

Phase II Environmental  
Site Assessment  
Mirro Building - Plant 9  
1512 Washington Street  
Manitowoc, WI 54220

MARCH 10, 2005



**EARTH SCIENCE  
& TECHNOLOGY**

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## EARTH SCIENCE & TECHNOLOGY

March 10, 2005

Mr. Kenneth Lemberger  
K & L CONSTRUCTION COMPANY  
7219 Highway T  
Whitelaw, WI 54247

RE: Phase II Environmental Site Assessment  
Mirro Building Plant #9  
1512 Washington Street  
Manitowoc, Wisconsin

Dear Mr. Lemberger:

Earth Science & Technology, LLC has completed a Phase II Environmental Site Assessment (Phase II ESA) for the Mirro Building Plant #9. The objective of the Phase II ESA was to determine if the recognized environmental conditions identified in the 2003 Phase I ESA, or subsequent recognized environmental conditions, represented releases to the environment.

The locations of the recognized environmental conditions within the multi-storied buildings made a complete investigation difficult to perform. Generally, a Phase II ESA determines both the degree and extent of a contaminant release. The investigation may have determined the degree of the contamination but it was unable to determine the extent of any release because of the inability to use equipment capable of boring through the massive concrete floors and footings. Additionally, the ground was frozen.

The investigation did identify locations where volatile organic compounds (VOC), semi-volatile organic compounds (S-VOC), and polychlorinated biphenyls (PCB) have been released to the subsurface. Our recommendation is to address the PCB contamination in the basement of Building D before any demolition is done in that area. The oil in the sump should be removed, the concrete surfaces should be cleaned, and if possible, the source of the oil traced to its origin. If the sump contains a drain, the drain should be traced, if practical. Demolition of the buildings could then proceed down to the surface of the first floor. At that point, suitable exploratory equipment could be mobilized and sufficient samples collected to define the degree and extent of the various areas contaminated with VOCs, S-VOCs, and PCBs.

Others have reported that asbestos and lead paints exist in the building. This Phase II ESA did not address these two contaminants. There was no evidence of other contaminants that would be a hazard to workers involved in the demolition of the building. The contamination appears to be contained below the surface of the concrete of the first floor.

Mr. Kenneth Lemberger  
K & L CONSTRUCTION COMPANY  
7219 Highway T  
Whitelaw, WI 54247  
Page 2

Please review the report and contact this office with any questions or comments you may have regarding this project. The owner of the property is responsible for notifying the WDNR of a release of VOCs and the presence of the PCBs. Earth Science & Technology, LLC can perform the notification on behalf of the property owner. Please have the owner contact this office directly.

Sincerely,  
EARTH SCIENCE & TECHNOLOGY, LLC



Michael D. Dovichi, P.G.  
President

MDD/jh  
In 127.02 3-10-05 mirro phase II esa

ENC. Phase II ESA, Mirro Building Plant #9, March 10, 2005 (3 copies)

cc. Ms. Colleen Van Ells – W4991 Pioneer Drive, Shawano, WI 54166 (4 copies)

Phase II Environmental  
Site Assessment  
Mirro Building - Plant 9  
1512 Washington Street  
Manitowoc, WI 54220

MARCH 10, 2005



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Appendix I – Midwest Engineering Services, Inc. boring logs

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# 1 PROJECT TITLE AND PURPOSE

## 1.1 PROJECT TITLE

Phase II Environmental Site Assessment  
Mirro Building Plant 9  
1512 Washington Street  
Manitowoc, WI 54220

## 1.2 PURPOSE

The northern 2/3 of the Mirro building complex is scheduled for demolition, but before the demolition commences, a Phase II Environmental Site Assessment (Phase II ESA) has been performed in order to verify the findings of a Phase I Environmental Site Assessment (Phase I ESA) completed for this property in 2003. Figures 1 and 2 are reproduced from the Phase I ESA. Figure 1 is a USGS 1.5 minute quad map of the City of Manitowoc. Figure 2 is an approximate layout of the various buildings.

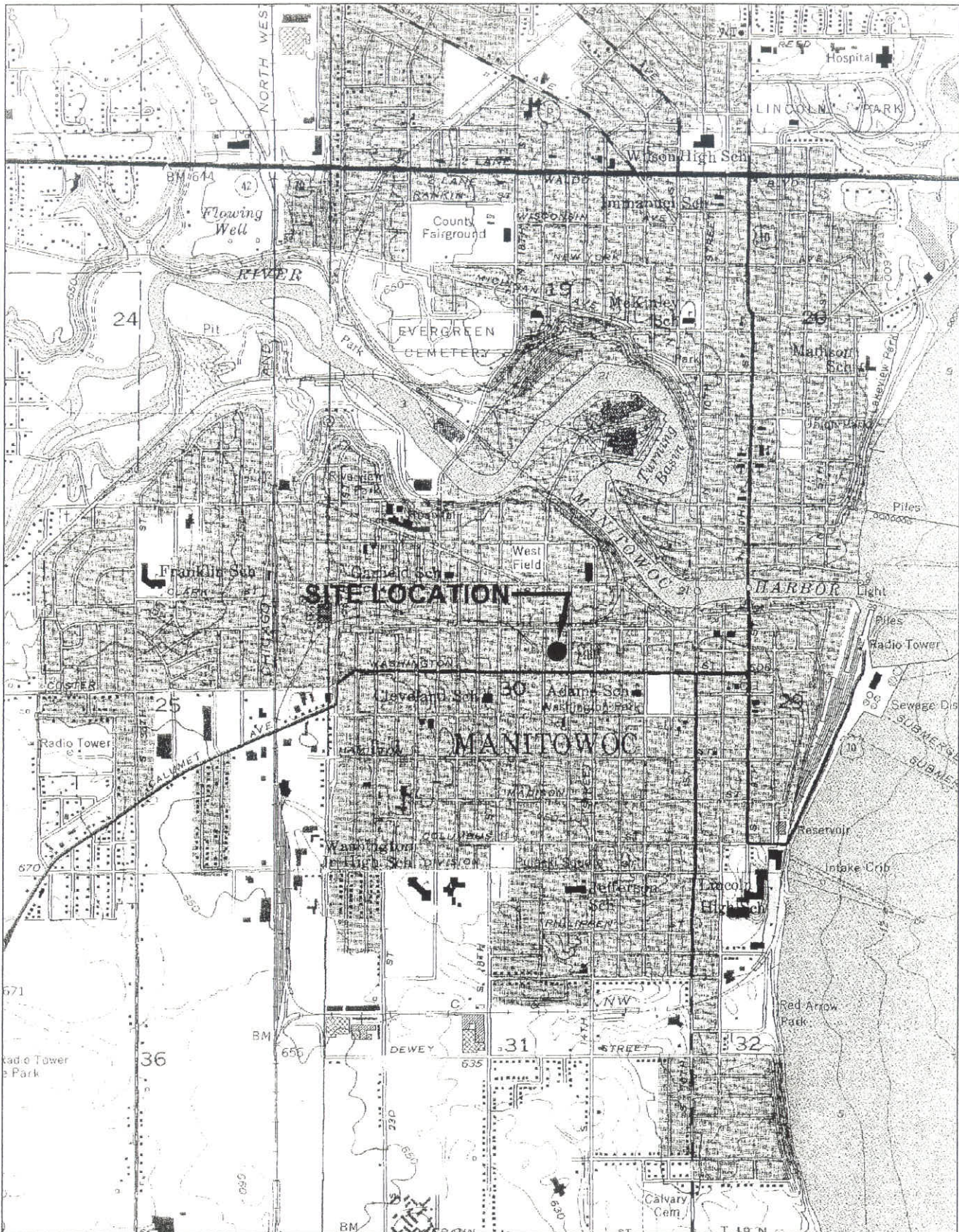
K & L Construction, 7219 Highway T, Whitelaw, Wisconsin was hired by the building owner to demolish the northern 2/3 of the buildings and convert the area to a parking lot. K & L Construction hired Earth Science & Technology, LLC, 8598 Highway M, Algoma, Wisconsin to perform the Phase II ESA. Samples of soil, sand, ash, and oil were collected on February 22 and 23, 2005 for analysis at EnChem Analytical laboratory.

STS Consultants completed a Phase I ESA and the findings were presented in a report dated June 20, 2003. Figure 3 was reproduced from the report and shows the locations of the recognized environmental conditions. The Executive Summary of that report is reproduced below.

*STS identified the following recognized environmental conditions concerning the subject property as a result of this Phase I ESA:*

- *Based upon interviews with current and former MIRRO employees, a steam outlet was formerly located on the south end of Building C (Figure 2) and was historically used to steam-clean tools, equipment, and other heavily soiled, hard-to-clean items. Mr. Richard Todl indicated that oils and other hazardous substances likely have impacted the subsurface in this area, because the concrete floor was cracked and in generally poor conditions at that time. A floor drain was*





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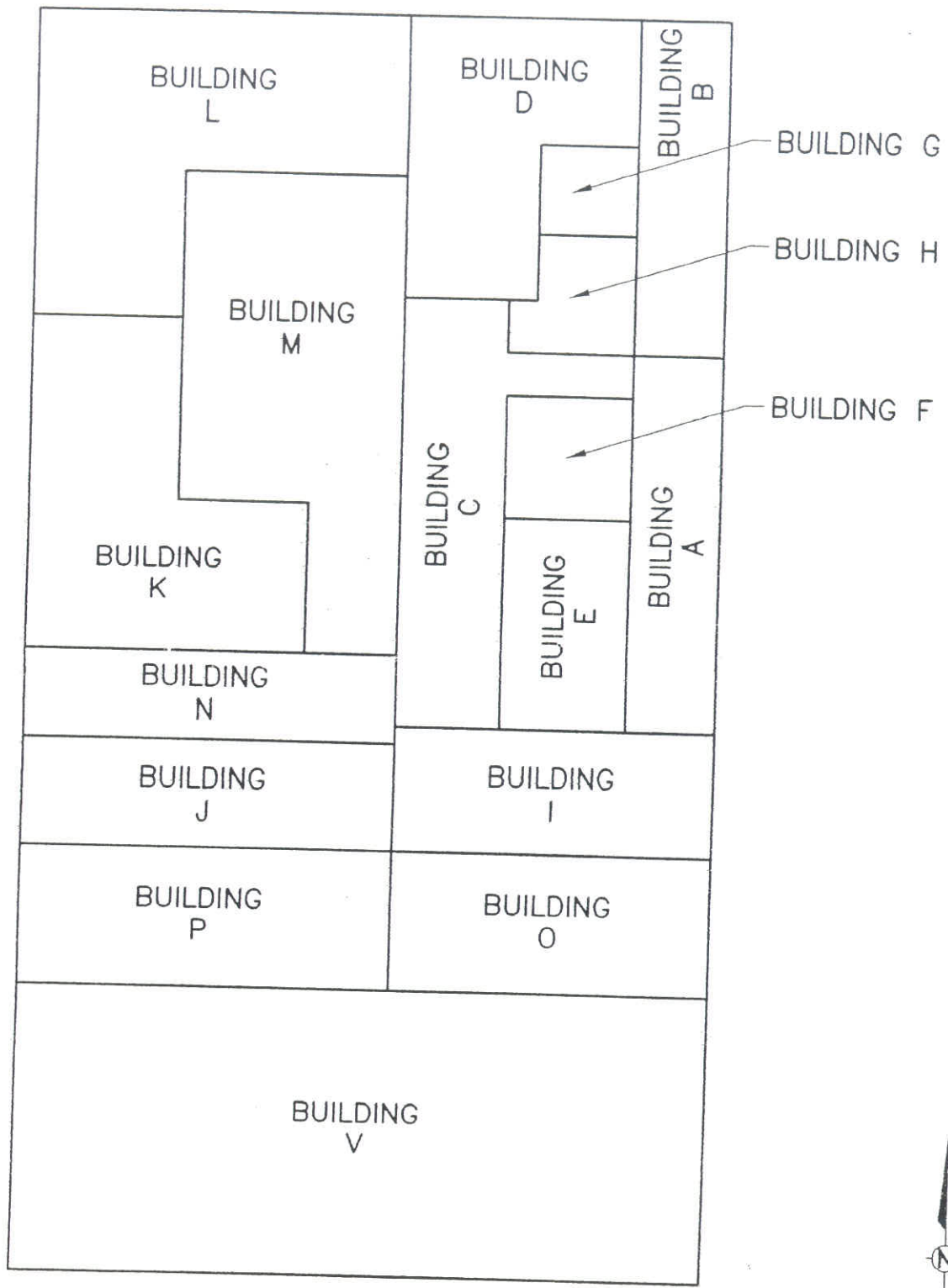


STS Consultants Ltd.  
Consulting Engineers  
1035 Jasper Ct.  
Green Bay, WI 54311  
920.468.1978

**SITE LOCATION MAP  
PHASE I ESA  
MIRRO PLANT 9 (1512 WASHINGTON STREET)  
MANITOWOC, WISCONSIN**

DESIGNED BY	MLD	05/30/03
DRAWN BY	JMR	05/30/03
APPROVED BY		
CADFILE		SCALE AS SHOWN
STS PROJECT NO.	28130EA	FIGURE NO. 1





1. BASERMAP DERIVED FROM FACILITY DRAWING PROVIDED BY ASSESSOR'S OFFICE

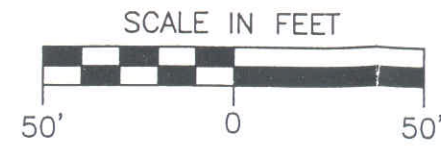


STS Consultants Ltd.  
 Consulting Engineers  
 1035 Kepler Dr.  
 Green Bay, WI 54311  
 920.468.1978

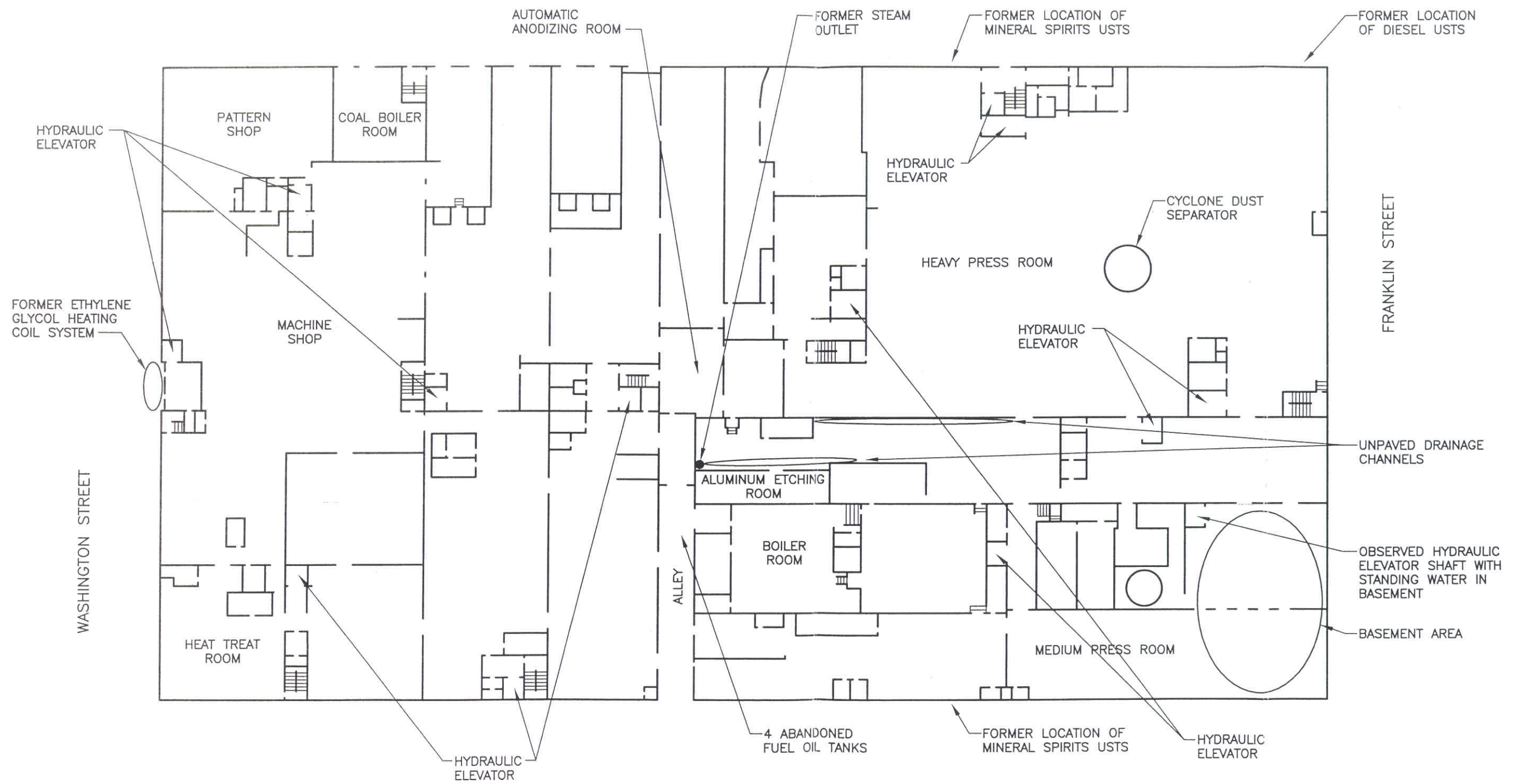
BUILDING LOCATION MAP  
 PHASE I ESA  
 MIRRO PLANT 9 (1512 WASHINGTON STREET)  
 MANITOWOC, WISCONSIN

DESIGNED BY	MLD	05/22/03
DRAWN BY	ACS	05/22/03
APPROVED BY		
CADFILE	SCALE	N.T.S.
STS PROJECT NO.	FIGURE NO.	
28130EA	2	

X:\PROJECTS\DWG2003\428130EA\G428130EA\_FIG3\_DIAGRAM\_MIRRO\_PLANT\_9.dwg, 6/6/2003 10:46:59 AM, relince, \\c:\main\04GBHP5000W



16TH STREET



WASHINGTON STREET

FRANKLIN STREET

15TH STREET

DESIGNED BY	MLD	DATE	05/22/03
DRAWN BY	ACS	DATE	05/22/03
APPROVED BY		DATE	
CAD FILE	X:\PROJECTS\DWG2002\428130\EA		
XREF	G428130EA_FIG3_DIAGRAM_MIRRO_PLANT_9.dwg		

**SITE DIAGRAM**  
**PHASE I ESA**  
**MIRRO PLANT 9 (1512 WASHINGTON STREET)**  
**MANITOWOC, WISCONSIN**



STS Consultants Ltd.  
 Consulting Engineers  
 1035 Kepler Dr.  
 Green Bay, WI 54311  
 920.468.1978

STS PROJECT NO.  
 28130EA

STS PROJECT FILE

SCALE  
 1"=50'

