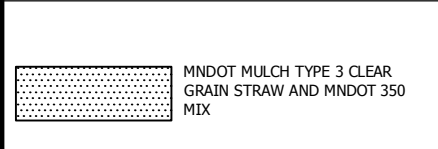
DATE: JULY 15, 2010 LIC. NO. 409524

LILYDALE REGIONAL PARK ENVIRONMENTAL CLEAN UP
SAINT PAUL, MINNESOTA
LILYDALE PARK DUMP SITE - ALTERNATE 1
TEMPORARY EROSION AND SEDIMENT CONTROL PLAN

REGIONAL PARK ENVIRONMENTAL
SAINT PAUL, MINNESOTA
LILYDALE PARK DUMP SITE - ALTERNATE 1
TEMPORARY EROSION AND SEDIMENT CONTROL PLAN

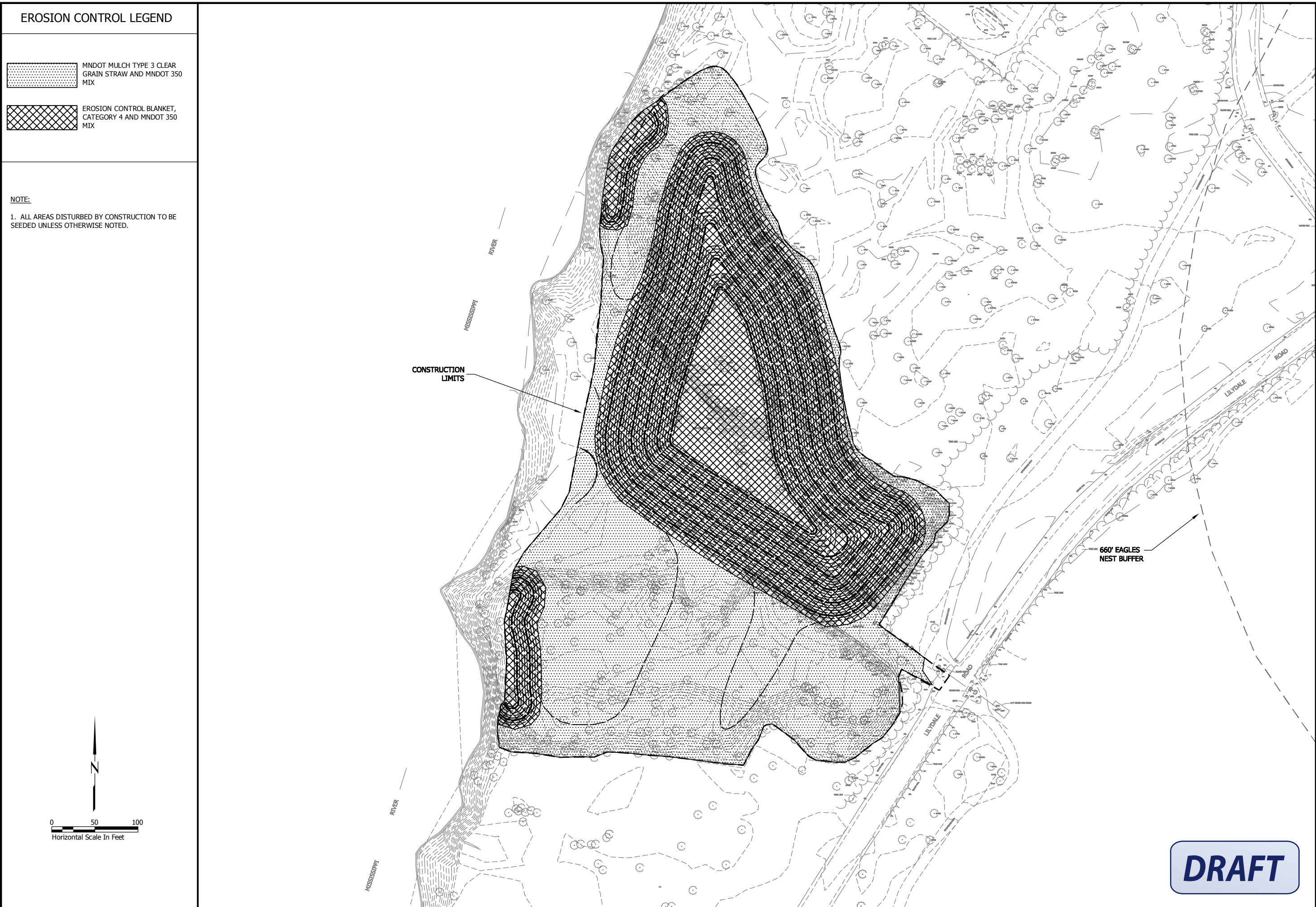
NO.	REVISION	DATE
SURVEY		
DRAWN		KMW
DESIGNED		CAJ
APPROVED		DTA
PROJ. NO.	211101160	
SHEET NUMBER C2.02		

EROSION CONTROL LEGEND

 EROSION CONTROL BLANKET,
CATEGORY 4 AND MNDOT 350
MIX

NOTE:

