The following is the e-mail that was lost in space.

On the flight out I had an opportunity to review the Dayton Department of Water, Division of Wastewater Treatment July 28, 2000 letter addressed to Mr. Gary Peters of Howard & Howards Attorneys, P.C. regarding the discharge of the catox/scrubber waters. General, the letter indicate re-use of the water. The location of "re-use" has not been identified by DaimlerChrysler and the required quality of the water has not been provided to LBG. It will be a minimum of a month to prepare the plans and implement them. The following are my comments and the designation letter corresponds to the conditions stated in the July 28 letter:

c. Does LBG have a complete copy of the Industrial Wastewater Permit (IWDP) number CHRY-012-01 for DAIMLWRCHRYSLER-Dayton Thermal Products, or does LBG have selected portions? I know that you have received some of it, I'm just not for sure if it is the entire document. If we do not have the entire document could you ask Gary or Britt? It should probably be reviewed to make sure that something else is not missed. If LBG has a copy of the entire document and it is small, would you please have Lyndsey scan it and e-mail it to me, I could review on the way home.

e. There are BIG concerns here with the verbiage "wastewaters generated by the soil vapor recovery system must be treated..." If the discharge is already in "conformance" with the IWDP, is treatment necessary? This really needs clarification.

f. I would interpret this to mean that prior to continuous operation of the system, a sample must be taken. I believe that the routine sampling is addressed in comment h. This item needs to be noted for system restart...remind me as I'm sure you will! :)

i. As you asked Gary in your e-mail..."who is responsible for the update"? What is the TOMP? Does LBG have a copy? If it is not us updating it, what information do they need on the project to update the TOMP?

j. How does this affect DTP and who determines these new permit limits as a result of the 100 gallon per day dilution effect? Is this calculation a part of the IWDP?

k&l& o. These conditions appear to be in conflict. Condition k requests a moderate and relatively uniform rate, and l&o discuss a log of discharge and notification of discharge. Does clarification need to be provided, to the City of Dayton, describing that this process is an automated process based on conductivity of the scrubber water and that the time and quantity of the discharge will be continuously changing based on the concentration of the influent air stream?

l. Will a weekly log of gallons pumped and pump operational hours over the monitoring period be sufficient? The system can already do this. If it truly means that *each* discharge event needs to be documented, CCC may be able to modify the PLC programming to track the operation of the blowdown pump on the scrubber.

m. Does LBG have a copy of the enclosure for review?

o. The system can be pumped on a manual mode to allow for sample collection

p. Is it going to be necessary to track discharge volumes for billing purposes with the corporate group for remediation, or is DTP going to pay for the discharge?

Comment on the cc list, Lyle Merta was the one who Joe went on about, for what value that is.

DAIMLERCHRYSLER
DAYTON THERMAL PRODUCTS
DAYTON, OHIO

Summary of Order of Magnitude Costs for Scrubber Water Disposal

OPTION	CAPITAL COST	ANNUAL DISPOSAL COST INDIANAPOLIS	ANNUAL DISPOSAL COST MIDDLETOWN	LBG COST	SUBCONTRACTOR COST
1. Batch Treatment	No Capital Cost, would involve modifications to PLC CCC cautions that this would not be the recommend way to operate the system.	$73,200	$37,151	Design/Install· none	None
				Oversight. $10,000 annually	
TOTAL					
2. 1,000 Gallon Heated Storage Tank	Tank, heater, shipping	$56,875	$39,130	Design/Install. $15,000	$10,000
				Oversight $10,000 annually	+ 6,000 for Tank
TOTAL					

Details of Disposal Cost and Subcontractor Costs are included in 9/9/00 Memo.

First Year 97,875 80,130

DAIMLERCHRYSLER
DAYTON THERMAL PRODUCTS
DAYTON, OHIO

Summary of Order of Magnitude Costs for Scrubber Water Disposal

FIRST YEAR TOTAL
$47,151 to $84,200
$80,130 to $97,875

Gary Stanzuck

Fx 716 ~~7928~~ 7369

** TOTAL PAGE.01 **

ValleyNews

DaimlerChrysler cleaning up tainted water

Company working with city, Ohio EPA

By Dale Dempsey
Dayton Daily News

DAYTON — When DaimlerChrysler officials found polluted ground water under their North Dayton plant, the company began taking steps to identify the scope of the problem and clean it up.

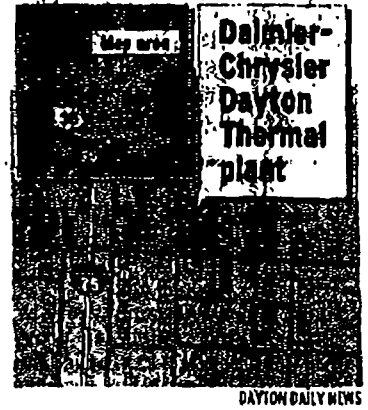
The company found ground water containing old chlorinated solvents while doing some renovation at its Dayton Thermal Plant, 1600 Webster St. The solvents were widely used more than a decade ago in automotive production.

"We discovered the issue and began an immediate cleanup project," said Greg Rose, senior environmental manager at DaimlerChrysler.

The plant is not in the city's well-head protection area, but two of the city's well fields that supply drinking water are nearby.

"We're watching it closely, but the company has been good at sharing information with us," said Donna Winchester, Dayton environmental manager.

Companies initiating their own cleanups are slowly becoming more common since the early 1990s as the companies seek to avoid costly litigation.



DAYTON DAILY NEWS

DaimlerChrysler has started working on a number of other brownfield sites, with plans to clean them up and redevelop them, according to Max Gates of DaimlerChrysler.

"Our attitude is 'just let's get this done,' she said.

DaimlerChrysler has been working with Dayton and the Ohio Environmental Protection Agency. It has conducted two public meetings with neighborhood groups to keep nearby homeowners informed.

The company is planning to install about 20 testing wells as far as two blocks away from the plant to test for contamination. The ground water in that area reaches to a depth of about 85 feet. Most of the testing will be done in neighborhoods southeast of the plant. A city park is nearby.

"We have been screening some samples in residential areas and all have come back clean," Rose said. "We are still in the definition stage, although we do have a soil vapor extraction system so there has been some initial cleanup."

Rose said the company might go into Ohio's Voluntary Action Program, which protects companies that instigate cleanup from regulatory fines and penalties. The restoration must meet state and federal standards.

The cleanup, both at the plant and any contaminated sites away from it, is expected to cost "many millions of dollars," Rose said. Testing wells will be in place for one or two years.

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Gary M Stanczuk
03/09/2000 04:57 PM

To: Max Gates/Contractor/Chrysler@Chrysler, Michael J Curry/ppr/Chrysler, Ken Vogel <KVOGEL@lbgmn.com>

cc:

Subject: Dayton Public Notice

We have reviewed the requirements for a notification letter as described in the VAP guidance and have determined that we are not ready to include all of the components as the listed in the guidance. So, I would use the invitation letter as the pattern and include:

location and description of the property,
summary of the release (potential),
a request for information concerning any current or intended use of groundwater (shallow) in the area.

LEGGETTE, BRASHEARS & GRAHAM, INC.

PROFESSIONAL GROUND-WATER
AND ENVIRONMENTAL ENGINEERING SERVICES

1210 ~~WEST COUNTY ROAD~~ E
SAINT PAUL, MN 55112

(651) 490-1405 FAX (651) 490-1006

DATE: March 8,2000

PAGES: 14
(Includes cover page)

TO: Gary Stanczuk

FAX #: (248) 576-7369

COMPANY: DaimlerChrysler

FROM: Kristin Yahnke KSY

RE: VAP Public Notice Requirements

Gary,

Ken requested that I forward the following information from the VAP Regulations regarding public notification. Information on the following three public notices are included.

1.) If the Phase II Investigation determines that the aquifer is a "Critical Resource" (able to sustain pumping of more than 100 gpm) and an Urban Setting is not requested/granted. This notification is the responsibility of DaimlerChrysler.

2.) If the Phase II Investigation determines that the aquifer is a "Critical Resource" (able to sustain pumping of more that 100 gpm) and Urban Setting is granted. This notification is the responsibility of DaimlerChrysler.

3.) If during the Phase II investigation, DaimlerChrysler requests a variance from generic numerical standards or property specific risk assessment procedures. This notification is the responsibility of the OEPA Director.

Also included is a copy of a News Release posted on the VAP web site about a Public Meeting on Urban Setting Designation Request as an example of the information that will be provided.

fax TRANSMITTAL S:\TECH\CHRY\DAYTON\FINALDOC\NOTICMF.FAX

"Critical Resource" Aquifer - Urban Setting is not requested/granted.

fax TRANSMITTAL S:\JECH\3GRY\DAYTON\FINALDOC\NOTICINF.FAX

(2) Critical resource ground water without an urban setting designation.

A volunteer must meet the following minimum requirements at a property where ground water underlying the property has been classified as critical resource ground water in accordance with paragraphs (B) and (C) of this rule and paragraph (D)(6) of rule 3745-300-07 of the Administrative Code and an urban setting designation has not been made in accordance with paragraph (D) of this rule:

(a) When ground water contamination is attributable entirely to sources or source areas that were or are located on the property, the following minimum requirements in paragraphs (F)(2)(a)(i) to (F)(2)(a)(viii) of this rule must be met

(i) Implement institutional or engineering controls that reliably prevent human exposure on the property to ground water with concentrations of chemical(s) of concern in excess of unrestricted potable use standards, or restore the ground water underlying the property to those unrestricted potable use standards;

[Comment: Engineering controls may include the use of water treatment systems.]

(ii) Ground water emanating from the property must not exceed unrestricted potable use standards, except when the ground water discharges to a surface water body immediately adjoining the property's boundary, in which case, the applicable standards established in accordance with paragraph (D)(1) of rule 3745-300-08 of the Administrative Code, for the surface water body receiving the discharge must be met at the point of discharge;

(iii) When ground water that has emanated from the property has caused or is reasonably anticipated to cause concentrations of chemical(s) of concern in ground water to exceed unrestricted potable use standards at off-property wells used for potable purposes, one or more of the following measures must be implemented to ensure that the ground water users have a continuing supply of water that does not contain chemical(s) of concern at concentrations above unrestricted potable use standards.

(*a*) Restore the contaminated ground water to unrestricted potable use standards; or

(*b*) Provide a reliable alternate water supply or water treatment system that:

(*i*) Provides a volume of potable water sufficient for the intended use; and

(*ii*) Is provided for a period of time no shorter than the time that the ground water supply of off-property ground water users exceeds unrestricted potable use standards; and

(iv) The remedial activities must achieve compliance with applicable standards established under rule 3745-300-09 of the Administrative Code to:

(*a*) Ensure protection of humans on and off the property from exposures to chemical(s) of concern in ground water not related to potable use of the ground water. For the purposes of this rule, exposures to chemical(s) of concern in ground water not related to potable use of the ground water include exposures resulting from non-consumptive uses and exposures resulting from inadvertent contact with contaminated ground water. Examples of such exposures include, but are not limited to: exposures to industrial process water; water used for lawn watering; water used for irrigation, shallow ground water contaminated with volatile organic compounds that volatilize into the breathing space of an inhabited structure such as a basement; and shallow ground water seeping into subsurface utility tunnels or sewers; and

(*b*) Ensure protection of important ecological resources on and off the property; and

[Comment: Such exposures must be evaluated as part of a "Phase II Property Assessment" in accordance with rules 3745-300-07 and 3745-300-09 of the Administrative Code.]

(v) When ground water that has emanated from a property has concentrations of chemical(s) of concern in excess of unrestricted potable use standards, or is reasonably anticipated to have levels of chemical(s) of concern in excess of unrestricted potable use standards, the volunteer, and any subsequent owners relying on a no further action letter, must conduct the following activities with the specified frequencies, so long as the ground water, which has emanated from the property, continues to have concentrations of chemical(s) of concern in excess of unrestricted potable use standards

(*a*) Identify any visual evidence of ground water use prior to issuance of a no further action letter for the property by current property owners or users in areas where ground water has or is reasonably anticipated to have concentrations of chemical(s) of concern in excess of unrestricted potable use standards;

(*b*) Review Ohio department of natural resources water well log information prior to issuance of a no further action letter for the property to determine whether ground water wells have

CRITICAL RESOURCE GROUND WATER W/O URBAN SETTING

been installed on the properties on which ground water has or is reasonably anticipated to have concentrations of chemical(s) of concern in excess of unrestricted potable use standards;

(*c*) Send a written notification by certified mail prior to issuance of a no further action letter for the property to all owners of properties in areas where ground water has or is reasonably anticipated to have concentrations of chemical(s) of concern in excess of unrestricted potable use standards that includes the following:

VOLUNTEER'S RESPONSIBILITY

(*i*) The location and a description of the property where the voluntary action has taken place;

(*ii*) A summary of the releases of the chemical(s) of concern that were assessed as part of the voluntary action and remedial activities that have been or are being taken at the property;

(*iii*) A description of the concentrations of chemical(s) of concern in ground water that has or may migrate onto or under the properties in areas where ground water has or is reasonably anticipated to have concentrations of chemical(s) of concern in excess of unrestricted potable use standards;

(*iv*) A summary of the unrestricted potable use standards for the chemical(s) of concern that have emanated from the property;

(*v*) A description of the requirements contained in paragraphs (F)(2)(a)(v) to (F)(2)(a)(viii) of this rule for the volunteer, or subsequent owners relying on an no further action letter, to address exposures of humans to ground water with levels of chemical(s) of concern in excess of applicable standards; and

(*vi*) A request for information concerning any current or intended use of ground water in areas where ground water has or is reasonably anticipated to have concentrations of chemical(s) of concern in excess of unrestricted potable use standards along with the name, address and phone number of a representative of the volunteer, or subsequent owner relying on a no further action letter who can be notified of any current or intended use of ground water or contacted for further information;

(*d*) Review Ohio department of natural resources water well log information, no less frequently than annually, for the properties on which ground water has or is reasonably anticipated to have concentrations of chemical(s) of concern in excess of unrestricted potable use standards, to determine whether new ground water wells have been installed.

(*e*) Identify any known changes and, at a minimum, annually inquire of changes in ownership of properties in areas where ground water has or is reasonably anticipated to have concentrations of chemical(s) of concern in excess of unrestricted potable use standards;

(*f*) Provide the notification required by paragraph (F)(2)(a)(v)(*c*) of this rule to owners of properties identified under paragraph (F)(2)(a)(v)(*e*) of this rule; and

(*g*) Identify other information that is known to the volunteer, or owner, if different, regarding changes in the use of ground water in areas where ground water has or is reasonably anticipated to have concentrations of chemical(s) of concern in excess of unrestricted potable use standards; and

(vi) Based on the information obtained in paragraph (F)(2)(a)(v) of this rule, the volunteer must identify off-property receptor populations for the ground water pathway as determined in accordance with paragraph (D)(3)(b)(i) of rule 3745-300-09 of the Administrative Code;

(vii) For each receptor population identified pursuant to paragraph (F)(2)(a)(vi) of this rule that uses the ground water for potable purposes, one or more of the measures contained in paragraphs (F)(2)(a)(iii)(*a*) and (F)(2)(a)(iii)(*b*) of this rule must be implemented to ensure that those receptor populations have a continuing supply of water that does not exceed unrestricted potable use standards; and

(viii) For each receptor population identified pursuant to paragraph (F)(2)(a)(vi) of this rule for which an exposure pathway exists other than that identified pursuant to paragraph (F)(2)(a)(vii) of this rule, implement measures that reliably prevent human exposure to ground water in excess of applicable standards for those exposures.

[Comment: The requirements contained in paragraphs (F)(2)(a)(v) to (F)(2)(a)(viii) of this rule will also be included in an operation and maintenance plan or operation and maintenance agreement with the Ohio EPA as described in rule 3745-300-15 of the Administrative Code, the remedy rule.]

(b) When ground water contamination is attributable entirely to sources or source areas that were or are located off the property as determined by a "Phase II Property Assessment" conducted in accordance with rule 3745-300-07 of the Administrative Code, the following minimum requirements in paragraphs (F)(2)(b)(i) to (F)(2)(b)(iii) of this rule must be met:

(i) Implement institutional or engineering con-

"Critical Resource" Aquifer - Urban Setting Granted

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where ground water has or is reasonably anticipated to have concentrations of chemical(s) of concern in excess of unrestricted potable use standards along with the name, address and phone number of a representative of the volunteer, or subsequent owner relying on a no further action letter who can be notified of any current or intended use of ground water or contacted for further information;

(*d*) Review Ohio department of natural resources water well log information, no less frequently than annually, for the properties on which ground water has or is reasonably anticipated to have concentrations of chemical(s) of concern in excess of unrestricted potable use standards, to determine whether new ground water wells have been installed;

(*e*) Identify any known changes and, at a minimum, annually inquire of changes in ownership of properties in areas where ground water has or is reasonably anticipated to have concentrations of chemical(s) of concern in excess of unrestricted potable use standards;

(*f*) Provide the notification required by paragraph (F)(2)(c)(vi)(*c*) of this rule to owners of properties identified under paragraph (F)(2)(c)(vi)(*e*) of this rule; and

(*g*) Identify other information that is known to the volunteer or owner, if different, regarding changes in the use of ground water in areas where ground water has or is reasonably anticipated to have concentrations of chemical(s) of concern in excess of unrestricted potable use standards; and

(vii) Based on the information obtained in paragraph (F)(2)(c)(vi) of this rule, the user must identify off-property receptor populations for the ground water pathway as determined in accordance with paragraph (D)(3)(b)(i) of rule 3745-300-09 of the Administrative Code;

(viii) For each receptor population identified pursuant to paragraph (F)(2)(c)(vii) of this rule that uses the ground water for potable purposes, one or more of the measures contained in paragraphs (F)(2)(c)(iii)(*a*) and (F)(2)(c)(iii)(*b*) of this rule must be implemented to ensure that those receptor populations have a continuing supply of water that does not exceed unrestricted potable use standards; and

(ix) For each receptor population identified pursuant to paragraph (F)(2)(c)(vii) of this rule for which an exposure pathway exists other than that identified pursuant to paragraph (F)(2)(c)(viii) of this rule, implement measures that reliably prevent human exposure to ground water in excess of applicable standards for those exposures.

[Comment: The requirements contained in paragraphs (F)(2)(c)(vi) to (F)(2)(c)(ix) of this rule will also be included in an operation and maintenance plan or an operation and maintenance agreement with Ohio EPA as described in rule 3745-300-15 of the Administrative Code, the remedy rule.]

(d) The volunteer must comply with the requirements contained in paragraphs (F)(2)(a) of this rule for chemical(s) of concern in ground water contributed by sources or source areas on the property, which are different than chemical(s) of concern identified by a "Phase II Property Assessment" conducted in accordance with rule 3745-300-07 of the Administrative Code as originating from sources or source areas that were or are located off the property.

(3) Critical resource ground water with an urban setting designation.

A volunteer must meet the following minimum requirements at a property where ground water underlying the property has been classified as critical resource ground water in accordance with paragraphs (B) and (C) of this rule and paragraph (D)(6) of rule 3745-300-07 of the Administrative Code and an urban setting designation has been made in accordance with paragraph (D) of this rule.

(a) When ground water contamination is attributable entirely to sources or source areas that were or are located on the property as determined by a "Phase II Property Assessment" conducted in accordance with rule 3745-30-07 [sic] of the Administrative Code, the following minimum requirements in paragraphs (F)(3)(a)(i) to (F)(3)(a)(viii) of this rule must be met:

(i) Implement institutional or engineering controls that reliably prevent human exposure on the property to ground water in excess of unrestricted potable use standards, or restore the ground water underlying the property to those unrestricted potable use standards; and

(ii) Ground water emanating from the property must not exceed standards for unrestricted potable use when it reaches a distance of one-half mile from the property boundary; and

(iii) When ground water that has emanated from the property has caused or is reasonably anticipated to cause unrestricted potable use standards to be exceeded at off-property wells used for potable purposes beyond one-half mile from the property boundary, as determined by

CRITICAL RESOURCE GROUND WATER W/ URBAN SETTING

a "Phase II Property Assessment" conducted in accordance with rule 3745-300-07 of the Administrative Code, one or more of the following measures must be implemented to ensure that the ground water users have a continuing supply of water that does not contain chemical(s) of concern at concentrations above unrestricted potable use standards:

(*a*) Restore the contaminated ground water that supplies water to those identified wells to unrestricted potable use standards; or

(*b*) Provide a reliable alternate water supply or water treatment system that:

(*i*) Provides a volume of water sufficient for the intended use; and

(*ii*) Is provided for a period of time no shorter than the time that the ground water supply of off-property ground water users exceeds unrestricted potable use standards; and

(iv) The remedy or remedial activities must achieve compliance with applicable standards established under rule 3745-300-09 of the Administrative Code to.

(*a*) Ensure protection of humans on and off the property from exposures to chemical(s) of concern in ground water not related to potable use of the ground water. For the purposes of this rule, exposures to chemical(s) of concern in ground water not related to potable use of the ground water include exposures resulting from non-consumptive uses and exposures resulting from inadvertent contact with contaminated ground water. Examples of such exposures include, but are not limited to: exposures to industrial process water; water used for lawn watering; water used for irrigation; shallow ground water contaminated with volatile organic compounds that volatilize into the breathing space of an inhabited structure such as a basement; and shallow ground water seeping into sub-surface utility tunnels or sewers; and

(*b*) Ensure protection of important ecological resources on and off the property; and

[Comment: Such exposures must be evaluated as part of a "Phase II Property Assessment" in accordance with rules 3745-300-07 and 3745-300-09 of the Administrative Code.]

(v) When ground water that has emanated from a property has concentrations of chemical(s) of concern in excess of unrestricted potable use standards, or is reasonably anticipated to have concentrations of chemical(s) of concern in excess of unrestricted potable use standards the volunteer, or subsequent owners relying on a no further action letter, must conduct the following activities with the specified frequencies, so long as the ground water, which has emanated from the property beyond a distance of one half mile from the property boundary, continues to exceed the unrestricted potable use standards:

(*a*) Identify any visual evidence of ground water use prior to issuance of a no further action letter for the property by current property owners or users in areas beyond a distance of one half mile from the property boundary where ground water has or is reasonably anticipated to have concentrations of chemical(s) of concern in excess of unrestricted potable use standards;

(*b*) Review Ohio department of natural resources water well log information prior to issuance of a no further action letter for the property to determine whether ground water wells have been installed on the properties beyond a distance of one half mile from the property boundary on which ground water has or is reasonably anticipated to have concentrations of chemical(s) of concern in excess of unrestricted potable use standards; (F)(3)(a)(v)

Volunteer's responsibility

(*c*) Send a written notification by certified mail prior to issuance of a no further action letter for the property to all owners of properties in areas beyond a distance of one half mile from the property boundary where ground water has or is reasonably anticipated to have concentrations of chemical(s) of concern in excess of unrestricted potable use standards that includes the following:

(*i*) The location and a description of the property where the voluntary action has taken place;

(*ii*) A summary of the releases of the chemical(s) of concern that were assessed as part of the voluntary action and remedial activities that have been or are being taken at the property;

(*iii*) A description of the concentrations of chemical(s) of concern in ground water that has or may migrate onto or under the properties in areas beyond a distance of one half mile from the property boundary where ground water has or is reasonably anticipated to have concentrations of chemical(s) of concern in excess of unrestricted potable use standards.