FIGURE NO.  
 3

1. BASEMAP DERIVED FROM FACILITY  
 DRAWING PROVIDED BY MIRRO CORPORATION



- *also observed adjacent to this area, but Mr. Todl was unaware of the ultimate discharge point of the drain. However, Mr. Todl indicated that it is likely that the drain was historically linked to a storm sewer that drained to Sherman Creek.*
- *Discolored, unpaved ground surfaces were observed inside Building C. The unpaved surfaces were approximately 4 to 6 inches wide located on either side of the concrete floor slab and appeared to be drainage channels linked to floor drains observed at the south end of the building. Mr. Todl indicated that he was unaware of any paved surface beneath the channels and was unaware of the ultimate discharge points of the drains. Mr. Todl indicated that rolls of aluminum coil were historically stored in Building C, and that the floors in this building were commonly covered with lubricating oils, which dripped off the rolls. The potential exists that petroleum or other hazardous substances may have impacted the subsurface in this area.*
- *Based on interviews with current and former MIRRO employees, an automatic anodizing room was formerly located on the east end of Building N. Chromic, phosphoric, sulfuric, nitric, and/or hydrochloric acid were used to anodize aluminum products. Ports in the anodizing room were observed in the concrete floor at the east end of the room. The ports were reportedly used for maintenance access to piping and appurtenances installed beneath the concrete floor. Observation of the subsurface beneath one of the ports revealed apparently discolored (orange) soil. The potential exists that hazardous substances may have impacted the subsurface beneath the automatic anodizing room.*
- *Wooden floors throughout the press room (portions of Buildings K, L, and M) were observed to be stained, and several areas of exposed subsurface were observed to be saturated with oil. According to Mr. Todl, the production floors are constructed of a concrete slab, overlain by several inches of compacted fill, overlain by 2-inch x 12-inch framing, overlain by the hardwood plank floor. STS was unable to assess the condition of the concrete in the areas observed to be saturated with oil. It is likely that the compacted fill in these areas is impacted by petroleum products or other hazardous substances. The potential also exists that petroleum products or other hazardous substances may have impacted the substances beneath the concrete slab in these areas.*
- *Review of Sanborn Fire Insurance (Sanborn) maps indicates that a tannery was formerly located on the subject property at the corner of Franklin Street and 15<sup>th</sup> Street. Buildings identified as the Henry Vits Tannery were observed on readily available Sanborn maps from 1883, 1887, and 1894. One of the buildings was identified as "Leach Vats" and may have been associated with the use of hazardous substances to prepare animal hides. The potential exists that hazardous substances related to the former tannery operations may have impacted the subsurface of the subject property.*



- *Based on interviews with current and former MIRRO employees, a former ethylene glycol heating coil system remains installed underneath the concrete walkway adjacent to the main entrance off Washington Street. The heating coil system was reportedly used to melt ice on the concrete entrance and consisted of a series of 1-inch diameter cast iron pipes filled with ethylene glycol, all connected to an interior above ground storage tank (AST), heat exchanger, and recycling pump. Current and former MIRRO employees familiar with the system indicate that the pipes likely contain residual ethylene glycol. Considering the age of the cast iron pipes and the potential for residual ethylene glycol, the potential exists that hazardous substances have impacted the subsurface of the subject property.*
- *Thirteen hydraulically operated elevators are present within the industrial structure on the subject property. Observation of one of the elevator shafts during the site reconnaissance revealed standing water and possible oil sheen. Due to the age of the elevators, shafts, and hydraulic appurtenances, the potential exists that petroleum products or other hazardous substances have impacted the subsurface adjacent to the elevators.*
- *Concrete press pits were observed within the industrial structure and were formerly used to collect hydraulic oil that originated/leaked from hydraulically operated manufacturing equipment. The press pits were reportedly closed without documentation by removing residual oil, filling them with sand or other inert material, and capping the surface with concrete. Based on the historical use of the press pits, and reports from current and former MIRRO employees regarding probable leaks from comparable pits at other MIRRO facilities, the potential exists that petroleum products or other hazardous substances may have impacted the subsurface in these areas.*

*The ASTM Standard E-1527-00 defines a historical REC as an:*

*“Environmental condition which in the past would have been considered a recognized environmental condition, but may or may not be considered a recognized environmental condition currently.”*

- *Review of readily available MIRRO files, the Environmental Data Resources, Inc. (EDR) report, and Wisconsin Department of Natural Resources (WDNR) databases indicates that seven underground storage tanks (USTs) were closed and removed from the subject property in 1988. Three mineral spirits or kerosene tanks were removed from the west side (Excavation 1), two diesel tanks were removed from the northwest corner (Excavation 2), and two mineral spirits tanks were removed from the east side (Excavation 3). Releases of hazardous substances were reported to the WDNR as a result of the tank removal activities in Excavation 2 and 3. One leaking underground storage tank (LUST) case (WDNR Activity No. 03-36-000085) was opened by the WDNR to address the impacts related to the USTs in Excavation No. 3, and one Emergency Repair Program (ERP) case (WDNR Activity No. 02-36-216391) was opened by the*

*WDNR to address the impacts related to the USTs in Excavation No. 2. Two separate soil vapor extraction systems were installed and operated between 1992 and 1996 to remediated impacted soil and groundwater in these areas. The WDNR granted closure of the LUST case in 1999 and the ERP case in 2000. Both closures included NR 140 Preventative Action Limits (PAL) exemptions for groundwater contaminated with chlorinated solvents. At the time of closure, groundwater concentrations of cis-1,2-dichloroethene on the east side of the subject property and trichloroethylene on the west side of the subject property exceeded the NR 140 PALs.*

- *Review of readily available MIRRO files, the EDR report, and WDNR databases indicates that four 4,406-gallon fuel oil USTs were closed and abandoned in place on the east side of the subject property in June 2001. As a result of UST assessment activities, the WDNR was notified of a release of hazardous substances. The WDNR opened a LUST case (Activity No. 03-36-274209) to address the impacts in this area, but later transferred the case to the Wisconsin Department of Commerce (Commerce Case No. 54220-5042-12). Mr. Robert Klauk (Commerce) indicated that the USTs were abandoned in place, because of concerns that tank removal would jeopardize the integrity of adjacent buildings. Mr. Klauk indicated that two soil samples collected from the area exceeded the diesel range organics, (DRO) NR 720 Residual Contaminant Level (RCL) of 250 milligrams per kilogram (mg/kg). Mr. Klauk indicated that Commerce granted conditional closure of the case in December 2001, and that final case closure required a deed notification be filed with the Register of Deeds to address the residual soil impacts. According to Mr. Klauk, the deed notification has not been filed to date; therefore, the case has not attained final closure status.*

## **2 PHASE I REVIEW**

Before the Phase II ESA was conducted, the findings of the Phase I ESA were reviewed in order to verify the conditions identified in the Phase I ESA. Since the Phase I ESA was produced in 2003, conditions present at the time of the assessment might have been removed and the possibility exists that new environmental conditions could be present.

Michael Dovichi, President of Earth Science & Technology, LLC conducted an abbreviated site walkthrough on February 7, 9, and 22, 2005, focusing primarily on the environmental conditions identified in the Phase I ESA, but also inspecting the facility for additional environmental conditions. Additionally, the DNR database was reviewed and DNR personnel were contacted to discuss the property.



## 2.1 EVALUATION OF PHASE I ESA FINDINGS

The walk through identified the following environmental conditions that deviated from conditions identified in the Phase I ESA.

- An inspection of the elevators identified that they are all electric cable elevators and have never been hydraulic elevators. Hydraulic elevators are relatively recent products that generally operate for 2-3 floors. Since many of the buildings are 4-7 stories tall and were constructed in the 1920's, it is unlikely that any elevators were hydraulic. Therefore, there is no likelihood that a release of hydraulic fluids would be associated with the elevators.
- The Phase I ESA identifies discolored unpaved ground in two troughs along the east and west walls of Building C. It describes these as drainage channels linked to floor drains. Since rolls of aluminum coil had been stored in this building the report identified the potential that petroleum or other hazardous substances may have impacted the subsurface in this area. A review of the troughs quickly identified that both were in fact concrete lined, not unpaved ground. Both troughs did slope to floor drains that are likely connected to the storm sewer system.
- The tannery that was identified on the 1883 and 1887 Sanborn maps could be a potential source of chrome contamination, because chromium has been used to process animals hides. But, it is more likely that the tannery used Hemlock bark to tan hides. The 1887 Sanborn map actually identifies a large area in the northeast corner of the block as bark. The bark was likely processed in the vats identified on the Sanborn Maps to produce tannic acid that was used to darken hides. Tannic acid is a mild non-hazardous acid.
- The two ports identified in the east side of Building N where anodizing took place are actually manways to an extensive tunnel system that runs under the complex of buildings. These tunnels are used for water and electric utilities. The tunnels are concrete lined. The orange soil in the tunnel is apparently rust from the acid anodizing liquids oxidizing steel in the room and the tunnel.



- The area at the main entrance to the Mirro Building was investigated for evidence of an ethylene glycol coil sidewalk heating system. The basement along Washington Street was inspected and there is no indication that such a system was ever installed in this area. Instead, there is wiring which appears to be an electric heating coil in the concrete outside the entrance.
- The oily floorboards in the pressrooms are an indication of potential petroleum contamination. The floor in the Heavy Press Room in Building L was partially removed during the Phase II ESA investigation. The floor consists of a concrete slab overlain with approximately ½ inch of sand, overlain with a plastic sheet, overlain with 2" x 6" planks laid on their side, upon which the finished floor was installed. The sand was saturated with oil at one location. But, an inspection of the utility tunnel along the west and north walls of this room identified significant quantities of oil that soaked into the sand, migrated to the tunnel and flowed down the tunnel walls and in some cases across the tunnel floor. Cracks in the floor of the tunnel might have allowed the oil to seep into the subsurface.
- The west wall of the lower level of Building D near Elevator 2 is coated with oils that apparently seeped down from the first floor pressroom. The oils have flowed across the floor to a drain where they accumulated and possibly drained, if so then most likely a storm sewer.
- Building F apparently contained generators that have since been removed. Concrete pits under the generators contain oils. It is not possible to determine the condition of the pits because of the massive concrete foundation, but the presence of standing oil in the pits may indicate that the pits do not leak.
- The WDNR and Department of Commerce have not changed the status of the petroleum product releases from the various underground tanks. They all remain closed, some with deed notifications.

- The steam outlet in the south end of Building C was investigated and it was confirmed that there was a drain in the southeast corner of the building. It was not possible to confirm where the drain ran, but it is most likely connected to the stormwater system.
- The Phase I ESA reports that four 4,406-gallon fuel oil USTs were abandoned in place on the east side of the property. The tanks were actually located in the “Alley” located between Buildings I and A/C/E. Since the Phase I ESA was completed, a water main located under these tanks broke and the two northern most tanks were dug up.

### **3 PHASE II ESA PROCEDURES**

The purpose of the Phase II ESA is to identify the degree and extent of environmental conditions identified in the Phase I ESA and subsequent investigations. The northern 2/3<sup>rd</sup> of the Mirro building complex is scheduled for demolition. Because the recognized environmental conditions are located on the ground floor, it would be more convenient to wait until the buildings have been demolished before the Phase II ESA investigation is performed. The structures limit the amount of subsurface investigation that can be performed. Drilling rigs cannot be brought into the building. The massive concrete floors and foundations restrict the depth to which subsurface samples can be retrieved. Also, it is impossible to sample within the subsurface utility tunnels, the lowest portion of the buildings.

The options for the investigation were limited to the use of electric drills with augers. An electric percussion drill was used to drill through the concrete and collect soil samples. When possible, the boring was drilled at a crack in order to increase the likelihood that the sample collected represented a worst-case situation. Samples were collected at the following locations. The specific sample label is presented in brackets.

1. The east drainage channel in Building C [ET-1]
2. The west drainage channel in Building C [WT-1]

3. The floor in Building B [NE-1]
4. The basement of Building D [NE-BASE]
5. The floor in Building N, Anodizing Room [AR-1]

In addition to the soil samples, the following grab samples were collected:

1. The sand in the floor of Building L [SAND]
2. The ash within the Ventilation Shaft in Building M [SILO]
3. A sample of the oil in the drainage sump in the basement of Building D [OIL]

An attempt was made to collect a sample under the concrete floor of Building L, but it was not possible because of the thickness of the concrete slab. Instead, a sample of the sand from under the wood floor was collected as a representation of the potential impact that could have occurred to the subsurface if there was a crack in the concrete floor.

Samples were not collected at any of the underground storage tank locations since these environmental conditions are located below the grade of the demolition and will not be affected by the removal of the building. Additionally, the WDNR and the Wisconsin Department of Commerce have closed these cases out, having determined that they do not pose a threat to human health of the environment.

An attempt was made to collect a sample from the two pits associated with the generators in Building F, but because of the location of these pits at the footings of the equipment, it was not practical to drill through the concrete to collect soil samples immediately underlying the concrete.

Samples were not collected within the tunnels because of the limited access and lack of electric power in the tunnels.

The soils consisted primarily of sandy silt and sand though sample NE-1 contained approximately 6 inches of brown silty clay immediately under the concrete floor. The boring logs are included in Appendix I of this report.



### 3.1 PHASE II ESA ANALYTICAL TESTING SCHEDULE

Environmental conditions can be found as a gas, liquid, or solid. State and Federal standards define what elements and compounds can be hazardous or toxic at specific concentrations. There are eight metals that are considered hazardous based upon the concentration of each metal dissolved in an acidic solution. The test used to determine the hazardous nature of a solid sample is referred to as the Toxic Characteristic Leaching Procedure (TCLP). The metals and the concentrations at which they are classified as hazardous are listed in Table 1.

**Table 1  
Hazardous Metals**

<b>Metal</b>	<b>Concentration in mg/l = parts/million</b>
Arsenic	5.0
Barium	100.0
Cadmium	1.0
Chromium	5.0
Lead	5.0
Mercury	0.2
Selenium	1.0
Silver	5.0

Besides the eight heavy metals, a sample can be considered hazardous if it contains an elevated concentration of one or more volatile organic compound (VOC) or semi volatile organic compound (S-VOC). The US EPA and WDNR have established standards for polychlorinated biphenyl (PCB) to classify if a liquid or solid is toxic. The federal government classifies a material as PCB contaminated if it contains more than 50 ppm PCBs.

### 3.2 ANALYTICAL DATA

Samples of soil, oil, sand, and ash were collected on February 22<sup>nd</sup> and 23<sup>rd</sup>, 2005 by Earth Science & Technology, LLC with Midwest Engineering Services (MES) performing drilling services. Borings were drilled through the concrete with an electric impact hammer drill. Samples of the soil immediately below the base of the concrete was sampled from the auger flight used to bore through the concrete. The soils were frozen. The thickness of the concrete and the length of the auger limited the amount of soil that

could be collected. The samples were delivered to the EnChem Analytical Services laboratory, Green Bay for analysis.

Each soil sample was analyzed for the eight heavy metals, volatile organic compounds (VOC), semi-volatile organic compounds (S-VOC), and polychlorinated biphenyl (PCB). The laboratory can only detect the presence of a metal or compound to a specific level determined by the analytical procedure and the nature of the sample. The estimated quantitation limit (EQL) for metals and the Limit of Detection (LOD) and Limit of Quantitation (LOQ) for organics identify the lowest concentration that can be detected for the specific sample. The analytical data is reproduced in Tables 2-5. A less than symbol (<) in front of the result indicates that if the metal or compound is present in the sample, the concentration is less than the respective value. A “Q” after the value means that the analyte was detected between the limit of detection and the limit of quantitation. The results are qualified when there is uncertainty of analyte concentrations between the range of values.

A Phase I ESA performed in 2003 identified a number of environmental conditions where contamination from heavy metals and or petroleum products might exist. A Phase II ESA conducted in February 2005 was conducted to determine if the environmental conditions found in 2003 and any subsequent environmental conditions exceed state and federal standards.

Soil samples [ET-1, WT-1, and NE-1] were collected under the concrete floors at locations where lubricating oils may have seeped into the underlying soils. These samples were analyzed for heavy metals, VOCs, S-VOCs, and PCBs. A soil sample [NE-BASE] from the basement of Building G was analyzed for heavy metals and S-VOCs. A sample [ASH] of waste in the Ventilator Shaft in Building M was analyzed for heavy metals and TCLP aluminum. A sample of sand [SAND] collected from below the wooden floor in Building L was collected and analyzed for heavy metals, VOCs, S-VOCs, and PCBs. A sample [OIL] of oil collected from a sump in the basement of Building G was analyzed for PCBs. A soil sample [AR-1] from the Anodizing Room in Building N was analyzed



for heavy metals and total aluminum. The analytical data is compared to standards established by state and federal regulations to determine if the samples are hazardous or toxic. The laboratory report is included in Appendix II

Sample AR-1 was analyzed for total aluminum besides the eight heavy metals. The sample contained 64,000-ppm aluminum. Aluminum is not a hazardous metal, but the high concentration of aluminum in the soil below the anodizing room may indicate that the concrete floor leaked or was porous to aluminum dissolved by the acids used to anodize the aluminum products.

The sample from the silo was analyzed for TCLP aluminum and contained 15-ppm aluminum. Apparently the buffing stations were vented to the silo so the presence of aluminum is not unexpected.

### 3.2.1 Heavy Metals

Of the seven samples analyzed for heavy metals in accordance with the toxic characteristic leaching procedure, none of the samples had concentrations of any metal above the limit of detection. The limits of detection are below the standards established in Table 1 of s. NR 605.09, Wis. Adm. Code and therefore the samples are not hazardous for the eight heavy metals.

**Table 2**  
**Metals Analysis-TCLP mg/L**

	ET-1	WT-1	NE-1	SAND	AR-1	NE-BASE	SILO
Arsenic	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Barium	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cadmium	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
Chromium	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
Lead	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Mercury	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
Selenium	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Silver	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25

### 3.2.2 Volatile Organic Compounds

Five samples were analyzed for volatile organic compounds to determine if they contained compounds in excess of the standards in Table 1 of s. NR 605.09, Wis. Adm. Code. Of the 61 analytes tested, only 15 were identified in any sample and of those 15 only three have standards in Table 1. The sample [ET-1] collected from the soil under the east trough in Building C exceeded the standard for Toluene.

**Table 3**  
**Volatile Organic Compounds (VOC) ug/kg**

	<b>NR 720.09 residual levels</b>	<b>ET-1</b>	<b>WT-1</b>	<b>NE-1</b>	<b>SAND</b>	<b>MEOH BLANK</b>
1,2,4-Trimethylbenzene	N/A	780	52Q		370	<25
1,3,5-Trimethylbenzene	N/A	200	42Q		100	<25
Ethylbenzene	2900	84				<25
Isopropylbenzene	N/A	39Q				<25
Methylene Chloride	N/A	240		61Q		<25
Naphthalene	N/A	280			72	<25
n-Butylbenzene	N/A	100				<25
n-Propylbenzene	N/A	160				<25
p-Isopropyltoluene	N/A	55Q	31Q			<25
sec-Butylbenzene	N/A	34Q			40Q	<25
Tetrachloroethene	N/A	62Q				<25
Toluene	1,500	<b>1,700</b>				<25
Trichloroethene	N/A	360	52Q			<25
Xylene, o	4,100	330	51Q			<25
Xylene, m+p		580				<25

Q = Concentration is less than the LOD but more than the LOQ

N/A = Residual contaminant levels do not exist for these compounds

Toluene is a clear, colorless liquid with a distinctive smell. Toluene occurs naturally in crude oil and in the tolu tree. It is also produced in the process of making gasoline and other fuels from crude oil and making coke from coal. Toluene is used in making paints, paint thinners, fingernail polish, lacquers, adhesives, and rubber and in some printing and leather tanning processes. Generally, toluene is found associated with benzene, ethylbenzene, and xylenes when it is from a spill of gasoline. When it is found alone or at concentrations higher than these other compounds, it is most likely from a solvent.