1. ALL AREAS DISTURBED BY CONSTRUCTION TO BE SEEDDED UNLESS OTHERWISE NOTED.



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LILYDALE REGIONAL PARK ENVIRONMENTAL CLEAN UP

SAINT PAUL, MINNESOTA
LILYDALE MARTINA DEMOLITION
PERMANENT EROSION AND SEDIMENT CONTROL PLAN

REGION

LILYDALE RIVER

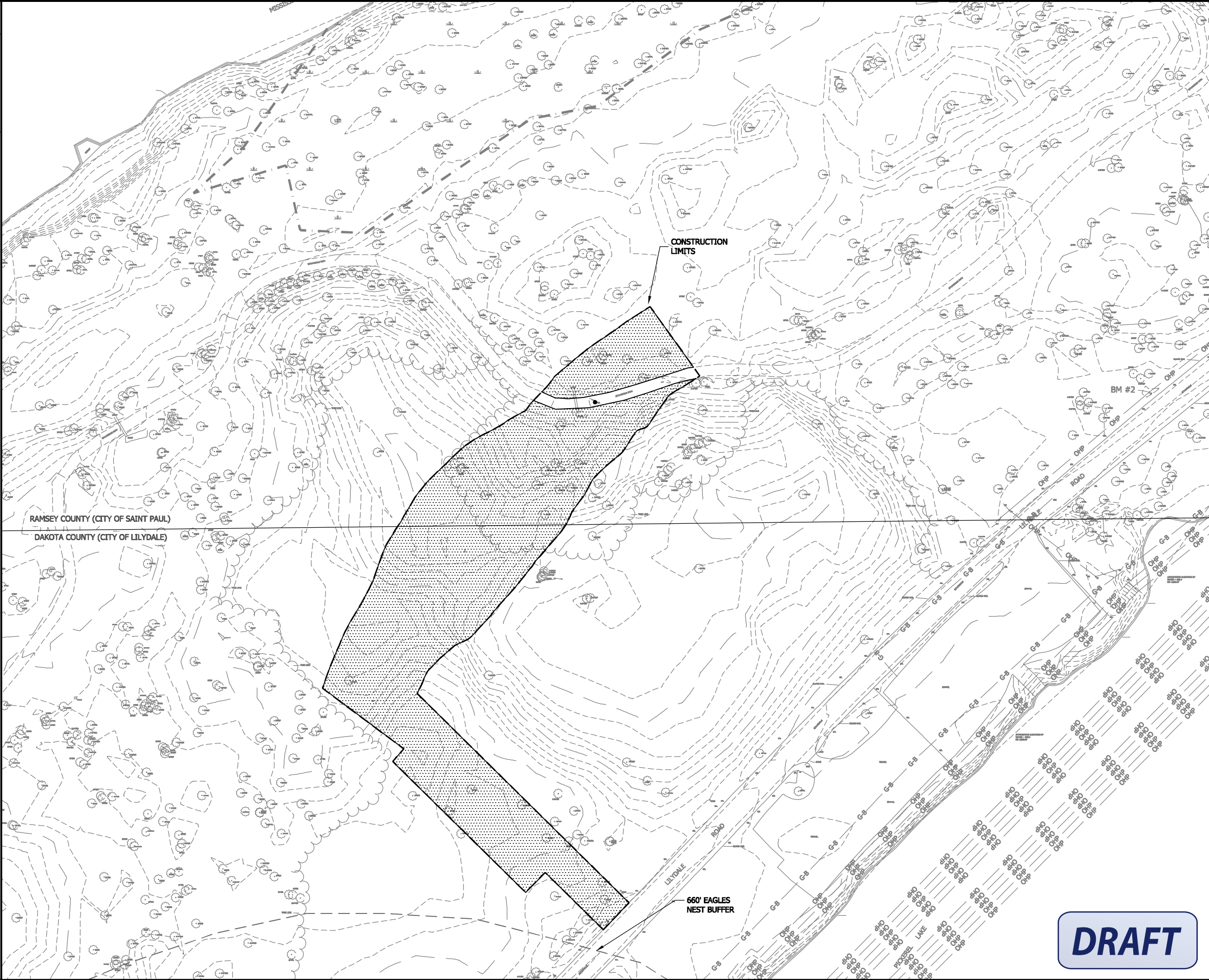
NO.	REVISION	DATE
SURVEY		
DRAWN	KMW	
DESIGNED	CAJ	
APPROVED	DTA	
PROJ. NO.	211101160	
SHEET NUMBER: C2.03		

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EROSION CONTROL LEGEND

MNDOT MULCH TYPE 3 CLEAR GRAIN STRAW AND MNDOT 350 MIX

NOTE:
1. ALL AREAS DISTURBED BY CONSTRUCTION TO BE SEEDED UNLESS OTHERWISE NOTED.