(*iv*) A summary of the unrestricted potable use standards for the chemical(s) of concern that have emanated from the property;

(*v*) A description of the requirements con-

of this rule for the volunteer, or owner, if different, to address exposures of humans to ground water with levels of chemical(s) of concern in excess of applicable standards; and

(*vi*) A request for information concerning any current or intended use of ground water in areas beyond a distance of one half mile from the property boundary where ground water has or is reasonably anticipated to have concentrations of chemical(s) of concern in excess of unrestricted potable use standards along with the name, address and phone number of a representative of the volunteer, or owner, if different, who can be notified of any current or intended use of ground water or contacted for further information;

(*d*) Review Ohio department of natural resources water well log information, no less frequently than annually, for the properties beyond a distance of one half mile from the property boundary on which ground water has or is reasonably anticipated to have concentrations of chemical(s) of concern in excess of unrestricted potable use standards, to determine whether new ground water wells have been installed;

(*e*) Identify any known changes and, at a minimum, annually inquire of changes in ownership of properties in areas beyond a distance of one half mile from the property boundary where ground water has or is reasonably anticipated to have concentrations of chemical(s) of concern in excess of unrestricted potable use standards;

(*f*) Provide the notification required by paragraph (F)(3)(a)(v)(*c*) of this rule to owners of properties identified under paragraph (F)(3)(a)(v)(*e*) of this rule, and

(*g*) Identify other information that is known to the volunteer or owner, if different, regarding changes in the use of ground water in areas beyond a distance of one half mile from the property boundary where ground water has or is reasonably anticipated to have concentrations of chemical(s) of concern in excess of unrestricted potable use standards; and

(vi) Based on the information obtained in paragraphs (F)(3)(a)(v)(*a*) to (F)(3)(a)(v)(*f*) of this rule, the volunteer must identify off-property receptor populations for the ground water pathway as determined in accordance with paragraph (D)(3)(b)(*i*) of rule 3745-300-09 of the Administrative Code,

(vii) For each receptor population identified in paragraph (F)(3)(a)(vi) of this rule that uses the ground water for potable purposes, one or more of the measures contained in paragraphs (F)(3)(a)(iii)(*a*) and (F)(3)(a)(iii)(*b*) of this rule must be implemented to ensure that those receptor populations have a continuing supply of water that does not exceed unrestricted potable use standards, and

(viii) For each receptor population identified in paragraph (F)(3)(a)(vi) of this rule for which an exposure pathway exists other than that identified in paragraph (F)(3)(a)(vii) of this rule, implement measures that reliably prevent human exposure to ground water in excess of applicable standards for those exposures.

[Comment: The requirements contained in paragraphs (F)(3)(a)(v) to (F)(3)(a)(viii) of this rule will also be included in an operation and maintenance plan or operation and maintenance agreement with the Ohio EPA as described in rule 3745-300-15 of the Administrative Code, the remedy rule.]

(b) When ground water contamination is attributable entirely to sources or source areas that were or are located off the property as determined by a "Phase II Property Assessment" conducted in accordance with rule 3745-300-07 of the Administrative Code, the following requirements in paragraphs (F)(3)(b)(*i*) to (F)(3)(b)(iii) of this rule must be met

(i) Implement institutional or engineering controls that reliably prevent human exposure on the property to ground water with concentrations of chemical(s) of concern in excess of unrestricted potable use standards, or restore the ground water underlying the property to those unrestricted potable use standards,

(ii) Implement remedial activities for sources or source areas of contamination on the property to prevent leaching of chemical(s) of concern from those sources or source areas that is reasonably anticipated will result in unrestricted potable use standards being exceeded in ground water at a distance of one-half mile from the property boundary, as determined in accordance with rules 3745-300-07 and 3745-300-09 of the Administrative Code;

(iii) The remedy or remedial activities must achieve compliance with applicable standards established under rule 3745-300-09 of the Administrative Code to:

(*a*) Ensure protection of humans on the property from exposures to chemical(s) of concern in ground water not related to potable use of the ground water. For the purposes of this rule, exposures to contaminants of concern in ground water not related to potable use of the ground

Variance from Generic Numerical Standards or Property Specific Risk Assessment Procedures

fax

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VARIANCES FROM GENERIC NUMERICAL STANDARDS OR PROPERTY SPECIFIC RA PROCEDURES

affected property and will ensure that public health and safety will be protected; and

(3) The establishment of and compliance with the alternative standard(s) or set of standards proposed to be applicable to the affected property and the terms and conditions thereof are necessary to preserve, promote, protect or enhance employment opportunities or the reuse of the affected property

(F) The director shall determine whether a variance application is complete and contains all of the items required pursuant to paragraph (C) of this rule within fourteen days of receiving the application, and shall notify the applicant of this determination in a letter sent by certified mail.

(G) After determining whether a variance application is complete, the director may request, at his discretion, additional information. The variance applicant through their certified professional, shall promptly respond to any requests from the director for additional information.

DIRECTOR'S RESPONSIBILITY

(H) Upon determining that a variance application is complete the director shall do all of the following:

(1) Transmit a copy of the variance application to the property revitalization board created in section 3746.08 of the Revised Code;

(2) Mail notice of the variance application to each owner of each parcel of land that is adjacent to the affected property; and

(3) Schedule a public meeting for the variance application and publish notice of the public meeting in accordance with paragraph (I) of this rule.

(a) The public meeting shall be held between thirty and ninety days after the date of the letter specified in paragraph (F) of this rule.

(b) The public meeting shall be held in the county where the affected property, or the greatest portion of that affected property is located.

(I) At least thirty days before the date scheduled for the public meeting on a variance application, the director shall publish public notice of the public meeting.

(1) The public notice shall, at a minimum, contain all of the following information:

(a) Notification that the director will receive written comments on the variance application for a period of forty-five days commencing on the date of publication of the public notice;

(b) The address of the property to which the variance application pertains;

(c) A brief summary of the alternative standard(s) or set of standards and any terms and conditions proposed by the applicant, and

(d) The date, time, and location of the public meeting.

(2) The public notice shall be published in a newspaper of general circulation in the county in which the affected property is located. If the affected property is located in close proximity, as determined by the director, to the boundary of that county with an adjacent county, the director shall also publish the public notice in a newspaper of general circulation in the adjacent county

(J) Concurrently with the publication of the public notice required in paragraph (I) of this rule, the director shall mail notice by certified mail of the application, comment period, and public meeting to the owner of each parcel of land that is adjacent to the affected property and to the legislative authority of the municipal corporation or township, and county, in which the property is located The notices mailed to the adjacent land owners and legislative authorities shall contain the same information as the public notice described in paragraph (I) of this rule

(K) The agency shall conduct a public meeting and shall maintain all records produced by or for that meeting.

(1) The applicant for a variance, or a representative of the applicant who is knowledgeable about the affected property and the application, shall attend the public meeting for the variance application, shall present information regarding the application and the basis of the request for the variance, and shall respond to questions from the public regarding the affected property and the variance application.

(2) A representative of the Ohio EPA who is familiar with the affected property and the variance application shall attend the public meeting to receive comments from the public and to respond to questions from the public regarding the affected property and the variance application

(3) A stenographic record of the proceedings at the public meeting shall be kept and shall be made a part of the administrative record regarding the variance application.

(L) Within ninety days after conducting the public meeting on a variance application, the director shall issue a proposed action to the applicant in accordance with section 3745 07 of the Revised Code, that indicates the director's intent with regard to the issuance or denial of the variance application, and the findings upon which that action is based When considering

whether to issue or deny the variance application or whether to impose terms and conditions on the variance that are in addition or alternative to those proposed by the applicant, the director shall consider:

(1) The advice provided by the property revitalization board established pursuant to section 3746.08 of the Revised Code;

(2) Comments on the variance application made by the public at the public meeting; and

(3) Written comments on the application received from the public.

(M) The director shall issue a variance from standards established in accordance with the rules adopted pursuant to division (B)(1) or (B)(2) of section 3746.04 of the Revised Code only if the variance application makes all of the demonstrations required under paragraph (E) of this rule to the director's satisfaction.

(N) A variance issued under this rule shall state the specific standard(s) whose terms are being varied and shall set forth the specific alternative standard(s) or set of standards to be applicable to the affected property and any terms and conditions thereof imposed on the affected property and the variance applicant. The variance shall include only standards and terms and conditions proposed by the applicant in his variance application, except that the director may impose any additional or alternative terms and conditions that he determines to be necessary to ensure that public health and safety will be protected.

(O) The director shall disapprove a variance application if he finds that the applicant does not meet the requirements of paragraph (E) of this rule. If the variance application fails to propose applicable standard(s) which are protective of public health and safety, as required in paragraph (E)(2) of this rule, the director shall disapprove the variance application, unless the imposition of additional or alternative terms and conditions, pursuant to paragraph (N) of this rule, will ensure that public health and safety will be protected.

(P) If the director approves or disapproves the variance application, he shall issue an order to the applicant in accordance with the procedure contained in paragraph (L) of this rule.

(Q) Variances shall be issued or denied in accordance with this rule, section 3746.09 of the Revised Code, and Chapter 3745. of the Revised Code.

(Effective December 20, 1995)

3745-300-13 Content and scope of no further action letters.

(A) For the purposes of this chapter and Chapter 3746. of the Revised Code, a no further action letter may be issued by a certified professional for a property under one or a combination of the following circumstances:

(1) After completion of a "Phase I Property Assessment" conducted in accordance with rule 3745-300-06 of the Administrative Code, a certified professional determines that there is no information that establishes any reason to believe that a release of hazardous substances or petroleum has or may have occurred at or upon a property;

(2) After completion of a "Phase I Property Assessment" conducted in accordance with rule 3745-300-06 of the Administrative Code, a certified professional determines that there was a release of hazardous substances or petroleum on the property, but that the only release(s) is demonstrated in writing to be de minimis under paragraph (G) of rule 3745-300-06 of the Administrative Code;

(3) After completion of a "Phase II Property Assessment" conducted in accordance with rule 3745-300-07 of the Administrative Code, a certified professional determines that information indicates that the concentrations of chemical(s) of concern at the property do not exceed the applicable standards; or

(4) After completion of a "Phase II Property Assessment" conducted in accordance with rule 3745-300-07 of the Administrative Code, a certified professional determines that information indicates that the concentrations of chemical(s) of concern at the property exceed the applicable standards identified for the property. However, the certified professional determines that those applicable standards identified for the property have been achieved through remedial activities or will be achieved in accordance with either an operation and maintenance plan or agreement if required under rule 3745-300-15 of the Administrative Code, or a consolidated standards permit issued under section 3746.15 of the Revised Code and any rules adopted thereunder

(B) In order to obtain a no further action letter, a volunteer must submit to a certified professional all relevant investigatory and remedial information pertaining to the property including, but not limited to:

(1) Information demonstrating that there is no contamination by hazardous substances or pe-

Example News Release

fax TRANSMITTAL S:\FECH\SCHIFF\DAYTON\FINALDOC\NOTICINF.FAX

This is a press release from the OEPA VAP web page. The director is responsible for this release, not the volunteer.

OhioEPA

PUBLIC INTEREST CENTER
P.O. Box 1049, 122 S. Front St.
Columbus, OH 43216-1049
Tele: (614) 644-2160 Fax: (614) 644-2737

NEWS RELEASE

For Release: October 22, 1999

Media Contact: Jim Leach (614) 644-2160
Citizen Contact: Patrick Gallaway (614) 644-2160

Ohio EPA to Hold Public Meeting on Urban Setting Designation Request

Ohio EPA will hold a public meeting on Wednesday, November 3, 1999, regarding a request to receive an Urban Setting Designation (USD) for approximately 1.2 acres of land located at 237 North Adams Street, Akron, Ohio. The request was submitted on behalf of Stolizska & Son Inc., which has operated a metal shop on the property since 1934. The property consists of several parcels at the northeast corner of the intersection of North Adams and North Forge Streets. The meeting will be held at 7 p.m. in the auditorium of the Oliver Ocasek Government Center, 161 S. High Street, Akron.

Ohio EPA's Voluntary Action Program (VAP) allows someone to voluntarily clean up contaminated property in Ohio without the risk of state civil liability. Under VAP, ground water cleanup is required where contaminated ground water poses risks to the community or the environment.

A USD may be requested for properties participating in the VAP when there is no current or anticipated future use of the ground water by local residents for drinking, showering, bathing or cooking. In these areas, an approved USD would lower the cost of cleanup and promote economic redevelopment while still protecting public health and safety. If this USD were to be approved, the ground water cleanup or response requirements for the property would be lessened. The ground water under the Stolizska property contains solvents.

Under VAP, a state certified professional must review the cleanup to verify that it meets VAP standards before Ohio EPA issues a covenant not to sue, releasing the organization from state civil liability. Ohio EPA has access to cleaned-up properties and documents and will audit at least one-fourth of the properties to confirm that cleanup standards are met.

The Ohio EPA director may approve the request for a USD based on a demonstration by the certified professional that the USD requirements are met and an evaluation of existing or future uses of ground water in the area have been assessed. Ohio EPA's approval of the request is needed before cleanup requirements for the site can be determined.

During the meeting, representatives from Ohio EPA will explain the impact of a USD and answer questions from the public about the request. Ohio EPA then will accept comments from the public

about the request. Written comments can be sent through November 12, 1999, to: Ohio EPA, Division of Emergency and Remedial Response, Voluntary Action Program, Attn: Miles Davidson, P.O. Box 1049, Columbus, Ohio, 43216-1049. All comments will be considered before a final decision is made.

Back to Voluntary Action Program News Releases Webpage

Last updated on 11/03/99

MEMORANDUM

TO: Gary Stanczuk

FROM: Ken Vogel KV

DATE: September 14, 2000

SUBJECT: Dayton Off-Site Drilling Bid Evaluation

LBG has completed the evaluation of bids received for off-site well installation in Dayton, OH. LBG recommends that Moody's of Dayton be awarded the drilling contract. Prosonic Corporation (formerly Alliance Environmental, Inc.) submitted an incomplete bid and will not use union labor or union-scale wages. Layne Christensen declined to bid, citing their belief that they could not provide cost-effective drilling services on this particular job.

Moody's submitted both a base and alternate bid. The base bid is the low bid, but will require two rigs, drilling three individual wells at each designated well cluster location. The alternate bid proposes utilizing Rotosonic drilling technique to install clustered monitoring wells in a single borehole. Though the contractor cost for this alternate is higher than auger drilling, the drilling time is reduced by 40 percent, resulting in significant cost reductions for associated expenses and LBG oversite. In addition, a single borehole/well pad at each location is desirable in minimizing property owners' concerns of degradation of property use, in reducing the time spent at each location, and for the added benefit of virtually 100 percent core recovery. Therefore, LBG recommends Moody's alternate Rotosonic bid, for an estimated cost increase of only $20K from the base auger bid.

Copies of the drilling bids from Moody's and Prosonic are attached for your review.

KV.kw
Attachment
S:\TECH\JCHRY\DAYTON\PROJMGMT\BIDS\OFFSITEDRILLBIDEVALMEM.DOC

MOODY'S of Dayton, Inc.

ADDRESS REPLY TO:
P.O. DRAWER 509
MIAMISBURG, OHIO 45343-0509
PHONE AC 937-859-4482
FAX AC 937-859-4522

August 31, 2000

Leggette, Brashears & Graham, Inc.
Northpark Corporate Center
1210 West County Road E
Suite 700
St. Paul, MN 55112

Attention: Kenneth D Vogel

Subject: Bid for Drilling Services
Daimler Chrysler Corporation
Dayton Thermal Products Plant
Dayton, Ohio

Dear Mr Vogel.

Thank you for contacting Moody's of Dayton, Inc. concerning the subject project. We propose to do this project with two different drilling methods as described below

I. BASE BID – AUGER DRILLING

We feel it would require a 10" I. D auger to install a 3 well cluster. We do not feel a one borehole approach is practical with augers due to the soil sampling requirements, the difficult drilling and the amount of heave to bail out.

We propose to drill 4" I. D Augers to 85', sample every 5' and set a 2" pvc well. We would move 5'-10', drill with 6" I. D Augers, no sampling, and set the 50' and 35' wells in this borehole. Pumping development and hauling the water will work fine. We will install 2 smaller protective covers (and smaller pads) which will be a lot less conspicuous in the neighborhood/park areas

We would utilize 2 drilling crews, one development/pro cover crew and a supervisor This work would require 40 working days (8 weeks Mon.–Fri.) to complete. We do not plan to use 55 gallon drums at all. We plan to shovel cuttings into a backhoe bucket, load them on a dump truck, and dump them in a roll off box. Development water will be pumped to a tank and drained at Chrysler

NOTE: Insurance issues are addressed below

II. ALTERNATE BID – SONIC DRILLING

Moody's of Dayton will subcontract sonic drilling to Bowser-Morner. We are currently teaming with them at FERMCO in Cincinnati, Ohio and have an excellent working relationship. They are based in Dayton and know local drilling conditions.

They will run a pilot hole for 4" continuous core sampling, and then drill a 10" casing to 85'. They will install the 3 well cluster in the 10" casing and emplace the backfill materials.

Moody's will haul drill cuttings, develop wells, place protective covers, etc. This work would require 25 working days (5 weeks Mon.-Fri.) to complete. There would be 2 crews and supervision as necessary Soil and water containment would be as previously described.

NOTE: Insurance issues are addressed below

III. INSURANCE

A. Base Bid

Moody's has a 2.0M Aggregate Policy and no Pollution Insurance. The cost to meet specified requirements are as follows.

5.0M Aggregate	– Add	$ 3,000.00
5.0M Pollution	– Add	$10,000 00
	Total	$13,000.00

B. Alternate Bid

Bowser-Morner has a 2.0M Aggregate Policy and a 2.0M Pollution Policy It might be possible to use their pollution policy since they are doing the drilling. If both companies must get full insurance the costs are as follows

5 0M Aggregate	– Add	$ 6,000.00
5 0M Pollution	- Add	$14,000 00
	Total	$20,000 00

III. SCORE SAVING

We propose to use current insurance policies in place and not add on the extra requirements to achieve a significant cost savings.

We hope this is the information you desire. Please call if you have any questions or comments.

Very truly yours,

MOODY'S OF DAYTON, INC.

Douglas F. Wagner

Douglas F. Wagner

DFW/jd

BID FORM "AUGER BID"

TO: Mr. Kenneth D. Vogel
Leggette, Brashears & Graham, Inc.
1210 West County Road E, Suite 700
St. Paul, Minnesota 55112

FOR: Drilling and Well Installation Services
DaimlerChrysler Corporation
Dayton Thermal Products Plant
Dayton, Ohio

The undersigned has carefully examined the Request for Bid for Drilling Services and other conditions relative to the work, and has made all evaluations and investigations necessary to gain a full understanding of pertinent site conditions and all regulatory, material, equipment, and labor requirements necessary to successfully and safely complete the work, as well as any reasonable difficulties which may be encountered in performing the work.

BID SCHEDULE

The undersigned hereby proposes and agrees to furnish all labor, materials, equipment, tools, taxes, services and all other items necessary or appropriate for the proper and complete execution of the work for the following estimated amount:

Base Bid Estimate

All work: Two Hundred Forty Nine Thousand Three Hundred & 00/100. Dollars ($ 249,300.00-------)

The undersigned agrees, if this proposal is accepted, to enter into an agreement with Leggette, Brashears & Graham, Inc., per the Terms and Conditions of LBG's Standard Form Contract, for the above unit price-based, estimated Contract Sum.

Unit Prices

This bid estimate is based upon, and all work shall be performed in accordance with, the Unit Prices listed below. Should additions or subtractions to the scope of work be required, adjustment will be made to the Contract Sum at the following Unit Prices, which shall include all associated expenses, including taxes, overhead and profit.

UNIT PRICE TABLE

I.D.	DESCRIPTION	UNIT	EST. QTY	UNIT COST	TOTAL
A.	Mobilize and demobilize equipment and work crew to/from Dayton, Ohio.	L.S.	1	5000.00	5000.00
B.	Drill 20 soil borings which will accomodate triple-clustered, 2-inch monitoring wells/piezometers to a depth of 85 feet. (See Proposal)	L. F. 4" I.D.	1700	20.00	34000.00
		6" I.D.	1000	25.00	25000.00
C.	Soil sample, 2-foot long, 2-inch diameter split-spoon sampler at 5-foot intervals.	Each	320	30.00	9600.00
D.	Monitoring well/piezometer installation/construction.	L.F.	3300	25.00	82500.00
E.	Flush-grade monitoring well/piezometer finishing.	Each	~~20~~ 40	500.00	20000.00

(See Proposal)

I.D.	DESCRIPTION	UNIT	EST. QTY	UNIT COST	TOTAL
F.	2-inch, flip top, watertight, compression well caps.	Each	60	20.00	1200.00
G.	Monitor well/piezometer development.	Per Hour	180	200.00	23000.00
H.	Containerization of drill cuttings.	L.S.	1	12000.00	12000.00
I.	Decontamination equipment and supplies.	L.S.	1	3000.00	3000.00
J.	Decontamination.	Per Hour	40	200.00	8000.00
K.	Standby, non-equipment failure.	Per Hour	0	200.00	-0-
L.	Per Diem, entire crew.	Per Day	0	-0-	-0-
M.	Material Handling. , Included above	Per Hour	0	-0-	-0-
N.	Level C Personal Protection	Per Man/Per Day	0	40.00	
O.	SCORE Savings				
P.	Insurance - See Proposal				13000.00
Q.					
R.					
	TOTAL ESTIMATED BID	———	———	——— --	249,300.00

L.S. = Lump Sum L.F. = Linear Foot

NOTE: Bidder shall provide estimated quantities for all equipment/materials/services on Unit Price ~~$ 262,300~~ Table for which no estimated quantities are indicated.