The Phase I ESA reported that Building C from which this sample was collected was used to store aluminum rolls that were coated with lubricating oils. Also, it was reported that equipment was steam cleaned in this general area. Either of these sources, or others



could be the cause of the toluene contamination in this location. Because the concentration exceeds the standard in s. NR 720.09, Wis. Adm. Code it is necessary to report to the WDNR that there has been a release to the environment.

### 3.2.3 Semi-Volatile Organic Compounds

Semi-volatile compounds were detected in the sample ET-1 from the trough in Building C but the results were qualified. The concentrations are between the limit of detection and the limit of quantitation. Sample NE-BASE was collected from the basement of Building D and it contained quantifiable concentrations of semi-volatile compounds.

**Table 4**  
**Semi-Volatile Organic Compounds (S-VOC) ug/kg**

	<b>Generic NR 720 clean up levels<sup>#</sup></b>	<b>ET-1</b>	<b>WT-1</b>	<b>NE-1</b>	<b>NE- BASE</b>	<b>SAND</b>
2-Methyl naphthalene	600,000	280Q				
Benzo(a)anthracene	88				<b>280Q</b>	
Benzo(a)pyrene	8.8				<b>230Q</b>	
Benzo(b)fluoranthene	88				<b>260Q</b>	
Benzo(ghi)perylene	1,800				140Q	
Benzo(k)fluoranthene	880				220Q	
Chrysene	8,800				310Q	
Fluoranthene	600,000				540	
Indeno(1,2,3-cd)pyrene	8.8				<b>360</b>	
Naphthalene	20,000	230Q				
Phenanthrene	18,000	160Q			450	
Pyrene	500,000				460	

<sup>#</sup> = Values are for direct contact pathway for non-industrial land use

The DNR has established suggested generic cleanup levels for semi-volatile organic compounds based upon protection of groundwater and human health from direct contact via ingestion. These levels do not address other pathways such as potential surface water impacts. The most conservative suggested generic residual contamination levels are those developed to prevent health effects from direct contact in a non-industrial location. The Mirro property was an industry and is proposed to remain industrial in part, but because future uses of this property are not guaranteed, it is important to consider a conservative standard. Table 4 identifies exceedances of some compounds in sample NE-BASE that was collected from below the concrete floor of the basement of Building D. There was evidence of oil on the adjacent wall and nearby floor of this building. The sample was

obtained by drilling a hole at a crack in the floor. Apparently the crack provided an avenue for the oil to seep into the soil below the concrete slab.

The generic soil cleanup levels for semi-volatile compounds are only suggested concentrations. Consideration should be given to cleaning any area represented by these levels to the non-industrial levels to ensure that future land use is not limited by residual contamination.

### 3.2.4 Polychlorinated Biphenyl

Polychlorinated biphenyl's are frequently found in industrial buildings from past use in lubricating oils, transformers, etc. and cannot be differentiated from other oils by appearances. Because oils were identified in a number of locations in the building, soil samples and the sand under the floor in building L were tested for PCBs. The oil in the sump in the basement of Building D was particularly suspicious and was also tested for PCBs. The data is presented in Table 5.

**Table 5**  
**Polychlorinated Biphenyl (PCB) ug/kg**

	ET-1	WT-1	NE-1	SAND	NE-BASE	OIL
Aroclor 1016	<60	<54	<54	<54	<59	<10,000
Aroclor 1221	<60	<54	<54	<54	<59	<10,000
Aroclor 1232	<60	<54	<54	<54	<59	<10,000
Aroclor 1242	<60	<54	<54	<54	<59	<10,000
Aroclor 1248	<60	320	<54	<54	<59	<10,000
Aroclor 1254	<60	<54	<54	<54	<59	<b>14,000</b>
Aroclor 1260	<60	<54	<54	<54	<59	<10,000
Total PCB	<60	320	<54	<54	<59	14,000

Two samples had detections of PCBs; WT-1 from Building C and the OIL sample from Building D. Concentrations of PCBs greater than 50 ppm (mg/kg) require that the material has to be disposed of in a hazardous waste landfill or burned in a hazardous waste incinerator. Material that has a concentration that is less than 50 ppm but greater than 1 ppm must be disposed of in a Subtitle D landfill. Since the OIL sample is a liquid with a concentration less than 50 ppm but greater than 1 ppm, the material must be collected and properly disposed of. The concrete that is coated with this oil may also have to be disposed of in a Subtitle D landfill. Additional testing will be required to determine



the concentration of the oil-coated concrete. Furthermore, it will be necessary to test under the concrete and determine if the sump that is holding the oil has a drain and if so where it goes.

### **3.3 SUMMARY**

The Mirro Building complex consists of numerous individual buildings that have been constructed on the city block over the last century. Prior to the first notation of the Manitowoc Aluminum Novelty Company on the 1900 Suborn Map, the Henry Vits Tannery occupied the northeast corner of the block. Homes were located on the remaining lots in the block. The 1912 Sanborn map shows that the Aluminum Casting Company and the Aluminum Manufacturing Company occupied the northern half of the block. By 1919, the northern 2/3rd of the block was occupied by buildings of the Aluminum Goods and Manufacturing Company. The company occupied the block as shown on the 1946 Sanborn Map.

The Phase I Environmental Site Assessment at 1512 Washington Street in the City of Manitowoc Wisconsin was performed by STS Consultants, LTD in 2003 for Newell Rubbermaid, Inc. was performed in general accordance with the ASTM Standard E-1527-00. The assessment identified a number of environment conditions in connection with the property.

The Phase I ESA reported that underground petroleum product storage tanks have leaked but that the WDNR and WDCOMM have determined that these releases are not a threat to human health or the environment and closed each of the cases. The report identified a number of locations throughout the various buildings that could be locations where releases have impacted the underlying soils.

A walk through and Phase II ESA was performed in February 2005 to verify the environmental conditions identified in the Phase I ESA and to identify any environmental conditions that may have occurred since the Phase I ESA was conducted. The walk-through determined that the 13 elevators mentioned in the Phase I ESA were electric cable, not hydraulic elevators, and therefore not an environmental condition.

The two floor troughs identified in the Phase I ESA in Building C were confirmed to be concrete lined and not earthen as reported.

A close review of the 1882, 1887, and the 1894 Sanborn Maps show the Henry Vits Tannery with piles of bark. Tanneries in this area typically used tannic acid to tan hides. The tannic acid was processed from bark, typically Hemlock. It is most likely that any environmental condition that might be associated with the tannery is tannic acid, not chromium. Tannic acid is not hazardous.

The property slopes down to the north, with the front door of the main building located at street level. The main floor is at one level; therefore the northern portion of the building is estimated to be as much as 6 feet above grade. A substantial perimeter foundation appears to act as a wall behind which fill was used to bring the buildings to the same grade as Washington Street.

A utility tunnel surrounds much of the block, as well as branches under the central portion of the building complex. Water pipes and electric conduits run through the tunnels. A substantial amount of oils have seeped into the tunnels particularly under Buildings L and M.

A soil sample collected below the concrete trough in Building C contained a reportable concentration of toluene with other compounds typically used as solvents.

The Phase II ESA identified oil in a sump in the basement of Building D. This oil appears to have dripped down the west wall from the first floor and across the floor to the sump. It was not possible to determine if this sump has a drain and if so, where it drains. A sample of the oil from the sump contained 14 ppm PCBs. A soil sample collected from below the trough in Building C contained 0.32 ppm PCBs. PCBs greater than 50 ppm must be handled and disposed of as hazardous waste. Between 1 and 49 ppm the material must be handled as waste and disposed of in a licensed landfill.



#### **4 CONCLUSION**

A Phase I ESA performed in 2002 identified potential environmental concerns. A Phase II ESA performed in 2005 identified volatile organic compounds, semi-volatile organic compounds, and PCBs at various locations in the northern 2/3 of the building complex. Because of the presence of the buildings, it was not practicable to perform a complete Phase II ESA to determine the degree and extent of the contamination. It is possible that higher concentrations of contaminants exist at the various locations tested. The movement of any contamination through the concrete floors and walls is impossible to determine without an extensive investigation once the buildings are removed.

In addition to the contamination within the building, DNR records document that there are exceedances of s. NR 140, Wis. Adm. Code groundwater standards on the east and west sides of the building. The Department of Commerce has closed a case of leaking underground diesel fuel storage tanks with exceedances of soil standards. Depending upon unknown future uses of the property, it might be warranted to perform additional investigations of the underground storage tank releases in addition to any investigation performed within the interior of the block.

**APPENDIX I**  
**MIDWEST ENGINEERING SERVICES**  
**SOIL BORING LOGS**



SOIL BORING LOG

**midwest engineering services, inc.**

Project Name: Former Mirro Plant  
 Location: 1512 Washington Street  
 Manitowoc, Wisconsin

Boring: ET-1  
 Project No. : 3-53022  
 Date of Boring: 2/23/05  
 Field Representative: John McAfee

VISUAL SOIL CLASSIFICATION GROUND SURFACE: ELEVATION	DEPTH (Inches)	SAMPLE NO.	N	Qu (tsf)	Qp (tsf)	PID (ppm)	MC (%)	REMARKS
Portland cement concrete.								NOTE A
Dark Gray Sandy SILT (Frozen).	5							
Gray Brown Sandy SILT, Trace to Little Clay, Moist.	10							
	15							NOTE B
End of boring at 16"±								
NOTE A: Boring performed with rotary hammer drill. Soil samples collected from the auger flights.	20							
NOTE B: Borehole abandoned with hydrated bentonite chips.	25							
	30							
	35							
	40							

Lines of Demarcation represent an **approximate** boundary between soil types. Variations may occur between sampling intervals and between boring locations, and the transition may be gradual. Dashed lines are indicative of potentially erratic or unknown changes, such as fill-to-natural soil zone transitions.

SOIL BORING LOG

midwest engineering services, inc.

Project Name: Former Mirro Plant  
 Location: 1512 Washington Street  
 Manitowoc, Wisconsin

Boring: WT-1  
 Project No. : 3-53022  
 Date of Boring: 2/23/05  
 Field Representative: John McAfee

VISUAL SOIL CLASSIFICATION GROUND SURFACE: ELEVATION	DEPTH (Inches)	SAMPLE NO.	N	Qu (tsf)	Qp (tsf)	PID (ppm)	MC (%)	REMARKS
Portland Cement Concrete.	0			--	--	--	--	NOTE A NOTE C
Brown Silty SAND (Frozen).	5			--	--	--	--	NOTE B
End of boring at 7"±	7							
NOTE A: Boring performed with rotary hammer drill. Soil samples collected from the auger flights.	10							
NOTE B: Borehole abandoned with hydrated bentonite chips.	15							
NOTE C: Boring offset 12"± south and redrilled. Auger penetration refusal at 7"±.	20							
	25							
	30							
	35							
	40							

Lines of Demarcation represent an **approximate** boundary between soil types. Variations may occur between sampling intervals and between boring locations, and the transition may be gradual. Dashed lines are indicative of potentially erratic or unknown changes, such as fill-to-natural soil zone transitions.



SOIL BORING LOG

**midwest engineering services, inc.**

Project Name: Former Mirro Plant  
 Location: 1512 Washington Street  
 Manitowoc, Wisconsin

Boring: HP-1  
 Project No. : 3-53022  
 Date of Boring: 2/23/05  
 Field Representative: John McAfee

VISUAL SOIL CLASSIFICATION GROUND SURFACE: ELEVATION	DEPTH (Inches)	SAMPLE NO.	N	Qu (tsf)	Qp (tsf)	PID (ppm)	MC (%)	REMARKS
Portland Cement Concrete.	5							NOTE A
Brown Silty SAND (Frozen, Poor Sample Recovery).	10							NOTE B
<p>End of boring at 14"±</p> <p>NOTE A: Boring performed with rotary hammer drill. Soil samples collected from the auger flights.</p> <p>NOTE B: Borehole abandoned with hydrated bentonite chips.</p>	15 20 25 30 35 40							

Lines of Demarcation represent an **approximate** boundary between soil types. Variations may occur between sampling intervals and between boring locations, and the transition may be gradual. Dashed lines are indicative of potentially erratic or unknown changes, such as fill-to-natural soil zone transitions.

SOIL BORING LOG

**midwest engineering services, inc.**

Project Name: Former Mirro Plant  
 Location: 1512 Washington Street  
 Manitowoc, Wisconsin

Boring: AR-1  
 Project No. : 3-53022  
 Date of Boring: 2/23/05  
 Field Representative: John McAfee

VISUAL SOIL CLASSIFICATION GROUND SURFACE: ELEVATION	DEPTH (Inches)	SAMPLE NO.	N	Qu (tsf)	Qp (tsf)	PID (ppm)	MC (%)	REMARKS
Portland Cement Concrete.	5							NOTE A
Brown Silty SAND, Moist.	10  15  20							NOTE B
<p style="text-align: center;">End of boring at 20"±</p> <p>NOTE A: Boring performed with rotary hammer drill. Soil samples collected from the auger flights.</p> <p>NOTE B: Borehole abandoned with hydrated bentonite chips.</p>	25  30  35  40							

Lines of Demarcation represent an **approximate** boundary between soil types. Variations may occur between sampling intervals and between boring locations, and the transition may be gradual. Dashed lines are indicative of potentially erratic or unknown changes, such as fill-to-natural soil zone transitions.



SOIL BORING LOG

**midwest engineering services, inc.**

Project Name: Former Mirro Plant  
 Location: 1512 Washington Street  
 Manitowoc, Wisconsin

Boring: NE-1  
 Project No. : 3-53022  
 Date of Boring: 2/23/05  
 Field Representative: John McAfee

VISUAL SOIL CLASSIFICATION GROUND SURFACE: ELEVATION	DEPTH (Inches)	SAMPLE NO.	N	Qu (tsf)	Qp (tsf)	PID (ppm)	MC (%)	REMARKS
Portland Concrete Cement.	0							NOTE A
Brown Silty CLAY, Moist.	5							
Brown Silty SAND, Moist.	10							
	15							
	20							NOTE B
End of boring at 20"±								
NOTE A: Boring performed with rotary hammer drill. Soil samples collected from the auger flights.	25							
NOTE B: Borehole abandoned with hydrated bentonite chips.	30							
	35							
	40							

Lines of Demarcation represent an **approximate** boundary between soil types. Variations may occur between sampling intervals and between boring locations, and the transition may be gradual. Dashed lines are indicative of potentially erratic or unknown changes, such as fill-to-natural soil zone transitions.

SOIL BORING LOG

**midwest engineering services, inc.**

Project Name: Former Mirro Plant  
 Location: 1512 Washington Street  
 Manitowoc, Wisconsin

Boring: NEB-1  
 Project No. : 3-53022  
 Date of Boring: 2/23/05  
 Field Representative: John McAfee

VISUAL SOIL CLASSIFICATION GROUND SURFACE: ELEVATION	DEPTH (Inches)	SAMPLE NO.	N	Qu (tsf)	Qp (tsf)	PID (ppm)	MC (%)	REMARKS
Portland Concrete Cement.								NOTE A NOTE C
	5							
Brown and Gray Silty SAND, Moist to Wet.								
	10							
	15							
								NOTE B
End of boring at 18"±	20							
NOTE A: Boring performed with rotary hammer drill. Soil samples collected from the auger flights.								
NOTE B: Borehole abandoned with hydrated bentonite chips.	25							
NOTE C: Boring offset 12"± east and redrilled to obtain additional sample volume.								
	30							
	35							
	40							

Lines of Demarcation represent an **approximate** boundary between soil types. Variations may occur between sampling intervals and between boring locations, and the transition may be gradual. Dashed lines are indicative of potentially erratic or unknown changes, such as fill-to-natural soil zone transitions.



**APPENDIX II**  
**ENCHEM ANALYTICAL SERVICES**

ANALYTICAL REPORT NUMBER 856551

## Analytical Report Number: 856551

Client: EARTH SCIENCE & TECHNOLOGY

Lab Contact: Eric Bullock

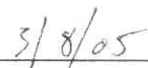
Project Name: MIRRO BLDG

Project Number: 127.02

Lab Sample Number	Field ID	Matrix	Collection Date
856551-001	ET-1	SOIL	02/22/05
856551-002	WT-1	SOIL	02/22/05
856551-003	NE-1	SOIL	02/22/05
856551-004	SAND	SOIL	02/22/05
856551-005	AR-1	SOIL	02/22/05
856551-006	NE-BASE	SOIL	02/22/05
856551-007	SILO	SOIL	02/22/05
856551-008	OIL	OIL	02/22/05
856551-009	MEOH BLANK	METH	02/22/05

I certify that the data contained in this Final Report has been generated and reviewed in accordance with approved methods and Laboratory Standard Operating Procedure. Exceptions, if any, are discussed in the accompanying sample comments. Release of this final report is authorized by Laboratory management, as is verified by the following signature. This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc. The sample results relate only to the analytes of interest tested.

  
Approval Signature

  
Date



# En Chem

## Analytical Report Number: 856551

1241 Bellevue Street  
Green Bay, WI 54302  
920-469-2436

A Division of Pace Analytical Services, Inc.