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SIGNATURE: _____
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LILYDALE REGIONAL PARK ENVIRONMENTAL CLEAN UP

SAINT PAUL, MINNESOTA

LILYDALE PARK DUMP SITE - ALTERNATE 1

PERMANENT EROSION AND SEDIMENT CONTROL PLAN

NO.	REVISION	DATE

SURVEY

DRAWN: KMW

DESIGNED: CAJ

APPROVED: DTA

PROJ. NO.: 211101160

SHEET NUMBER: C2.04

DRAFT



- ### LEGEND

-
- Topographic map showing a wetland area with various annotations and labels. The map includes contour lines, a river, and a road. Key features and labels include:
- 24" COTTONWOOD**, **2-28" COTTONWOOD**, **36" COTTONWOOD**, **3-22" COTTONWOOD**, **22" COTTONWOOD**, **38" COTTONWOOD**, **32" COTTONWOOD**, **2-28" COTTONWOOD**, **34" COTTONWOOD**, **32" MAPLE**, **80" COTTONWOOD**, **72" COTTONWOOD**, **56" COTTONWOOD**, **48" COTTONWOOD**, **48" MAPLE**
 - FIELD VERIFY GRADING LIMITS** (multiple locations)
 - MATCH EXISTING GRADES/ CONSTRUCTION LIMITS** (multiple locations)
 - EXISTING WOOD RETAINING WALL** (multiple locations)
 - EXISTING CHAIN LINK FENCE**
 - MAINTAIN 10' WIDE FLAT BENCH AT TOE (703) OF SLOPE THEN BLEND STOCKPILE TO EXISTING GROUND.**
 - EXISTING ROCK RETAINING WALL**
 - ABANDONED BURIED PIPELINE**
 - 660' EAGLES NEST BUFFER**
 - MISSISSIPPI RIVER**
 - ROAD**
 - HP 705.2**
 - 1:3** (slope indicator)
 - 700**, **701**, **702**, **703**, **704**, **705**, **710**, **711**, **712**, **713**, **714**, **715**, **716**, **717**, **718**, **719**, **720**, **721**, **722**, **723**, **724**, **725**, **726**, **727**, **728**, **729**, **730**, **731**, **732**, **733**, **734**, **735**, **736**, **737**, **738**, **739**, **740**, **741**, **742**, **743**, **744**, **745**, **746**, **747**, **748**, **749**, **750**, **751**, **752**, **753**, **754**, **755**, **756**, **757**, **758**, **759**, **760**, **761**, **762**, **763**, **764**, **765**, **766**, **767**, **768**, **769**, **770**, **771**, **772**, **773**, **774**, **775**, **776**, **777**, **778**, **779**, **780**, **781**, **782**, **783**, **784**, **785**, **786**, **787**, **788**, **789**, **790**, **791**, **792**, **793**, **794**, **795**, **796**, **797**, **798**, **799**, **800**
- DRAFT**

DRAFT



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PRINT NAME: DARREN T. AMUNDSEN

SIGNATURE: _____

DATE: JULY 15, 2010 LIC. NO. 40924

LILYDALE REGIONAL PARK ENVIRONMENTAL CLEAN UP

**SAINT PAUL, MINNESOTA
LILYDALE MARINA DEMOLITION
GRADING PLAN**

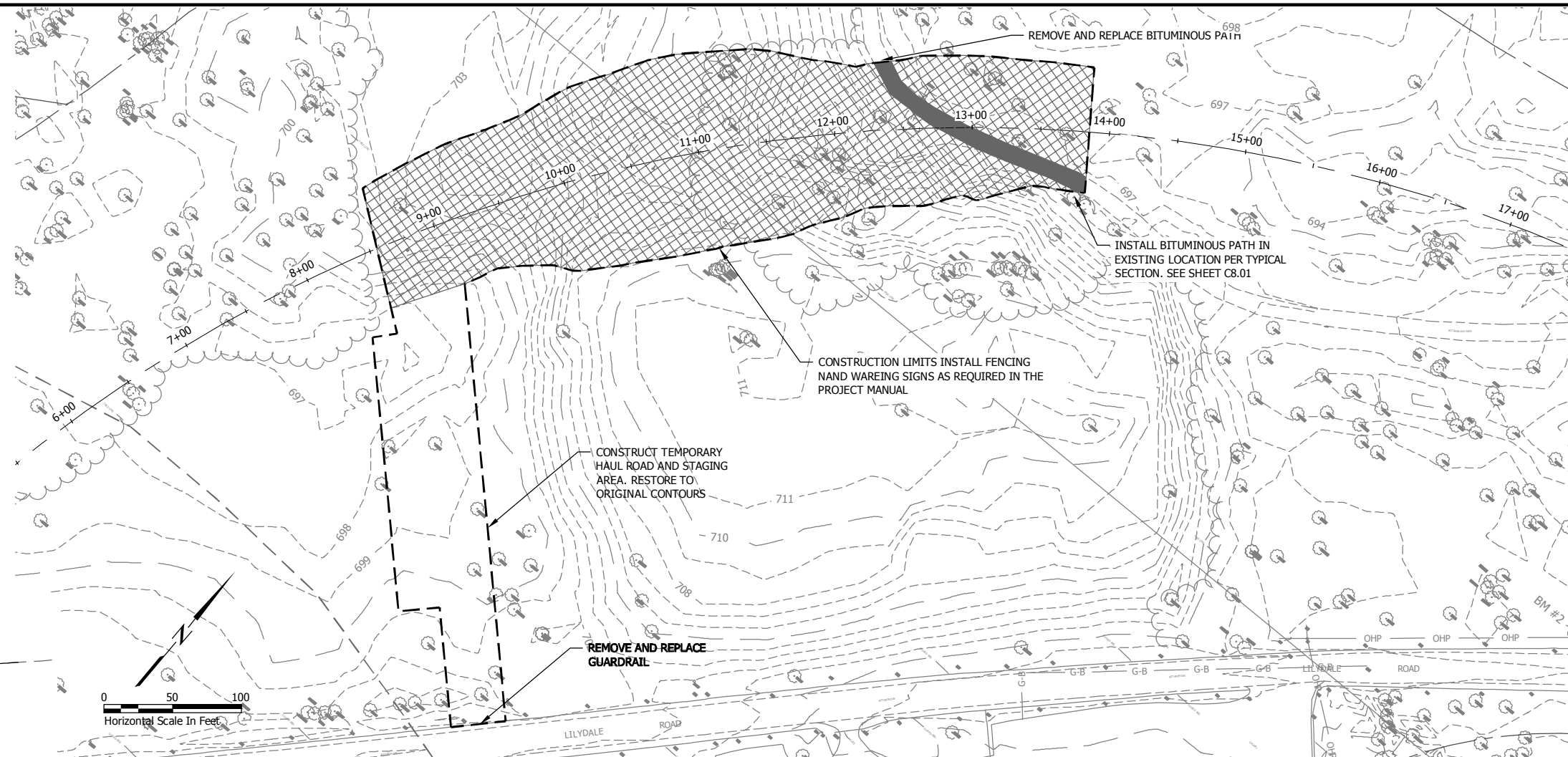
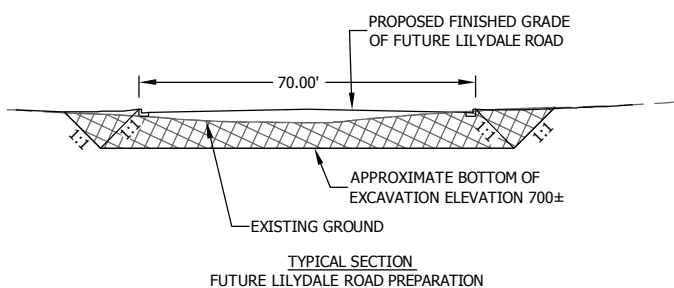
No.	REVISION	DATE
SURVEY		
DRAWN	KMS	
DESIGNED		DTA
APPROVED		DTA
PROJ. NO.	211101160	