Contractor proposes to use 2 (number) drilling rig(s). Plus 1 extra crew.
Contractor estimates 40 working days to complete this work.

PROJECT INITIATION

If awarded this contract, the undersigned proposes and agrees to start work as early as September 18, 2000.

ADDENDA RECEIVED (IF REQUIRED)

The undersigned hereby acknowledges receipt of the following Addenda which shall become part of the Contract Documents:

Addendum Number 1 Dated N/A Addendum Number 2 Dated N/A

[illegible] bid and to make an award in the best interest of Leggette, Brashears & Graham, Inc. and DaimlerChrysler Corporation. It is further understood and agreed that this proposal may not be withdrawn for a period of sixty (60) calender days after the date set for bid receipt.

Our company IS____, IS NOT X a Certified Minority Business Enterprise (MBE) firm (if so, please attach MBE certification documentation).

Respectfully Submitted:

MOODY'S OF DAYTON, INC.

Contractor

Douglas F. Wagner

Signature

Douglas F. Wagner

Printed Name and Title

August 31, 2000

Date

(937) 859-4482

Telephone Number

(937) 859-4522

Fax Number

Email Address

S:\TECH\JCHRY\DAYTON\PROJMGMT\BIDS\OFFSITEA.FRM

BID FORM "ROTOSONIC BID"

TO: Mr. Kenneth D. Vogel
Leggette, Brashears & Graham, Inc.
1210 West County Road E, Suite 700
St. Paul, Minnesota 55112

FOR: Drilling and Well Installation Services
DaimlerChrysler Corporation
Dayton Thermal Products Plant
Dayton, Ohio

The undersigned has carefully examined the Request for Bid for Drilling Services and other conditions relative to the work, and has made all evaluations and investigations necessary to gain a full understanding of pertinent site conditions and all regulatory, material, equipment, and labor requirements necessary to successfully and safely complete the work, as well as any reasonable difficulties which may be encountered in performing the work.

BID SCHEDULE

The undersigned hereby proposes and agrees to furnish all labor, materials, equipment, tools, taxes, services and all other items necessary or appropriate for the proper and complete execution of the work for the following estimated amount:

Base Bid Estimate

All work: Three Hundred Thousand Dollars Dollars ($300,000.00--------)

The undersigned agrees, if this proposal is accepted, to enter into an agreement with Leggette, Brashears & Graham, Inc., per the Terms and Conditions of LBG's Standard Form Contract, for the above unit price-based, estimated Contract Sum.

Unit Prices

This bid estimate is based upon, and all work shall be performed in accordance with, the Unit Prices listed below. Should additions or subtractions to the scope of work be required, adjustment will be made to the Contract Sum at the following Unit Prices, which shall include all associated expenses, including taxes, overhead and profit.

UNIT PRICE TABLE

I.D.	DESCRIPTION	UNIT	EST. QTY	UNIT COST	TOTAL
A.	Mobilize and demobilize equipment and work crew to/from Dayton, Ohio.	L.S.	1	5000.00	5000.00
B.	Drill 20 soil borings which will accomodate triple-clustered, 2-inch monitoring wells/piezometers to a depth of 85 feet.	L. F.	1700	75.00	127500.00
C.	Soil sample, 2-foot long, 2-inch diameter split-spoon sampler at 5-foot intervals.	Each	320	N/A	-0-
D.	Monitoring well/piezometer installation/construction.	L.F.	3300	25.00	82500.00
E.	Flush-grade monitoring well/piezometer finishing.	Each	20	600.00	12000.00

I.D.	DESCRIPTION	UNIT	EST. QTY	UNIT COST	TOTAL
F.	2-inch, flip top, watertight, compression well caps.	Each	60	20.00	1200.00
G.	Monitor well/piezometer development.	Per Hour	180	200.00	36000.00
H.	Containerization of drill cuttings.	L.S.	1	4800.00	4800.00
I.	Decontamination equipment and supplies.	L.S.	1	3000.00	3000.00
J.	Decontamination.	Per Hour	40	200.00	8000.00
K.	Standby, non-equipment failure.	Per Hour	0	400.00	-0-
L.	Per Diem, entire crew.	Per Day	0	-0-	-0-
M.	Material Handling. Included above	Per Hour	0	-0-	-0-
N.	Level C Personal Protection	Per Man/Per Day	0	40.00	
O.	SCORE Savings				
P.	Insurance - See Proposal				20000.00
Q.					
R.					
	TOTAL ESTIMATED BID	———	———	———	300,000.00

L.S. = Lump Sum L.F. = Linear Foot

NOTE: Bidder shall provide estimated quantities for all equipment/materials/services on Unit Price Table for which no estimated quantities are indicated.

Contractor proposes to use 1 (number) drilling rig(s). Plus 1 extra crew.
Contractor estimates 25 days to complete this work.

PROJECT INITIATION

If awarded this contract, the undersigned proposes and agrees to start work as early as September 18, 2000.

ADDENDA RECEIVED (IF REQUIRED)

The undersigned hereby acknowledges receipt of the following Addenda which shall become part of the Contract Documents:

Addendum Number 1 Dated N/A Addendum Number 2 Dated N/A

technicalities in any bid and to make an award in the best interest of Leggette, Brashears & Graham, Inc. and DaimlerChrysler Corporation. It is further understood and agreed that this proposal may not be withdrawn for a period of sixty (60) calender days after the date set for bid receipt.

Our company IS_____, IS NOT X a Certified Minority Business Enterprise (MBE) firm (if so, please attach MBE certification documentation).

Respectfully Submitted:

MOODY'S OF DAYTON, INC.
Contractor

Douglas F. Wagner
Signature

Douglas F. Wagner
Printed Name and Title

August 31, 2000
Date

(937) 859-4482
Telephone Number

(937) 859-4522
Fax Number

Email Address

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September 8, 2000

Mr. Kenneth Vogel, PG, CHMM
Leggette, Brashears & Graham, Inc.
1210 West County Road, Suite 700
St. Paul, MN 55112

ALLIANCE
ENVIRONMENTAL, INC.

RE: Cost Estimate for Dayton Thermal Products Facility, Dayton, Ohio

Dear Ken:

Attached is the Leggette, Brashears & Graham, Inc. (LBG) Bid Form for the above-referenced site. Provided below is a description of the work to be provided by Prosonic Corporation (formerly Alliance Environmental, Inc.).

As you and Mark Knolle discussed Prosonic Corporation is not intending to utilize union labor for this project. The use of our SONIC technology closely resembles that of direct-push technology (DPT) soil sampling, groundwater sampling, and well installation methods. The SONIC rig operators employed by Prosonic require intensive training by the Prosonic staff responsible for the manufacture of our rigs and the highly specialized SONIC drill heads. The operators and the helpers each have very detailed job requirements and cannot be obtained at the local union halls nor are they even classified by the International Union of Operating Engineers as a trade which they govern. SONIC drillers are not "Drillers" as classified by the union and SONIC helpers are not "Laborers" as classified by the union. Therefore, it is impossible for Prosonic to complete this work using union labor, or execute the union labor agreement, because it does not apply to SONIC technology.

Prosonic proposes to be self sufficient in regards to water supply, decontamination, and storage of supplies and equipment. Prosonic personnel will not access the DaimlerChrysler facility at any time during the completion of this project. However, for Prosonic to complete this work LBG will be required to contract a licensed waste hauling company to transport the investigation derived waste (IDW) from the well locations to the Dayton Thermal Products plant for storage. The labor structure of the waste hauling firm, contracting union or non-union firms, is at the discretion of LBG. Prosonic is confident that this will be a significant cost savings to DaimlerChrysler.

Thank you for the opportunity to provide drilling services for your firm. If you have any questions or comments please do not hesitate to contact Mark Knolle or me at (740) 373-2190 or (810) 714-4445, respectively.

Sincerely,
PROSONIC CORPORATION

Michael E. Piddington

Michael E. Piddington, CPG, PG
Regional Manager

Attachment

cell phone (810) 523-3956

1490 TORREY ROAD FENTON, MICHIGAN 48430 PHONE: 810.714.4445 FAX 810.714.4453

BID FORM

TO: Mr. Kenneth D. Vogel
Leggette, Brashears & Graham, Inc.
1210 West County Road E, Suite 700
St. Paul, Minnesota 55112

FOR: Drilling and Well Installation Services
DaimlerChrysler Corporation
Dayton Thermal Products Plant
Dayton, Ohio

The undersigned has carefully examined the Request for Bid for Drilling Services and other conditions relative to the work, and has made all evaluations and investigations necessary to gain a full understanding of pertinent site conditions and all regulatory, material, equipment, and labor requirements necessary to successfully and safely complete the work, as well as any reasonable difficulties which may be encountered in performing the work.

BID SCHEDULE

The undersigned hereby proposes and agrees to furnish all labor, materials, equipment, tools, taxes, services and all other items necessary or appropriate for the proper and complete execution of the work for the following estimated amount:

Base Bid Estimate

All work: TWO HUNDRED SEVENTY FOUR Dollars ($ 274,200)
TWO HUNDRED

The undersigned agrees, if this proposal is accepted, to enter into an agreement with Leggette, Brashears & Graham, Inc., per the Terms and Conditions of LBG's Standard Form Contract, for the above unit price-based, estimated Contract Sum.

Unit Prices

This bid estimate is based upon, and all work shall be performed in accordance with, the Unit Prices listed below. Should additions or subtractions to the scope of work be required, adjustment will be made to the Contract Sum at the following Unit Prices, which shall include all associated expenses, including taxes, overhead and profit.

UNIT PRICE TABLE

I.D.	DESCRIPTION	UNIT	EST. QTY	UNIT COST	TOTAL
A.	Mobilize and demobilize equipment and work crew to/from Dayton, Ohio.	L.S.	1	25,000	25,000
B.	Drill 20 soil borings which will accomodate triple-clustered, 2-inch monitoring wells/piezometers to a depth of 85 feet.	L. F.	1700	57	96,900
C.	Soil sample, 2-foot long, 2-inch diameter split-spoon sampler at 5-foot intervals.	Each	320	SEE S.C.	O.R.E.
D.	Monitoring well/piezometer installation/construction.	L.F.	3300	20	66,000
E.	Flush-grade monitoring well/piezometer finishing.	Each	20	1,000	2,000

-20,0

I.D.	DESCRIPTION	UNIT	EST. QTY	UNIT COST	TOTAL
F.	2-inch, flip top, watertight, compression well caps.	Each	60	25	1,500
G.	Monitor well/piezometer development.	Per Hour	162	150	24,300
H.	Containerization of drill cuttings.	L.S.	1	10,000	10,000
I.	Decontamination equipment and supplies.	L.S.	1	5,000	5,000
J.	Decontamination. (AND MOVING RIG)	Per Hour	54	250	13,500
K.	Standby, non-equipment failure.	Per Hour	0	575	0
L.	Per Diem, entire crew.	Per Day	40	300	12,000
M.	Material Handling.	Per Hour	BY	OTHERS	0
N.	Level C Personal Protection	Per Man/Per Day	0	150 PER MAN PER DAY	0
O.	SCORE Savings PRICE INCLUDES THESE SAVINGS VS. ROTARY RIGS				
P.	REDUCED I.D.W. (DRUMS) VS. USE OF AUGERS/ROTARY METHODS				
Q.		DRUMS	180	500	INCLUDED <90,000
R.	CONTINUOUS CORE VS. 5' INTERVALS	SAMPLES	850	35	INCLUDED <29,750
	TOTAL ESTIMATED BID	—	—	—	174,200

L.S. = Lump Sum L.F. = Linear Foot

NOTE: Bidder shall provide estimated quantities for all equipment/materials/services on Unit Price Table for which no estimated quantities are indicated.

Contractor proposes to use ONE (1) (number) drilling rig(s).
Contractor estimates 30 to 40 days to complete this work.

PROJECT INITIATION

If awarded this contract, the undersigned proposes and agrees to start work as early as September 18, 2000.

ADDENDA RECEIVED (IF REQUIRED)

The undersigned hereby acknowledges receipt of the following Addenda which shall become part of the Contract Documents:

Addendum Number 1 Dated_____ Addendum Number 2 Dated_____

Any Bid Addenda received during the bid process should be acknowledged by the Contractor by transferring the date of the Addenda to the appropriate line above.

BID ACCEPTANCE

In submitting this proposal, it is understood that Leggette, Brashears & Graham, Inc. and DaimlerChrysler Corporation reserve the right to reject any or all bids, waive any formalities or technicalities in any bid and to make an award in the best interest of Leggette, Brashears & Graham, Inc. and DaimlerChrysler Corporation. It is further understood and agreed that this proposal may not be withdrawn for a period of sixty (60) calender days after the date set for bid receipt.

Our company IS____, IS NOT ✓ a Certified Minority Business Enterprise (MBE) firm (if so, please attach MBE certification documentation).

Respectfully Submitted:

PROSONIC CORPORATION (FORMERLY ALLIANCE ENVIRONMENTAL, INC.)
Contractor

Michael E. Piddington
Signature

MICHAEL PIDDINGTON / REGIONAL MANAGER
Printed Name and Title

SEPTEMBER 8, 2000
Date

(810) 714-4445
Telephone Number

(810) 714-4453
Fax Number

ROTOSONIC @ EMAIL.MSN.COM
Email Address

S:\TECH\3CHRY\DAYTON\PROJMGMT\BIDS\OFFSITE.FRM

MEMORANDUM

TO: Gary Stanczuk

FROM: Ken Vogel KEV

DATE: September 14, 2000

SUBJECT: Dayton Off-Site Drilling Bid Evaluation

LBG has completed the evaluation of bids received for off-site well installation in Dayton, OH. LBG recommends that Moody's of Dayton be awarded the drilling contract. Prosonic Corporation (formerly Alliance Environmental, Inc.) submitted an incomplete bid and will not use union labor or union-scale wages. Layne Christensen declined to bid, citing their belief that they could not provide cost-effective drilling services on this particular job.

Moody's submitted both a base and alternate bid. The base bid is the low bid, but will require two rigs, drilling three individual wells at each designated well cluster location. The alternate bid proposes utilizing Rotosonic drilling technique to install clustered monitoring wells in a single borehole. Though the contractor cost for this alternate is higher than auger drilling, the drilling time is reduced by 40 percent, resulting in significant cost reductions for associated expenses and LBG oversite. In addition, a single borehole/well pad at each location is desirable in minimizing property owners' concerns of degradation of property use, in reducing the time spent at each location, and for the added benefit of virtually 100 percent core recovery. Therefore, LBG recommends Moody's alternate Rotosonic bid, for an estimated cost increase of only $20K from the base auger bid.

Copies of the drilling bids from Moody's and Prosonic are attached for your review.

KV:kw
Attachment
S \TECH\3CHRY\DAYTON\PROJMGMT\BIDS\OFFSITEDRILLBIDEVALMEM DOC

MOODY'S of Dayton, Inc.

ADDRESS REPLY TO
P.O. DRAWER 509
MIAMISBURG, OHIO 45343-0509
PHONE AC 937-859-4482
FAX AC 937-859-4522

August 31, 2000

Leggette, Brashears & Graham, Inc
Northpark Corporate Center
1210 West County Road E
Suite 700
St Paul, MN 55112

Attention· Kenneth D Vogel

Subject. Bid for Drilling Services
Daimler Chrysler Corporation
Dayton Thermal Products Plant
Dayton, Ohio

Dear Mr Vogel.

Thank you for contacting Moody's of Dayton, Inc concerning the subject project We propose to do this project with two different drilling methods as described below

I. BASE BID – AUGER DRILLING

We feel it would require a 10" I D auger to install a 3 well cluster. We do not feel a one borehole approach is practical with augers due to the soil sampling requirements, the difficult drilling and the amount of heave to bail out.

We propose to drill 4" I D Augers to 85', sample every 5' and set a 2" pvc well We would move 5'-10', drill with 6" I D Augers, no sampling, and set the 50' and 35' wells in this borehole Pumping development and hauling the water will work fine. We will install 2 smaller protective covers (and smaller pads) which will be a lot less conspicuous in the neighborhood/park areas

We would utilize 2 drilling crews, one development/pro cover crew and a supervisor This work would require 40 working days (8 weeks Mon –Fri.) to complete We do not plan to use 55 gallon drums at all We plan to shovel cuttings into a backhoe bucket, load them on a dump truck, and dump them in a roll off box. Development water will be pumped to a tank and drained at Chrysler

NOTE: Insurance issues are addressed below

II. ALTERNATE BID – SONIC DRILLING

Moody's of Dayton will subcontract sonic drilling to Bowser-Morner We are currently teaming with them at FERMCO in Cincinnati, Ohio and have an excellent working relationship. They are based in Dayton and know local drilling conditions.

They will run a pilot hole for 4" continuous core sampling, and then drill a 10" casing to 85'. They will install the 3 well cluster in the 10" casing and emplace the backfill materials

Moody's will haul drill cuttings, develop wells, place protective covers, etc. This work would require 25 working days (5 weeks Mon.-Fri.) to complete. There would be 2 crews and supervision as necessary Soil and water containment would be as previously described.

NOTE: Insurance issues are addressed below.

III. INSURANCE

A Base Bid

Moody's has a 2 0M Aggregate Policy and no Pollution Insurance The cost to meet specified requirements are as follows.

5 0M Aggregate	– Add	$ 3,000 00
5 0M Pollution	– Add	$10,000 00
	Total	$13,000 00

B Alternate Bid

Bowser-Morner has a 2.0M Aggregate Policy and a 2 0M Pollution Policy It might be possible to use their pollution policy since they are doing the drilling. If both companies must get full insurance the costs are as follows

5 0M Aggregate	– Add	$ 6,000 00
5 0M Pollution	- Add	$14,000 00
	Total	$20,000 00

III. SCORE SAVING

We propose to use current insurance policies in place and not add on the extra requirements to achieve a significant cost savings.

We hope this is the information you desire Please call if you have any questions or comments

Very truly yours,

MOODY'S OF DAYTON, INC.

Douglas F. Wagner

Douglas F Wagner

DFW/jd

BID FORM "AUGER BID"

TO: Mr. Kenneth D. Vogel
Leggette, Brashears & Graham, Inc.
1210 West County Road E, Suite 700
St. Paul, Minnesota 55112

FOR: Drilling and Well Installation Services
DaimlerChrysler Corporation
Dayton Thermal Products Plant
Dayton, Ohio

The undersigned has carefully examined the Request for Bid for Drilling Services and other conditions relative to the work, and has made all evaluations and investigations necessary to gain a full understanding of pertinent site conditions and all regulatory, material, equipment, and labor requirements necessary to successfully and safely complete the work, as well as any reasonable difficulties which may be encountered in performing the work.

BID SCHEDULE

The undersigned hereby proposes and agrees to furnish all labor, materials, equipment, tools, taxes, services and all other items necessary or appropriate for the proper and complete execution of the work for the following estimated amount:

Base Bid Estimate

All work: Two Hundred Forty Nine Thousand Three Hundred & 00/100. Dollars ($ 249,300.00-------)

The undersigned agrees, if this proposal is accepted, to enter into an agreement with Leggette, Brashears & Graham, Inc., per the Terms and Conditions of LBG's Standard Form Contract, for the above unit price-based, estimated Contract Sum.

Unit Prices

This bid estimate is based upon, and all work shall be performed in accordance with, the Unit Prices listed below. Should additions or subtractions to the scope of work be required, adjustment will be made to the Contract Sum at the following Unit Prices, which shall include all associated expenses, including taxes, overhead and profit.

UNIT PRICE TABLE

I.D.	DESCRIPTION	UNIT	EST. QTY	UNIT COST	TOTAL
A.	Mobilize and demobilize equipment and work crew to/from Dayton, Ohio.	L.S.	1	5000.00	5000.00
B.	Drill 20 soil borings which will accomodate triple-clustered, 2-inch monitoring wells/piezometers to a depth of 85 feet. (See Proposal)	L. F. 4" I.D.	1700	20.00	59 34000.00 +68,5
		6" I.D.	1000	25.00	25000.00
C.	Soil sample, 2-foot long, 2-inch diameter split-spoon sampler at 5-foot intervals.	Each	320	30.00	9600.00 -960
D	Monitoring well/piezometer installation/construction.	L.F.	3300	25.00	82500.00
E.	Flush-grade monitoring well/piezometer finishing. (See Proposal)	Each	~~20~~ 40	500.00	20000.00 -8000

MOODY'S OF DAYTON, INC.

I.D.	DESCRIPTION	UNIT	EST. QTY	UNIT COST	TOTAL
F.	2-inch, flip top, watertight, compression well caps.	Each	60	20.00	1200.00
G.	Monitor well/piezometer development.	Per Hour	180	200.00	23000.00
H.	Containerization of drill cuttings.	L.S.	1	12000.00	12000.00
I.	Decontamination equipment and supplies.	L.S.	1	3000.00	3000.00
J.	Decontamination.	Per Hour	40	200.00	8000.00
K.	Standby, non-equipment failure.	Per Hour	0	200.00	-0-
L.	Per Diem, entire crew.	Per Day	0	-0-	-0-
M.	Material Handling. , Included above	Per Hour	0	-0-	-0-
N.	Level C Personal Protection	Per Man/Per Day	0	40.00	
O.	SCORE Savings				
P.	Insurance - See Proposal				13000.00
Q.					
R.					
	TOTAL ESTIMATED BID	-------	------	--------- --	249,300.00

L.S. = Lump Sum L.F. = Linear Foot

NOTE: Bidder shall provide estimated quantities for all equipment/materials/services on Unit Price Table for which no estimated quantities are indicated.

Contractor proposes to use 2 (number) drilling rig(s). Plus 1 extra crew.
Contractor estimates 40 working days to complete this work.

PROJECT INITIATION

If awarded this contract, the undersigned proposes and agrees to start work as early as September 18, 2000.

ADDENDA RECEIVED (IF REQUIRED)

The undersigned hereby acknowledges receipt of the following Addenda which shall become part of the Contract Documents:

Addendum Number 1 Dated N/A Addendum Number 2 Dated N/A

MOODY'S OF DAYTON, INC.

technicalities in any bid and to make an award in the best interest of Leggette, Brashears & Graham, Inc. and DaimlerChrysler Corporation. It is further understood and agreed that this proposal may not be withdrawn for a period of sixty (60) calender days after the date set for bid receipt.

Our company **IS**____, **IS NOT** X a Certified Minority Business Enterprise (MBE) firm (if so, please attach MBE certification documentation).