Client : EARTH SCIENCE & TECHNOLOGY

Project Name : MIRRO BLDG

Project Number : 127.02

Field ID : ET-1

Matrix Type : SOIL

Collection Date : 02/22/05

Report Date : 03/08/05

Lab Sample Number : 856551-001

### INORGANICS

Test	Result	LOD	LOQ	EQL	Dil.	Units	Code	Anl Date	Prep Method	Anl Method
Leach Date - Conventionals	Done				1			02/24/05	SW846 1311	
Arsenic - TCLP	< 1.0			1.0	1	mg/L		02/28/05	SW846 3010A	SW846 6010B
Barium - TCLP	< 1.0			1.0	1	mg/L		02/28/05	SW846 3010A	SW846 6010B
Cadmium - TCLP	< 0.25			0.25	1	mg/L		02/28/05	SW846 3010A	SW846 6010B
Chromium - TCLP	< 0.25			0.25	1	mg/L		02/28/05	SW846 3010A	SW846 6010B
Lead - TCLP	< 1.0			1.0	1	mg/L		02/28/05	SW846 3010A	SW846 6010B
Mercury - TCLP	< 0.080			0.080	1	mg/L		03/01/05	SW846 7470A	SW846 7470A
Selenium - TCLP	< 1.0			1.0	1	mg/L		02/28/05	SW846 3010A	SW846 6010B
Silver - TCLP	< 0.25			0.25	1	mg/L		02/28/05	SW846 3010A	SW846 6010B
Percent Solids	83.8				1	%		02/25/05	SM 2540G M	SM 2540G M

### VOLATILES

Prep Date: 02/28/05

Analyte	Result	LOD	LOQ	EQL	Dil.	Units	Code	Anl Date	Prep Method	Anl Method
1,1,1,2-Tetrachloroethane	< 25	25	60		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
1,1,1-Trichloroethane	< 25	25	60		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
1,1,2,2-Tetrachloroethane	< 25	25	60		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
1,1,2-Trichloroethane	< 25	25	60		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
1,1-Dichloroethane	< 25	25	60		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
1,1-Dichloroethene	< 25	25	60		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
1,1-Dichloropropene	< 25	25	60		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
1,2,3-Trichlorobenzene	< 25	25	60		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
1,2,3-Trichloropropane	< 25	25	60		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
1,2,4-Trichlorobenzene	< 25	25	60		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
1,2,4-Trimethylbenzene	780	30	72		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
1,2-Dibromo-3-chloropropane	< 25	25	60		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
1,2-Dibromoethane	< 25	25	60		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
1,2-Dichlorobenzene	< 25	25	60		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
1,2-Dichloroethane	< 25	25	60		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
1,2-Dichloropropane	< 25	25	60		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
1,3,5-Trimethylbenzene	200	30	72		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
1,3-Dichlorobenzene	< 25	25	60		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
1,3-Dichloropropane	< 25	25	60		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
1,4-Dichlorobenzene	< 25	25	60		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
2,2-Dichloropropane	< 25	25	60		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
2-Chlorotoluene	< 25	25	60		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
4-Chlorotoluene	< 25	25	60		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
Benzene	< 25	25	60		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
Bromobenzene	< 25	25	60		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
Bromochloromethane	< 25	25	60		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
Bromodichloromethane	< 25	25	60		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
Bromoform	< 25	25	60		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
Bromomethane	< 25	25	60		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
Carbon Tetrachloride	< 25	25	60		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
Chlorobenzene	< 25	25	60		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
Chlorodibromomethane	< 25	25	60		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
Chloroethane	< 25	25	60		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
Chloroform	< 25	25	60		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
Chloromethane	< 25	25	60		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
cis-1,2-Dichloroethene	< 25	25	60		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B

# En Chem

A Division of Pace Analytical Services, Inc.

## Analytical Report Number: 856551

1241 Bellevue Street  
Green Bay, WI 54302  
920-469-2436

Client : EARTH SCIENCE & TECHNOLOGY

Project Name : MIRRO BLDG

Project Number : 127.02

Field ID : ET-1

Matrix Type : SOIL

Collection Date : 02/22/05

Report Date : 03/08/05

Lab Sample Number : 856551-001

### VOLATILES

Prep Date: 02/28/05

Analyte	Result	LOD	LOQ	EQL	Dil.	Units	Code	Anl Date	Prep Method	Anl Method
cis-1,3-Dichloropropene	< 25	25	60		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
Dibromomethane	< 25	25	60		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
Dichlorodifluoromethane	< 25	25	60		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
Diisopropyl Ether	< 25	25	60		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
Ethylbenzene	84	30	72		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
Fluorotrichloromethane	< 25	25	60		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
Hexachlorobutadiene	< 25	25	60		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
Isopropylbenzene	39	30	72		50	ug/Kg	Q	03/01/05	SW846 5030B	SW846 8260B
Methylene Chloride	240	30	72		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
Methyl-tert-butyl-ether	< 25	25	60		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
Naphthalene	280	30	72		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
N-Butylbenzene	100	30	72		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
n-Propylbenzene	160	30	72		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
p-Isopropyltoluene	55	30	72		50	ug/Kg	Q	03/01/05	SW846 5030B	SW846 8260B
sec-Butylbenzene	34	30	72		50	ug/Kg	Q	03/01/05	SW846 5030B	SW846 8260B
Styrene	< 25	25	60		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
tert-Butylbenzene	< 25	25	60		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
Tetrachloroethene	62	30	72		50	ug/Kg	Q	03/01/05	SW846 5030B	SW846 8260B
Toluene	1700	30	72		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
trans-1,2-Dichloroethene	< 25	25	60		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
trans-1,3-Dichloropropene	< 25	25	60		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
Trichloroethene	360	30	72		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
Vinyl Chloride	< 25	25	60		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
Xylene, o	330	30	72		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
Xylenes, m + p	580	60	140		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
4-Bromofluorobenzene	100				50	%Recov		03/01/05	SW846 5030B	SW846 8260B
Toluene-d8	107				50	%Recov		03/01/05	SW846 5030B	SW846 8260B
Dibromofluoromethane	117				50	%Recov		03/01/05	SW846 5030B	SW846 8260B

### SEMIVOLATILES - 3.4 TCL LIST

Prep Date: 02/28/05

Analyte	Result	LOD	LOQ	EQL	Dil.	Units	Code	Anl Date	Prep Method	Anl Method
1,2,4-Trichlorobenzene	< 110	110	350		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
1,2-Dichlorobenzene	< 96	96	320		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
1,3-Dichlorobenzene	< 86	86	290		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
1,4-Dichlorobenzene	< 94	94	310		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
2,2'-oxybis(1-Chloropropane)	< 100	100	340		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
2,4,5-Trichlorophenol	< 110	110	370		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
2,4,6-Trichlorophenol	< 98	98	330		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
2,4-Dichlorophenol	< 110	110	380		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
2,4-Dimethylphenol	< 99	99	330		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
2,4-Dinitrophenol	< 140	140	470		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
2,4-Dinitrotoluene	< 89	89	300		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
2,6-Dinitrotoluene	< 88	88	290		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
2-Chloronaphthalene	< 110	110	370		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
2-Chlorophenol	< 130	130	430		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
2-Methylnaphthalene	280	110	370		1	ug/Kg	Q	03/01/05	SW846 3545	SW846 8270C
2-Methylphenol	< 100	100	340		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
2-Nitroaniline	< 90	90	300		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
2-Nitrophenol	< 110	110	350		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C



# En Chem

## Analytical Report Number: 856551

1241 Bellevue Street  
Green Bay, WI 54302  
920-469-2436

A Division of Pace Analytical Services, Inc.

Client : EARTH SCIENCE & TECHNOLOGY

Project Name : MIRRO BLDG

Project Number : 127.02

Field ID : ET-1

Matrix Type : SOIL

Collection Date : 02/22/05

Report Date : 03/08/05

Lab Sample Number : 856551-001

### SEMIVOLATILES - 3.4 TCL LIST

Prep Date: 02/28/05

Analyte	Result	LOD	LOQ	EQL	Dil.	Units	Code	Anl Date	Prep Method	Anl Method
3,3-Dichlorobenzidine	< 100	100	350		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
3 & 4-Methylphenol	< 100	100	330		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
3-Nitroaniline	< 64	64	210		1	ug/Kg	&	03/01/05	SW846 3545	SW846 8270C
4,6-Dinitro-2-methylphenol	< 89	89	300		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
4-Bromophenyl Phenyl Ether	< 92	92	310		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
4-Chloro-3-methylphenol	< 96	96	320		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
4-Chloroaniline	< 88	88	290		1	ug/Kg	&	03/01/05	SW846 3545	SW846 8270C
4-Chlorophenyl Phenyl Ether	< 93	93	310		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
4-Nitroaniline	< 95	95	320		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
4-Nitrophenol	< 120	120	390		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
Acenaphthene	< 95	95	320		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
Acenaphthylene	< 95	95	320		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
Anthracene	< 89	89	300		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
Benzo(a)anthracene	< 97	97	320		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
Benzo(a)pyrene	< 94	94	310		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
Benzo(b)fluoranthene	< 110	110	360		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
Benzo(ghi)perylene	< 56	56	190		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
Benzo(k)fluoranthene	< 90	90	300		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
bis(2-Chloroethoxy)methane	< 110	110	360		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
bis(2-Chloroethyl)ether	< 120	120	390		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
bis(2-Ethylhexyl)phthalate	< 94	94	310		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
Butylbenzylphthalate	< 92	92	310		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
Carbazole	< 110	110	350		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
Chrysene	< 93	93	310		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
Dibenz(a,h)anthracene	< 61	61	200		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
Dibenzofuran	< 92	92	310		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
Diethylphthalate	< 91	91	300		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
Dimethylphthalate	< 91	91	300		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
Di-n-butylphthalate	< 120	120	410		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
Di-n-octylphthalate	< 140	140	470		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
Fluoranthene	< 110	110	370		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
Fluorene	< 92	92	310		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
Hexachlorobenzene	< 93	93	310		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
Hexachlorobutadiene	< 97	97	320		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
Hexachlorocyclopentadiene	< 56	56	190		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
Hexachloroethane	< 80	80	270		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
Indeno(1,2,3-cd)pyrene	< 61	61	200		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
Isophorone	< 99	99	330		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
Naphthalene	230	110	370		1	ug/Kg	Q	03/01/05	SW846 3545	SW846 8270C
Nitrobenzene	< 120	120	390		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
N-Nitrosodi-n-propylamine	< 100	100	330		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
N-Nitrosodiphenylamine	< 220	220	750		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
Pentachlorophenol	< 80	80	270		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
Phenanthrene	160	95	320		1	ug/Kg	Q	03/01/05	SW846 3545	SW846 8270C
Phenol	< 120	120	400		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
Pyrene	< 81	81	270		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
1,2-Dichlorobenzene-d4	53				1	%Recov		03/01/05	SW846 3545	SW846 8270C
Nitrobenzene-d5	72				1	%Recov		03/01/05	SW846 3545	SW846 8270C
2,4,6-Tribromophenol	93				1	%Recov		03/01/05	SW846 3545	SW846 8270C



# En Chem

A Division of Pace Analytical Services, Inc.

## Analytical Report Number: 856551

1241 Bellevue Street  
Green Bay, WI 54302  
920-469-2436

Client : EARTH SCIENCE & TECHNOLOGY

Project Name : MIRRO BLDG

Project Number : 127.02

Field ID : ET-1

Matrix Type : SOIL

Collection Date : 02/22/05

Report Date : 03/08/05

Lab Sample Number : 856551-001

### SEMIVOLATILES - 3.4 TCL LIST

Prep Date: 02/28/05

Analyte	Result	LOD	LOQ	EQL	Dil.	Units	Code	Anl Date	Prep Method	Anl Method
2-Chlorophenol-d4	71				1	%Recov		03/01/05	SW846 3545	SW846 8270C
2-Fluorobiphenyl	81				1	%Recov		03/01/05	SW846 3545	SW846 8270C
2-Fluorophenol	66				1	%Recov		03/01/05	SW846 3545	SW846 8270C
Phenol-d5	77				1	%Recov		03/01/05	SW846 3545	SW846 8270C
Terphenyl-d14	92				1	%Recov		03/01/05	SW846 3545	SW846 8270C

### PCB

Prep Date: 02/28/05

Analyte	Result	LOD	LOQ	EQL	Dil.	Units	Code	Anl Date	Prep Method	Anl Method
Aroclor 1016	< 60			60	1	ug/Kg		02/28/05	SW846 3550B	SW846 8082
Aroclor 1221	< 60			60	1	ug/Kg		02/28/05	SW846 3550B	SW846 8082
Aroclor 1232	< 60			60	1	ug/Kg		02/28/05	SW846 3550B	SW846 8082
Aroclor 1242	< 60			60	1	ug/Kg		02/28/05	SW846 3550B	SW846 8082
Aroclor 1248	< 60			60	1	ug/Kg		02/28/05	SW846 3550B	SW846 8082
Aroclor 1254	< 60			60	1	ug/Kg		02/28/05	SW846 3550B	SW846 8082
Aroclor 1260	< 60			60	1	ug/Kg		02/28/05	SW846 3550B	SW846 8082
Total PCBs	< 60			60	1	ug/Kg		02/28/05	SW846 3550B	SW846 8082
Tetrachloro-m-xylene	92			92	1	%Recov		02/28/05	SW846 3550B	SW846 8082
Decachlorobiphenyl	86			86	1	%Recov		02/28/05	SW846 3550B	SW846 8082

# En Chem

## Analytical Report Number: 856551

1241 Bellevue Street  
Green Bay, WI 54302  
920-469-2436

A Division of Pace Analytical Services, Inc.

Client : EARTH SCIENCE & TECHNOLOGY

Project Name : MIRRO BLDG

Project Number : 127.02

Field ID : WT-1

Matrix Type : SOIL

Collection Date : 02/22/05

Report Date : 03/08/05

Lab Sample Number : 856551-002

### INORGANICS

Test	Result	LOD	LOQ	EQL	Dil.	Units	Code	Anl Date	Prep Method	Anl Method
Leach Date - Conventionals	Done				1			02/24/05	SW846 1311	
Arsenic - TCLP	< 1.0			1.0	1	mg/L		02/28/05	SW846 3010A	SW846 6010B
Barium - TCLP	< 1.0			1.0	1	mg/L		02/28/05	SW846 3010A	SW846 6010B
Cadmium - TCLP	< 0.25			0.25	1	mg/L		02/28/05	SW846 3010A	SW846 6010B
Chromium - TCLP	< 0.25			0.25	1	mg/L		02/28/05	SW846 3010A	SW846 6010B
Lead - TCLP	< 1.0			1.0	1	mg/L		02/28/05	SW846 3010A	SW846 6010B
Mercury - TCLP	< 0.080			0.080	1	mg/L		03/01/05	SW846 7470A	SW846 7470A
Selenium - TCLP	< 1.0			1.0	1	mg/L		02/28/05	SW846 3010A	SW846 6010B
Silver - TCLP	< 0.25			0.25	1	mg/L		02/28/05	SW846 3010A	SW846 6010B
Percent Solids	92.4				1	%		02/25/05	SM 2540G M	SM 2540G M

### VOLATILES

Prep Date: 02/28/05

Analyte	Result	LOD	LOQ	EQL	Dil.	Units	Code	Anl Date	Prep Method	Anl Method
1,1,1,2-Tetrachloroethane	< 28	28	66		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
1,1,1-Trichloroethane	< 28	28	66		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
1,1,2,2-Tetrachloroethane	< 28	28	66		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
1,1,2-Trichloroethane	< 28	28	66		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
1,1-Dichloroethane	< 28	28	66		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
1,1-Dichloroethene	< 28	28	66		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
1,1-Dichloropropene	< 28	28	66		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
1,2,3-Trichlorobenzene	< 28	28	66		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
1,2,3-Trichloropropane	< 28	28	66		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
1,2,4-Trichlorobenzene	< 28	28	66		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
1,2,4-Trimethylbenzene	52	30	72		50	ug/Kg	Q	03/01/05	SW846 5030B	SW846 8260B
1,2-Dibromo-3-chloropropane	< 28	28	66		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
1,2-Dibromoethane	< 28	28	66		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
1,2-Dichlorobenzene	< 28	28	66		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
1,2-Dichloroethane	< 28	28	66		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
1,2-Dichloropropane	< 28	28	66		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
1,3,5-Trimethylbenzene	42	30	72		50	ug/Kg	Q	03/01/05	SW846 5030B	SW846 8260B
1,3-Dichlorobenzene	< 28	28	66		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
1,3-Dichloropropane	< 28	28	66		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
1,4-Dichlorobenzene	< 28	28	66		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
2,2-Dichloropropane	< 28	28	66		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
2-Chlorotoluene	< 28	28	66		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
4-Chlorotoluene	< 28	28	66		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
Benzene	< 28	28	66		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
Bromobenzene	< 28	28	66		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
Bromochloromethane	< 28	28	66		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
Bromodichloromethane	< 28	28	66		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
Bromoform	< 28	28	66		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
Bromomethane	< 28	28	66		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
Carbon Tetrachloride	< 28	28	66		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
Chlorobenzene	< 28	28	66		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
Chlorodibromomethane	< 28	28	66		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
Chloroethane	< 28	28	66		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
Chloroform	< 28	28	66		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
Chloromethane	< 28	28	66		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
cis-1,2-Dichloroethene	< 28	28	66		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B



# En Chem

## Analytical Report Number: 856551

1241 Bellevue Street  
Green Bay, WI 54302  
920-469-2436

A Division of Pace Analytical Services, Inc.

Client : EARTH SCIENCE & TECHNOLOGY

Project Name : MIRRO BLDG

Project Number : 127.02

Field ID : WT-1

Matrix Type : SOIL

Collection Date : 02/22/05

Report Date : 03/08/05

Lab Sample Number : 856551-002

### VOLATILES

Prep Date: 02/28/05

Analyte	Result	LOD	LOQ	EQL	Dil.	Units	Code	Anl Date	Prep Method	Anl Method
cis-1,3-Dichloropropene	< 28	28	66		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
Dibromomethane	< 28	28	66		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
Dichlorodifluoromethane	< 28	28	66		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
Diisopropyl Ether	< 28	28	66		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
Ethylbenzene	< 28	28	66		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
Fluorotrichloromethane	< 28	28	66		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
Hexachlorobutadiene	< 28	28	66		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
Isopropylbenzene	< 28	28	66		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
Methylene Chloride	< 28	28	66		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
Methyl-tert-butyl-ether	< 28	28	66		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
Naphthalene	< 28	28	66		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
N-Butylbenzene	< 28	28	66		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
n-Propylbenzene	< 28	28	66		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
p-Isopropyltoluene	31	30	72		50	ug/Kg	Q	03/01/05	SW846 5030B	SW846 8260B
sec-Butylbenzene	< 28	28	66		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
Styrene	< 28	28	66		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
tert-Butylbenzene	< 28	28	66		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
Tetrachloroethene	< 28	28	66		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
Toluene	< 28	28	66		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
trans-1,2-Dichloroethene	< 28	28	66		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
trans-1,3-Dichloropropene	< 28	28	66		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
Trichloroethene	52	30	72		50	ug/Kg	Q	03/01/05	SW846 5030B	SW846 8260B
Vinyl Chloride	< 28	28	66		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
Xylene, o	51	30	72		50	ug/Kg	Q	03/01/05	SW846 5030B	SW846 8260B
Xylenes, m + p	< 55	55	130		50	ug/Kg		03/01/05	SW846 5030B	SW846 8260B
4-Bromofluorobenzene	86				50	%Recov		03/01/05	SW846 5030B	SW846 8260B
Toluene-d8	87				50	%Recov		03/01/05	SW846 5030B	SW846 8260B
Dibromofluoromethane	101				50	%Recov		03/01/05	SW846 5030B	SW846 8260B

### SEMIVOLATILES - 3.4 TCL LIST

Prep Date: 02/28/05

Analyte	Result	LOD	LOQ	EQL	Dil.	Units	Code	Anl Date	Prep Method	Anl Method
1,2,4-Trichlorobenzene	< 8700	8700	29000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
1,2-Dichlorobenzene	< 7800	7800	26000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
1,3-Dichlorobenzene	< 7000	7000	23000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
1,4-Dichlorobenzene	< 7600	7600	25000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
2,2'-oxybis(1-Chloropropane)	< 8400	8400	28000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
2,4,5-Trichlorophenol	< 9000	9000	30000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
2,4,6-Trichlorophenol	< 8000	8000	27000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
2,4-Dichlorophenol	< 9200	9200	31000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
2,4-Dimethylphenol	< 8100	8100	27000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
2,4-Dinitrophenol	< 11000	11000	38000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
2,4-Dinitrotoluene	< 7200	7200	24000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
2,6-Dinitrotoluene	< 7200	7200	24000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
2-Chloronaphthalene	< 9100	9100	30000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
2-Chlorophenol	< 10000	10000	35000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
2-Methylnaphthalene	< 9100	9100	30000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
2-Methylphenol	< 8200	8200	27000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
2-Nitroaniline	< 7300	7300	24000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
2-Nitrophenol	< 8600	8600	29000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C



A Division of Pace Analytical Services, Inc.