SHEET NUMBER
C3.01

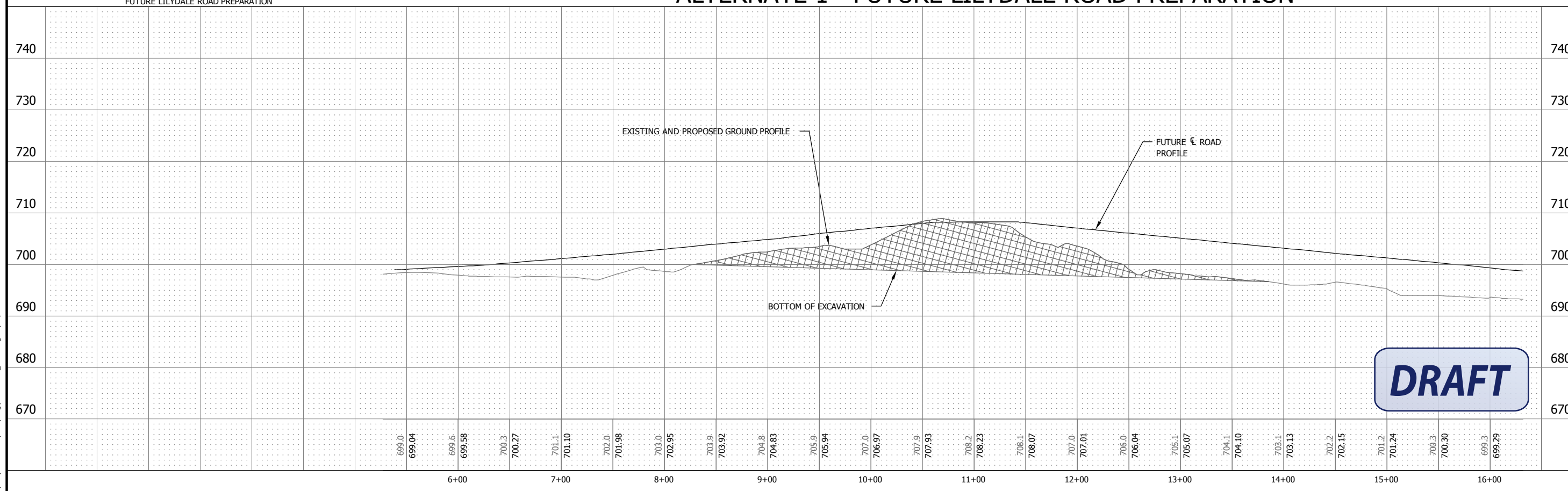
 EXCAVATION LIMITS

NOTES:

1. IT IS ASSUMED THAT ALL SOIL, TOPSOIL INCLUDED, AND MATERIALS WITHIN THE CONSTRUCTION LIMITS CONTAINS ASBESTOS AND OTHER CONTAMINANTS AS DESCRIBED IN THE PROJECT MANUAL.
2. PERFORM EXCAVATION, MATERIAL HANDLING OPERATIONS AND DISPOSAL IN ACCORDANCE WITH THE PROJECT MANUAL.
3. REMOVE TREES WITHIN CONSTRUCTION LIMITS.
4. STRIP, SALVAGE, AND STOCKPILE TOPSOIL FROM HAUL ROUTE ONLY TO USE FOR ITS RESTORATION.
5. SALVAGE AND REINSTALL EXISTING GUARDRAIL TO PROVIDE ACCESS TO THE SITE. ANY GUARDRAIL DAMAGED DURING THE PROJECT SHALL BE REPLACED BY THE CONTRACTOR. GUARDRAIL REINSTALLATION/REPLACEMENT SHALL BE INCIDENTAL TO THE PROJECT.
6. REPLACE EXCAVATED MATERIAL WITH CRUSHED MATERIAL FROM LILYDALE MARINA SITE.
7. CRUSHED MATERIAL SHALL BE PLACED AND COMPACTED TO 95% STANDARD PROCTOR DENSITY.
8. CRUSHED MATERIAL SHALL BE PLACED TO MATCH ALL EXISTING CONTOURS.
9. PLACE 6" MINIMUM CLEAN PROJECT SALVAGED TOPSOIL OVER CRUSHED MATERIAL FOR RESTORATION AND SEEDING.
10. THE HAUL ROAD AND STAGING AREA IS ASSUMED TO BE CLEAN MATERIAL.



ALTERNATE 1 - FUTURE LILYDALE ROAD PREPARATION



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PRINT NAME: DARREN T. AMUNDSEN

SIGNATURE: _____

DATE: SEP. 2000

LILYDALE REGIONAL PARK ENVIRONMENTAL CLEAN UP

SAINT PAUL, MINNESOTA
 PARK DUMP SITE -ALTERNATE 1
 FUTURE LILYDALE ROAD PREPARATION

[illegible]

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NOTE:
THE MACHINE SLICED METHOD (THIS DETAIL) IS THE STANDARD SILT FENCE INSTALLATION METHOD. HEAVY-DUTY (ERO-1B) OR STANDARD (ERO-1C) SILT FENCE INSTALLATION METHODS SHOULD ONLY BE USED WHEN APPROVED OR DIRECTED BY THE CITY.

A **COMPACTION:**
AFTER "SLICING" IN THE FABRIC AND *BEFORE* INSTALLATION OF STEEL POSTS, DRIVE INSTALLATION EQUIPMENT OVER THE "SLICE" WHILE FABRIC IS LAYING ON THE GROUND. *THEN* INSTALL STEEL POSTS AND PULL UP FABRIC TO ATTACH AT A UNIFORM HEIGHT.

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SILT FENCE
MACHINE SLICED

LAST REVISION:
Jan. 2005

PLATE NO.
ERO-1A

- NOTES:**
1. FILTER FABRIC SHALL BE PLACED UNDER ROCK OR MULCH TO STOP MUD MIGRATION THROUGH MATERIAL.
 2. ENTRANCE MUST BE MAINTAINED REGULARLY TO PREVENT SEDIMENTATION ON PUBLIC ROADWAYS. FUGITIVE ROCK OR MULCH WILL BE REMOVED FROM ADJACENT ROADWAYS DAILY OR MORE FREQUENTLY AS NECESSARY.

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CONSTRUCTION ENTRANCE
ROCK
WOOD / MULCH

LAST REVISION:
April 2007

PLATE NO.
ERO-7

Bonestroo

TEMPORARY SEDIMENTATION BASIN
STANDPIPE OUTLET

LAST REVISION:
Jan. 2005

PLATE NO.
ERO-8B

Bonestroo

TREE PROTECTION FENCE

LAST REVISION:

PLATE NO.

LILYDALE REGIONAL PARK ENVIRONMENTAL CLEAN UP

SAINT PAUL, MINNESOTA

STANDARD DETAILS/TYPICAL SECTIONS

NO. REVISION DATE

SURVEY
DRAWN KMS
DESIGNED DTA
APPROVED DTA
PROJ. NO. 21101160

SHEET NUMBER

C8.01

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TREE PROTECTION AREA
THE AREA INSIDE A PERIMETER ESTABLISHED AT THE CRITICAL ROOT ZONE (CRZ). THE CRZ IS EQUAL TO THE DRIPLINE (FURTHEST EXTENT OF TREE CANOPY) OR IS EQUAL TO ONE FOOT RADIALLY FROM THE TREE FOR EVERY ONE INCH OF TRUNK DIAMETER AT BREAST HEIGHT (DBH), WHICHEVER IS GREATER.

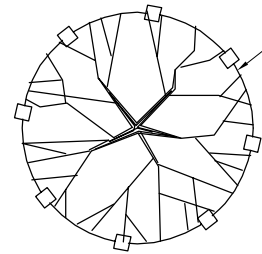
ANY DIGGING, EXCAVATING, TRENCHING, CHANGING OF GRADE, MATERIAL STORAGE, OR OTHER ACTIONS THAT MAY POTENTIALLY IMPACT THE ROOTING ENVIRONMENT MUST BE AUTHORIZED BY THE LANDSCAPE ARCHITECT PRIOR TO WORK COMMENCEMENT. WORK WITHIN THE CRZ MUST TAKE PLACE IN ACCORDANCE WITH THE CONDITIONS ESTABLISHED BY THE TREE PROTECTION PLAN AND SPECIFICATIONS.

ATTACH "TREE PROTECTION AREA" SIGNS TO FENCING EVERY 50 FEET OR NO FEWER THAN 2 PER FENCE.