Respectfully Submitted:

MOODY'S OF DAYTON, INC.
Contractor

Douglas F. Wagner
Signature

Douglas F. Wagner
Printed Name and Title

August 31, 2000
Date

(937) 859-4482
Telephone Number

(937) 859-4522
Fax Number

Email Address

S.\TECH\3CHRY\DAYTON\PROJMGMT\BIDS\OFFSITEA.FRM

BID FORM "ROTOSONIC BID"

TO: Mr. Kenneth D. Vogel
Leggette, Brashears & Graham, Inc.
1210 West County Road E, Suite 700
St. Paul, Minnesota 55112

FOR: Drilling and Well Installation Services
DaimlerChrysler Corporation
Dayton Thermal Products Plant
Dayton, Ohio

The undersigned has carefully examined the Request for Bid for Drilling Services and other conditions relative to the work, and has made all evaluations and investigations necessary to gain a full understanding of pertinent site conditions and all regulatory, material, equipment, and labor requirements necessary to successfully and safely complete the work, as well as any reasonable difficulties which may be encountered in performing the work.

BID SCHEDULE

The undersigned hereby proposes and agrees to furnish all labor, materials, equipment, tools, taxes, services and all other items necessary or appropriate for the proper and complete execution of the work for the following estimated amount:

Base Bid Estimate

All work: Three Hundred Thousand Dollars Dollars ($300,000.00--------)

The undersigned agrees, if this proposal is accepted, to enter into an agreement with Leggette, Brashears & Graham, Inc., per the Terms and Conditions of LBG's Standard Form Contract, for the above unit price-based, estimated Contract Sum.

Unit Prices

This bid estimate is based upon, and all work shall be performed in accordance with, the Unit Prices listed below. Should additions or subtractions to the scope of work be required, adjustment will be made to the Contract Sum at the following Unit Prices, which shall include all associated expenses, including taxes, overhead and profit.

UNIT PRICE TABLE

I.D.	DESCRIPTION	UNIT	EST. QTY	UNIT COST	TOTAL
A.	Mobilize and demobilize equipment and work crew to/from Dayton, Ohio.	L.S.	1	5000.00	5000.00
B.	Drill 20 soil borings which will accomodate triple-clustered, 2-inch monitoring wells/piezometers to a depth of 85 feet.	L. F.	1700	75.00	127500.00
C.	Soil sample, 2-foot long, 2-inch diameter split-spoon sampler at 5-foot intervals.	Each	320	N/A	-0-
D.	Monitoring well/piezometer installation/construction.	L.F.	3300	25.00	82500.00
E.	Flush-grade monitoring well/piezometer finishing.	Each	20	600.00	12000.00

MOODY'S OF DAYTON, INC.

I.D.	DESCRIPTION	UNIT	EST. QTY	UNIT COST	TOTAL
F.	2-inch, flip top, watertight, compression well caps.	Each	60	20.00	1200.00
G.	Monitor well/piezometer development.	Per Hour	180	200.00	36000.00
H.	Containerization of drill cuttings.	L.S.	1	4800.00	4800.00
I.	Decontamination equipment and supplies.	L.S.	1	3000.00	3000.00
J.	Decontamination.	Per Hour	40	200.00	8000.00
K.	Standby, non-equipment failure.	Per Hour	0	400.00	-0-
L.	Per Diem, entire crew.	Per Day	0	-0-	-0-
M.	Material Handling. Included above	Per Hour	0	-0-	-0-
N.	Level C Personal Protection	Per Man/Per Day	0	40.00	
O.	SCORE Savings				
P.	Insurance - See Proposal				20000.00
Q.					
R.					
	TOTAL ESTIMATED BID	-------	------	----------	300,000.00

L.S. = Lump Sum L.F. = Linear Foot

NOTE: Bidder shall provide estimated quantities for all equipment/materials/services on Unit Price Table for which no estimated quantities are indicated.

Contractor proposes to use 1 (number) drilling rig(s). Plus 1 extra crew.
Contractor estimates 25 days to complete this work.

PROJECT INITIATION

If awarded this contract, the undersigned proposes and agrees to start work as early as September 18, 2000.

ADDENDA RECEIVED (IF REQUIRED)

The undersigned hereby acknowledges receipt of the following Addenda which shall become part of the Contract Documents:

Addendum Number 1 Dated N/A Addendum Number 2 Dated N/A

MOODY'S OF DAYTON, INC.

technicalities in any bid and to make an award in the best interest of Leggette, Brashears & Graham, Inc. and DaimlerChrysler Corporation. It is further understood and agreed that this proposal may not be withdrawn for a period of sixty (60) calender days after the date set for bid receipt.

Our company **IS**_____, **IS NOT** X a Certified Minority Business Enterprise (MBE) firm (if so, please attach MBE certification documentation).

Respectfully Submitted:

MOODY'S OF DAYTON, INC.
Contractor

Douglas F. Wagner
Signature

Douglas F. Wagner
Printed Name and Title

August 31, 2000
Date

(937) 859-4482
Telephone Number

(937) 859-4522
Fax Number

Email Address

S.\TECH\3CHRY\DAYTON\PROJMGMT\BIDS\OFFSITEA.FRM

September 8, 2000

Mr. Kenneth Vogel, PG, CHMM
Leggette, Brashears & Graham, Inc.
1210 West County Road, Suite 700
St. Paul, MN 55112

ALLIANCE
ENVIRONMENTAL, INC.

RE: Cost Estimate for Dayton Thermal Products Facility, Dayton, Ohio

Dear Ken:

Attached is the Leggette, Brashears & Graham, Inc. (LBG) Bid Form for the above-referenced site. Provided below is a description of the work to be provided by Prosonic Corporation (formerly Alliance Environmental, Inc.).

As you and Mark Knolle discussed Prosonic Corporation is not intending to utilize union labor for this project. The use of our SONIC technology closely resembles that of direct-push technology (DPT) soil sampling, groundwater sampling, and well installation methods. The SONIC rig operators employed by Prosonic require intensive training by the Prosonic staff responsible for the manufacture of our rigs and the highly specialized SONIC drill heads. The operators and the helpers each have very detailed job requirements and cannot be obtained at the local union halls nor are they even classified by the International Union of Operating Engineers as a trade which they govern. SONIC drillers are not "Drillers" as classified by the union and SONIC helpers are not "Laborers" as classified by the union. Therefore, it is impossible for Prosonic to complete this work using union labor, or execute the union labor agreement, because it does not apply to SONIC technology.

Prosonic proposes to be self sufficient in regards to water supply, decontamination, and storage of supplies and equipment. Prosonic personnel will not access the DaimlerChrysler facility at any time during the completion of this project. However, for Prosonic to complete this work LBG will be required to contract a licensed waste hauling company to transport the investigation derived waste (IDW) from the well locations to the Dayton Thermal Products plant for storage. The labor structure of the waste hauling firm, contracting union or non-union firms, is at the discretion of LBG. Prosonic is confident that this will be a significant cost savings to DaimlerChrysler.

Thank you for the opportunity to provide drilling services for your firm. If you have any questions or comments please do not hesitate to contact Mark Knolle or me at (740) 373-2190 or (810) 714-4445, respectively.

Sincerely,
PROSONIC CORPORATION

Michael E. Piddington

Michael E. Piddington, CPG, PG
Regional Manager

Attachment

cell phone (810) 523-3956

1490 TORREY ROAD FENTON, MICHIGAN 48430 PHONE: 810.714.4445 FAX: 810 714.4453

ADDITIONAL OFFICE LOCATIONS:
SOUTH CAROLINA • OHIO • FLORIDA • ARIZONA • TEXAS

BID FORM

TO: Mr. Kenneth D. Vogel
Leggette, Brashears & Graham, Inc.
1210 West County Road E, Suite 700
St. Paul, Minnesota 55112

FOR: Drilling and Well Installation Services
DaimlerChrysler Corporation
Dayton Thermal Products Plant
Dayton, Ohio

The undersigned has carefully examined the Request for Bid for Drilling Services and other conditions relative to the work, and has made all evaluations and investigations necessary to gain a full understanding of pertinent site conditions and all regulatory, material, equipment, and labor requirements necessary to successfully and safely complete the work, as well as any reasonable difficulties which may be encountered in performing the work.

BID SCHEDULE

The undersigned hereby proposes and agrees to furnish all labor, materials, equipment, tools, taxes, services and all other items necessary or appropriate for the proper and complete execution of the work for the following estimated amount:

Base Bid Estimate

All work: TWO HUNDRED SEVENTY FOUR Dollars ($ 274,200)
TWO HUNDRED

The undersigned agrees, if this proposal is accepted, to enter into an agreement with Leggette, Brashears & Graham, Inc., per the Terms and Conditions of LBG's Standard Form Contract, for the above unit price-based, estimated Contract Sum.

Unit Prices

This bid estimate is based upon, and all work shall be performed in accordance with, the Unit Prices listed below. Should additions or subtractions to the scope of work be required, adjustment will be made to the Contract Sum at the following Unit Prices, which shall include all associated expenses, including taxes, overhead and profit.

UNIT PRICE TABLE

I.D.	DESCRIPTION	UNIT	EST. QTY	UNIT COST	TOTAL
A.	Mobilize and demobilize equipment and work crew to/from Dayton, Ohio.	L.S.	1	25,000	25,000
B.	Drill 20 soil borings which will accomodate triple-clustered, 2-inch monitoring wells/piezometers to a depth of 85 feet.	L. F.	1700	57	96,900
C.	Soil sample, 2-foot long, 2-inch diameter split-spoon sampler at 5-foot intervals.	Each	320	SEE S.C.O.R.E.	
D.	Monitoring well/piezometer installation/construction.	L.F.	3300	20	66,000
E.	Flush-grade monitoring well/piezometer finishing.	Each	20	1,000	2,000 -20,00

PROSONIC CORPORATION 1 OF 3

I.D.	DESCRIPTION	UNIT	EST. QTY	UNIT COST	TOTAL
F.	2-inch, flip top, watertight, compression well caps.	Each	60	25	1,500
G.	Monitor well/piezometer development.	Per Hour	162	150	24,300
H.	Containerization of drill cuttings.	L.S.	1	10,000	10,000
I.	Decontamination equipment and supplies.	L.S.	1	5,000	5,000
J.	Decontamination. (AND MOVING RIG)	Per Hour	54	250	13,500
K.	Standby, non-equipment failure.	Per Hour	0	575	0
L.	Per Diem, entire crew.	Per Day	40	300	12,000
M.	Material Handling.	Per Hour	BY	OTHERS	0
N.	Level C Personal Protection	Per Man/Per Day	0	150 PER MAN PER DAY	0
O.	SCORE Savings PRICE INCLUDES THESE SAVINGS VS. ROTARY RIGS				
P.	REDUCED I.D.W. (DRUMS) VS. USE OF AUGERS/ROTARY METHODS				
Q.		DRUMS	180	500	INCLUDED <90,000>
R.	CONTINUOUS CORE VS. 5' INTERVALS	SAMPLES	850	35	INCLUDED <29,750>
	TOTAL ESTIMATED BID	------	------	----------	174,200

L.S. = Lump Sum L.F. = Linear Foot

NOTE: Bidder shall provide estimated quantities for all equipment/materials/services on Unit Price Table for which no estimated quantities are indicated.

Contractor proposes to use ONE(1) (number) drilling rig(s).
Contractor estimates 30 to 40 days to complete this work.

PROJECT INITIATION

If awarded this contract, the undersigned proposes and agrees to start work as early as September 18, 2000.

ADDENDA RECEIVED (IF REQUIRED)

The undersigned hereby acknowledges receipt of the following Addenda which shall become part of the Contract Documents:

Addendum Number 1 Dated_____ Addendum Number 2 Dated_____

PROSONIC CORPORATION 2 of 3

Any Bid Addenda received during the bid process should be acknowledged by the Contractor by transferring the date of the Addenda to the appropriate line above.

BID ACCEPTANCE

In submitting this proposal, it is understood that Leggette, Brashears & Graham, Inc. and DaimlerChrysler Corporation reserve the right to reject any or all bids, waive any formalities or technicalities in any bid and to make an award in the best interest of Leggette, Brashears & Graham, Inc. and DaimlerChrysler Corporation. It is further understood and agreed that this proposal may not be withdrawn for a period of sixty (60) calender days after the date set for bid receipt.

Our company IS_____, IS NOT ✓ a Certified Minority Business Enterprise (MBE) firm (if so, please attach MBE certification documentation).

Respectfully Submitted:

PROSONIC CORPORATION (FORMERLY ALLIANCE ENVIRONMENTAL, INC.)
Contractor

Michael E. Piddington
Signature

MICHAEL PIDDINGTON / REGIONAL MANAGER
Printed Name and Title

SEPTEMBER 8, 2000
Date

(810) 714-4445
Telephone Number

(810) 714-4453
Fax Number

RotoSONIC @ EMAIL.MSN.COM
Email Address

S:\TECH\3CHRY\DAYTON\PROJMGMT\BIDS\OFFSITE.FRM

LEGGETTE, BRASHEARS & GRAHAM, INC.

PROFESSIONAL GROUND-WATER
AND ENVIRONMENTAL ENGINEERING SERVICES

1210 WEST COUNTY ROAD E, Suite 700
SAINT PAUL, MN 55112

(651) 490-1405 FAX (651) 490-1006

DATE: April 6, 2001

PAGES: 6
(Includes cover page)

TO:
COMPANY:

FAX #:
PHONE #:

TO: Mike Webb
COMPANY: ONYX

FAX #: 937-237-3669
PHONE #: 937-603-2597

TO: Gary Stanczuk
COMPANY: DC Corporate

FAX #: 248-576-7369
PHONE #: 248-576-7365

TO: Britt Crider
COMPANY: DC Dayton Thermal

FAX #: 937-224-2915
PHONE #: 937-224-2532

FROM: Ken Vogel/Mike Plante

RE: Offsite drilling water disposal analytical results.

Here are the analytical results for the 1,000 gallon BLUE poly tank (sample WL0016). Positive detections were:

	Trichloroethene	cis-1,2-Dichloroethene
WL0016	13 ug/L	6.4 ug/L

The Ohio EPA hazardous waste regulatory level for trichloroethene is 500 ug/L.
There is no Ohio hazardous waste regulatory level for cis-1,2-dichloroethene.

fax TRANSMITTAL

COMPUCHEM
a division of Liberty Analytical Corp.
501 Madison Avenue
Cary, NC 27513

Visit our web site –
www.compuchemlabs.com

FAX

TO: MIKE PLANT
NICOLE MAR
FAX: (651) 490-1006
DATE: 4/6/01

FROM: CATHY DOVER
PHONE: (919) 379-4100
FAX: (919) 379-4050

PAGES WITH COVER: 5

COMMENTS:

FINAL RESULTS FOR WL0016

TEST CERTIFICATE
KEMRON Environmental Services
109 Starlite Park
Marietta, Ohio 45750
Phone: (740) 373-4071

CompuChem
501 Madison Ave.
Cary, NC 27513

Attention: Diane Byrd

PO Number:
Account Number: COMPUCHEM-529

Login #: L0104001
Report Date: 04/06/01
Work ID: SC001/OFFSITE DRILLING
Date Received: 03/31/01

SAMPLE IDENTIFICATION

Sample Number	Sample Description	Sample Number	Sample Description
L0104001-01	WL0016		

All results on solids/sludges are reported on a dry weight basis, where applicable, unless otherwise specified. This report shall not be reproduced, except in full, without the written approval of KEMRON.

NYSDOH ELAP ID: 10861

Certified By
David L. Bumgarner

KEMRON
ENVIRONMENTAL SERVICES

Login #L0104001
April 6, 2001 09:55 am

KEMRON ENVIRONMENTAL SERVICES

Product: 8260 - Volatile Organics

Lab Sample ID: L0104001-01
Client Sample ID: WL0016
Site/Work ID: SC001/OFFSITE DRILLING
Matrix: Water

Dil. Type: N/A
COC Info: 0266/
Date Collected: 03/29/01

Sample Weight: N/A
Extract Volume: N/A
% Solid: N/A

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 04/02/01 Time: 10:27

Instrument: HPMS2
Analyst: CMS
Lab File ID: 2M43082.D

Method: 8260B\5030
Run ID: R119645
Batch : WG94856

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
67-64-1	Acetone	ug/L		ND	100	1
71-43-2	Benzene	ug/L		ND	5.0	1
108-86-1	Bromobenzene	ug/L		ND	5.0	1
74-97-5	Bromochloromethane	ug/L		ND	5.0	1
75-27-4	Bromodichloromethane	ug/L		ND	5.0	1
75-25-2	Bromoform	ug/L		ND	5.0	1
74-83-9	Bromomethane	ug/L		ND	10	1
78-93-3	2-Butanone	ug/L		ND	100	1
104-51-8	n-Butylbenzene	ug/L		ND	5.0	1
135-98-8	sec-Butylbenzene	ug/L		ND	5.0	1
98-06-6	tert-Butylbenzene	ug/L		ND	5.0	1
75-15-0	Carbon disulfide	ug/L		ND	5.0	1
56-23-5	Carbon tetrachloride	ug/L		ND	5.0	1
108-90-7	Chlorobenzene	ug/L		ND	5.0	1
124-48-1	Chlorodibromomethane	ug/L		ND	5.0	1
75-00-3	Chloroethane	ug/L		ND	10	1
110-75-8	2-Chloroethyl vinyl ether	ug/L		ND	10	1
67-66-3	Chloroform	ug/L		ND	5.0	1
74-87-3	Chloromethane	ug/L		ND	10	1
95-49-8	2-Chlorotoluene	ug/L		ND	5.0	1
106-43-4	4-Chlorotoluene	ug/L		ND	5.0	1
96-12-8	1,2-Dibromo-3-chloropropane	ug/L		ND	5.0	1
106-93-4	1,2-Dibromoethane	ug/L		ND	5.0	1
74-95-3	Dibromomethane	ug/L		ND	5.0	1
95-50-1	1,2-Dichlorobenzene	ug/L		ND	5.0	1
541-73-1	1,3-Dichlorobenzene	ug/L		ND	5.0	1
106-46-7	1,4-Dichlorobenzene	ug/L		ND	5.0	1
75-71-8	Dichlorodifluoromethane	ug/L		ND	10	1
75-34-3	1,1-Dichloroethane	ug/L		ND	5.0	1
107-06-2	1,2-Dichloroethane	ug/L		ND	5.0	1
75-35-4	1,1-Dichloroethene	ug/L		ND	5.0	1
156-59-2	cis-1,2-Dichloroethene	ug/L	6.4		5.0	1
156-60-5	trans-1,2-Dichloroethene	ug/L		ND	5.0	1
78-87-5	1,2-Dichloropropane	ug/L		ND	5.0	1
142-28-9	1,3-Dichloropropane	ug/L		ND	5.0	1
594-20-7	2,2-Dichloropropane	ug/L		ND	5.0	1
10061-01-5	cis-1,3-Dichloropropene	ug/L		ND	5.0	1
10061-02-6	trans-1,3-Dichloropropene	ug/L		ND	5.0	1
563-58-6	1,1-Dichloropropene	ug/L		ND	5.0	1

RL = Reporting Limit

Login #L0104001
April 6, 2001 09:55 am

KEMRON ENVIRONMENTAL SERVICES

Product: 8260 - Volatile Organics

Lab Sample ID: L0104001-01
Client Sample ID: WL0016
Site/Work ID: SCD01/OFFSITE DRILLING
Matrix: Water

Dil. Type: N/A
COC Info: 0266/
Date Collected: 03/29/01

Sample Weight: N/A
Extract Volume: N/A
% Solid: N/A

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 04/02/01 Time: 10:27

Instrument: HPMS2
Analyst: CMS
Lab File ID: 2M41082.D

Method: 8260B\5030
Run ID: R119645
Batch : WG94856

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
100-41-4	Ethylbenzene	ug/L		ND	5.0	1
591-78-6	2-Hexanone	ug/L		ND	10	1
87-68-3	Hexachlorobutadiene	ug/L		ND	5.0	1
98-82-8	Isopropylbenzene	ug/L		ND	5.0	1
99-87-6	p-Isopropyltoluene	ug/L		ND	5.0	1
108-10-1	4-Methyl-2-pentanone	ug/L		ND	10	1
75-09-2	Methylene chloride	ug/L		ND	5.0	1
91-20-3	Naphthalene	ug/L		ND	10	1
103-65-1	n-Propylbenzene	ug/L		ND	5.0	1
100-42-5	Styrene	ug/L		ND	5.0	1
630-20-6	1,1,1,2-Tetrachloroethane	ug/L		ND	5.0	1
79-34-5	1,1,2,2-Tetrachloroethane	ug/L		ND	5.0	1
127-18-4	Tetrachloroethene	ug/L		ND	5.0	1
108-88-3	Toluene	ug/L		ND	5.0	1
87-61-6	1,2,3-Trichlorobenzene	ug/L		ND	5.0	1
120-82-1	1,2,4-Trichlorobenzene	ug/L		ND	5.0	1
71-55-6	1,1,1-Trichloroethane	ug/L		ND	5.0	1
79-00-5	1,1,2-Trichloroethane	ug/L		ND	5.0	1
79-01-6	Trichloroethene	ug/L	13		5.0	1
75-69-4	Trichlorofluoromethane	ug/L		ND	20	1
96-18-4	1,2,3-Trichloropropane	ug/L		ND	5.0	1
95-63-6	1,2,4-Trimethylbenzene	ug/L		ND	5.0	1
108-67-8	1,3,5-Trimethylbenzene	ug/L		ND	5.0	1
108-05-4	Vinyl acetate	ug/L		ND	10	1
75-01-4	Vinyl chloride	ug/L		ND	10	1
95-47-6	o-Xylene	ug/L		ND	5.0	1
108-38-3	m-Xylene	ug/L		ND	5.0	1
106-42-3	p-Xylene	ug/L		ND	5.0	1

SURROGATES- In Percent Recovery:

Dibromofluoromethane	110	(86 - 118%)
1,2-Dichloroethane-d4	108	(80 - 120%)
Toluene-d8	103	(88 - 110%)
4-Bromofluorobenzene	102	(86 - 115%)

RL = Reporting Limit

Order #: 01-04-001
April 6, 2001 09:55 am

KEMRON ENVIRONMENTAL SERVICES
WORK GROUPS

Work Group	Run ID	Sample	Dil Type	Matrix	Product	Method	Date Collected	Department
W092856	R128645	L0104001-01		Water	Volatile Organics	8260B\5030	29-MAR-2001	Volatile - GC/MS

LEGGETTE, BRASHEARS & GRAHAM, INC.