Client : EARTH SCIENCE &amp; TECHNOLOGY

Project Name : MIRRO BLDG

Project Number : 127.02

Field ID : WT-1

Matrix Type : SOIL

Collection Date : 02/22/05

Report Date : 03/08/05

Lab Sample Number : 856551-002

## SEMIVOLATILES - 3.4 TCL LIST

Prep Date: 02/28/05

Analyte	Result	LOD	LOQ	EQL	Dil.	Units	Code	Anl Date	Prep Method	Anl Method
3,3-Dichlorobenzidine	< 8500	8500	28000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
3 & 4-Methylphenol	< 8100	8100	27000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
3-Nitroaniline	< 5200	5200	17000		10	ug/Kg	K&	03/01/05	SW846 3545	SW846 8270C
4,6-Dinitro-2-methylphenol	< 7300	7300	24000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
4-Bromophenyl Phenyl Ether	< 7500	7500	25000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
4-Chloro-3-methylphenol	< 7900	7900	26000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
4-Chloroaniline	< 7200	7200	24000		10	ug/Kg	K&	03/01/05	SW846 3545	SW846 8270C
4-Chlorophenyl Phenyl Ether	< 7600	7600	25000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
4-Nitroaniline	< 7700	7700	26000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
4-Nitrophenol	< 9500	9500	32000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Acenaphthene	< 7800	7800	26000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Acenaphthylene	< 7700	7700	26000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Anthracene	< 7200	7200	24000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Benzo(a)anthracene	< 7900	7900	26000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Benzo(a)pyrene	< 7700	7700	26000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Benzo(b)fluoranthene	< 8800	8800	29000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Benzo(ghi)perylene	< 4500	4500	15000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Benzo(k)fluoranthene	< 7400	7400	25000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
bis(2-Chloroethoxy)methane	< 8700	8700	29000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
bis(2-Chloroethyl)ether	< 9700	9700	32000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
bis(2-Ethylhexyl)phthalate	< 7700	7700	26000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Butylbenzylphthalate	< 7500	7500	25000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Carbazole	< 8600	8600	29000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Chrysene	< 7600	7600	25000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Dibenz(a,h)anthracene	< 5000	5000	17000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Dibenzofuran	< 7500	7500	25000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Diethylphthalate	< 7400	7400	25000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Dimethylphthalate	< 7400	7400	25000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Di-n-butylphthalate	< 9900	9900	33000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Di-n-octylphthalate	< 11000	11000	38000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Fluoranthene	< 9000	9000	30000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Fluorene	< 7500	7500	25000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Hexachlorobenzene	< 7600	7600	25000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Hexachlorobutadiene	< 7900	7900	26000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Hexachlorocyclopentadiene	< 4600	4600	15000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Hexachloroethane	< 6500	6500	22000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Indeno(1,2,3-cd)pyrene	< 5000	5000	17000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Isophorone	< 8100	8100	27000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Naphthalene	< 9000	9000	30000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Nitrobenzene	< 9400	9400	31000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
N-Nitrosodi-n-propylamine	< 8100	8100	27000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
N-Nitrosodiphenylamine	< 18000	18000	61000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Pentachlorophenol	< 6500	6500	22000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Phenanthrene	< 7700	7700	26000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Phenol	< 9900	9900	33000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Pyrene	< 6600	6600	22000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
1,2-Dichlorobenzene-d4	0.0				10	%Recov	KD	03/01/05	SW846 3545	SW846 8270C
Nitrobenzene-d5	0.0				10	%Recov	KD	03/01/05	SW846 3545	SW846 8270C
2,4,6-Tribromophenol	0.0				10	%Recov	KD	03/01/05	SW846 3545	SW846 8270C

# En Chem

## Analytical Report Number: 856551

1241 Bellevue Street  
Green Bay, WI 54302  
920-469-2436

A Division of Pace Analytical Services, Inc.

Client : EARTH SCIENCE & TECHNOLOGY

Project Name : MIRRO BLDG

Project Number : 127.02

Field ID : WT-1

Matrix Type : SOIL

Collection Date : 02/22/05

Report Date : 03/08/05

Lab Sample Number : 856551-002

### SEMIVOLATILES - 3.4 TCL LIST

Prep Date: 02/28/05

Analyte	Result	LOD	LOQ	EQL	Dil.	Units	Code	Anl Date	Prep Method	Anl Method
2-Chlorophenol-d4	0.0				10	%Recov	KD	03/01/05	SW846 3545	SW846 8270C
2-Fluorobiphenyl	0.0				10	%Recov	KD	03/01/05	SW846 3545	SW846 8270C
2-Fluorophenol	0.0				10	%Recov	KD	03/01/05	SW846 3545	SW846 8270C
Phenol-d5	0.0				10	%Recov	KD	03/01/05	SW846 3545	SW846 8270C
Terphenyl-d14	0.0				10	%Recov	KD	03/01/05	SW846 3545	SW846 8270C

### PCB

Prep Date: 02/28/05

Analyte	Result	LOD	LOQ	EQL	Dil.	Units	Code	Anl Date	Prep Method	Anl Method
Aroclor 1016	< 54			54	1	ug/Kg		02/28/05	SW846 3550B	SW846 8082
Aroclor 1221	< 54			54	1	ug/Kg		02/28/05	SW846 3550B	SW846 8082
Aroclor 1232	< 54			54	1	ug/Kg		02/28/05	SW846 3550B	SW846 8082
Aroclor 1242	< 54			54	1	ug/Kg		02/28/05	SW846 3550B	SW846 8082
Aroclor 1248	320			54	1	ug/Kg		02/28/05	SW846 3550B	SW846 8082
Aroclor 1254	< 54			54	1	ug/Kg		02/28/05	SW846 3550B	SW846 8082
Aroclor 1260	< 54			54	1	ug/Kg		02/28/05	SW846 3550B	SW846 8082
Total PCBs	320			54	1	ug/Kg		02/28/05	SW846 3550B	SW846 8082
Tetrachloro-m-xylene	78			78	1	%Recov		02/28/05	SW846 3550B	SW846 8082
Decachlorobiphenyl	71			71	1	%Recov		02/28/05	SW846 3550B	SW846 8082



# En Chem

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Project Name : MIRRO BLDG

Project Number : 127.02

Field ID : NE-1

Matrix Type : SOIL

Collection Date : 02/22/05

Report Date : 03/08/05

Lab Sample Number : 856551-003

### INORGANICS

Test	Result	LOD	LOQ	EQL	Dil.	Units	Code	Anl Date	Prep Method	Anl Method
Leach Date - Conventionals	Done				1			02/28/05	SW846 1311	
Arsenic - TCLP	< 1.0			1.0	1	mg/L		03/02/05	SW846 3010A	SW846 6010B
Barium - TCLP	< 1.0			1.0	1	mg/L		03/03/05	SW846 3010A	SW846 6010B
Cadmium - TCLP	< 0.25			0.25	1	mg/L		03/02/05	SW846 3010A	SW846 6010B
Chromium - TCLP	< 0.25			0.25	1	mg/L		03/02/05	SW846 3010A	SW846 6010B
Lead - TCLP	< 1.0			1.0	1	mg/L		03/02/05	SW846 3010A	SW846 6010B
Mercury - TCLP	< 0.080			0.080	1	mg/L		03/01/05	SW846 7470A	SW846 7470A
Selenium - TCLP	< 1.0			1.0	1	mg/L		03/02/05	SW846 3010A	SW846 6010B
Silver - TCLP	< 0.25			0.25	1	mg/L		03/02/05	SW846 3010A	SW846 6010B
Percent Solids	93.2				1	%		02/25/05	SM 2540G M	SM 2540G M

### VOLATILES

Prep Date: 02/28/05

Analyte	Result	LOD	LOQ	EQL	Dil.	Units	Code	Anl Date	Prep Method	Anl Method
1,1,1,2-Tetrachloroethane	< 34	34	81		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
1,1,1-Trichloroethane	< 34	34	81		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
1,1,2,2-Tetrachloroethane	< 34	34	81		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
1,1,2-Trichloroethane	< 34	34	81		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
1,1-Dichloroethane	< 34	34	81		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
1,1-Dichloroethene	< 34	34	81		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
1,1-Dichloropropene	< 34	34	81		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
1,2,3-Trichlorobenzene	< 34	34	81		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
1,2,3-Trichloropropane	< 34	34	81		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
1,2,4-Trichlorobenzene	< 34	34	81		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
1,2,4-Trimethylbenzene	< 34	34	81		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
1,2-Dibromo-3-chloropropane	< 34	34	81		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
1,2-Dibromoethane	< 34	34	81		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
1,2-Dichlorobenzene	< 34	34	81		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
1,2-Dichloroethane	< 34	34	81		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
1,2-Dichloropropane	< 34	34	81		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
1,3,5-Trimethylbenzene	< 34	34	81		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
1,3-Dichlorobenzene	< 34	34	81		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
1,3-Dichloropropane	< 34	34	81		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
1,4-Dichlorobenzene	< 34	34	81		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
2,2-Dichloropropane	< 34	34	81		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
2-Chlorotoluene	< 34	34	81		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
4-Chlorotoluene	< 34	34	81		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
Benzene	< 34	34	81		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
Bromobenzene	< 34	34	81		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
Bromochloromethane	< 34	34	81		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
Bromodichloromethane	< 34	34	81		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
Bromoform	< 34	34	81		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
Bromomethane	< 34	34	81		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
Carbon Tetrachloride	< 34	34	81		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
Chlorobenzene	< 34	34	81		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
Chlorodibromomethane	< 34	34	81		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
Chloroethane	< 34	34	81		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
Chloroform	< 34	34	81		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
Chloromethane	< 34	34	81		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
cis-1,2-Dichloroethene	< 34	34	81		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B



# En Chem

## Analytical Report Number: 856551

1241 Bellevue Street  
Green Bay, WI 54302  
920-469-2436

A Division of Pace Analytical Services, Inc.

Client : EARTH SCIENCE & TECHNOLOGY

Project Name : MIRRO BLDG

Project Number : 127.02

Field ID : NE-1

Matrix Type : SOIL

Collection Date : 02/22/05

Report Date : 03/08/05

Lab Sample Number : 856551-003

### VOLATILES

Prep Date: 02/28/05

Analyte	Result	LOD	LOQ	EQL	Dil.	Units	Code	Anl Date	Prep Method	Anl Method
cis-1,3-Dichloropropene	< 34	34	81		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
Dibromomethane	< 34	34	81		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
Dichlorodifluoromethane	< 34	34	81		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
Diisopropyl Ether	< 34	34	81		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
Ethylbenzene	< 34	34	81		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
Fluorotrichloromethane	< 34	34	81		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
Hexachlorobutadiene	< 34	34	81		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
Isopropylbenzene	< 34	34	81		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
Methylene Chloride	61	36	87		50	ug/Kg	Q	02/28/05	SW846 5030B	SW846 8260B
Methyl-tert-butyl-ether	< 34	34	81		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
Naphthalene	< 34	34	81		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
N-Butylbenzene	< 34	34	81		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
n-Propylbenzene	< 34	34	81		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
p-Isopropyltoluene	< 34	34	81		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
sec-Butylbenzene	< 34	34	81		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
Styrene	< 34	34	81		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
tert-Butylbenzene	< 34	34	81		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
Tetrachloroethene	< 34	34	81		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
Toluene	< 34	34	81		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
trans-1,2-Dichloroethene	< 34	34	81		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
trans-1,3-Dichloropropene	< 34	34	81		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
Trichloroethene	< 34	34	81		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
Vinyl Chloride	< 34	34	81		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
Xylene, o	< 34	34	81		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
Xylenes, m + p	< 68	68	160		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
4-Bromofluorobenzene	98				50	%Recov		02/28/05	SW846 5030B	SW846 8260B
Toluene-d8	101				50	%Recov		02/28/05	SW846 5030B	SW846 8260B
Dibromofluoromethane	107				50	%Recov		02/28/05	SW846 5030B	SW846 8260B

### SEMIVOLATILES - 3.4 TCL LIST

Prep Date: 02/28/05

Analyte	Result	LOD	LOQ	EQL	Dil.	Units	Code	Anl Date	Prep Method	Anl Method
1,2,4-Trichlorobenzene	< 4800	4800	16000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
1,2-Dichlorobenzene	< 4300	4300	14000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
1,3-Dichlorobenzene	< 3900	3900	13000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
1,4-Dichlorobenzene	< 4200	4200	14000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
2,2'-oxybis(1-Chloropropane)	< 4600	4600	15000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
2,4,5-Trichlorophenol	< 5000	5000	17000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
2,4,6-Trichlorophenol	< 4400	4400	15000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
2,4-Dichlorophenol	< 5100	5100	17000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
2,4-Dimethylphenol	< 4500	4500	15000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
2,4-Dinitrophenol	< 6300	6300	21000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
2,4-Dinitrotoluene	< 4000	4000	13000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
2,6-Dinitrotoluene	< 4000	4000	13000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
2-Chloronaphthalene	< 5000	5000	17000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
2-Chlorophenol	< 5800	5800	19000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
2-Methylnaphthalene	< 5000	5000	17000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
2-Methylphenol	< 4500	4500	15000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
2-Nitroaniline	< 4000	4000	13000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
2-Nitrophenol	< 4700	4700	16000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C

A Division of Pace Analytical Services, Inc.

Client : EARTH SCIENCE &amp; TECHNOLOGY

Project Name : MIRRO BLDG

Project Number : 127.02

Field ID : NE-1

Matrix Type : SOIL

Collection Date : 02/22/05

Report Date : 03/08/05

Lab Sample Number : 856551-003

## SEMIVOLATILES - 3.4 TCL LIST

Prep Date: 02/28/05

Analyte	Result	LOD	LOQ	EQL	Dil.	Units	Code	Anl Date	Prep Method	Anl Method
3,3-Dichlorobenzidine	< 4700	4700	16000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
3 & 4-Methylphenol	< 4500	4500	15000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
3-Nitroaniline	< 2900	2900	9500		10	ug/Kg	K&	03/01/05	SW846 3545	SW846 8270C
4,6-Dinitro-2-methylphenol	< 4000	4000	13000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
4-Bromophenyl Phenyl Ether	< 4200	4200	14000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
4-Chloro-3-methylphenol	< 4300	4300	14000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
4-Chloroaniline	< 4000	4000	13000		10	ug/Kg	K&	03/01/05	SW846 3545	SW846 8270C
4-Chlorophenyl Phenyl Ether	< 4200	4200	14000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
4-Nitroaniline	< 4300	4300	14000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
4-Nitrophenol	< 5300	5300	18000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Acenaphthene	< 4300	4300	14000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Acenaphthylene	< 4300	4300	14000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Anthracene	< 4000	4000	13000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Benzo(a)anthracene	< 4400	4400	15000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Benzo(a)pyrene	< 4200	4200	14000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Benzo(b)fluoranthene	< 4800	4800	16000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Benzo(ghi)perylene	< 2500	2500	8400		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Benzo(k)fluoranthene	< 4100	4100	14000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
bis(2-Chloroethoxy)methane	< 4800	4800	16000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
bis(2-Chloroethyl)ether	< 5300	5300	18000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
bis(2-Ethylhexyl)phthalate	< 4200	4200	14000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Butylbenzylphthalate	< 4100	4100	14000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Carbazole	< 4700	4700	16000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Chrysene	< 4200	4200	14000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Dibenz(a,h)anthracene	< 2700	2700	9200		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Dibenzofuran	< 4100	4100	14000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Diethylphthalate	< 4100	4100	14000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Dimethylphthalate	< 4100	4100	14000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Di-n-butylphthalate	< 5500	5500	18000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Di-n-octylphthalate	< 6300	6300	21000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Fluoranthene	< 5000	5000	17000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Fluorene	< 4100	4100	14000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Hexachlorobenzene	< 4200	4200	14000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Hexachlorobutadiene	< 4300	4300	14000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Hexachlorocyclopentadiene	< 2500	2500	8500		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Hexachloroethane	< 3600	3600	12000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Indeno(1,2,3-cd)pyrene	< 2800	2800	9200		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Isophorone	< 4400	4400	15000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Naphthalene	< 5000	5000	17000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Nitrobenzene	< 5200	5200	17000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
N-Nitrosodi-n-propylamine	< 4500	4500	15000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
N-Nitrosodiphenylamine	< 10000	10000	34000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Pentachlorophenol	< 3600	3600	12000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Phenanthrene	< 4300	4300	14000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Phenol	< 5400	5400	18000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Pyrene	< 3700	3700	12000		10	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
1,2-Dichlorobenzene-d4	0.0				10	%Recov	KD	03/01/05	SW846 3545	SW846 8270C
Nitrobenzene-d5	0.0				10	%Recov	KD	03/01/05	SW846 3545	SW846 8270C
2,4,6-Tribromophenol	0.0				10	%Recov	KD	03/01/05	SW846 3545	SW846 8270C



# En Chem

A Division of Pace Analytical Services, Inc.