THE TREE PROTECTION AREA SHALL NOT BE MODIFIED OR REMOVED PRIOR TO CONSENT OF THE ENGINEER OR LANDSCAPE ARCHITECT.

LOWER CANOPY PROTECTION. CONTACT LANDSCAPE ARCHITECT IF ANY PRUNING IS NEEDED PRIOR TO WORK IF POTENTIAL FOR DAMAGE EXISTS. ALL PRUNING SHALL BE DONE BY LICENSED ARBORIST AND SHALL BE IN ACCORDANCE WITH INDUSTRY STANDARDS (INTERNATIONAL SOCIETY OF ARBORICULTURE OR ANZI 133.1).

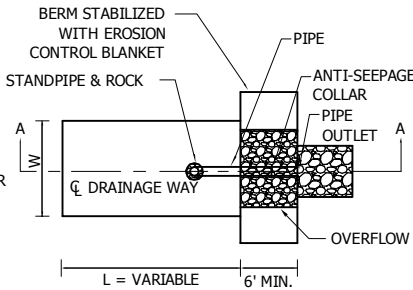
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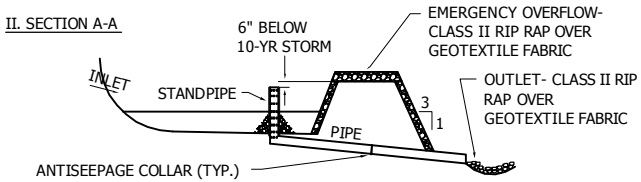
PLAN

I. PLAN VIEW

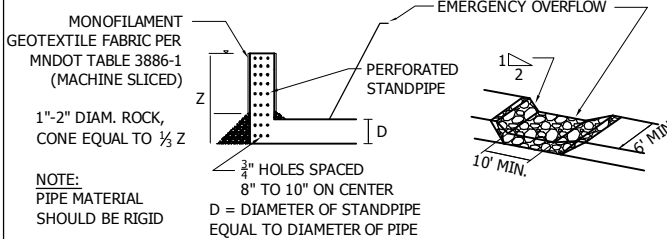
NOTES:
BASIN USED FOR 10 ACRES DRAINAGE AREA OR MORE. DESIGN RUNOFF VOLUME IS FROM A 2-YR, 24-HR STORM PER ACRE DRAINED TO THE BASIN. BASIN VOLUME MUST BE A MIN. OF 1800 CUBIC FEET/ACRE. SEE PLANS/SPECIFICATIONS FOR BASIN DIMENSIONS AND PIPE SIZE AND SLOPE.



II. SECTION A-A



III. BASIN STANDPIPE AND EMERGENCY OVERFLOW



Bonestroo

TEMPORARY SEDIMENTATION BASIN
STANDPIPE OUTLET

LAST REVISION:
Jan. 2005

PLATE NO.
ERO-8B

Bonestroo

TREE PROTECTION FENCE

LAST REVISION:

PLATE NO.

LILYDALE REGIONAL PARK ENVIRONMENTAL CLEAN UP

SAINT PAUL, MINNESOTA

STANDARD DETAILS/TYPICAL SECTIONS

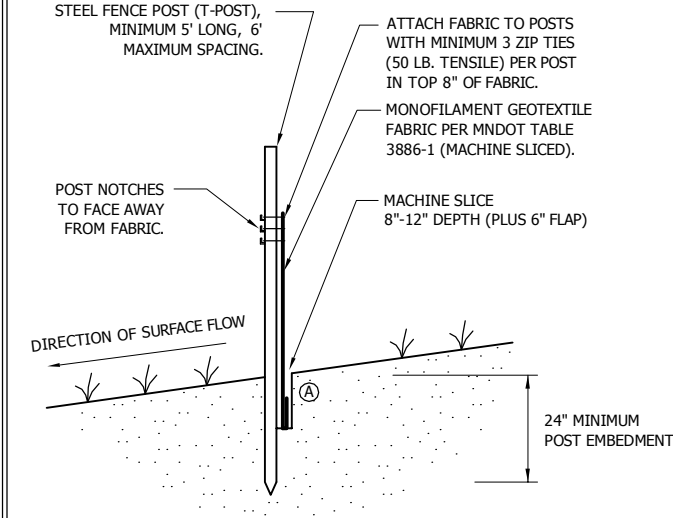
NO. REVISION DATE

SURVEY
DRAWN KMS
DESIGNED DTA
APPROVED DTA
PROJ. NO. 21101160

SHEET NUMBER

C8.01

DRAFT



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Bonestroo

SILT FENCE
MACHINE SLICED

LAST REVISION:
Jan. 2005

PLATE NO.
ERO-1A

- NOTES:**
1. FILTER FABRIC SHALL BE PLACED UNDER ROCK OR MULCH TO STOP MUD MIGRATION THROUGH MATERIAL.
 2. ENTRANCE MUST BE MAINTAINED REGULARLY TO PREVENT SEDIMENTATION ON PUBLIC ROADWAYS. FUGITIVE ROCK OR MULCH WILL BE REMOVED FROM ADJACENT ROADWAYS DAILY OR MORE FREQUENTLY AS NECESSARY.