PROFESSIONAL GROUND-WATER
AND ENVIRONMENTAL ENGINEERING SERVICES

1210 WEST COUNTY ROAD E, Suite 700
SAINT PAUL, MN 55112
(651) 490-1405 FAX (651) 490-1006

DATE: April 9, 2001	**PAGES:** 6 **(Includes cover page)**
TO: **COMPANY:**	**FAX #:** **PHONE #:**
✓ **TO:** Mike Webb **COMPANY:** ONYX	**FAX #:** 937-237-3669 **PHONE #:** 937-603-2597
TO: Gary Stanczuk **COMPANY:** DC Corporate	**FAX #:** 248-576-7369 **PHONE #:** 248-576-7365
TO: Britt Crider **COMPANY:** DC Dayton Thermal	**FAX #:** 937-224-2915 **PHONE #:** 937-224-2532

FROM: Ken Vogel/Dave Strand DVS

RE: *Offsite drilling water disposal analytical results.*

Here are the Final analytical results for the 1,000 gallon CENTER poly tank (sample WL0017). Positive detections were:

	Trichloroethene	cis-1,2-Dichloroethene
WL0017	33 ug/L	5.2 ug/L

The Ohio EPA hazardous waste regulatory level for trichloroethene is 500 ug/L.
There is no Ohio hazardous waste regulatory level for cis-1,2-dichloroethene.

fax TRANSMITTAL S:\TECH\3CHRY\DAYTON\ANALYTIC\WATER\WASTE#3.FAX

COMPUCHEM
a division of Liberty Analytical Corp
501 Madison Avenue
Cary, NC 27513

Visit our web site –
www.compuchemlabs.com

FAX

TO: MIKE PLANT
NICOLE MARCELL
FAX: (651) 490-1006
DATE: 4/9/01

FROM: CATHY DOVER
PHONE: (919) 379-4100
FAX: (919) 379-4050

PAGES WITH COVER: 4

COMMENTS:

FINAL RESULTS FROM KEMRON FOR
WL0017

Login #L0104027
April 9, 2001 08:12 am

KEMRON ENVIRONMENTAL SERVICES

Product: 8260 - Volatile Organics

Lab Sample ID: L0104027-01
Client Sample ID: WL0017
Site/Work ID: OFFSITE DRILLING
Matrix: Water

Dil. Type: N/A
COC Info: 04637/

Sample Weight: N/A
Extract Volume: N/A

Date Collected: 04/02/01

% Solid: N/A

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 04/03/01 Time: 11:58

Instrument: HPMS2
Analyst: RSS
Lab File ID: 2M03123.D

Method: 8260B\5030
Run ID: R119674
Batch : WG94938

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
67-64-1	Acetone	ug/L		ND	100	1
71-43-2	Benzene	ug/L		ND	5.0	1
108-86-1	Bromobenzene	ug/L		ND	5.0	1
74-97-5	Bromochloromethane	ug/L		ND	5.0	1
75-27-4	Bromodichloromethane	ug/L		ND	5.0	1
75-25-2	Bromoform	ug/L		ND	5.0	1
74-83-9	Bromomethane	ug/L		ND	10	1
78-93-3	2-Butanone	ug/L		ND	100	1
104-51-8	n-Butylbenzene	ug/L		ND	5.0	1
135-98-8	sec-Butylbenzene	ug/L		ND	5.0	1
98-06-6	tert-Butylbenzene	ug/L		ND	5.0	1
75-15-0	Carbon disulfide	ug/L		ND	5.0	1
56-23-5	Carbon tetrachloride	ug/L		ND	5.0	1
108-90-7	Chlorobenzene	ug/L		ND	5.0	1
124-48-1	Chlorodibromomethane	ug/L		ND	5.0	1
75-00-3	Chloroethane	ug/L		ND	10	1
110-75-8	2-Chloroethyl vinyl ether	ug/L		ND	10	1
67-66-3	Chloroform	ug/L		ND	5.0	1
74-87-3	Chloromethane	ug/L		ND	10	1
95-49-8	2-Chlorotoluene	ug/L		ND	5.0	1
106-43-4	4-Chlorotoluene	ug/L		ND	5.0	1
96-12-8	1,2-Dibromo-3-chloropropane	ug/L		ND	5.0	1
106-93-4	1,2-Dibromoethane	ug/L		ND	5.0	1
74-95-3	Dibromomethane	ug/L		ND	5.0	1
95-50-1	1,2-Dichlorobenzene	ug/L		ND	5.0	1
541-73-1	1,3-Dichlorobenzene	ug/L		ND	5.0	1
106-46-7	1,4-Dichlorobenzene	ug/L		ND	5.0	1
75-71-8	Dichlorodifluoromethane	ug/L		ND	10	1
75-34-3	1,1-Dichloroethane	ug/L		ND	5.0	1
107-06-2	1,2-Dichloroethane	ug/L		ND	5.0	1
75-35-4	1,1-Dichloroethene	ug/L		ND	5.0	1
156-59-2	cis-1,2-Dichloroethene	ug/L	5.2		5.0	1
156-60-5	trans-1,2-Dichloroethene	ug/L		ND	5.0	1
78-87-5	1,2-Dichloropropane	ug/L		ND	5.0	1
142-28-9	1,3-Dichloropropane	ug/L		ND	5.0	1
594-20-7	2,2-Dichloropropane	ug/L		ND	5.0	1
10061-01-5	cis-1,3-Dichloropropene	ug/L		ND	5.0	1
10061-02-6	trans-1,3-Dichloropropene	ug/L		ND	5.0	1
563-58-6	1,1-Dichloropropene	ug/L		ND	5.0	1

RL = Reporting Limit

Login #L0104027
April 9, 2001 08:12 am

KEMRON ENVIRONMENTAL SERVICES

Product: 8260 - Volatile Organics

Lab Sample ID: L0104027-01
Client Sample ID: WL0017
Site/Work ID: OFFSITE DRILLING
Matrix: Water

Dil. Type: N/A
COC Info: 04637/
Date Collected: 04/02/01

Sample Weight: N/A
Extract Volume: N/A
% Solid: N/A

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 04/03/01 Time: 11:58

Instrument: HPMS2
Analyst: RS8
Lab File ID: 2M43123.D

Method: 8260B\5030
Run ID: R119674
Batch : WG94938

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
100-41-4	Ethylbenzene	ug/L		ND	5.0	1
591-78-6	2-Hexanone	ug/L		ND	10	1
87-68-3	Hexachlorobutadiene	ug/L		ND	5.0	1
98-82-8	Isopropylbenzene	ug/L		ND	5.0	1
99-87-6	p-Isopropyltoluene	ug/L		ND	5.0	1
108-10-1	4-Methyl-2-pentanone	ug/L		ND	10	1
75-09-2	Methylene chloride	ug/L		ND	5.0	1
91-20-3	Naphthalene	ug/L		ND	10	1
103-65-1	n-Propylbenzene	ug/L		ND	5.0	1
100-42-5	Styrene	ug/L		ND	5.0	1
630-20-6	1,1,1,2-Tetrachloroethane	ug/L		ND	5.0	1
79-34-5	1,1,2,2-Tetrachloroethane	ug/L		ND	5.0	1
127-18-4	Tetrachloroethene	ug/L		ND	5.0	1
108-88-3	Toluene	ug/L		ND	5.0	1
87-61-6	1,2,3-Trichlorobenzene	ug/L		ND	5.0	1
120-82-1	1,2,4-Trichlorobenzene	ug/L		ND	5.0	1
71-55-6	1,1,1-Trichloroethane	ug/L		ND	5.0	1
79-00-5	1,1,2-Trichloroethane	ug/L		ND	5.0	1
79-01-6	Trichloroethene	ug/L	33		5.0	1
75-69-4	Trichlorofluoromethane	ug/L		ND	10	1
96-18-4	1,2,3-Trichloropropane	ug/L		ND	5.0	1
95-63-6	1,2,4-Trimethylbenzene	ug/L		ND	5.0	1
108-67-8	1,3,5-Trimethylbenzene	ug/L		ND	5.0	1
108-05-4	Vinyl acetate	ug/L		ND	10	1
75-01-4	Vinyl chloride	ug/L		ND	10	1
95-47-6	o-Xylene	ug/L		ND	5.0	1
108-38-3	m-Xylene	ug/L		ND	5.0	1
106-42-3	p-Xylene	ug/L		ND	5.0	1

SURROGATES- In Percent Recovery:

Dibromofluoromethane	103	(86 - 118%)
1,2-Dichloroethane-d4	98.8	(80 - 120%)
Toluene-d8	106	(88 - 110%)
4-Bromofluorobenzene	106	(86 - 115%)

RL = Reporting Limit

TEST CERTIFICATE
KEMRON Environmental Services
109 Starlite Park
Marietta, Ohio 45750
Phone: (740) 373-4071

CompuChem
501 Madison Ave
Cary, NC 27513

Attention: Diane Byrd

PO Number:
Account Number: COMPUCHEM-529

Login #: L0104027
Report Date: 04/09/01
Work ID: OFFSITE DRILLING
Date Received: 04/03/01

SAMPLE IDENTIFICATION

Sample Number	Sample Description	Sample Number	Sample Description
L0104027-01	WL0017		

All results on solids/sludges are reported on a dry weight basis, where applicable, unless otherwise specified. This report shall not be reproduced, except in full, without the written approval of KEMRON.

NYSDOH ELAP ID: 10861

Certified By
David L. Bumgarner

KEMRON
ENVIRONMENTAL SERVICES

CHRYSLER CORPORATION

Chain-of-Custody

04637 A

Offsite Drilling

~~CompuChem~~ Kemron ~~501-Madison Avenue~~ 109 Starlite Park ~~Gary, NC 27513~~ Marietta OH 45750 Phone Number: ~~1-800-833-5097~~ 740 373 4071 Fax Number: ~~(919) 379-4050~~	Project Name: Dayton Thermal Products Site Location: 1600 Webster St. Dayton OH Site Code: SC001 RFA Number: YGQP2001209 SDG 209E Chrysler PM: Gary Stanczuk	Consultant: LBG Address: 1210 West County Road E St. Paul MN Consultant PM: Kenneth Vogel Phone: 651 490 1405 Fax 1006

Turn-around Time Request:
- 24 calendar hrs. (circled)
- 48 calendar hrs.
- 10 days
- 28 days

Data Package Deliverables: (circle)
- Chrysler Level 1 (circled)
- Chrysler Level 2
- Other (specify):

Compound List/Parameter/Method/Bottle Type/Preservative

Matrix Codes: St. Soil; SW. Surface Water; GW. Groundwater; A. Air; Sed. Sediment; D. Other (specify) See remarks

Lab Use Only

Field Sample Identification	Date Collected	Time Collected	Grab (G) or Composite (C)	Matrix Code	Total # of Containers	TCL VOC 5030B/5035/8260B 40 ml VOA's, HCl									Remarks
WL0017	4/2/01	1715	G	O	2	X									900 gallons waste water contained in "Center 1000 gallon Poly Tank". Water was generated from well drilling, development and steam cleaning.

Sampler(s): David Strand

Bottles Relinquished under Airbill No. 457366355901 FedX

Samples Relinquished under Airbill No. 815313875297 FedX

Temperature (corrected) ___ C

Relinquished by	Date	Time	Received by	Date	Time	Custody Seal Intact?
[signature]	4/2/01	FedEx				Yes No
						Yes No
						Yes No

Cooler ID # LBG01-01

Is RFA sampling complete? Yes (No)

SDG-209E

Chrysler Corporation 800 Chrysler Drive, CIMS 482-00-51, Auburn Hills, Michigan 48326-2757

Distribution: White copy: Data package Yellow: Retained by laboratory Pink: Retained by sampler

Revision No 1
Created September 23, 1997

Page 1 of 1

PELA

APR 2 2001

MEMORANDUM

cc: Ken Vogel (LBG)/Gary Stanczuk (DaimlerChrysler)/Tech

TO: Mumtaz Azmeh

FROM: Lois D. George

SUBJECT: Conversation with Whit Slagle, ADEM

DATE: March 30, 2001 PELA Reference No.: **541811**

At the request of Ken Vogel (LBG) on March 29, 2001, LDG contacted Whit Slagle at ADEM to determine whether returning excavated surface soils to the trenches would be an acceptable approach to soil handling during installation of the MPE piping system.

Slagle, upon consideration of the project status, site setting, and remedial objectives, concurred with the approach.

LDG\amk
S:\5001\5418\memo\trenchng.doc

ALTECH

ALTECH ENVIRONMENTAL SERVICES, INC.

March 21, 2001

DaimlerChrysler Corporation
Attn: Mr. Gary Stanczuk
800 Chrysler Drive
Auburn Hills, Michigan 48326

Re: Installation of Soil & Ground-Water Remediation System
Accustar Plant #2
Huntsville, Alabama

Dear Mr. Stanczuk,

The purpose of this correspondence is to provide you our estimated schedule and to identify the key individuals who will play the major roles for the subject project in advance of our "kick-off" meeting at the site on March 26, 2001.

Enclosed is an organization chart that depicts the firms and responsible individuals for the project. Altech has retained Stevens Drilling and Environmental Services, Inc. to conduct most of the on-site construction activities. Mr. Michael J. Saffran, P.E of my staff will serve as the Quality Control Manager for the project. He will provide on-site inspection of the work as necessary and provide direction to our subcontract firm regarding any questions or issues that may arise during construction based on input from you and the Engineer (Leggette, Brashears & Graham, Inc.)

Allowing for a break of major construction activities during Easter week, we estimate the project construction will be completed by May 4, 2001.

We appreciate this opportunity to support DaimlerChrysler and look forward to working with you toward successful completion of the project. Please call me at (248) 353-3832 if you have any questions or need any further information.

Sincerely
Altech Environmental Services, Inc.

Aloysius A. Aguwa, Ph.D.
President

Enclosure

24209 NORTHWESTERN HWY., SUITE 230 • SOUTHFIELD, MI 48075 • (248) 353-3832 • FAX (248) 353-5485

MEMORANDUM

TO: GARY STANCZUK, DAIMLERCHRYSLER

CC: KEN VOGEL AND LYNDSEY ALM, LBG

FROM: KRISTIN YAHNKE

DATE: MARCH 29, 2001

RE: BUILDING 50B PILOT TESTING ACTIVITIES

AlTech and John Oswald from LBG will be on-site Wednesday April 4, 2001 to install the six SVE wells (shallow and deep well at three locations). The wells will be 1.5-inch diameter PVC and will be installed utilizing a Geoprobe™. A utility locate meeting has been scheduled with Britt Crider for Wednesday morning at 8:00 a.m The well installation is scheduled be completed by Friday April 6, 2001.

Lyndsey Alm and myself will be on-site Monday April 9, 2001 to begin pilot testing activities. The tasks to be completed during the pilot testing activities include the following:

- oversee Mechanical and Electrical Contractors connection of pilot equipment;
- conduct pilot test per procedures summarized below;
- review with Dayton Thermal Products (DTP) personnel and subcontractors space requirements and utility locations in the event pilot testing results warrant re-locating the SVE system, catox, and scrubber in the vicinity of Building 50; and
- review with DTP personnel and subcontractors the requirements for relocating the job trailer.

The pilot testing will consist of conducting a Geologic Formation Curve Test at each location and then operating the equipment at the highest achievable flow rate for 24-hours to evacuate approximately one-pore volume for a well with a 100-feet radius of influence (ROI). Wellhead vacuum, flow, and PID level will be monitored at 20-minutes, 40-Minutes, 1-hours, 2-hours, 4-hours, 6-hours, 8-hours, 12-hours, and 24-hours after start-up A Summa canister sample will be collected after 24 hours of operation As the monitor wells in the vicinity of the testing activities are screened below the groundwater elevation, no vacuum versus distance data will be collected.

200,000 6.50 L + H

Estal ? Water supply.

Procedures to: Plug Wells / condem / New Hookups

other records - determine Well location

City Records Water use

City Worker w/ car to sample Well.

937 - 333 - 3838 937 - 225 - 4928

Board of Health Wells County

~~937 - 225 - 4420~~

~~Logan 592 - 9040~~

City Water supply 608-833 55.85

Deputy Director

Bruce Hinckel

333 - 3735 Method 524

Chief Scott Holmes

937 333-3737

LEGGETTE, BRASHEARS & GRAHAM, INC.

PROFESSIONAL GROUND-WATER
AND ENVIRONMENTAL ENGINEERING SERVICES

1210 WEST COUNTY ROAD E, Suite 700
SAINT PAUL, MN 55112

(651) 490-1405 FAX (651) 490-1006

DATE: March 22, 2001

PAGES: 19
(Includes cover page)

TO: Mike Plante **COMPANY:** LBG	**FAX #:** 937-278-0146 **PHONE #:** 937-278-4871
TO: Mike Webb **COMPANY:** ONYX	**FAX #:** 937-237-3669 **PHONE #:** 937-603-2597
TO: Gary Stanczuk **COMPANY:** DC Corporate	**FAX #:** 248-576-7369 **PHONE #:** 248-576-7365
TO: Britt Crider ✓ **COMPANY:** DC Dayton Thermal	**FAX #:** 937-224-2915 **PHONE #:** 937-224-2532

FROM: Dave Strand/Ken Vogel

RE: Offsite drilling water disposal analytical results.

Here are the analytical results for the 1,000 gallon BLUE poly tank (sample WL0013), and the 1,000 gallon white CENTER poly tank (sample WL0014). Positive detections were:

	Trichloroethene	cis-1,2-Dichloroethene
WL0013	18 ug/L	7.8 ug/L
WL0014	190 ug/L	14 ug/L

The Ohio EPA hazardous waste regulatory level for trichloroethene is 500 ug/L.
There is no Ohio hazardous waste regulatory level for cis-1,2-dichloroethene.

We would like to get rid of this water Friday (tomorrow) if possible.

fax TRANSMITTAL S:\TECH\3OHIO\DAYTON\ANALYTIC\WATER\WASTE\TO.FAX

MAR 22 '01 12:01

LBG / VOGEL

MAR 22 2001

03/22/2001 10:32 FAX

TEST CERTIFICATE

KEMRON Environmental Services
109 Starlite Park
Marietta, Ohio 45750
Phone: (740) 373-4071

CompuChem
501 Madison Ave.
Cary, NC 27513

Attention: Diane Byrd

PO Number:
Account Number: COMPUCHEM-529

Login #: L0103299
Report Date: 03/15/01
Work ID: SC001/OFFSITE DRILLING
Date Received: 03/14/01

SAMPLE IDENTIFICATION

Sample Number	Sample Description	Sample Number	Sample Description
L0103299-01	WL0013		

All results on solids/sludges are reported on a dry weight basis, where applicable, unless otherwise specified. This report shall not be reproduced, except in full, without the written approval of KEMRON.

NYSDOH ELAP ID: 10861

Certified By
David L. Bumgarner

KEMRON
ENVIRONMENTAL SERVICES

KEMRON ENVIRONMENTAL SERVICES
REPORT NARRATIVE

L0103299

CHAIN OF CUSTODY:

The chain of custody number was 04631.

SHIPMENT CONDITIONS:

The chain of custody was received sealed in a cooler. The cooler temperature was 10° C.