## Analytical Report Number: 856551

1241 Bellevue Street  
Green Bay, WI 54302  
920-469-2436

Client : EARTH SCIENCE & TECHNOLOGY

Project Name : MIRRO BLDG

Project Number : 127.02

Field ID : NE-1

Matrix Type : SOIL

Collection Date : 02/22/05

Report Date : 03/08/05

Lab Sample Number : 856551-003

### SEMIVOLATILES - 3,4 TCL LIST

Prep Date: 02/28/05

Analyte	Result	LOD	LOQ	EQL	Dil.	Units	Code	Anl Date	Prep Method	Anl Method
2-Chlorophenol-d4	0.0				10	%Recov	KD	03/01/05	SW846 3545	SW846 8270C
2-Fluorobiphenyl	0.0				10	%Recov	KD	03/01/05	SW846 3545	SW846 8270C
2-Fluorophenol	0.0				10	%Recov	KD	03/01/05	SW846 3545	SW846 8270C
Phenol-d5	0.0				10	%Recov	KD	03/01/05	SW846 3545	SW846 8270C
Terphenyl-d14	0.0				10	%Recov	KD	03/01/05	SW846 3545	SW846 8270C

### PCB

Prep Date: 02/28/05

Analyte	Result	LOD	LOQ	EQL	Dil.	Units	Code	Anl Date	Prep Method	Anl Method
Aroclor 1016	< 54			54	1	ug/Kg		02/28/05	SW846 3550B	SW846 8082
Aroclor 1221	< 54			54	1	ug/Kg		02/28/05	SW846 3550B	SW846 8082
Aroclor 1232	< 54			54	1	ug/Kg		02/28/05	SW846 3550B	SW846 8082
Aroclor 1242	< 54			54	1	ug/Kg		02/28/05	SW846 3550B	SW846 8082
Aroclor 1248	< 54			54	1	ug/Kg		02/28/05	SW846 3550B	SW846 8082
Aroclor 1254	< 54			54	1	ug/Kg		02/28/05	SW846 3550B	SW846 8082
Aroclor 1260	< 54			54	1	ug/Kg		02/28/05	SW846 3550B	SW846 8082
Total PCBs	< 54			54	1	ug/Kg		02/28/05	SW846 3550B	SW846 8082
Tetrachloro-m-xylene	70			70	1	%Recov		02/28/05	SW846 3550B	SW846 8082
Decachlorobiphenyl	34			34	1	%Recov	F	02/28/05	SW846 3550B	SW846 8082



# En Chem

## Analytical Report Number: 856551

1241 Bellevue Street  
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Client : EARTH SCIENCE & TECHNOLOGY

Matrix Type : SOIL

Project Name : MIRRO BLDG

Collection Date : 02/22/05

Project Number : 127.02

Report Date : 03/08/05

Field ID : SAND

Lab Sample Number : 856551-004

### INORGANICS

Test	Result	LOD	LOQ	EQL	Dil.	Units	Code	Anl Date	Prep Method	Anl Method
Leach Date - Conventional	Done				1			02/28/05	SW846 1311	
Arsenic - TCLP	< 1.0			1.0	1	mg/L		03/03/05	SW846 3010A	SW846 6010B
Barium - TCLP	< 1.0			1.0	1	mg/L		03/03/05	SW846 3010A	SW846 6010B
Cadmium - TCLP	< 0.25			0.25	1	mg/L		03/02/05	SW846 3010A	SW846 6010B
Chromium - TCLP	< 0.25			0.25	1	mg/L		03/03/05	SW846 3010A	SW846 6010B
Lead - TCLP	< 1.0			1.0	1	mg/L		03/02/05	SW846 3010A	SW846 6010B
Mercury - TCLP	< 0.080			0.080	1	mg/L		03/01/05	SW846 7470A	SW846 7470A
Selenium - TCLP	< 1.0			1.0	1	mg/L		03/03/05	SW846 3010A	SW846 6010B
Silver - TCLP	< 0.25			0.25	1	mg/L		03/02/05	SW846 3010A	SW846 6010B
Percent Solids	93.4				1	%		02/25/05	SM 2540G M	SM 2540G M

### VOLATILES

Prep Date: 02/28/05

Analyte	Result	LOD	LOQ	EQL	Dil.	Units	Code	Anl Date	Prep Method	Anl Method
1,1,1,2-Tetrachloroethane	< 25	25	60		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
1,1,1-Trichloroethane	< 25	25	60		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
1,1,2,2-Tetrachloroethane	< 25	25	60		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
1,1,2-Trichloroethane	< 25	25	60		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
1,1-Dichloroethane	< 25	25	60		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
1,1-Dichloroethene	< 25	25	60		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
1,1-Dichloropropene	< 25	25	60		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
1,2,3-Trichlorobenzene	< 25	25	60		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
1,2,3-Trichloropropane	< 25	25	60		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
1,2,4-Trichlorobenzene	< 25	25	60		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
1,2,4-Trimethylbenzene	370	27	64		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
1,2-Dibromo-3-chloropropane	< 25	25	60		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
1,2-Dibromoethane	< 25	25	60		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
1,2-Dichlorobenzene	< 25	25	60		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
1,2-Dichloroethane	< 25	25	60		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
1,2-Dichloropropane	< 25	25	60		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
1,3,5-Trimethylbenzene	100	27	64		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
1,3-Dichlorobenzene	< 25	25	60		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
1,3-Dichloropropane	< 25	25	60		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
1,4-Dichlorobenzene	< 25	25	60		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
2,2-Dichloropropane	< 25	25	60		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
2-Chlorotoluene	< 25	25	60		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
4-Chlorotoluene	< 25	25	60		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
Benzene	< 25	25	60		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
Bromobenzene	< 25	25	60		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
Bromochloromethane	< 25	25	60		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
Bromodichloromethane	< 25	25	60		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
Bromoform	< 25	25	60		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
Bromomethane	< 25	25	60		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
Carbon Tetrachloride	< 25	25	60		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
Chlorobenzene	< 25	25	60		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
Chlorodibromomethane	< 25	25	60		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
Chloroethane	< 25	25	60		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
Chloroform	< 25	25	60		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
Chloromethane	< 25	25	60		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
cis-1,2-Dichloroethene	< 25	25	60		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B

# En Chem

## Analytical Report Number: 856551

1241 Bellevue Street  
Green Bay, WI 54302  
920-469-2436

A Division of Pace Analytical Services, Inc.

Client : EARTH SCIENCE & TECHNOLOGY

Matrix Type : SOIL

Project Name : MIRRO BLDG

Collection Date : 02/22/05

Project Number : 127.02

Report Date : 03/08/05

Field ID : SAND

Lab Sample Number : 856551-004

### VOLATILES

Prep Date: 02/28/05

Analyte	Result	LOD	LOQ	EQL	Dil.	Units	Code	Anl Date	Prep Method	Anl Method
cis-1,3-Dichloropropene	< 25	25	60		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
Dibromomethane	< 25	25	60		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
Dichlorodifluoromethane	< 25	25	60		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
Diisopropyl Ether	< 25	25	60		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
Ethylbenzene	< 25	25	60		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
Fluorotrchloromethane	< 25	25	60		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
Hexachlorobutadiene	< 25	25	60		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
Isopropylbenzene	< 25	25	60		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
Methylene Chloride	< 25	25	60		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
Methyl-tert-butyl-ether	< 25	25	60		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
Naphthalene	72	27	64		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
N-Butylbenzene	< 25	25	60		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
n-Propylbenzene	< 25	25	60		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
p-Isopropyltoluene	< 25	25	60		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
sec-Butylbenzene	40	27	64		50	ug/Kg	Q	02/28/05	SW846 5030B	SW846 8260B
Styrene	< 25	25	60		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
tert-Butylbenzene	< 25	25	60		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
Tetrachloroethene	< 25	25	60		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
Toluene	< 25	25	60		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
trans-1,2-Dichloroethene	< 25	25	60		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
trans-1,3-Dichloropropene	< 25	25	60		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
Trichloroethene	< 25	25	60		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
Vinyl Chloride	< 25	25	60		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
Xylene, o	< 25	25	60		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
Xylenes, m + p	< 50	50	120		50	ug/Kg		02/28/05	SW846 5030B	SW846 8260B
4-Bromofluorobenzene	109				50	%Recov		02/28/05	SW846 5030B	SW846 8260B
Toluene-d8	108				50	%Recov		02/28/05	SW846 5030B	SW846 8260B
Dibromofluoromethane	113				50	%Recov		02/28/05	SW846 5030B	SW846 8260B

### SEMIVOLATILES - 3.4 TCL LIST

Prep Date: 02/28/05

Analyte	Result	LOD	LOQ	EQL	Dil.	Units	Code	Anl Date	Prep Method	Anl Method
1,2,4-Trichlorobenzene	< 950	950	3200		5	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
1,2-Dichlorobenzene	< 860	860	2900		5	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
1,3-Dichlorobenzene	< 770	770	2600		5	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
1,4-Dichlorobenzene	< 840	840	2800		5	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
2,2'-oxybis(1-Chloropropane)	< 920	920	3100		5	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
2,4,5-Trichlorophenol	< 990	990	3300		5	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
2,4,6-Trichlorophenol	< 880	880	2900		5	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
2,4-Dichlorophenol	< 1000	1000	3400		5	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
2,4-Dimethylphenol	< 890	890	3000		5	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
2,4-Dinitrophenol	< 1300	1300	4200		5	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
2,4-Dinitrotoluene	< 790	790	2600		5	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
2,6-Dinitrotoluene	< 790	790	2600		5	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
2-Chloronaphthalene	< 1000	1000	3300		5	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
2-Chlorophenol	< 1100	1100	3800		5	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
2-Methylnaphthalene	< 1000	1000	3300		5	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
2-Methylphenol	< 910	910	3000		5	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
2-Nitroaniline	< 800	800	2700		5	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
2-Nitrophenol	< 950	950	3200		5	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C



A Division of Pace Analytical Services, Inc.

Client : EARTH SCIENCE & TECHNOLOGY

Project Name : MIRRO BLDG

Project Number : 127.02

Field ID : SAND

Matrix Type : SOIL

Collection Date : 02/22/05

Report Date : 03/08/05

Lab Sample Number : 856551-004

**SEMIVOLATILES - 3.4 TCL LIST**

Prep Date: 02/28/05

Analyte	Result	LOD	LOQ	EQL	Dil.	Units	Code	Anl Date	Prep Method	Anl Method
3,3-Dichlorobenzidine	< 930	930	3100		5	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
3 & 4-Methylphenol	< 890	890	3000		5	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
3-Nitroaniline	< 570	570	1900		5	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
4,6-Dinitro-2-methylphenol	< 800	800	2700		5	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
4-Bromophenyl Phenyl Ether	< 830	830	2800		5	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
4-Chloro-3-methylphenol	< 860	860	2900		5	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
4-Chloroaniline	< 790	790	2600		5	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
4-Chlorophenyl Phenyl Ether	< 840	840	2800		5	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
4-Nitroaniline	< 850	850	2800		5	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
4-Nitrophenol	< 1000	1000	3500		5	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Acenaphthene	< 850	850	2800		5	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Acenaphthylene	< 850	850	2800		5	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Anthracene	< 800	800	2700		5	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Benzo(a)anthracene	< 870	870	2900		5	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Benzo(a)pyrene	< 840	840	2800		5	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Benzo(b)fluoranthene	< 960	960	3200		5	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Benzo(ghi)perylene	< 500	500	1700		5	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Benzo(k)fluoranthene	< 810	810	2700		5	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
bis(2-Chloroethoxy)methane	< 960	960	3200		5	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
bis(2-Chloroethyl)ether	< 1100	1100	3500		5	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
bis(2-Ethylhexyl)phthalate	< 840	840	2800		5	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Butylbenzylphthalate	< 830	830	2800		5	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Carbazole	< 940	940	3100		5	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Chrysene	< 830	830	2800		5	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Dibenz(a,h)anthracene	< 550	550	1800		5	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Dibenzofuran	< 820	820	2700		5	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Diethylphthalate	< 820	820	2700		5	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Dimethylphthalate	< 810	810	2700		5	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Di-n-butylphthalate	< 1100	1100	3600		5	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Di-n-octylphthalate	< 1300	1300	4200		5	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Fluoranthene	< 990	990	3300		5	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Fluorene	< 830	830	2800		5	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Hexachlorobenzene	< 830	830	2800		5	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Hexachlorobutadiene	< 870	870	2900		5	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Hexachlorocyclopentadiene	< 510	510	1700		5	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Hexachloroethane	< 720	720	2400		5	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Indeno(1,2,3-cd)pyrene	< 550	550	1800		5	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Isophorone	< 890	890	3000		5	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Naphthalene	< 990	990	3300		5	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Nitrobenzene	< 1000	1000	3500		5	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
N-Nitrosodi-n-propylamine	< 890	890	3000		5	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
N-Nitrosodiphenylamine	< 2000	2000	6700		5	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Pentachlorophenol	< 710	710	2400		5	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Phenanthrene	< 850	850	2800		5	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Phenol	< 1100	1100	3600		5	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
Pyrene	< 730	730	2400		5	ug/Kg	K	03/01/05	SW846 3545	SW846 8270C
1,2-Dichlorobenzene-d4	68				5	%Recov		03/01/05	SW846 3545	SW846 8270C
Nitrobenzene-d5	80				5	%Recov		03/01/05	SW846 3545	SW846 8270C
2,4,6-Tribromophenol	20				5	%Recov		03/01/05	SW846 3545	SW846 8270C



# En Chem

## Analytical Report Number: 856551

1241 Bellevue Street  
Green Bay, WI 54302  
920-469-2436

A Division of Pace Analytical Services, Inc.

Client : EARTH SCIENCE & TECHNOLOGY

Project Name : MIRRO BLDG

Project Number : 127.02

Field ID : SAND

Matrix Type : SOIL

Collection Date : 02/22/05

Report Date : 03/08/05

Lab Sample Number : 856551-004

### SEMIVOLATILES - 3.4 TCL LIST

Prep Date: 02/28/05

Analyte	Result	LOD	LOQ	EQL	Dil.	Units	Code	Anl Date	Prep Method	Anl Method
2-Chlorophenol-d4	66				5	%Recov		03/01/05	SW846 3545	SW846 8270C
2-Fluorobiphenyl	94				5	%Recov		03/01/05	SW846 3545	SW846 8270C
2-Fluorophenol	54				5	%Recov		03/01/05	SW846 3545	SW846 8270C
Phenol-d5	70				5	%Recov		03/01/05	SW846 3545	SW846 8270C
Terphenyl-d14	130				5	%Recov		03/01/05	SW846 3545	SW846 8270C

### PCB

Prep Date: 02/28/05

Analyte	Result	LOD	LOQ	EQL	Dil.	Units	Code	Anl Date	Prep Method	Anl Method
Aroclor 1016	< 54			54	1	ug/Kg		02/28/05	SW846 3550B	SW846 8082
Aroclor 1221	< 54			54	1	ug/Kg		02/28/05	SW846 3550B	SW846 8082
Aroclor 1232	< 54			54	1	ug/Kg		02/28/05	SW846 3550B	SW846 8082
Aroclor 1242	< 54			54	1	ug/Kg		02/28/05	SW846 3550B	SW846 8082
Aroclor 1248	< 54			54	1	ug/Kg		02/28/05	SW846 3550B	SW846 8082
Aroclor 1254	< 54			54	1	ug/Kg		02/28/05	SW846 3550B	SW846 8082
Aroclor 1260	< 54			54	1	ug/Kg		02/28/05	SW846 3550B	SW846 8082
Total PCBs	< 54			54	1	ug/Kg		02/28/05	SW846 3550B	SW846 8082
Tetrachloro-m-xylene	92			92	1	%Recov		02/28/05	SW846 3550B	SW846 8082
Decachlorobiphenyl	50			50	1	%Recov		02/28/05	SW846 3550B	SW846 8082

# En Chem

A Division of Pace Analytical Services, Inc.

## Analytical Report Number: 856551

1241 Bellevue Street  
Green Bay, WI 54302  
920-469-2436

Client : EARTH SCIENCE & TECHNOLOGY

Project Name : MIRRO BLDG

Project Number : 127.02

Field ID : AR-1

Matrix Type : SOIL

Collection Date : 02/22/05

Report Date : 03/08/05

Lab Sample Number : 856551-005

### INORGANICS

Test	Result	LOD	LOQ	EQL	Dil.	Units	Code	Anl Date	Prep Method	Anl Method
Leach Date - Conventionals	Done				1			02/28/05	SW846 1311	
Aluminum	64000	160	550		500	mg/Kg		03/07/05	SW846 3050B	SW846 6020
Arsenic - TCLP	< 1.0			1.0	1	mg/L		03/03/05	SW846 3010A	SW846 6010B
Barium - TCLP	< 1.0			1.0	1	mg/L		03/03/05	SW846 3010A	SW846 6010B
Cadmium - TCLP	< 0.25			0.25	1	mg/L		03/02/05	SW846 3010A	SW846 6010B
Chromium - TCLP	< 0.25			0.25	1	mg/L		03/03/05	SW846 3010A	SW846 6010B
Lead - TCLP	< 1.0			1.0	1	mg/L		03/02/05	SW846 3010A	SW846 6010B
Mercury - TCLP	< 0.080			0.080	1	mg/L		03/01/05	SW846 7470A	SW846 7470A
Selenium - TCLP	< 1.0			1.0	1	mg/L		03/03/05	SW846 3010A	SW846 6010B
Silver - TCLP	< 0.25			0.25	1	mg/L		03/02/05	SW846 3010A	SW846 6010B
Percent Solids	75.4				1	%		02/25/05	SM 2540G M	SM 2540G M

# En Chem

## Analytical Report Number: 856551

1241 Bellevue Street  
Green Bay, WI 54302  
920-469-2436

A Division of Pace Analytical Services, Inc.

Client : EARTH SCIENCE & TECHNOLOGY

Project Name : MIRRO BLDG

Project Number : 127.02

Field ID : NE-BASE

Matrix Type : SOIL

Collection Date : 02/22/05

Report Date : 03/08/05

Lab Sample Number : 856551-006

### INORGANICS

Test	Result	LOD	LOQ	EQL	Dil.	Units	Code	Anl Date	Prep Method	Anl Method
Leach Date - Conventionals	Done				1			02/28/05	SW846 1311	
Arsenic - TCLP	< 1.0			1.0	1	mg/L		03/03/05	SW846 3010A	SW846 6010B
Barium - TCLP	< 1.0			1.0	1	mg/L		03/03/05	SW846 3010A	SW846 6010B
Cadmium - TCLP	< 0.25			0.25	1	mg/L		03/02/05	SW846 3010A	SW846 6010B
Chromium - TCLP	< 0.25			0.25	1	mg/L		03/03/05	SW846 3010A	SW846 6010B
Lead - TCLP	< 1.0			1.0	1	mg/L		03/02/05	SW846 3010A	SW846 6010B
Mercury - TCLP	< 0.080			0.080	1	mg/L		03/01/05	SW846 7470A	SW846 7470A
Selenium - TCLP	< 1.0			1.0	1	mg/L		03/03/05	SW846 3010A	SW846 6010B
Silver - TCLP	< 0.25			0.25	1	mg/L		03/02/05	SW846 3010A	SW846 6010B
Percent Solids	84.2				1	%		02/25/05	SM 2540G M	SM 2540G M

### SEMIVOLATILES - 3.4 TCL LIST

Prep Date: 02/28/05

Analyte	Result	LOD	LOQ	EQL	Dil.	Units	Code	Anl Date	Prep Method	Anl Method
1,2,4-Trichlorobenzene	< 110	110	350		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
1,2-Dichlorobenzene	< 96	96	320		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
1,3-Dichlorobenzene	< 86	86	290		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
1,4-Dichlorobenzene	< 93	93	310		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
2,2'-oxybis(1-Chloropropane)	< 100	100	340		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
2,4,5-Trichlorophenol	< 110	110	370		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
2,4,6-Trichlorophenol	< 97	97	320		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
2,4-Dichlorophenol	< 110	110	370		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
2,4-Dimethylphenol	< 99	99	330		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
2,4-Dinitrophenol	< 140	140	470		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
2,4-Dinitrotoluene	< 88	88	290		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
2,6-Dinitrotoluene	< 88	88	290		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
2-Chloronaphthalene	< 110	110	370		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
2-Chlorophenol	< 130	130	430		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
2-Methylnaphthalene	< 110	110	370		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
2-Methylphenol	< 100	100	340		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
2-Nitroaniline	< 89	89	300		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
2-Nitrophenol	< 110	110	350		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
3,3-Dichlorobenzidine	< 100	100	340		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
3 & 4-Methylphenol	< 99	99	330		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
3-Nitroaniline	< 63	63	210		1	ug/Kg	&	03/01/05	SW846 3545	SW846 8270C
4,6-Dinitro-2-methylphenol	< 89	89	300		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
4-Bromophenyl Phenyl Ether	< 92	92	310		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
4-Chloro-3-methylphenol	< 96	96	320		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
4-Chloroaniline	< 88	88	290		1	ug/Kg	&	03/01/05	SW846 3545	SW846 8270C
4-Chlorophenyl Phenyl Ether	< 93	93	310		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
4-Nitroaniline	< 95	95	320		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
4-Nitrophenol	< 120	120	390		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
Acenaphthene	< 95	95	320		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
Acenaphthylene	< 94	94	310		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
Anthracene	< 88	88	290		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
Benzo(a)anthracene	280	96	320		1	ug/Kg	Q	03/01/05	SW846 3545	SW846 8270C
Benzo(a)pyrene	230	93	310		1	ug/Kg	Q	03/01/05	SW846 3545	SW846 8270C
Benzo(b)fluoranthene	260	110	360		1	ug/Kg	Q	03/01/05	SW846 3545	SW846 8270C
Benzo(ghi)perylene	140	55	180		1	ug/Kg	Q	03/01/05	SW846 3545	SW846 8270C
Benzo(k)fluoranthene	220	90	300		1	ug/Kg	Q	03/01/05	SW846 3545	SW846 8270C



# En Chem

A Division of Pace Analytical Services, Inc.