Bonestroo

CONSTRUCTION ENTRANCE
ROCK
WOOD / MULCH

LAST REVISION:
April 2007

PLATE NO.
ERO-7

Bonestroo

TEMPORARY SEDIMENTATION BASIN
STANDPIPE OUTLET

LAST REVISION:
Jan. 2005

PLATE NO.
ERO-8B

Bonestroo

TREE PROTECTION FENCE

LAST REVISION:

PLATE NO.

LILYDALE REGIONAL PARK ENVIRONMENTAL CLEAN UP

SAINT PAUL, MINNESOTA

STANDARD DETAILS/TYPICAL SECTIONS

NO. REVISION DATE

SURVEY
DRAWN KMS
DESIGNED DTA
APPROVED DTA
PROJ. NO. 21101160

SHEET NUMBER

C8.01

DRAFT



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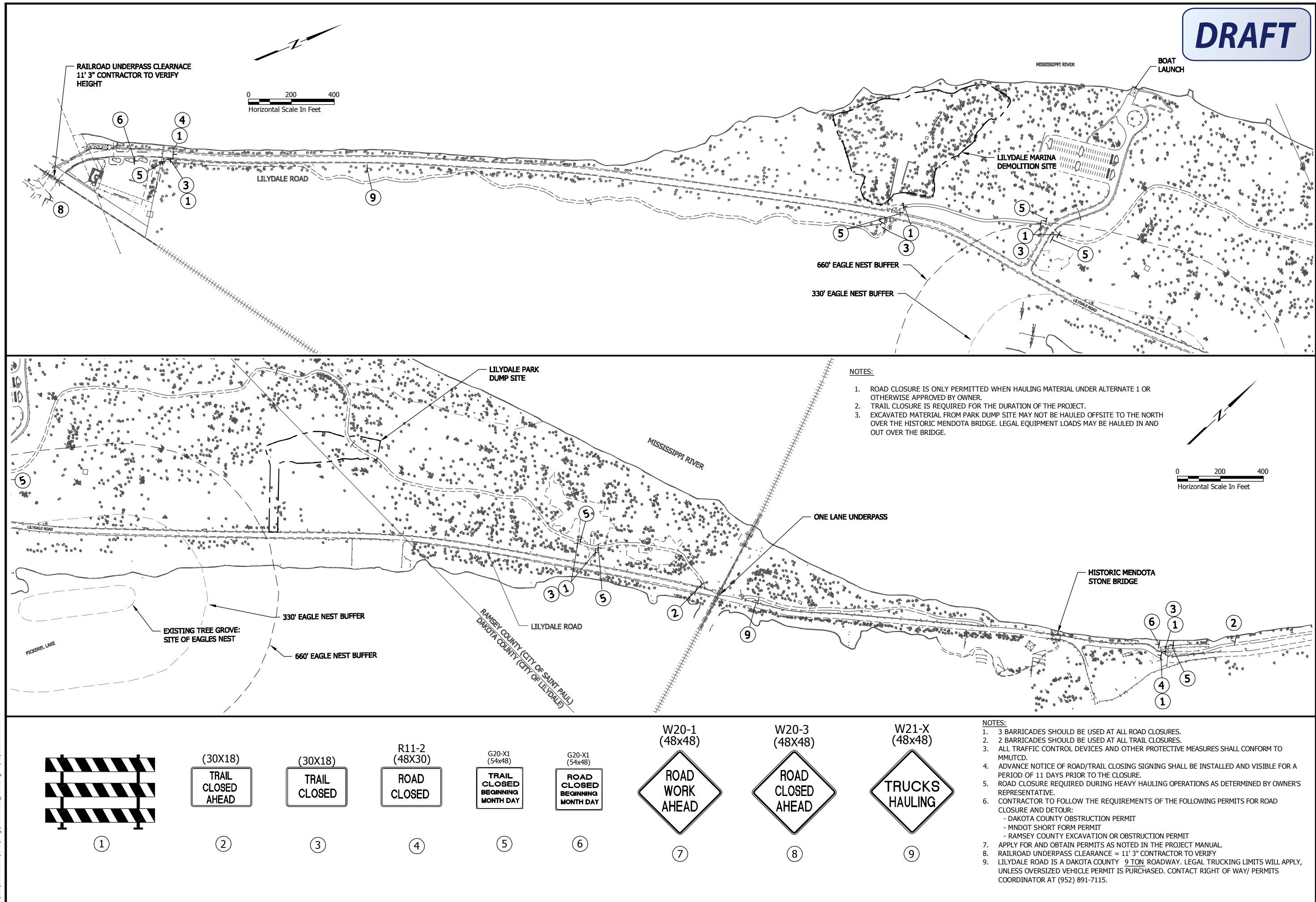
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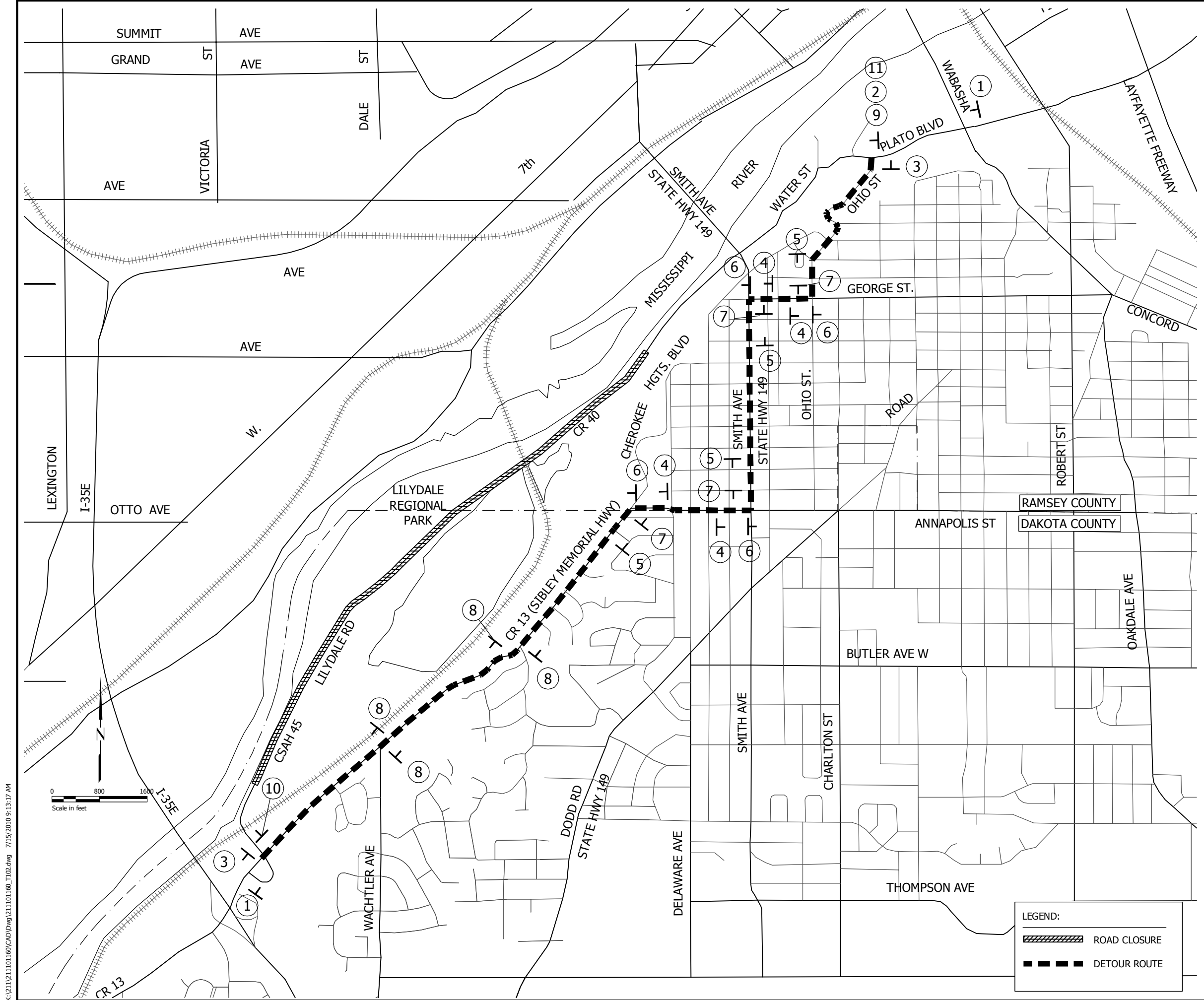
PRINT NAME: DARREN T. AMUNDSEN