SAMPLE MANAGEMENT:

All samples were received intact.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

REVIEWED: Melissa Shimus DATE: 3/14/01

Login #L0103299
March 15, 2001 03:49 pm

KEMRON ENVIRONMENTAL SERVICES

Product: 8260 - Volatile Organics

Lab Sample ID: L0103299-01
Client Sample ID: WL0013
Site/Work ID: SC001/OFFSITE DRILLING
Matrix: Water

Dil. Type: N/A
COC Info: 04631/
Date Collected: 03/13/01

Sample Weight: N/A
Extract Volume: N/A
% Solid: N/A

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 03/15/01 Time: 01:39

Instrument: HPMS2
Analyst: CMS
Lab File ID: 2M42738

Method: 8260B\5030
Run ID: R117495
Batch : WG93856

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
67-64-1	Acetone	ug/L		ND	100	1
71-43-2	Benzene	ug/L		ND	5.0	1
108-86-1	Bromobenzene	ug/L		ND	5.0	1
74-97-5	Bromochloromethane	ug/L		ND	5.0	1
75-27-4	Bromodichloromethane	ug/L		ND	5.0	1
75-25-2	Bromoform	ug/L		ND	5.0	1
74-83-9	Bromomethane	ug/L		ND	10	1
78-93-3	2-Butanone	ug/L		ND	100	1
104-51-8	n-Butylbenzene	ug/L		ND	5.0	1
135-98-8	sec-Butylbenzene	ug/L		ND	5.0	1
98-06-6	tert-Butylbenzene	ug/L		ND	5.0	1
75-15-0	Carbon disulfide	ug/L		ND	5.0	1
56-23-5	Carbon tetrachloride	ug/L		ND	5.0	1
108-90-7	Chlorobenzene	ug/L		ND	5.0	1
124-48-1	Chlorodibromomethane	ug/L		ND	5.0	1
75-00-3	Chloroethane	ug/L		ND	10	1
110-75-8	2-Chloroethyl vinyl ether	ug/L		ND	10	1
67-66-3	Chloroform	ug/L		ND	5.0	1
74-87-3	Chloromethane	ug/L		ND	10	1
95-49-8	2-Chlorotoluene	ug/L		ND	5.0	1
106-43-4	4-Chlorotoluene	ug/L		ND	5.0	1
96-12-8	1,2-Dibromo-3-chloropropane	ug/L		ND	5.0	1
106-93-4	1,2-Dibromoethane	ug/L		ND	5.0	1
74-95-3	Dibromomethane	ug/L		ND	5.0	1
95-50-1	1,2-Dichlorobenzene	ug/L		ND	5.0	1
541-73-1	1,3-Dichlorobenzene	ug/L		ND	5.0	1
106-46-7	1,4-Dichlorobenzene	ug/L		ND	5.0	1
75-71-8	Dichlorodifluoromethane	ug/L		ND	10	1
75-34-3	1,1-Dichloroethane	ug/L		ND	5.0	1
107-06-2	1,2-Dichloroethane	ug/L		ND	5.0	1
75-35-4	1,1-Dichloroethene	ug/L		ND	5.0	1
156-59-2	cis-1,2-Dichloroethene	ug/L	7.8		5.0	1
156-60-5	trans-1,2-Dichloroethene	ug/L		ND	5.0	1
78-87-5	1,2-Dichloropropane	ug/L		ND	5.0	1
142-28-9	1,3-Dichloropropane	ug/L		ND	5.0	1
594-20-7	2,2-Dichloropropane	ug/L		ND	5 0	1
10061-01-5	cis-1,3-Dichloropropene	ug/L		ND	5.0	1
10061-02-6	trans-1,3-Dichloropropene	ug/L		ND	5.0	1
563-58-6	1,1-Dichloropropene	ug/L		ND	5.0	1

RL = Reporting Limit

Login #L0103299
March 15, 2001 03:49 pm

KEMRON ENVIRONMENTAL SERVICES

Product: 8260 - Volatile Organics

Lab Sample ID: L0103299-01
Client Sample ID: WL0013
Site/Work ID: SC001/OFFSITE DRILLING
Matrix: Water

Dil. Type: N/A
COC Info: 04631/
Date Collected: 03/13/01

Sample Weight: N/A
Extract Volume: N/A
% Solid: N/A

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 03/15/01 Time: 01:39

Instrument: HPMS2
Analyst: CMS
Lab File ID: 2M42738

Method: 8260B\5030
Run ID: R117495
Batch : WG93856

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
100-41-4	Ethylbenzene	ug/L		ND	5.0	1
591-78-6	2-Hexanone	ug/L		ND	10	1
87-68-3	Hexachlorobutadiene	ug/L		ND	5.0	1
98-82-8	Isopropylbenzene	ug/L		ND	5.0	1
99-87-6	p-Isopropyltoluene	ug/L		ND	5.0	1
108-10-1	4-Methyl-2-pentanone	ug/L		ND	10	1
75-09-2	Methylene chloride	ug/L		ND	5.0	1
91-20-3	Naphthalene	ug/L		ND	10	1
103-65-1	n-Propylbenzene	ug/L		ND	5.0	1
100-42-5	Styrene	ug/L		ND	5.0	1
630-20-6	1,1,1,2-Tetrachloroethane	ug/L		ND	5.0	1
79-34-5	1,1,2,2-Tetrachloroethane	ug/L		ND	5.0	1
127-18-4	Tetrachloroethene	ug/L		ND	5.0	1
108-88-3	Toluene	ug/L		ND	5.0	1
87-61-6	1,2,3-Trichlorobenzene	ug/L		ND	5.0	1
120-82-1	1,2,4-Trichlorobenzene	ug/L		ND	5.0	1
71-55-6	1,1,1-Trichloroethane	ug/L		ND	5.0	1
79-00-5	1,1,2-Trichloroethane	ug/L		ND	5.0	1
79-01-6	Trichloroethene	ug/L	18		5.0	1
75-69-4	Trichlorofluoromethane	ug/L		ND	10	1
96-18-4	1,2,3-Trichloropropane	ug/L		ND	5.0	1
95-63-6	1,2,4-Trimethylbenzene	ug/L		ND	5.0	1
108-67-8	1,3,5-Trimethylbenzene	ug/L		ND	5.0	1
108-05-4	Vinyl acetate	ug/L		ND	10	1
75-01-4	Vinyl chloride	ug/L		ND	10	1
95-47-6	o-Xylene	ug/L		ND	5.0	1
108-38-3	m-Xylene	ug/L		ND	5.0	1
106-42-3	p-Xylene	ug/L		ND	5.0	1

SURROGATES- In Percent Recovery:

Dibromofluoromethane	100	(86 - 118%)
1,2-Dichloroethane-d4	92.0	(80 - 120%)
Toluene-d8	107	(88 - 110%)
4-Bromofluorobenzene	106	(86 - 115%)

RL = Reporting Limit

Order #: 01-03-299
March 15, 2001 03:49 pm

KEMRON ENVIRONMENTAL SERVICES
WORK GROUPS

Work Group	Run ID	Sample	Dil Type	Matrix	Product	Method	Date Collected	Department
WG93856	R117495	L0103299-01		Water	Volatile Organics	8260B\5030	13-MAR-2001	Volatile - GC/MS

03/22/2001 10:30 FAX
006/019

KEMRON ANALYST LIST

Ohio Valley Laboratory

03/12/2001

ABW - ANGELA B. WIGAL
ADB - AMANDA D. BREEDLOVE
ADH - ANGELA D. HURST
AJF - AMANDA J. FICKIESEN
ALT - ANN L. THAYER
AMT - ANDREA M. TUCKER
ARS - ANGELINA R. SCOTT
BJM - BARRY J. MYERS
BRG - BRENDA R. GREGORY
CAF - CHERYL A. FLOWERS
CAK - CHERYL A. KOELSCH
CBN - CHARLES B. NOLL
CEB - CHAD E. BARNES
CLC - CHRYS L. CRAWFORD
CLK - CARL L. KING
CLW - CHARISSA L. WINTERS
CMS - CRYSTAL M. STEVENS
CRC - CARLA R. COCHRAN
CSH - CHRIS S. HILL
DAM - DAN A. MUSGRAVE
DAS - DALLAS A. SULLIVAN
DAT - DEBBIE A. TORNES
DCU - DAVID C. UNDERWOOD
DEL - DON E. LIGHTFRITZ
DEV - DAVID E. VANDENBERG
DGB - DOUGLAS G. BUTCHER
DIH - DEANNA I. HESSON
DLA - DENISE L. ADAMS
DLB - DAVID L. BUMGARNER
DLN - DEANDA L. NORTON
DLP - DOROTHY L. PAYNE
DLR - DIANNA L. RAUCH
DP - DEANNA L. PIERSON
DST - DENNIS S. TEPE
DTK - DEENA T. KELLEY
EAN - ELIZABETH A. NICHOLSON
EAW - ELIZABETH A. WEBER
ECL - ERIC C. LAWSON
EIE - ELIZABETH I. EAGLE
GSG - GALEN S. GEORGE
GWH - GEORGE W. HUTCHISON
HD - HEATH DENNIS
HV - HEMA VILASAGAR
JAQ - JEROMY A. QUESENBERRY
JAW - JOYCE A. WITHERS
JKM - JUNE K. MORRIS
JKW - JANE K. WARDEN
JLH - JANICE L. HOLLAND
JMM - JARROD M. MARTIN
JMT - JOY M. THOMAS
JMW - JOHN M. WASS
JRM - JAY R. MCDOUGAL
JWR - JOHN W. RICHARDS
JWS - JACK W. SHEAVES
JYH - JI Y. HU
KDS - KRISTI D. STONE
KHR - KIM H. RHODES
KRA - KATHY R. ALBERTSON
KSL - KELLY S. LAUER
LBM - LAWRENCE B. MCSWEGAN
LKN - LINDA K. NEDEPP
LSA - LUCINDA S. ARNOLD
LSB - LESLIE S. BUCINA
MDA - MICHAEL D. ALBERTSON
MDC - MICHAEL D. COCHRAN
MDG - MELISSA D. GRIMES
MEF - MIKE E. FLANAGAN
MES - MARY E. SCHILLING
MLS - MICHAEL L. SCHIMMEL
MMB - MAREN M. BEERY
MRR - MICHELLE R. RAUCH
MSW - MATT S. WILSON
NJB - NATALIE J. BOOTH
PML - PAULA M. LEIDY
RDC - REBECCA D. CUTLIP
REF - RON E. FERTILE
REK - ROBERT E. KYER
RJW - RHONDA J. WITTEKIND
RLW - RON L. WATSON
RSH - RENEE S. HENNES
RSS - REGINA S. SIMMONS
RVC - RUTH V. CALLIHAN
RWC - ROD W. CAMPBELL
SAM - SAMUAL A MILLS
SJK - SINDY J. KINNEY
SLP - SHERI L. PFALZGRAF
SLT - STEPHANIE L. TEPE
SMW - SHAUNA M. WELCH
SPL - STEVE P. LEARN
SPS - STEVE P. SWATZEL
TJH - TIM J. HOEFLICH
TLD - TERESA L. DAVIS
TM - TODD MCGINNIS
TMM - TAMMY M. MORRIS
VC - VICKI COLLIER

KEMRON Environmental Services, Inc
List of Valid Qualifiers
December 15, 2000

Standard Qualifiers

These are KEMRON's Standard Report Qualifiers

A	See the report narrative
B	Present in the method blank
C	Confirmed by GC/MS
CG	Confluent growth
D	The analyte was quantified at a secondary dilution factor
DL	Surrogate or spike was diluted out
E	Estimated concentration due to sample matrix interference
FL	Free liquid
I	Semiquantitative result, out of instrument calibration range
J	Present below nominal reporting limit
L	Sample reporting limits elevated due to matrix interference
M	Duplicate injection precision not met
N	Tentatively Identified Compound (TIC)
NA	Not applicable
ND	Not detected at or above the reporting limit (RL)
NF	Not found
NFL	No free liquid
NI	Non-ignitable
NR	Analyte is not required to be analyzed
NS	Not spiked
P	Concentration >40% difference between The two GC columns
QNS	Quantity not sufficient to perform analysis
R	Analyte exceeds regulatory limit
RA	Re analysis confirms reported results
RE	Re analysis confirms sample matrix Interference
S	Analyzed by method of standard addition
SMI	Sample matrix interference on surrogate
SP	Reported results are for spike compounds only
TNTC	Too numerous to count
U	Analyzed for but not detected
W	Post-digestion spike for furnace AA out Of control limits
Z	Can not be resolved from isomer.***
+	Correlation coefficient for the MSA is less Than 0.995
<	Less than
>	Greater than
*	Surrogate or spike compound out of range

***** Special Notes for Organic Analytes**

1. Acrolein and acrylonitrile by method 624 are semiquantative screens only
2. 1,2-Diphenylhydrazine is unstable and is reported as azobenzene
3. N-nitrosodiphenylamine cannot be separated from diphenylamine
4. 3-Methyphenol and 4-Methyphenol are unresolvable compounds
5. m-Xylene and p-Xylene are unresolvable compounds
6. The reporting limits for Appendix II/IX compounds by method 8270 are based on EPA estimated PQLs referenced in 40 CFR Part 264, Appendix IX. They are not always achievable for every compound and are matrix dependent

AFCEE Qualifiers

These are KEMRON's AFCEE Report Qualifiers

J	The analyte was positively identified, the quantitation is an estimation
U	The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL
F	The analyte was positively identified but the associated numerical value is below the RL
R	The data is unusable due to deficiencies in the ability to analyze the sample and meet QC criteria
B	The analyte was found in an associated blank, as well as in the sample
M	The matrix effect was present
S	To be applied to all field screening data
T	Tentatively identified compound (using GC/MS)

KEMRON
ENVIRONMENTAL SERVICES

ORGANIC QA/QC

Kemron Environmental Services -UVL
Volatile Quality Control Summary - 8260

Workgroup:	WG93336	Run Date:	3/14/2001	Sample Number:	03-293-01
Method:	8260B	Instrument:	HPMS2	Sample Filename:	2M42731.D
Matrix:	WATER	Blank Filename:	2M42729.D	MS Filename:	2M42734.D
Units:	ug/L	LCS Filename:	2M42730.D	MSD Filename:	2M42735.D

LCS DF:	1
Sample DF:	1
MS DF:	1
MSD DF:	1

Target Analytes	MDL ug/L	CONCENTRATION, ug/L Blank ug/L	LCS ug/L	Sample ug/L	MS ug/L	MSD ug/L	Spike Level ug/L	PERCENT RECOVERY Blank %	LCS %	Sample %	MS %	MSD %	LCL %	UCL %	MS RPD %	RPD UCL %	OUTLIERS Blank	LCS	MS	MSD	RPD
dichlorodifluoromethane	0.23	ND	21.44	ND	17.73	18.56	20.0	ND	107.2	ND	88.7	92.8	10.0	153.0	4.6	42.0					
chloromethane	0.56	ND	21.97	ND	18.79	20.78	20.0	ND	109.9	ND	94.0	103.9	49.0	129.0	10.1	30.0					
vinyl chloride	0.48	ND	22.27	ND	20.09	19.19	20.0	ND	111.4	ND	100.5	96.0	57.0	115.0	4.6	30.0					
bromomethane	0.25	ND	22.05	ND	18.88	20.29	20.0	ND	110.3	ND	94.4	101.5	58.0	140.0	7.2	39.0					
chloroethane	0.22	ND	20.66	ND	17.34	18.63	20.0	ND	103.3	ND	86.7	93.2	69.0	126.0	7.2	27.0					
trichlorofluoromethane	0.46	ND	20.09	ND	16.84	17.25	20.0	ND	100.5	ND	84.2	86.3	67.0	152.0	2.4	22.0					
acetone	1.84	ND	15.55	2.09	14.04	14.15	20.0	ND	76.8	2.09	59.8	60.4	40.0	142.0	0.8	40.0					
1,1-dichloroethene	0.27	ND	22.71	ND	18.53	19.90	20.0	ND	113.6	ND	92.7	99.5	81.0	130.0	7.1	18.0					
iodomethane	0.14	ND	33.32	ND	29.70	32.13	20.0	ND	166.6	ND	148.5	160.7	NA	NA	7.9	NA					
methylene chloride	0.60	ND	20.39	ND	17.91	19.25	20.0	ND	102.0	ND	89.6	96.5	76.0	125.0	7.2	19.0					
carbon disulfide	0.15	ND	19.02	ND	15.22	16.29	20.0	ND	95.1	ND	76.1	81.5	70.0	158.0	6.8	20.0					
methyl-tert-butyl ether	0.46	ND	18.36	ND	15.47	15.82	20.0	ND	91.8	ND	77.4	79.1	NA	NA	2.2	NA					
trans-1,2-dichloroethene	0.21	ND	21.41	ND	17.85	19.23	20.0	ND	107.1	ND	89.3	96.2	86.0	135.0	7.4	16.0					
n-hexane	0.23	ND	31.19	ND	26.16	26.61	20.0	ND	156.0	ND	130.8	133.1	58.1	141.9	1.7	30.0		H			
vinyl acetate	4.43	ND	14.07	ND	12.27	12.77	20.0	ND	70.3	ND	61.4	63.9	10.0	136.0	4.0	45.0					
1,1-dichloroethane	0.18	ND	20.33	ND	17.38	18.96	20.0	ND	101.7	ND	86.9	94.8	84.0	127.0	8.7	15.0					
2-butanone	1.17	ND	18.84	ND	14.60	15.36	20.0	ND	94.2	ND	73.0	76.8	61.0	137.0	5.1	30.0					
2,2-dichloropropane	0.23	ND	21.13	ND	18.10	18.99	20.0	ND	105.7	ND	90.5	95.0	79.0	130.0	4.8	17.0					
cis-1,2-dichloroethene	0.14	ND	20.04	ND	17.48	19.26	20.0	ND	100.2	ND	87.4	96.3	82.0	121.0	9.7	15.0					
chloroform	0.19	ND	20.07	6.51	22.88	24.40	20.0	ND	100.4	6.51	81.9	89.5	85.0	121.0	6.4	15.0			L		
bromochloromethane	0.19	ND	21.07	5.22	18.40	19.62	20.0	ND	105.4	5.22	66.4	72.0	85.0	121.0	5.9	15.0			L	L	
1,1,1-trichloromethane	0.25	ND	21.32	ND	18.02	18.85	20.0	ND	106.6	ND	90.1	94.3	78.0	127.0	4.5	17.0					
1,1-dichloropropene	0.21	ND	19.38	ND	16.08	17.60	20.0	ND	96.9	ND	80.4	88.0	91.0	135.0	9.0	15.0			L	L	
carbon tetrachloride	0.30	ND	21.46	ND	17.75	18.82	20.0	ND	107.3	ND	88.8	94.1	70.0	130.0	5.9	20.0					
1,2-dichloroethane	0.33	ND	19.37	ND	17.69	18.13	20.0	ND	96.9	ND	88.5	90.7	78.0	128.0	2.5	17.0					
benzene	0.17	ND	19.36	ND	16.75	18.10	20.0	ND	96.8	ND	83.9	90.5	87.0	118.0	7.7	15.0			L		
trichloroethene	0.17	ND	19.78	ND	16.76	18.22	20.0	ND	98.9	ND	83.8	91.1	83.0	123.0	8.3	15.0					
1,2-dichloropropane	0.12	ND	19.27	ND	16.70	18.23	20.0	ND	96.4	ND	83.5	91.2	81.0	121.0	8.8	15.0					
bromodichloromethane	0.25	ND	20.47	ND	22.73	23.91	20.0	ND	102.4	ND	113.7	119.6	81.0	126.0	5.1	16.0					
dibromomethane	0.19	ND	19.72	ND	17.74	18.27	20.0	ND	98.6	ND	88.7	91.4	83.0	122.0	2.9	15.0					
2-chloroethylvinyl ether	1.07	ND	14.69	ND	0.33	0.00	20.0	ND	73.5	ND	1.7	0.0	45.0	154.0	200.0	46.0			L	L	H
4-methyl-2-pentanone	1.10	ND	18.98	ND	15.35	15.76	20.0	ND	94.9	ND	76.8	78.8	66.0	132.0	2.6	34.0					
cis-1,3-dichloropropene	0.14	ND	20.20	ND	17.48	19.59	20.0	ND	101.0	ND	87.4	94.5	82.0	124.0	7.8	15.0					
toluene	0.16	ND	20.24	ND	17.31	19.04	20.0	ND	101.2	ND	86.6	95.2	84.0	123.0	9.5	15.0					
trans-1,3-dichloropropene	0.16	ND	20.79	ND	17.60	18.81	20.0	ND	104.0	ND	88.0	94.1	80.0	124.0	6.6	15.0					
1,1,2-trichloroethane	0.28	ND	20.35	ND	17.48	18.46	20.0	ND	101.8	ND	87.4	92.3	78.0	122.0	5.5	15.0					
2-hexanone	1.19	ND	19.57	ND	14.23	14.75	20.0	ND	92.9	ND	71.2	75.8	57.0	150.0	3.6	31.0					
1,3-dichloropropane	0.16	ND	19.53	ND	16.73	17.58	20.0	ND	97.7	ND	83.7	87.9	78.0	123.0	5.0	15.0					
tetrachloroethene	0.20	ND	20.98	ND	17.13	18.57	20.0	ND	104.9	ND	85.7	92.9	83.0	124.0	5.1	15.0					
dibromochloromethane	0.29	ND	20.15	2.29	19.22	20.49	20.0	ND	100.7	2.3	84.7	91.0	78.0	123.0	6.4	18.0					
1,2-dibromoethane	0.15	ND	20.09	ND	17.19	18.02	20.0	ND	100.5	ND	86.0	90.1	79.0	123.0	4.7	15.0					
1-chlorohexane	0.26	ND	20.06	ND	16.78	17.47	20.0	ND	100.3	ND	83.9	87.4	60.0	140.0	4.0	NA					
chlorobenzene	0.24	ND	19.97	ND	17.61	18.80	20.0	ND	99.9	ND	88.1	94.0	87.0	118.0	6.5	15.0					
1,1,1,2-tetrachloroethane	0.25	ND	20.69	ND	18.28	19.42	20.0	ND	103.5	ND	91.4	97.1	82.0	123.0	6.0	15.0					
ethylbenzene	0.20	ND	20.24	ND	17.87	18.78	20.0	ND	101.2	ND	89.4	93.9	85.0	121.0	5.0	15.0					
m/p-xylene	0.33	ND	40.83	ND	35.44	38.00	40.0	ND	100.8	ND	88.6	95.0	86.0	121.0	7.0	15.0					
o-xylene	0.16	ND	20.65	ND	18.16	19.51	20.0	ND	103.3	ND	90.8	97.6	85.0	121.0	7.2	15.0					
styrene	0.20	ND	20.37	ND	17.25	18.08	20.0	ND	101.9	ND	86.3	90.4	84.0	120.0	4.7	15.0					
bromoform	0.45	ND	19.65	ND	17.75	18.28	20.0	ND	98.3	ND	88.8	91.4	73.0	124.0	2.9	22.0					
isopropylbenzene	0.20	ND	19.99	ND	17.72	18.52	20.0	ND	100.0	ND	88.6	92.6	81.0	124.0	4.4	15.0					
1,1,2,2-tetrachloroethane	0.39	ND	19.55	ND	17.05	17.97	20.0	ND	97.8	ND	85.3	89.9	72.0	132.0	5.3	23.0					
1,2,3-trichloropropane	0.41	ND	19.50	ND	17.41	18.10	20.0	ND	97.5	ND	87.1	90.5	72.0	132.0	3.9	23.0					
propyl-benzene	0.26	ND	20.41	ND	18.13	19.82	20.0	ND	102.1	ND	90.7	99.2	82.0	125.0	9.0	15.0					
bromobenzene	0.30	ND	19.25	ND	17.42	18.86	20.0	ND	96.3	ND	87.1	94.3	81.0	120.0	7.9	15.0					
1,3,5-trimethylbenzene	0.22	ND	20.09	ND	18.53	20.05	20.0	ND	100.5	ND	92.7	100.3	82.0	125.0	7.9	15.0					
2-chlorotoluene	0.30	ND	19.07	ND	18.66	19.42	20.0	ND	95.4	ND	93.3	97.1	80.0	128.0	4.0	15.0					
4-chlorotoluene	0.26	ND	20.24	ND	17.10	19.45	20.0	ND	101.2	ND	85.5	97.3	80.0	127.0	12.9	15.0					
tert-butyl-benzene	0.36	ND	19.74	ND	17.64	19.20	20.0	ND	98.7	ND	88.2	96.0	80.0	121.0	8.5	15.0					
1,2,4-trimethylbenzene	0.23	ND	19.36	ND	17.96	19.38	20.0	ND	96.8	ND	89.8	96.9	84.0	125.0	7.6	15.0					
sec-butyl-benzene	0.33	ND	19.73	ND	17.69	19.48	20.0	ND	98.7	ND	88.5	97.4	80.0	125.0	9.6	15.0					
p-isopropyl-toluene	0.33	ND	19.77	ND	17.57	18.97	20.0	ND	98.9	ND	87.9	94.9	79.0	132.0	7.7	15.0					
1,3-dichlorobenzene	0.32	ND	19.77	ND	17.84	19.34	20.0	ND	98.9	ND	89.2	96.7	70.0	130.0	8.1	15.0					
1,4-dichlorobenzene	0.38	ND	19.25	ND	17.40	18.57	20.0	ND	96.3	ND	87.0	92.9	70.0	130.0	6.5	15.0					
n-butyl-benzene	0.37	ND	21.38	ND	18.77	20.55	20.0	ND	106.9	ND	93.9	102.8	78.0	128.0	9.1	17.0					
1,2-dichlorobenzene	0.37	ND	19.71	ND	17.53	18.93	20.0	ND	98.6	ND	87.7	94.7	70.0	130.0	7.7	15.0					
1,2-dibromo-3-chloropropane	0.78	ND	17.42	ND	14.17	14.56	20.0	ND	87.1	ND	70.9	71.8	69.0	125.0	1.3	26.0					
1,2,4-trichlorobenzene	0.25	ND	19.48	ND	15.81	16.70	20.0	ND	97.4	ND	79.1	83.5	74.0	124.0	5.5	20.0					
hexachlorobutadiene	0.46	ND	21.29	ND	18.33	20.34	20.0	ND	106.5	ND	91.7	101.7	67.0	131.0	10.4	26.0					
naphthalene	0.48	ND	18.25	ND	14.11	14.73	20.0	ND	91.3	ND	70.6	73.7	69.0	126.0	4.3	24.0					
1,2,3-trichlorobenzene	0.33	ND	19.17	0.54	13.50	14.20	20.0	ND	95.9	0.5	64.8	68.3	60.0	137.0	5.1	33.0					
Surrogates																					
dibromofluoromethane		26.02	20.03	23.84	23.85	21.49	25.0	104.1	104.2	102.6	103.4	86.0	86	118					L		
1,2-dichloroethane-d4		25.04	24.47	23.42	23.78	19.50	25.0	100.2	97.9	93.7	95.1	78.0	80	120					L		
toluene-d8		26.59	26.53	26.43	26.05	22.30	25.0	105.6	106.1	105.7	104.2	89.2	88	110							
p-bromofluorobenzene		26.52	25.77	26.34	26.14	22.31	25.0	105.3	103.1	105.4	104.6	89.2	86	115							