## Analytical Report Number: 856551

1241 Bellevue Street  
Green Bay, WI 54302  
920-469-2436

Client : EARTH SCIENCE & TECHNOLOGY

Project Name : MIRRO BLDG

Project Number : 127 02

Field ID : NE-BASE

Matrix Type : SOIL

Collection Date : 02/22/05

Report Date : 03/08/05

Lab Sample Number : 856551-006

### SEMIVOLATILES - 3.4 TCL LIST

Prep Date: 02/28/05

Analyte	Result	LOD	LOQ	EQL	Dil.	Units	Code	Anl Date	Prep Method	Anl Method
bis(2-Chloroethoxy)methane	< 110	110	350		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
bis(2-Chloroethyl)ether	< 120	120	390		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
bis(2-Ethylhexyl)phthalate	< 94	94	310		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
Butylbenzylphthalate	< 92	92	310		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
Carbazole	< 100	100	350		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
Chrysene	310	92	310		1	ug/Kg	Q	03/01/05	SW846 3545	SW846 8270C
Dibenz(a,h)anthracene	< 61	61	200		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
Dibenzofuran	< 91	91	300		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
Diethylphthalate	< 90	90	300		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
Dimethylphthalate	< 90	90	300		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
Di-n-butylphthalate	< 120	120	400		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
Di-n-octylphthalate	< 140	140	470		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
Fluoranthene	540	110	370		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
Fluorene	< 92	92	310		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
Hexachlorobenzene	< 93	93	310		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
Hexachlorobutadiene	< 96	96	320		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
Hexachlorocyclopentadiene	< 56	56	190		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
Hexachloroethane	< 80	80	270		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
Indeno(1,2,3-cd)pyrene	360	61	200		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
Isophorone	< 98	98	330		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
Naphthalene	< 110	110	370		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
Nitrobenzene	< 120	120	380		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
N-Nitrosodi-n-propylamine	< 99	99	330		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
N-Nitrosodiphenylamine	< 220	220	750		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
Pentachlorophenol	< 79	79	260		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
Phenanthrene	450	94	310		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
Phenol	< 120	120	400		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
Pyrene	460	81	270		1	ug/Kg		03/01/05	SW846 3545	SW846 8270C
1,2-Dichlorobenzene-d4	61				1	%Recov		03/01/05	SW846 3545	SW846 8270C
Nitrobenzene-d5	81				1	%Recov		03/01/05	SW846 3545	SW846 8270C
2,4,6-Tribromophenol	96				1	%Recov		03/01/05	SW846 3545	SW846 8270C
2-Chlorophenol-d4	87				1	%Recov		03/01/05	SW846 3545	SW846 8270C
2-Fluorobiphenyl	92				1	%Recov		03/01/05	SW846 3545	SW846 8270C
2-Fluorophenol	86				1	%Recov		03/01/05	SW846 3545	SW846 8270C
Phenol-d5	92				1	%Recov		03/01/05	SW846 3545	SW846 8270C
Terphenyl-d14	106				1	%Recov		03/01/05	SW846 3545	SW846 8270C

### PCB

Prep Date: 02/28/05

Analyte	Result	LOD	LOQ	EQL	Dil.	Units	Code	Anl Date	Prep Method	Anl Method
Aroclor 1016	< 59			59	1	ug/Kg		02/28/05	SW846 3550B	SW846 8082
Aroclor 1221	< 59			59	1	ug/Kg		02/28/05	SW846 3550B	SW846 8082
Aroclor 1232	< 59			59	1	ug/Kg		02/28/05	SW846 3550B	SW846 8082
Aroclor 1242	< 59			59	1	ug/Kg		02/28/05	SW846 3550B	SW846 8082
Aroclor 1248	< 59			59	1	ug/Kg		02/28/05	SW846 3550B	SW846 8082
Aroclor 1254	< 59			59	1	ug/Kg		02/28/05	SW846 3550B	SW846 8082
Aroclor 1260	< 59			59	1	ug/Kg		02/28/05	SW846 3550B	SW846 8082
Total PCBs	< 59			59	1	ug/Kg		02/28/05	SW846 3550B	SW846 8082
Tetrachloro-m-xylene	98			98	1	%Recov		02/28/05	SW846 3550B	SW846 8082
Decachlorobiphenyl	61			61	1	%Recov		02/28/05	SW846 3550B	SW846 8082

# En Chem

A Division of Pace Analytical Services, Inc.

## Analytical Report Number: 856551

1241 Bellevue Street  
Green Bay, WI 54302  
920-469-2436

Client : EARTH SCIENCE & TECHNOLOGY

Project Name : MIRRO BLDG

Project Number : 127.02

Field ID : SILO

Matrix Type : SOIL

Collection Date : 02/22/05

Report Date : 03/08/05

Lab Sample Number : 856551-007

### INORGANICS

Test	Result	LOD	LOQ	EQL	Dil.	Units	Code	Anl Date	Prep Method	Anl Method
Leach Date - Conventionals	Done				1			02/24/05	SW846 1311	
Aluminum - TCLP	15			1.0	1	mg/L		02/28/05	SW846 3010A	SW846 6010B
Arsenic - TCLP	< 1.0			1.0	1	mg/L		02/28/05	SW846 3010A	SW846 6010B
Barium - TCLP	< 1.0			1.0	1	mg/L		02/28/05	SW846 3010A	SW846 6010B
Cadmium - TCLP	< 0.25			0.25	1	mg/L		02/28/05	SW846 3010A	SW846 6010B
Chromium - TCLP	< 0.25			0.25	1	mg/L		02/28/05	SW846 3010A	SW846 6010B
Lead - TCLP	< 1.0			1.0	1	mg/L		02/28/05	SW846 3010A	SW846 6010B
Mercury - TCLP	< 0.080			0.080	1	mg/L		03/01/05	SW846 7470A	SW846 7470A
Selenium - TCLP	< 1.0			1.0	1	mg/L		02/28/05	SW846 3010A	SW846 6010B
Silver - TCLP	< 0.25			0.25	1	mg/L		02/28/05	SW846 3010A	SW846 6010B



A Division of Pace Analytical Services, Inc.

Client : EARTH SCIENCE &amp; TECHNOLOGY

Project Name : MIRRO BLDG

Project Number : 127.02

Field ID : OIL

Matrix Type : OIL

Collection Date : 02/22/05

Report Date : 03/08/05

Lab Sample Number : 856551-008

## SEMIVOLATILES - 3.4 TCL LIST

Prep Date: 03/01/05

Analyte	Result	LOD	LOQ	EQL	Dil.	Units	Code	Anl Date	Prep Method	Anl Method
1,2,4-Trichlorobenzene	< 250	250	830		5	mg/Kg		03/04/05	SW846 3510C	SW846 8270C
1,2-Dichlorobenzene	< 1300	1300	4500		5	mg/Kg		03/04/05	SW846 3510C	SW846 8270C
1,3-Dichlorobenzene	< 270	270	900		5	mg/Kg		03/04/05	SW846 3510C	SW846 8270C
1,4-Dichlorobenzene	< 310	310	1000		5	mg/Kg		03/04/05	SW846 3510C	SW846 8270C
2,2'-oxybis(1-Chloropropane)	< 260	260	860		5	mg/Kg		03/04/05	SW846 3510C	SW846 8270C
2,4,5-Trichlorophenol	< 370	370	1200		5	mg/Kg		03/04/05	SW846 3510C	SW846 8270C
2,4,6-Trichlorophenol	< 330	330	1100		5	mg/Kg		03/04/05	SW846 3510C	SW846 8270C
2,4-Dichlorophenol	< 260	260	880		5	mg/Kg		03/04/05	SW846 3510C	SW846 8270C
2,4-Dimethylphenol	< 380	380	1300		5	mg/Kg		03/04/05	SW846 3510C	SW846 8270C
2,4-Dinitrophenol	< 330	330	1100		5	mg/Kg		03/04/05	SW846 3510C	SW846 8270C
2,4-Dinitrotoluene	< 560	560	1900		5	mg/Kg		03/04/05	SW846 3510C	SW846 8270C
2,6-Dinitrotoluene	< 760	760	2500		5	mg/Kg		03/04/05	SW846 3510C	SW846 8270C
2-Chloronaphthalene	< 310	310	1000		5	mg/Kg		03/04/05	SW846 3510C	SW846 8270C
2-Chlorophenol	< 300	300	990		5	mg/Kg		03/04/05	SW846 3510C	SW846 8270C
2-Methylnaphthalene	< 980	980	3300		5	mg/Kg		03/04/05	SW846 3510C	SW846 8270C
2-Methylphenol	< 560	560	1900		5	mg/Kg		03/04/05	SW846 3510C	SW846 8270C
2-Nitroaniline	< 270	270	880		5	mg/Kg		03/04/05	SW846 3510C	SW846 8270C
2-Nitrophenol	< 360	360	1200		5	mg/Kg		03/04/05	SW846 3510C	SW846 8270C
3,3-Dichlorobenzidine	< 810	810	2700		5	mg/Kg		03/04/05	SW846 3510C	SW846 8270C
3 & 4-Methylphenol	< 300	300	990		5	mg/Kg		03/04/05	SW846 3510C	SW846 8270C
3-Nitroaniline	< 320	320	1100		5	mg/Kg		03/04/05	SW846 3510C	SW846 8270C
4,6-Dinitro-2-methylphenol	< 880	880	2900		5	mg/Kg		03/04/05	SW846 3510C	SW846 8270C
4-Bromophenyl Phenyl Ether	< 310	310	1000		5	mg/Kg		03/04/05	SW846 3510C	SW846 8270C
4-Chloro-3-methylphenol	< 340	340	1100		5	mg/Kg		03/04/05	SW846 3510C	SW846 8270C
4-Chloroaniline	< 620	620	2100		5	mg/Kg		03/04/05	SW846 3510C	SW846 8270C
4-Chlorophenyl Phenyl Ether	< 300	300	990		5	mg/Kg		03/04/05	SW846 3510C	SW846 8270C
4-Nitroaniline	< 300	300	1000		5	mg/Kg		03/04/05	SW846 3510C	SW846 8270C
4-Nitrophenol	< 1100	1100	3500		5	mg/Kg		03/04/05	SW846 3510C	SW846 8270C
Acenaphthene	< 280	280	930		5	mg/Kg		03/04/05	SW846 3510C	SW846 8270C
Acenaphthylene	< 260	260	880		5	mg/Kg		03/04/05	SW846 3510C	SW846 8270C
Anthracene	< 860	860	2900		5	mg/Kg		03/04/05	SW846 3510C	SW846 8270C
Benzo(a)anthracene	< 810	810	2700		5	mg/Kg		03/04/05	SW846 3510C	SW846 8270C
Benzo(a)pyrene	< 820	820	2700		5	mg/Kg		03/04/05	SW846 3510C	SW846 8270C
Benzo(b)fluoranthene	< 840	840	2800		5	mg/Kg		03/04/05	SW846 3510C	SW846 8270C
Benzo(ghi)perylene	< 1100	1100	3700		5	mg/Kg		03/04/05	SW846 3510C	SW846 8270C
Benzo(k)fluoranthene	< 820	820	2700		5	mg/Kg		03/04/05	SW846 3510C	SW846 8270C
bis(2-Chloroethoxy)methane	< 280	280	940		5	mg/Kg		03/04/05	SW846 3510C	SW846 8270C
bis(2-Chloroethyl)ether	< 370	370	1200		5	mg/Kg		03/04/05	SW846 3510C	SW846 8270C
bis(2-Ethylhexyl)phthalate	< 280	280	950		5	mg/Kg		03/04/05	SW846 3510C	SW846 8270C
Butylbenzylphthalate	< 970	970	3200		5	mg/Kg		03/04/05	SW846 3510C	SW846 8270C
Carbazole	< 330	330	1100		5	mg/Kg		03/04/05	SW846 3510C	SW846 8270C
Chrysene	< 310	310	1000		5	mg/Kg		03/04/05	SW846 3510C	SW846 8270C
Dibenz(a,h)anthracene	< 830	830	2800		5	mg/Kg		03/04/05	SW846 3510C	SW846 8270C
Dibenzofuran	< 260	260	850		5	mg/Kg		03/04/05	SW846 3510C	SW846 8270C
Diethylphthalate	< 860	860	2900		5	mg/Kg		03/04/05	SW846 3510C	SW846 8270C
Dimethylphthalate	< 300	300	990		5	mg/Kg		03/04/05	SW846 3510C	SW846 8270C
Di-n-butylphthalate	< 910	910	3000		5	mg/Kg		03/04/05	SW846 3510C	SW846 8270C
Di-n-octylphthalate	< 350	350	1200		5	mg/Kg		03/04/05	SW846 3510C	SW846 8270C
Fluoranthene	< 280	280	930		5	mg/Kg		03/04/05	SW846 3510C	SW846 8270C



# En Chem

A Division of Pace Analytical Services, Inc.

## Analytical Report Number: 856551

1241 Bellevue Street  
Green Bay, WI 54302  
920-469-2436

Client : EARTH SCIENCE & TECHNOLOGY

Project Name : MIRRO BLDG

Project Number : 127.02

Field ID : OIL

Matrix Type : OIL

Collection Date : 02/22/05

Report Date : 03/08/05

Lab Sample Number : 856551-008

### SEMIVOLATILES - 3.4 TCL LIST

Prep Date: 03/01/05

Analyte	Result	LOD	LOQ	EQL	Dil.	Units	Code	Anl Date	Prep Method	Anl Method
Fluorene	< 260	260	880		5	mg/Kg		03/04/05	SW846 3510C	SW846 8270C
Hexachlorobenzene	< 260	260	870		5	mg/Kg		03/04/05	SW846 3510C	SW846 8270C
Hexachlorobutadiene	< 310	310	1000		5	mg/Kg		03/04/05	SW846 3510C	SW846 8270C
Hexachlorocyclopentadiene	< 260	260	880		5	mg/Kg		03/04/05	SW846 3510C	SW846 8270C
Hexachloroethane	< 290	290	970		5	mg/Kg		03/04/05	SW846 3510C	SW846 8270C
Indeno(1,2,3-cd)pyrene	< 730	730	2400		5	mg/Kg		03/04/05	SW846 3510C	SW846 8270C
Isophorone	< 920	920	3100		5	mg/Kg		03/04/05	SW846 3510C	SW846 8270C
Naphthalene	< 320	320	1100		5	mg/Kg		03/04/05	SW846 3510C	SW846 8270C
Nitrobenzene	< 370	370	1200		5	mg/Kg		03/04/05	SW846 3510C	SW846 8270C
N-Nitrosodi-n-propylamine	< 300	300	1000		5	mg/Kg		03/04/05	SW846 3510C	SW846 8270C
N-Nitrosodiphenylamine	< 3700	3700	12000		5	mg/Kg		03/04/05	SW846 3510C	SW846 8270C
Pentachlorophenol	< 480	480	1600		5	mg/Kg		03/04/05	SW846 3510C	SW846 8270C
Phenanthrene	< 270	270	890		5	mg/Kg		03/04/05	SW846 3510C	SW846 8270C
Phenol	< 310	310	1000		5	mg/Kg		03/04/05	SW846 3510C	SW846 8270C
Pyrene	< 920	920	3100		5	mg/Kg		03/04/05	SW846 3510C	SW846 8270C

### PCB

Prep Date: 02/28/05

Analyte	Result	LOD	LOQ	EQL	Dil.	Units	Code	Anl Date	Prep Method	Anl Method
Aroclor 1016	< 10000			10000	1	ug/Kg		03/01/05	SW846 3580A	SW846 8082
Aroclor 1221	< 10000			10000	1	ug/Kg		03/01/05	SW846 3580A	SW846 8082
Aroclor 1232	< 10000			10000	1	ug/Kg		03/01/05	SW846 3580A	SW846 8082
Aroclor 1242	< 10000			10000	1	ug/Kg		03/01/05	SW846 3580A	SW846 8082
Aroclor 1248	< 10000			10000	1	ug/Kg		03/01/05	SW846 3580A	SW846 8082
Aroclor 1254	14000			10000	1	ug/Kg		03/01/05	SW846 3580A	SW846 8082
Aroclor 1260	< 10000			10000	1	ug/Kg		03/01/05	SW846 3580A	SW846 8082
Total PCBs	14000			10000	1	ug/Kg		03/01/05	SW846 3580A	SW846 8082
Tetrachloro-m-xylene	103			103	1	%Recov		03/01/05	SW846 3580A	SW846 8082
Decachlorobiphenyl	80			80	1	%Recov		03/01/05	SW846 3580A	SW846 8082

# En Chem

A Division of Pace Analytical Services, Inc.