SIGNATURE: _____

DATE: JULY 15, 2010 LIC. NO. 40924

SAINT PAUL, MINNESOTA
TRAFFIC CONTROL PLAN/HAUL ROUTES

[illegible]



①

W20-2
(48X48)

DETOUR
AHEAD

②

W20-3
(48X48)

ROAD
CLOSED
AHEAD

③

M4-8A
(24X18)

END
DETOUR

④

M4-9ATL
(30X24)

DETOUR
←

⑤

M4-9ATR
(30X24)

DETOUR
→

⑥

M4-9L
(30X24)

DETOUR
←

⑦

M4-9R
(30X24)

DETOUR
→

⑧

MF-9T
(30X24)

DETOUR
↑

⑨

M4-10L
(48X18)

DETOUR
←

⑩

M4-10R
(48X18)

DETOUR
→

⑪

(48X30)

ACCESS TO HARRIET
ISLAND REGIONAL PARK
AND FOSSIL GROUNDS
OPEN

DRAFT

- NOTES:
- CONTRACTOR TO FOLLOW THE REQUIREMENTS OF THE FOLLOWING PERMITS FOR ROAD CLOSURE AND DETOUR:
 - DAKOTA COUNTY OBSTRUCTION PERMIT
 - MNDOT SHORT FORM PERMIT
 - RAMSEY COUNTY EXCAVATION OR OBSTRUCTION PERMIT
 - APPLY FOR AND OBTAIN PERMITS AS NOTED IN THE PROJECT MANUAL .

2335 Highway 36 W
St. Paul, MN 55113
Ph: 651-636-4600
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I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

PRINT NAME: DARREN T. AMUNDSEN

SIGNATURE: _____

DATE: JULY 15, 2010

LIC. NO. 49924

LILYDALE REGIONAL PARK ENVIRONMENTAL CLEAN UP

SAINT PAUL, MINNESOTA

DETOUR PLAN - ALTERNATE 1

NO.	REVISION	DATE

SURVEY	DRAWN	KMS
DESIGNED	DTA	
APPROVED	DTA	
PROJ. NO.	211101160	
SHEET NUMBER	T1.02	