Notes and Definitions:

RDL= Reporting Detection Limit
LCS= Laboratory Control Sample
MS/MSD= Matrix Spike / Matrix Spike Duplicate
LCL= Lower Control Limit
UCL= Upper Control Limit
ND= Not Detected
NS=Not spiked
NA=Not applicable
RPD= Relative Percent Difference
H=Above control limit
L=Below control limit
DF=Dilution Factor

CHRYSLER CORPORATION

Chain-of-Custody

04631 A

Offsite Drilling

CompuChem Kenvon
~~501 Madison Avenue~~ 109 Starlite Park
~~Cary, NC 27513~~ Marietta OH
Phone Number ~~1-800-833-5097~~ 1-740-373407
Fax Number: (919) 379-4050 740

Project Name: Dayton Thermal Products
Site Location: 1600 Webster St. Dayton, OH
Site Code: SC001
RFA Number: YGQP2001209 SDG 209A
Chrysler PM: Gary Stanczuk

Consultant: LBG
Address: 1210 West County Road E
St Paul MN
Consultant PM: Kenneth Vogel
Phone: 651 490 1405 Fax: 1006

Turn-around Time Request: 24 calendar hrs / 48 calendar hrs / 10 days / 28 days

Data Package Deliverables: (circle) Chrysler Level 1 / Chrysler Level 2 / Other (specify):

Compounds for Analysis/Method/Bottle Type/Preservative

Matrix Codes: SOIL Soil; GW Groundwater; Sed Sediment; OL Other (specify): SWL Surface Water; AQ AQ

Field Sample Identification: WL0013

Date Collected	Time Collected	Grab (G) or Composite (C)	Matrix Code	Total # of Containers	TCL VOCs 5030B/5035/8260B	Volatile DRO	Mineral DRO	Semi-Volatile DRO	Other	Remarks
3/13/01	1545	G	O	2	X					1000 gallons of waste water generated from drilling, well development and steam cleaning. (~250 gallons were in the tank already from the 4th qtr 2000 GW sampling. (Blue Poly Tank)

Sampler(s): David Strand

Bottles Relinquished under Airbill No: NA

Samples Relinquished under Airbill No: 815313875312

Temperature (corrected) ___ C

Relinquished by	Date	Time	Received by	Date	Time	Custody Seal Intact?
[signature]	3/13/01	FedEx				Yes No
						Yes No
			Rhonda Gregory	3/14/01	1007	Yes No

Cooler ID # LBG

Is RFA sampling complete? Yes No

Chrysler Corporation 800 Chrysler Drive, CIMS 482-00-51, Auburn Hills, Michigan 48326-2757

SDG 209A

Distribution: White copy. Data package Yellow. Retained by laboratory Pink: Retained by sampler

C/C Sealed
Intact
Cooler Temp 10 deg

Revision No 1
Created: September 23, 1997

Page 1 of 1

03/22/2001 10:54 FAX

011/019

KEMRON Environmental Services | **SAMPLES RECEIPT FORM #1** | Marietta Laboratory

CLIENT: Compuchem	DATE: 3-14-01	SHIPPED BY: (✓) FED-EX ( ) AIRBORNE ( ) UPS ( ) EMERY ( ) RPS ( ) US MAIL ( ) KEMRON ( ) CLIENT
BRG (✓) ARS Other _____		

COOLER ID: Ogloo	COOLER ID:	COOLER ID:
INDEX # : 815313875312	INDEX # :	INDEX # :
SEALED (✓) YES ( ) NO	SEALED ( ) YES ( ) NO	SEALED ( ) YES ( ) NO
CUSTODY ( ) YES (✓) NO	CUSTODY ( ) YES ( ) NO	CUSTODY ( ) YES ( ) NO
TEMP : (C) (D) : 0 °C	TEMP : (C) (D) °C	TEMP : (C) (D) °C
TEMP IN RANGE (4°C ± 2°) ( ) YES (✓) NO	TEMP IN RANGE (4°C ± 2°) ( ) YES ( ) NO	TEMP IN RANGE (4°C ± 2°) ( ) YES ( ) NO
1 Small bag WET ICE (✓) BLUE ICE ( )	WET ICE ( ) BLUE ICE ( )	WET ICE ( ) BLUE ICE ( )
ICE FROZEN (✓) MELTED ( )	ICE FROZEN ( ) MELTED ( )	ICE FROZEN ( ) MELTED ( )
RADIATION CHECKED (✓) YES ( ) NO	RADIATION CHECKED ( ) YES ( ) NO	RADIATION CHECKED ( ) YES ( ) NO
SAMPLE INTACT (✓) YES ( ) NO SALVAGEBLE ( ) YES ( ) NO	SAMPLE INTACT ( ) YES ( ) NO SALVAGEBLE ( ) YES ( ) NO	SAMPLE INTACT ( ) YES ( ) NO SALVAGEBLE ( ) YES ( ) NO
SAMPLE TYPE: WATER (✓) SOIL (✓) OTHER ( )	SAMPLE TYPE: WATER ( ) SOIL ( ) OTHER ( )	SAMPLE TYPE: WATER ( ) SOIL ( ) OTHER ( )
LABELS: INTACT (✓) YES ( ) NO LEGIBLE (✓) YES ( ) NO MATCH COC (✓) YES ( ) NO	LABELS: INTACT ( ) YES ( ) NO LEGIBLE ( ) YES ( ) NO MATCH COC ( ) YES ( ) NO	LABELS: INTACT ( ) YES ( ) NO LEGIBLE ( ) YES ( ) NO MATCH COC ( ) YES ( ) NO
pH IN RANGE (2 - >9 - >12) (✓) YES ( ) NO AS APPROPRIATE	pH IN RANGE (2 - >9 - >12) ( ) YES ( ) NO AS APPROPRIATE	pH IN RANGE (2 - >9 - >12) ( ) YES ( ) NO AS APPROPRIATE
LOG-IN COMMENTS	LOG-IN COMMENTS	LOG-IN COMMENTS

TSR COMMENTS

CONTACT:	DATE:	TIME:
COMMENTS: ( ) VOICE ( ) FAX ( ) E-MAIL		

Revised 02/21/01

03/22/2001 10:55 FAX 012/019

CRF#4

Sample Receipt Form #2

Client: Compichem Project:
Date Received: 3/14/01

10 Cooler temperature > than 6 degrees Celcius
Reason 1 small bag wet ice

_____ Samples received not on chain of custody

_____ Samples on chain of custody not received

_____ Information on sample containers different from chain of custody

_____ Sample containers received broken, leaking or not sealed (List sample ID)

_____ pH out (List sample ID & which container)

_____ Insufficient sample volume

_____ Air bubbles present in Voa vials (List sample ID)

_____ Hold time expired (List sample ID)

TSR:
Was client notified regarding information: YES NO
Name of person contacted:_____ Company:_____
TSR:_____ Date:_____
Attach: Phone Logs, e-mails, faxes, etc.

TEST CERTIFICATE

KEMRON Environmental Services
109 Starlite Park
Marietta, Ohio 45750
Phone: (740) 373-4071

CompuChem
501 Madison Ave.
Cary, NC 27513

Attention: Diane Byrd

PO Number:
Account Number: COMPUCHEM-529

Login #: L0103388
Report Date: 03/20/01
Work ID: SC001/OFFSITE DRILLING
Date Received: 03/17/01

SAMPLE IDENTIFICATION

Sample Number	Sample Description	Sample Number	Sample Description
L0103388-01	WL0014		

All results on solids/sludges are reported on a dry weight basis, where applicable, unless otherwise specified. This report shall not be reproduced, except in full, without the written approval of KEMRON.

NYSDOH ELAP ID: 10861

Certified By
David L. Bumgarner

Login #L0103388
March 20, 2001 04:49 pm

KEMRON ENVIRONMENTAL SERVICES

Product: 8260 - Volatile Organics

Lab Sample ID: L0103388-01
Client Sample ID: WL0014
Site/Work ID: SC001/OFFSITE DRILLING
Matrix: Water

Dil. Type: N/A
COC Info: 04634/
Date Collected: 03/16/01

Sample Weight: N/A
Extract Volume: N/A
% Solid: N/A

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 03/20/01 Time: 10:51

Instrument: HPMS2
Analyst: CMS
Lab File ID: 2M42831.D

Method: 8260B\5030
Run ID: R118050
Batch : WG94164

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
67-64-1	Acetone	ug/L		ND	100	1
71-43-2	Benzene	ug/L		ND	5.0	1
108-86-1	Bromobenzene	ug/L		ND	5.0	1
74-97-5	Bromochloromethane	ug/L		ND	5.0	1
75-27-4	Bromodichloromethane	ug/L		ND	5.0	1
75-25-2	Bromoform	ug/L		ND	5.0	1
74-83-9	Bromomethane	ug/L		ND	10	1
78-93-3	2-Butanone	ug/L		ND	100	1
104-51-8	n-Butylbenzene	ug/L		ND	5.0	1
135-98-8	sec-Butylbenzene	ug/L		ND	5.0	1
98-06-6	tert-Butylbenzene	ug/L		ND	5.0	1
75-15-0	Carbon disulfide	ug/L		ND	5.0	1
56-23-5	Carbon tetrachloride	ug/L		ND	5.0	1
108-90-7	Chlorobenzene	ug/L		ND	5.0	1
124-48-1	Chlorodibromomethane	ug/L		ND	5.0	1
75-00-3	Chloroethane	ug/L		ND	10	1
110-75-8	2-Chloroethyl vinyl ether	ug/L		ND	10	1
67-66-3	Chloroform	ug/L		ND	5.0	1
74-87-3	Chloromethane	ug/L		ND	10	1
95-49-8	2-Chlorotoluene	ug/L		ND	5.0	1
106-43-4	4-Chlorotoluene	ug/L		ND	5.0	1
96-12-8	1,2-Dibromo-3-chloropropane	ug/L		ND	5.0	1
106-93-4	1,2-Dibromoethane	ug/L		ND	5.0	1
74-95-3	Dibromomethane	ug/L		ND	5.0	1
95-50-1	1,2-Dichlorobenzene	ug/L		ND	5.0	1
541-73-1	1,3-Dichlorobenzene	ug/L		ND	5.0	1
106-46-7	1,4-Dichlorobenzene	ug/L		ND	5.0	1
75-71-8	Dichlorodifluoromethane	ug/L		ND	10	1
75-34-3	1,1-Dichloroethane	ug/L		ND	5.0	1
107-06-2	1,2-Dichloroethane	ug/L		ND	5.0	1
75-35-4	1,1-Dichloroethene	ug/L		ND	5.0	1
156-59-2	cis-1,2-Dichloroethene	ug/L	14		5.0	1
156-60-5	trans-1,2-Dichloroethene	ug/L		ND	5.0	1
78-87-5	1,2-Dichloropropane	ug/L		ND	5.0	1
142-28-9	1,3-Dichloropropane	ug/L		ND	5.0	1
594-20-7	2,2-Dichloropropane	ug/L		ND	5.0	1
10061-01-5	cis-1,3-Dichloropropene	ug/L		ND	5.0	1
10061-02-6	trans-1,3-Dichloropropene	ug/L		ND	5.0	1
563-58-6	1,1-Dichloropropene	ug/L		ND	5.0	1

RL = Reporting Limit

Login #L0103388
March 20, 2001 04:49 pm

KEMRON ENVIRONMENTAL SERVICES

Product: 8260 - Volatile Organics

Lab Sample ID: L0103388-01
Client Sample ID: WL0014
Site/Work ID: SC001/OFFSITE DRILLING
Matrix: Water

Dil. Type: N/A
COC Info: 04634/
Date Collected: 03/16/01

Sample Weight: N/A
Extract Volume: N/A
% Solid: N/A

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 03/20/01 Time: 10:51

Instrument: HPMS2
Analyst: CMS
Lab File ID: 2M42831.D

Method: 8260B\5030
Run ID: R118050
Batch : WG94164

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
100-41-4	Ethylbenzene	ug/L		ND	5.0	1
591-78-6	2-Hexanone	ug/L		ND	10	1
87-68-3	Hexachlorobutadiene	ug/L		ND	5.0	1
98-82-8	Isopropylbenzene	ug/L		ND	5.0	1
99-87-6	p-Isopropyltoluene	ug/L		ND	5.0	1
108-10-1	4-Methyl-2-pentanone	ug/L		ND	10	1
75-09-2	Methylene chloride	ug/L		ND	5.0	1
91-20-3	Naphthalene	ug/L		ND	10	1
103-65-1	n-Propylbenzene	ug/L		ND	5.0	1
100-42-5	Styrene	ug/L		ND	5.0	1
630-20-6	1,1,1,2-Tetrachloroethane	ug/L		ND	5.0	1
79-34-5	1,1,2,2-Tetrachloroethane	ug/L		ND	5.0	1
127-18-4	Tetrachloroethene	ug/L		ND	5.0	1
108-88-3	Toluene	ug/L		ND	5.0	1
87-61-6	1,2,3-Trichlorobenzene	ug/L		ND	5.0	1
120-82-1	1,2,4-Trichlorobenzene	ug/L		ND	5.0	1
71-55-6	1,1,1-Trichloroethane	ug/L		ND	5.0	1
79-00-5	1,1,2-Trichloroethane	ug/L		ND	5.0	1
79-01-6	Trichloroethene	ug/L	190		5.0	1
75-69-4	Trichlorofluoromethane	ug/L		ND	10	1
96-18-4	1,2,3-Trichloropropane	ug/L		ND	5.0	1
95-63-6	1,2,4-Trimethylbenzene	ug/L		ND	5.0	1
108-67-8	1,3,5-Trimethylbenzene	ug/L		ND	5.0	1
108-05-4	Vinyl acetate	ug/L		ND	10	1
75-01-4	Vinyl chloride	ug/L		ND	10	1
95-47-6	o-Xylene	ug/L		ND	5.0	1
108-38-3	m-Xylene	ug/L		ND	5.0	1
106-42-3	p-Xylene	ug/L		ND	5.0	1

SURROGATES- In Percent Recovery:

Dibromofluoromethane	101	(86 - 118%)
1,2-Dichloroethane-d4	92.6	(80 - 120%)
Toluene-d8	104	(88 - 110%)
4-Bromofluorobenzene	103	(86 - 115%)

RL - Reporting Limit

CHRYSLER CORPORATION

Chain-of-Custody

04634 A

Offsite Drilling

~~CompuChem~~ Kamron ~~501 Madison Avenue~~ 109 Starlite Park ~~Cary, NC 27513~~ Marietta OH 45750 Phone Number: ~~1-800-833-5097~~ 7403734071 Fax Number: (919) 379-4050	Project Name: Dayton Thermal Products Site Location: 1600 Webster St. Dayton OH Site Code: SC001 RFA Number: YGQP2001209 SDG 209B Chrysler PM: Gary Stanczuk	Consultant: LBG Address: 1210 West County Road E St. Paul MN 55112 Consultant PM: Kenneth Vogel Phone: 651 490 1405 Fax: 1006

Turn-around Time Request: 24 calendar hrs / 48 calendar hrs / 10 days / 28 days

Data Package Deliverables: (circle) Chrysler Level 1 / Chrysler Level 2 / Other (specify):

Compound List Parameter/Method/Bottle Type/Preservative: TCL VOC 5030B/5035/8260B

Matrix Codes: S - Soil, SW - Surface Water, GW - Groundwater, A - Air, Sed - Sediment, O - Other (specify)

Lab Use Only

Field Sample Identification	Date Collected	Time Collected	Grab (G) or Composite (C)	Matrix Code	Total # of Containers	TCL VOC 5030B/5035/8260B	Volatile pH<2	Metals pH<2	Cyanide pH>12	Other	Remarks
WL0014	3/16/01	1130	G	O	2	X					900 gallons wastewater contained in "Center Poly Tank". Water generated from well development, well drilling and steam cleaning
											Sb recd 3/17/01
											Stored in locked Cooler over weekend

Sampler(s): David Strand

Bottles Relinquished under Airbill No. NA

Samples Relinquished under Airbill No. 815313875301

Temperature (corrected) ___ C

Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Custody Seal Intact? Yes No
[signature]						
Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Custody Seal Intact? Yes No
Relinquished by:	Date:	Time:	Received for Laboratory by: Brenda Gregory	Date: 3/19/01	Time: 0800	Custody Seal Intact? Yes No

Cooler ID # KL194

Is RFA sampling complete? Yes No

Chrysler Corporation 800 Chrysler Drive, CIMS 482-00-51, Auburn Hills, Michigan 48326-2757

SDG 209B

Distribution: White copy Data package Yellow. Retained by laboratory Pink. Retained by sampler

C/C Dated
Sb intact
Cooler Temp 2 [initials]

Revision No. 1
Created September 23, 1997

Page ___ of ___

KEMRON Environmental Services	SAMPLES RECEIPT FORM #1	Marietta Laboratory

CLIENT:	DATE:	SHIPPED BY:
CampChem BRG ARS Other _____	3-19-01	(✓) FED-EX ( ) AIRBORNE ( ) UPS ( ) EMERY ( ) RPS ( ) US MAIL ( ) KEMRON ( ) CLIENT

COOLER ID: KL194	COOLER ID:	COOLER ID:
INDEX #: 8153 13875301	INDEX #:	INDEX #:
SEALED (✓) YES ( ) NO	SEALED ( ) YES ( ) NO	SEALED ( ) YES ( ) NO
CUSTODY (✓) YES ( ) NO	CUSTODY ( ) YES ( ) NO	CUSTODY ( ) YES ( ) NO
TEMP: (C) 2 (D) 2 °C	TEMP: (C) (D) °C	TEMP: (C) (D) °C
TEMP IN RANGE (4°C ± 2°) (✓) YES ( ) NO	TEMP IN RANGE (4°C ± 2°) ( ) YES ( ) NO	TEMP IN RANGE (4°C ± 2°) ( ) YES ( ) NO
WET ICE (✓) BLUE ICE ( )	WET ICE ( ) BLUE ICE ( )	WET ICE ( ) BLUE ICE ( )
ICE FROZEN (✓) MELTED ( )	ICE FROZEN ( ) MELTED ( )	ICE FROZEN ( ) MELTED ( )
RADIATION CHECKED (✓) YES ( ) NO	RADIATION CHECKED ( ) YES ( ) NO	RADIATION CHECKED ( ) YES ( ) NO
SAMPLE INTACT (✓) YES ( ) NO SALVAGEBLE ( ) YES ( ) NO	SAMPLE INTACT ( ) YES ( ) NO SALVAGEBLE ( ) YES ( ) NO	SAMPLE INTACT ( ) YES ( ) NO SALVAGEBLE ( ) YES ( ) NO
SAMPLE TYPE; WATER (✓) SOIL (✓) OTHER ( )	SAMPLE TYPE: WATER ( ) SOIL ( ) OTHER ( )	SAMPLE TYPE: WATER ( ) SOIL ( ) OTHER ( )
LABELS: INTACT (✓) YES ( ) NO LEGIBLE (✓) YES ( ) NO MATCH COC (✓) YES ( ) NO	LABELS: INTACT ( ) YES ( ) NO LEGIBLE ( ) YES ( ) NO MATCH COC ( ) YES ( ) NO	LABELS: INTACT ( ) YES ( ) NO LEGIBLE ( ) YES ( ) NO MATCH COC ( ) YES ( ) NO
pH IN RANGE (2 - >9 - >12) AS APPROPRIATE ( ) YES ( ) NO	pH IN RANGE (2 - >9 - >12) AS APPROPRIATE ( ) YES ( ) NO	pH IN RANGE (2 - >9 - >12) AS APPROPRIATE ( ) YES ( ) NO
LOG-IN COMMENTS	LOG-IN COMMENTS	LOG-IN COMMENTS

TSR COMMENTS

CONTACT:	DATE:	TIME:

COMMENTS: ( ) VOICE ( ) FAX ( ) E-MAIL

Revised 02/21/01

KEMRON Environmental Services, Inc.
LOGIN CHAIN OF CUSTODY REPORT (ln01)
Mar 19 2001, 08:21 am

Login Number: L0103388
Account: COMPUCHEM-529 CompuChem
Project: 529-DAYTON SOIL Ohio VAP Soils

Laboratory Sample Number	Client Sample Number	Collect Date	Receive Date	PR	Due Date
L0103388-01	WL0014	16-MAR-01	17-MAR-01	PFF	20-MAR-01

level 2 & 4; int c/c; Send level 2 pkg

Water	S	8260	Hold:30-MAR-01 1/v1 40g hcl	2 Bottles
Services	S	EDD	2/	
Services	S	ICOC	2/	
Services	P	L4	2/	
Services	C	L4-6010	2/	
Services	C	L4-6020	2/	
Services	C	L4-7000	2/	
Services	C	L4-8021	2/	
Services	C	L4-8081	2/	
Services	C	L4-8082	2/	
Services	C	L4-8151	2/	
Services	C	L4-8260	2/	
Services	C	L4-8270	2/	
Services	C	L4-8310	2/	
Services	C	L4-8330	2/	
Services	C	L4-9056	2/	
Services	C	L4-DRO	2/	
Services	C	L4-GRO	2/	
Services	C	L4-RSK175	2/	
Services	C	L4CV	2/	
Services	C	LEVEL-4	2/	
Services	S	LEVEL-2	2/	

Signature: KG MG

Date: 3/19 3/19

LEGGETTE, BRASHEARS & GRAHAM, INC.