## Analytical Report Number: 856551

1241 Bellevue Street  
Green Bay, WI 54302  
920-469-2436

Client : EARTH SCIENCE & TECHNOLOGY

Project Name : MIRRO BLDG

Project Number : 127.02

Field ID : MEOH BLANK

Matrix Type : METHANOL

Collection Date : 02/22/05

Report Date : 03/08/05

Lab Sample Number : 856551-009

### VOLATILES

Prep Date: 02/28/05

Analyte	Result	LOD	LOQ	EQL	Dil.	Units	Code	Anl Date	Prep Method	Anl Method
1,1,1,2-Tetrachloroethane	< 25	25	60		50	ug/L		02/28/05	SW846 5030B	SW846 8260B
1,1,1-Trichloroethane	< 25	25	60		50	ug/L		02/28/05	SW846 5030B	SW846 8260B
1,1,2,2-Tetrachloroethane	< 25	25	60		50	ug/L		02/28/05	SW846 5030B	SW846 8260B
1,1,2-Trichloroethane	< 25	25	60		50	ug/L		02/28/05	SW846 5030B	SW846 8260B
1,1-Dichloroethane	< 25	25	60		50	ug/L		02/28/05	SW846 5030B	SW846 8260B
1,1-Dichloroethene	< 25	25	60		50	ug/L		02/28/05	SW846 5030B	SW846 8260B
1,1-Dichloropropene	< 25	25	60		50	ug/L		02/28/05	SW846 5030B	SW846 8260B
1,2,3-Trichlorobenzene	< 25	25	60		50	ug/L		02/28/05	SW846 5030B	SW846 8260B
1,2,3-Trichloropropane	< 25	25	60		50	ug/L		02/28/05	SW846 5030B	SW846 8260B
1,2,4-Trichlorobenzene	< 25	25	60		50	ug/L		02/28/05	SW846 5030B	SW846 8260B
1,2,4-Trimethylbenzene	< 25	25	60		50	ug/L		02/28/05	SW846 5030B	SW846 8260B
1,2-Dibromo-3-chloropropane	< 25	25	60		50	ug/L		02/28/05	SW846 5030B	SW846 8260B
1,2-Dibromoethane	< 25	25	60		50	ug/L		02/28/05	SW846 5030B	SW846 8260B
1,2-Dichlorobenzene	< 25	25	60		50	ug/L		02/28/05	SW846 5030B	SW846 8260B
1,2-Dichloroethane	< 25	25	60		50	ug/L		02/28/05	SW846 5030B	SW846 8260B
1,2-Dichloropropane	< 25	25	60		50	ug/L		02/28/05	SW846 5030B	SW846 8260B
1,3,5-Trimethylbenzene	< 25	25	60		50	ug/L		02/28/05	SW846 5030B	SW846 8260B
1,3-Dichlorobenzene	< 25	25	60		50	ug/L		02/28/05	SW846 5030B	SW846 8260B
1,3-Dichloropropane	< 25	25	60		50	ug/L		02/28/05	SW846 5030B	SW846 8260B
1,4-Dichlorobenzene	< 25	25	60		50	ug/L		02/28/05	SW846 5030B	SW846 8260B
2,2-Dichloropropane	< 25	25	60		50	ug/L		02/28/05	SW846 5030B	SW846 8260B
2-Chlorotoluene	< 25	25	60		50	ug/L		02/28/05	SW846 5030B	SW846 8260B
4-Chlorotoluene	< 25	25	60		50	ug/L		02/28/05	SW846 5030B	SW846 8260B
Benzene	< 25	25	60		50	ug/L		02/28/05	SW846 5030B	SW846 8260B
Bromobenzene	< 25	25	60		50	ug/L		02/28/05	SW846 5030B	SW846 8260B
Bromochloromethane	< 25	25	60		50	ug/L		02/28/05	SW846 5030B	SW846 8260B
Bromodichloromethane	< 25	25	60		50	ug/L		02/28/05	SW846 5030B	SW846 8260B
Bromoform	< 25	25	60		50	ug/L		02/28/05	SW846 5030B	SW846 8260B
Bromomethane	< 25	25	60		50	ug/L		02/28/05	SW846 5030B	SW846 8260B
Carbon Tetrachloride	< 25	25	60		50	ug/L		02/28/05	SW846 5030B	SW846 8260B
Chlorobenzene	< 25	25	60		50	ug/L		02/28/05	SW846 5030B	SW846 8260B
Chlorodibromomethane	< 25	25	60		50	ug/L		02/28/05	SW846 5030B	SW846 8260B
Chloroethane	< 25	25	60		50	ug/L		02/28/05	SW846 5030B	SW846 8260B
Chloroform	< 25	25	60		50	ug/L		02/28/05	SW846 5030B	SW846 8260B
Chloromethane	< 25	25	60		50	ug/L		02/28/05	SW846 5030B	SW846 8260B
cis-1,2-Dichloroethene	< 25	25	60		50	ug/L		02/28/05	SW846 5030B	SW846 8260B
cis-1,3-Dichloropropene	< 25	25	60		50	ug/L		02/28/05	SW846 5030B	SW846 8260B
Dibromomethane	< 25	25	60		50	ug/L		02/28/05	SW846 5030B	SW846 8260B
Dichlorodifluoromethane	< 25	25	60		50	ug/L		02/28/05	SW846 5030B	SW846 8260B
Diisopropyl Ether	< 25	25	60		50	ug/L		02/28/05	SW846 5030B	SW846 8260B
Ethylbenzene	< 25	25	60		50	ug/L		02/28/05	SW846 5030B	SW846 8260B
Fluorotrichloromethane	< 25	25	60		50	ug/L		02/28/05	SW846 5030B	SW846 8260B
Hexachlorobutadiene	< 25	25	60		50	ug/L		02/28/05	SW846 5030B	SW846 8260B
Isopropylbenzene	< 25	25	60		50	ug/L		02/28/05	SW846 5030B	SW846 8260B
Methylene Chloride	< 25	25	60		50	ug/L		02/28/05	SW846 5030B	SW846 8260B
Methyl-tert-butyl-ether	< 25	25	60		50	ug/L		02/28/05	SW846 5030B	SW846 8260B
Naphthalene	< 25	25	60		50	ug/L		02/28/05	SW846 5030B	SW846 8260B
N-Butylbenzene	< 25	25	60		50	ug/L		02/28/05	SW846 5030B	SW846 8260B
n-Propylbenzene	< 25	25	60		50	ug/L		02/28/05	SW846 5030B	SW846 8260B

# En Chem

A Division of Pace Analytical Services, Inc.

## Analytical Report Number: 856551

1241 Bellevue Street  
Green Bay, WI 54302  
920-469-2436

Client : EARTH SCIENCE & TECHNOLOGY

Project Name : MIRRO BLDG

Project Number : 127.02

Field ID : MEOH BLANK

Matrix Type : METHANOL

Collection Date : 02/22/05

Report Date : 03/08/05

Lab Sample Number : 856551-009

### VOLATILES

Prep Date: 02/28/05

Analyte	Result	LOD	LOQ	EQL	Dil.	Units	Code	Anl Date	Prep Method	Anl Method
p-Isopropyltoluene	< 25	25	60		50	ug/L		02/28/05	SW846 5030B	SW846 8260B
sec-Butylbenzene	< 25	25	60		50	ug/L		02/28/05	SW846 5030B	SW846 8260B
Styrene	< 25	25	60		50	ug/L		02/28/05	SW846 5030B	SW846 8260B
tert-Butylbenzene	< 25	25	60		50	ug/L		02/28/05	SW846 5030B	SW846 8260B
Tetrachloroethene	< 25	25	60		50	ug/L		02/28/05	SW846 5030B	SW846 8260B
Toluene	< 25	25	60		50	ug/L		02/28/05	SW846 5030B	SW846 8260B
trans-1,2-Dichloroethene	< 25	25	60		50	ug/L		02/28/05	SW846 5030B	SW846 8260B
trans-1,3-Dichloropropene	< 25	25	60		50	ug/L		02/28/05	SW846 5030B	SW846 8260B
Trichloroethene	< 25	25	60		50	ug/L		02/28/05	SW846 5030B	SW846 8260B
Vinyl Chloride	< 25	25	60		50	ug/L		02/28/05	SW846 5030B	SW846 8260B
Xylene, o	< 25	25	60		50	ug/L		02/28/05	SW846 5030B	SW846 8260B
Xylenes, m + p	< 50	50	120		50	ug/L		02/28/05	SW846 5030B	SW846 8260B
4-Bromofluorobenzene	104				50	%Recov		02/28/05	SW846 5030B	SW846 8260B
Toluene-d8	102				50	%Recov		02/28/05	SW846 5030B	SW846 8260B
Dibromofluoromethane	112				50	%Recov		02/28/05	SW846 5030B	SW846 8260B



# En Chem

A Division of Pace Analytical Services, Inc.

1241 Bellevue Street  
Green Bay, WI 54302  
920-469-2436  
Fax: 920-469-8827

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Lab Number	TestGroupID	Field ID	Comment
856551-002	8260+-S-ME	WT-1	Soil to Methanol ratio not at a 1:1 ratio for analysis (18.1g/20.0mLs).
856551-003	8260+-S-ME	NE-1	Soil to Methanol ratio not at a 1:1 ratio for analysis (14.8g/20.0mLs).

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## Qualifier Codes

Flag	Applies To	Explanation
A	Inorganic	Analyte is detected in the method blank. Method blank criteria is evaluated to the laboratory method detection limit. Additionally, method blank acceptance may be based on project specific criteria or determined from analyte concentrations in the sample and are evaluated on a sample by sample basis.
B	Inorganic	The analyte has been detected between the method detection limit and the reporting limit.
B	Organic	Analyte is present in the method blank. Method blank criteria is evaluated to the laboratory method detection limit. Additionally, method blank acceptance may be based on project specific criteria or determined from analyte concentrations in the sample and are evaluated on a sample by sample basis.
C	All	Elevated detection limit.
D	All	Analyte value from diluted analysis or surrogate result not applicable due to sample dilution.
E	Inorganic	Estimated concentration due to matrix interferences. During the metals analysis the serial dilution failed to meet the established control limits of 0-10%. The sample concentration is greater than 50 times the IDL for analysis done on the ICP or 100 times the IDL for analysis done on the ICP-MS. The result was flagged with the E qualifier to indicate that a physical interference was observed.
E	Organic	Analyte concentration exceeds calibration range.
F	Inorganic	Due to potential interferences for this analysis by Inductively Coupled Plasma techniques (SW-846 Method 6010), this analyte has been confirmed by and reported from an alternate method.
F	Organic	Surrogate results outside control criteria.
G	All	The result is estimated because the concentration is less than the lowest calibration standard concentration utilized in the initial calibration. The method detection limit is less than the reporting limit specified for this project.
H	All	Preservation, extraction or analysis performed past holding time.
HF	Inorganic	This test is considered a field parameter, and the recommended holding time is 15 minutes from collection. The analysis was performed in the laboratory beyond the recommended holding time.
J	All	Concentration detected equal to or greater than the method detection limit but less than the reporting limit.
K	Inorganic	Sample received unpreserved. Sample was either preserved at the time of receipt or at the time of sample preparation.
K	Organic	Detection limit may be elevated due to the presence of an unrequested analyte.
L	All	Elevated detection limit due to low sample volume.
M	Organic	Sample pH was greater than 2
N	All	Spiked sample recovery not within control limits.
O	Organic	Sample received overweight.
P	Organic	The relative percent difference between the two columns for detected concentrations was greater than 40%.
Q	All	The analyte has been detected between the limit of detection (LOD) and limit of quantitation (LOQ). The results are qualified due to the uncertainty of analyte concentrations within this range.
S	Organic	The relative percent difference between quantitation and confirmation columns exceeds internal quality control criteria. Because the result is unconfirmed, it has been reported as a non-detect with an elevated detection limit.
U	All	The analyte was not detected at or above the reporting limit.
V	All	Sample received with headspace.
W	All	A second aliquot of sample was analyzed from a container with headspace.
X	All	See Sample Narrative.
&	All	Laboratory Control Spike recovery not within control limits.
*	All	Precision not within control limits.
<	All	The analyte was not detected at or above the reporting limit.
1	Inorganic	Dissolved analyte or filtered analyte greater than total analyte; analyses passed QC based on precision criteria.
2	Inorganic	Dissolved analyte or filtered analyte greater than total analyte; analyses failed QC based on precision criteria.
3	Inorganic	BOD result is estimated due to the BOD blank exceeding the allowable oxygen depletion.
4	Inorganic	BOD duplicate precision not within control limits. Due to the 48 hour holding time for this test, it is not practical to reanalyze and try to correct the deficiency.
5	Inorganic	BOD result is estimated due to insufficient oxygen depletion. Due to the 48 hour holding time for this test, it is not practical to reanalyze and try to correct the deficiency.
6	Inorganic	BOD laboratory control sample not within control limits. Due to the 48 hour holding time for this test, it is not practical to reanalyze and try to correct the deficiency.
7	Inorganic	BOD result is estimated due to complete oxygen depletion. Due to the 48 hour holding time for this test, it is not practical to reanalyze and try to correct the deficiency.

# En Chem

A Division of Pace Analytical Services, Inc.

## Analysis Summary by Laboratory

1241 Bellevue Street  
Green Bay, WI 54302

1090 Kennedy Avenue  
Kimberly, WI 54136

Test Group Name	856551-001	856551-002	856551-003	856551-004	856551-005	856551-006	856551-007	856551-008	856551-009
ALUMINUM					G				
ALUMINUM - TCLP								G	
ARSENIC - TCLP	G	G	G	G	G	G	G	G	
BARIUM - TCLP	G	G	G	G	G	G	G	G	
CADMIUM - TCLP	G	G	G	G	G	G	G	G	
CHROMIUM - TCLP	G	G	G	G	G	G	G	G	
LEAD - TCLP	G	G	G	G	G	G	G	G	
MERCURY - TCLP	G	G	G	G	G	G	G	G	
PCB	K	K	K	K		K		K	
PERCENT SOLIDS	G	G	G	G	G	G			
SELENIUM - TCLP	G	G	G	G	G	G	G	G	
SEMIVOLATILES - 3,4 TCL LIST	G	G	G	G		G		G	
SILVER - TCLP	G	G	G	G	G	G	G	G	
TCLP - INORGANIC	G	G	G	G	G	G	G	G	
VOLATILES	G	G	G	G					G

Wisconsin Certification	
G = En Chem Green Bay	405132750 / DATCP: 105-444
K = En Chem Kimberly	445134030
S = En Chem Superior	Not Applicable
C = Subcontracted Analysis	
I = Other Pace Lab Analysis	



## En Chem, Inc. Cooler Receipt Log

Batch No. 850551

Project Name or ID MIRA BLDG

No. of Coolers: 1

Temps: RU1

A. Receipt Phase: Date cooler was opened: 2/24/05 By: AB

1. Were samples received on ice? (Must be  $\leq 6$  C).....  YES  NO<sup>2</sup>  NA
2. Was there a Temperature Blank?..... YES  NO
3. Were custody seals present and intact on cooler? (Record on COC)..... YES  NO
4. Are COC documents present?.....  YES  NO<sup>2</sup>
5. Does this Project require quick turn around analysis?.....  YES  NO 2/24/05 AB
6. Is there any sub-work?..... YES  NO
7. Are there any short hold time tests?..... YES  NO
8. Are any samples nearing expiration of hold-time? (Within 2 days)..... YES<sup>1</sup>  NO Contacted by/Who \_\_\_\_\_
9. Do any samples need to be Filtered or Preserved in the lab?..... YES<sup>1</sup>  NO Contacted by/Who \_\_\_\_\_

B. Check-in Phase: Date samples were Checked-in: 2/24/05 By: AB

1. Were all sample containers listed on the COC received and intact?.....  YES  NO<sup>2</sup>  NA
2. Sign the COC as received by En Chem. Completed.....  YES  NO
3. Do sample labels match the COC? .....  YES  NO<sup>2</sup>
4. Completed pH check on preserved samples. ....  YES  NO  NA  
*(This statement does not apply to water: VOC, O&G, TOC, DRO, Total Rec. Phenolics)*
5. Do samples have correct chemical preservation?.....  YES  NO<sup>2</sup>  NA  
*(This statement does not apply to water: VOC, O&G, TOC, DRO, Total Rec. Phenolics)*
6. Are dissolved parameters field filtered?.....  YES  NO<sup>2</sup>  NA
7. Are sample volumes adequate for tests requested? .....  YES  NO<sup>2</sup>
8. Are VOC samples free of bubbles >6mm .....  YES  NO<sup>2</sup>  NA
9. Enter samples into logbook. Completed .....  YES  NO
10. Place laboratory sample number on all containers and COC. Completed.....  YES  NO
11. Complete Laboratory Tracking Sheet (LTS). Completed.....  YES  NO  NA
12. Start Nonconformance form. ....  YES  NO  NA
13. Initiate Subcontracting procedure. Completed.....  YES  NO  NA
14. Check laboratory sample number on all containers and COC. .... 2/24/05  YES  NO  NA

**Short Hold-time tests:**

24 Hours or less	48 Hours	7 days	Footnotes 1 Notify proper lab group immediately. 2 Complete nonconformance memo.
Coliform	BOD	Ash	
Corrosivity = pH	Color	Aqueous Extractable Organics- ALL	
Dissolved Oxygen	Nitrite or Nitrate	Flashpoint	
Hexavalent Chromium	Ortho Phosphorus	Free Liquids	
HPC	Surfactants	Sulfide	
Ferrous Iron	Turbidity	TDS	
Eh	En Core Preservation	TSS	
Odor	Power stop preservation	Total Solids	
Residual Chlorine		TVS	
Sulfite		TVSS	
		Unpreserved VOC's	

Rev. 2/05/04, Attachment to 1-REC-5.  
Subject to QA Audit.

Reviewed by/date JR2/25/05

Company Name: **EARTH SCIENCE & TECHNOLOGY**  
 Branch or Location: **ALGOUNT**  
 Project Contact: **MICHAEL DOVICH**  
 Telephone: **920-487-3648**  
 Project Number: **127.02**

Matrix Codes:  
 G=Ground Water, W=Water, S=Soil, A=Air, C=Charcoal, B=Biota, Sl=Sludge, WP=Wipe  
 FILTERED? (YES/NO) **NO NO NO NO NO**  
 PRESERVATION (CODE) **A F A A A**

Mail Report To: **MICHAEL DOVICH**  
 Company: **EARTH SCIENCE & TECH**  
 Address: **8558 Hwy M, ALGOUNT WI 54201**

Investigator: **KEIL COMESTRO**  
 Company: **KEIL COMESTRO**  
 Address: **7219 Hwy T, WAHTEGAN WI 54247**

Mail Invoice To: **ES S&S**  
 G-NeOH

LABORATORY ID (Lab Use Only)	FIELD ID	COLLECTION		MATRIX	Matrix Codes	Regulatory Program	ANALYSES REQUESTED	PRESERVATION (CODE)	PRESERVATION (CODE)	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)
		DATE	TIME								
001	EF-1	2/22	10:00 AM	S	W	UST	STOS	A	A	1-80221MBUR A, 2-402POLY A, 1-202 F	
002	WT-1	2/22	11:00 AM	S	W	RCRA	STOS	A	A		
003	NE-1	2/23	9:00 AM	S	W	SDWA	STOS	A	A		
004	SAND	2/22	1:45 PM	S	W	NPDES	STOS	A	A		
005	BAR-1	2/22	11:30 AM	S	W	CERCLA	STOS	A	A		
006	NE-BASE	2/23	9:30 AM	S	W		STOS	A	A		
007	SILO	2/23	1:45 PM	S	W		STOS	A	A		
008	OIL	2/23	9:45 AM	L	W		STOS	A	A		
009	NEOH BLANK										

En Chem Project No.	856551
Sample Receipt Temp.	RO1
Sample Receipt pH (w/elements)	NA
Cooler Custody Seal	
Present / Not Present	

Rush Turnaround Time Requested (TAT) - Prelim (Rush TAT subject to approval/surcharge)  
**3-205**

Date Needed: **3-205**

Transmit Prelim Rush Results by (circle):  
 Phone  Fax  E-mail

Relinquished By: **Mike Savitski** Date/Time: **2/24/05 1:30 PM**

Received By: **Working Buddy = JTB** Date/Time: **2/24/05 11:00 AM**