PROFESSIONAL GROUND-WATER
AND ENVIRONMENTAL ENGINEERING SERVICES

1210 WEST COUNTY ROAD E, Suite 700
SAINT PAUL, MN 55112
(651) 490-1405 FAX (651) 490-1006

DATE: April 13, 2001	**PAGES:** 7 **(Includes cover page)**
TO: **COMPANY:**	**FAX #:** **PHONE #:**
✓ **TO:** Mike Webb **COMPANY:** ONYX	**FAX #:** 937-237-3669 **PHONE #:** 937-603-2597
TO: Gary Stanczuk **COMPANY:** DC Corporate	**FAX #:** 248-576-7369 **PHONE #:** 248-576-7365
TO: Britt Crider **COMPANY:** DC Dayton Thermal	**FAX #:** 937-224-2915 **PHONE #:** 937-224-2532

FROM: Ken Vogel/Dave Strand DVS

RE: Offsite drilling water disposal analytical results.

Here are the Final analytical results for the 1,000 gallon SOUTH poly tank (sample WL0018) and preliminary results for the BLUE poly tank (sample WL0019). Positive detections were:

	Trichloroethene	cis-1,2-Dichloroethene
WL0018	9.8 ug/L	ND
WL0019	41 ug/L	8.3 ug/L

The Ohio EPA hazardous waste regulatory level for Trichloroethene is 500 ug/L.
There is no Ohio hazardous waste regulatory level for cis-1,2-Dichloroethene.

fax TRANSMITTAL S:\TECH\3CHRT\DAYTON\ANALYTIC\WATER\WASTE#5 FAX

TEST CERTIFICATE
KEMRON Environmental Services
109 Starlite Park
Marietta, Ohio 45750
Phone: (740) 373-4071

CompuChem
501 Madison Ave.
Cary, NC 27513

Attention: Diane Byrd

PO Number:
Account Number: COMPUCHEM-529

Login #: L0104139
Report Date: 04/09/01
Work ID: SC001/OFFSITE DRILLING
Date Received: 04/06/01

SAMPLE IDENTIFICATION

Sample Number	Sample Description	Sample Number	Sample Description
L0104139-01	NL0018		

All results on solids/sludges are reported on a dry weight basis, where applicable, unless otherwise specified. This report shall not be reproduced, except in full, without the written approval of KEMRON.

NYSDOH ELAP ID: 10861

David L. Bumgarner

Certified By
David L. Bumgarner

KEMRON ENVIRONMENTAL SERVICES

Login #L0104139
April 9, 2001 03:59 pm

KEMRON ENVIRONMENTAL SERVICES

Product: 8260 - Volatile Organics

Lab Sample ID: L0104139-01
Client Sample ID: WL0018
Site/Work ID: SC001/OFFSITE DRILLING
Matrix: Water

Dil. Type: N/A
COC Info: 04638/
Date Collected: 04/05/01

Sample Weight: N/A
Extract Volume: N/A
% Solid: N/A

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 04/09/01 Time: 11:25

Instrument: HPMS2
Analyst: CMS
Lab File ID: 2M43260

Method: 8260B\5030
Run ID: R120036
Batch : WG95199

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
67-64-1	Acetone	ug/L		ND	100	1
71-43-2	Benzene	ug/L		ND	5.0	1
108-86-1	Bromobenzene	ug/L		ND	5.0	1
74-97-5	Bromochloromethane	ug/L		ND	5.0	1
75-27-4	Bromodichloromethane	ug/L		ND	5.0	1
75-25-2	Bromoform	ug/L		ND	5.0	1
74-83-9	Bromomethane	ug/L		ND	10	1
78-93-3	2-Butanone	ug/L		ND	100	1
104-51-8	n-Butylbenzene	ug/L		ND	5.0	1
135-98-8	sec-Butylbenzene	ug/L		ND	5.0	1
98-06-6	tert-Butylbenzene	ug/L		ND	5.0	1
75-15-0	Carbon disulfide	ug/L		ND	5.0	1
56-23-5	Carbon tetrachloride	ug/L		ND	5.0	1
108-90-7	Chlorobenzene	ug/L		ND	5.0	1
124-48-1	Chlorodibromomethane	ug/L		ND	5.0	1
75-00-3	Chloroethane	ug/L		ND	10	1
110-75-8	2-Chloroethyl vinyl ether	ug/L		ND	10	1
67-66-3	Chloroform	ug/L		ND	5.0	1
74-87-3	Chloromethane	ug/L		ND	10	1
95-49-8	2-Chlorotoluene	ug/L		ND	5.0	1
106-43-4	4-Chlorotoluene	ug/L		ND	5.0	1
96-12-8	1,2-Dibromo-3-chloropropane	ug/L		ND	5.0	1
106-93-4	1,2-Dibromoethane	ug/L		ND	5.0	1
74-95-3	Dibromomethane	ug/L		ND	5.0	1
95-50-1	1,2-Dichlorobenzene	ug/L		ND	5.0	1
541-73-1	1,3-Dichlorobenzene	ug/L		ND	5.0	1
106-46-7	1,4-Dichlorobenzene	ug/L		ND	5.0	1
75-71-8	Dichlorodifluoromethane	ug/L		ND	10	1
75-34-3	1,1-Dichloroethane	ug/L		ND	5.0	1
107-06-2	1,2-Dichloroethane	ug/L		ND	5.0	1
75-35-4	1,1-Dichloroethene	ug/L		ND	5.0	1
156-59-2	cis-1,2-Dichloroethene	ug/L		ND	5.0	1
156-60-5	trans-1,2-Dichloroethene	ug/L		ND	5.0	1
78-87-5	1,2-Dichloropropane	ug/L		ND	5.0	1
142-28-9	1,3-Dichloropropane	ug/L		ND	5.0	1
594-20-7	2,2-Dichloropropane	ug/L		ND	5.0	1
10061-01-5	cis-1,3-Dichloropropene	ug/L		ND	5.0	1
10061-02-6	trans-1,3-Dichloropropene	ug/L		ND	5.0	1
563-58-6	1,1-Dichloropropene	ug/L		ND	5.0	1

RL - Reporting Limit

Login #L0104139
April 9, 2001 03:59 pm

KEMRON ENVIRONMENTAL SERVICES

Product: 8260 - Volatile Organics

Lab Sample ID: L0104139-01
Client Sample ID: WL0018
Site/Work ID: SC001/OFFSITE DRILLING
Matrix: Water

Dil. Type: N/A
COC Info: 04638/
Date Collected: 04/05/01

Sample Weight: N/A
Extract Volume: N/A
% Solid: N/A

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 04/09/01 Time: 11:25

Instrument: SPMS2
Analyst: CMS
Lab File ID: 2N43260

Method: 8260B\5030
Run ID: R120036
Batch : WG95199

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
100-41-4	Ethylbenzene	ug/L		ND	5.0	1
591-78-6	2-Hexanone	ug/L		ND	10	1
87-68-3	Hexachlorobutadiene	ug/L		ND	5.0	1
98-82-8	Isopropylbenzene	ug/L		ND	5.0	1
99-87-6	p-Isopropyltoluene	ug/L		ND	5.0	1
108-10-1	4-Methyl-2-pentanone	ug/L		ND	10	1
75-09-2	Methylene chloride	ug/L		ND	5.0	1
91-20-3	Naphthalene	ug/L		ND	10	1
103-65-1	n-Propylbenzene	ug/L		ND	5.0	1
100-42-5	Styrene	ug/L		ND	5.0	1
630-20-6	1,1,1,2-Tetrachloroethane	ug/L		ND	5.0	1
79-34-5	1,1,2,2-Tetrachloroethane	ug/L		ND	5.0	1
127-18-4	Tetrachloroethene	ug/L		ND	5.0	1
108-88-3	Toluene	ug/L		ND	5.0	1
87-61-6	1,2,3-Trichlorobenzene	ug/L		ND	5.0	1
120-82-1	1,2,4-Trichlorobenzene	ug/L		ND	5.0	1
71-55-6	1,1,1-Trichloroethane	ug/L		ND	5.0	1
79-00-5	1,1,2-Trichloroethane	ug/L		ND	5.0	1
79-01-6	Trichloroethene	ug/L	9.8		5.0	1
75-69-4	Trichlorofluoromethane	ug/L		ND	10	1
96-18-4	1,2,3-Trichloropropane	ug/L		ND	5.0	1
95-63-6	1,2,4-Trimethylbenzene	ug/L		ND	5.0	1
108-67-8	1,3,5-Trimethylbenzene	ug/L		ND	5.0	1
108-05-4	Vinyl acetate	ug/L		ND	10	1
75-01-4	Vinyl chloride	ug/L		ND	10	1
95-47-6	o-Xylene	ug/L		ND	5.0	1
108-38-3	m-Xylene	ug/L		ND	5.0	1
106-42-3	p-Xylene	ug/L		ND	5.0	1

SURROGATES- In Percent Recovery:

Dibromofluoromethane	106	(86 - 118%)
1,2-Dichloroethane-d4	102	(80 - 120%)
Toluene-d8	110	(88 - 110%)
4-Bromofluorobenzene	107	(86 - 115%)

RL = Reporting Limit

TEST CERTIFICATE
KEMRON Environmental Services
109 Starlite Park
Marietta, Ohio 45750
Phone: (740) 373-4071

CompuChem
501 Madison Ave.
Cary, NC 27513

Attention: Diane Byrd

PO Number:
Account Number: COMPUCHEM-529

Login #: L0104198
Report Date: 04/12/01
Work ID: SC001/OFFSITE DRILLING
Date Received: 04/11/01

SAMPLE IDENTIFICATION

Sample Number	Sample Description	Sample Number	Sample Description
L0104198-01	WL0019		

All results on solids/sludges are reported on a dry weight basis, where applicable, unless otherwise specified. This report shall not be reproduced, except in full, without the written approval of KEMRON.

NYSDOH ELAP ID: 10861

PRELIMINARY

Certified By
David L. Baumgarner

Login #L0104198
April 12, 2001 04:27 pm

KEMRON ENVIRONMENTAL SERVICES

Product: 8260 - Volatile Organics

Lab Sample ID: L0104198-01
Client Sample ID: NL0019
Site/Work ID: SC001/OFFSITE DRILLING
Matrix: Water

Dil. Type: N/A
COC Info: 04641/
Date Collected: 04/10/01

Sample Weight: N/A
Extract Volume: N/A
% Solid: N/A

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 04/11/01 Time: 17:33

Instrument: HPMS2
Analyst: CKS
Lab File ID: 2M40335.D

Method: 8260B\5030
Run ID: R120359
Batch : WG95396

PRELIMINARY

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
67-64-1	Acetone	ug/L		ND	100	1
71-43-2	Benzene	ug/L		ND	5.0	1
108-86-1	Bromobenzene	ug/L		ND	5.0	1
74-97-5	Bromochloromethane	ug/L		ND	5.0	1
75-27-4	Bromodichloromethane	ug/L		ND	5.0	1
75-25-2	Bromoform	ug/L		ND	5.0	1
74-83-9	Bromomethane	ug/L		ND	10	1
78-93-3	2-Butanone	ug/L		ND	100	1
104-51-8	n-Butylbenzene	ug/L		ND	5.0	1
135-98-8	sec-Butylbenzene	ug/L		ND	5.0	1
98-06-6	tert-Butylbenzene	ug/L		ND	5.0	1
75-15-0	Carbon disulfide	ug/L		ND	5.0	1
56-23-5	Carbon tetrachloride	ug/L		ND	5.0	1
108-90-7	Chlorobenzene	ug/L		ND	5.0	1
124-48-1	Chlorodibromomethane	ug/L		ND	5.0	1
75-00-3	Chloroethane	ug/L		ND	10	1
110-75-8	2-Chloroethyl vinyl ether	ug/L		ND	10	1
67-66-3	Chloroform	ug/L		ND	5.0	1
74-87-3	Chloromethane	ug/L		ND	10	1
95-49-8	2-Chlorotoluene	ug/L		ND	5.0	1
106-43-4	4-Chlorotoluene	ug/L		ND	5.0	1
96-12-8	1,2-Dibromo-3-chloropropane	ug/L		ND	5.0	1
106-93-4	1,2-Dibromoethane	ug/L		ND	5.0	1
74-95-3	Dibromomethane	ug/L		ND	5.0	1
95-50-1	1,2-Dichlorobenzene	ug/L		ND	5.0	1
541-73-1	1,3-Dichlorobenzene	ug/L		ND	5.0	1
106-46-7	1,4-Dichlorobenzene	ug/L		ND	5.0	1
75-71-8	Dichlorodifluoromethane	ug/L		ND	10	1
75-34-3	1,1-Dichloroethane	ug/L		ND	5.0	1
107-06-2	1,2-Dichloroethane	ug/L		ND	5.0	1
75-35-4	1,1-Dichloroethene	ug/L		ND	5.0	1
156-59-2	cis-1,2-Dichloroethene	ug/L	8.3		5.0	1
156-60-5	trans-1,2-Dichloroethene	ug/L		ND	5.0	1
78-87-5	1,2-Dichloropropane	ug/L		ND	5.0	1
142-28-9	1,3-Dichloropropane	ug/L		ND	5.0	1
594-20-7	2,2-Dichloropropane	ug/L		ND	5.0	1
10061-01-5	cis-1,3-Dichloropropene	ug/L		ND	5.0	1
10061-02-6	trans-1,3-Dichloropropene	ug/L		ND	5.0	1
563-58-6	1,1-Dichloropropene	ug/L		ND	5.0	1

RL = Reporting Limit

Login #L0104198
April 12, 2001 04:27 pm

KEMRON ENVIRONMENTAL SERVICES

Product: 8260 - Volatile Organics

Lab Sample ID: L0104198-01
Client Sample ID: WL0019
Site/Work ID: SC001/OFFSITE DRILLING
Matrix: Water

Dil. Type: N/A
COC Info: 04641/
Date Collected: 04/10/01

Sample Weight: N/A
Extract Volume: N/A
% Solid: N/A

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 04/11/01 Time: 17:33

Instrument: HPMS2
Analyst: CMG
Lab File ID: 2M43335.D

Method: 8260B\5030
Run ID: R120359
Batch : WG95396

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
100-41-4	Ethylbenzene	ug/L		ND	5.0	1
591-78-6	2-Hexanone	ug/L		ND	10	1
87-68-3	Hexachlorobutadiene	ug/L		ND	5.0	1
98-82-8	Isopropylbenzene	ug/L		ND	5.0	1
99-87-6	p-Isopropyltoluene	ug/L		ND	5.0	1
108-10-1	4-Methyl-2-pentanone	ug/L		ND	10	1
75-09-2	Methylene chloride	ug/L		ND	5.0	1
91-20-3	Naphthalene	ug/L		ND	10	1
103-65-1	n-Propylbenzene	ug/L		ND	5.0	1
100-42-5	Styrene	ug/L		ND	5.0	1
630-20-6	1,1,1,2-Tetrachloroethane	ug/L		ND	5.0	1
79-34-5	1,1,2,2-Tetrachloroethane	ug/L		ND	5.0	1
127-18-4	Tetrachloroethene	ug/L		ND	5.0	1
108-88-3	Toluene	ug/L		ND	5.0	1
87-61-6	1,2,3-Trichlorobenzene	ug/L		ND	5.0	1
120-82-1	1,2,4-Trichlorobenzene	ug/L		ND	5.0	1
71-55-6	1,1,1-Trichloroethane	ug/L		ND	5.0	1
79-00-5	1,1,2-Trichloroethane	ug/L		ND	5.0	1
79-01-6	Trichloroethene	ug/L	41		5.0	1
75-69-4	Trichlorofluoromethane	ug/L		ND	10	1
96-18-4	1,2,3-Trichloropropane	ug/L		ND	5.0	1
95-63-6	1,2,4-Trimethylbenzene	ug/L		ND	5.0	1
108-67-8	1,3,5-Trimethylbenzene	ug/L		ND	5.0	1
108-05-4	Vinyl acetate	ug/L		ND	10	1
75-01-4	Vinyl chloride	ug/L		ND	10	1
95-47-6	o-Xylene	ug/L		ND	5.0	1
108-38-3	m-Xylene	ug/L		ND	5.0	1
106-42-3	p-Xylene	ug/L		ND	5.0	1

SURROGATES- In Percent Recovery:

Dibromofluoromethane	107	(86 - 118%)
1,2-Dichloroethane-d4	106	(80 - 120%)
Toluene-d8	102	(88 - 110%)
4-Bromofluorobenzene	101	(86 - 115%)

RL = Reporting Limit

LEGGETTE, BRASHEARS & GRAHAM, INC.

PROFESSIONAL GROUND-WATER AND
ENVIRONMENTAL ENGINEERING SERVICES

NORTHPARK CORPORATE CENTER
1210 WEST COUNTY ROAD E
SUITE 700
ST PAUL, MN 55112
612-490-1405
FAX 612-490-1006

EPA Region 5 Records Ctr
350022

November 19, 1998

Mr. Gary Stanczuk
DaimlerChrysler
DaimlerChrysler Technology Center
800 Chrysler Drive
Auburn Hills, Michigan 48326-2757

Re: **Sewer Clean-Out Project, Building 40B**
Dayton Thermal Products (SC001)
Dayton, Ohio

Dear Mr. Stanczuk:

Leggette, Brashears & Graham, Inc. (LBG) was retained by Chrysler Corporation (Chrysler) to coordinate and supervise cleaning of storm sewer lines in Building 40B at the Dayton Thermal Products Plant, 1600 Webster Street, Dayton, Ohio.

The scope of work described in this report is as follows:

- Locate seven sewer lines shown on a 1967 plant utility map. The pipes are identified in figure 1 as lines A, B, C, D, E, F, and G.
- Gain access to the pipes and characterize the material within.
- Clean the pipes, provide video tape of the cleaned pipes
- Properly plug and abandon the pipes
- Clean and properly abandon two oil/water separators (OWSs) located on the south side of the Building 40 complex.

LBG retained Philip MPS Industrial Services L.L.C. (MPS) to perform the work. MPS mobilized on site July 13, 1998, and worked through project completion July 29, 1998. During the project, MPS executed eight sawcuts and seven excavations to locate and access the sewer lines. Lines B, C, D, E, and F were located and cleaned. Lines A and G were determined to be overhead sewer lines, therefore they were not cleaned during this project.

Prior to clean out, samples were collected from each line to identify their respective contents, if any. Lines D, E, and F were sampled through breaches in the line exposed in the trenched area. One sludge sample was collected from each of the other lines through manholes and floor drains. In addition, samples were collected from oil/water separators OWSs #1 and #2 using a 'sludge judge' (bailer with an extender to reach to the bottom of the separator). Samples of pipe and OWS contents were collected and analyzed for toxicity characteristic leaching procedure (TCLP) volatile organic compounds, TCLP semi-volatile organic compounds, reactive cyanide and sulfide, pentachlorophenols, and TCLP metals Analytical results are summarized in tables 1 and 2. Laboratory analytical data for waste identification and characterization are included as Attachments 1 and 2. After sampling was completed, MPS jetted the

pipes with water and vacuumed out the rinsate using a vac truck until the water returned clear and odor free.

Below is a summary of the cleaned sewer lines. Attachment 3 contains site photos and a video tape inspection report. Two additional lines (OWS #2-West, and OWS #2-North) not initially identified on the 1967 map, but connected to OWS #2, were also cleaned and abandoned. Additionally, several feet of sewer line in the parking lot on the south side of Building 40B were cleaned because they connected to the OWSs.

SUMMARY OF ACTIVITY		
Sewer ID	Pipe Diameter	Linear Feet of Sewer Line Cleaned
A	---	Not cleaned (overhead sanitary sewer)
B	10" vitrified clay	62 feet
C	10" vitrified clay	320 feet
D	12" vitrified clay	208 feet
E	12" vitrified clay	83 feet
F	12" vitrified clay	304 feet
G	---	Not cleaned (overhead sanitary sewer)
East/West Line	12" vitrified clay	108 feet
OWS #2-West	12" vitrified clay	50 feet
OWS #2-North	12" vitrified clay	140 feet
TOTAL		1,275 feet

Note: Also see figure 1.

The rinse water and sewer contents were containerized on site in 5,000-gallon roll-off boxes lined with visqueen. Waste streams from each line were kept separate, characterized, and removed from site via tanker truck for disposal at a waste water treatment facility. The non-hazardous manifests for all waste generated and removed from Dayton Thermal Products Plant during this project are included as Attachment 4. Approximately 12,000 gallons of non-hazardous liquid waste and sludge, and 11 tons of non-hazardous solid waste (concrete, soil, and the remaining visqueen liners) were generated

In order to abandon the lines after they had been cleaned, concrete was used to seal breached ends of pipe in both excavations over line D, and line E south of press pit foundation All pipes that drained into OWS #1, and OWS #2 were also capped with concrete and the OWSs themselves were backfilled with sand and covered with cement. Additionally, seven 8-inch floor drains, and three 24-inch manholes located inside Building 40B and in the parking lot south of Building 40B were backfilled with sand and covered with concrete

Line E: The portion of line E located south of the press pits inside Building 40B was connected to an active waste oil sump located in the flammable materials storage area on the south end of Building 40B. During cleaning, 3/4 inch of free product was consistently present in the pipe. In order to properly abandon the line, it was necessary for MPS to remove the contents of the waste oil sump then plug the line twice with concrete. The excavation was then backfilled and the concrete replaced.

Line F: A saw cut in the northern portion of Building 40B revealed a tank of unknown size and origin, and a complex array of pipes in an area designated on the 1967 map as "Paint Spray Booth." The tank (figure 2) appeared to have been previously abandoned in place, it was backfilled with fine sand Upon removal of the concrete, a strong solvent odor was detected. Jar headspace photoionization detector readings of surficial soils collected from the saw cut indicated concentration levels exceeding 500 parts per million in the soil surrounding the abandoned tank. In discussions with Chrysler, it was decided that further exploration of the pipes uncovered was outside the scope of this project and that the Building 40B soil-vapor extraction system would address any volatile organic compounds present in the area. Photos of these pipes are included in Attachment 3.

OWS #1 and OWS #2: It was discovered that both OWSs abandoned during this project had been connected to active storm sewers. Sewer lines leading into and out of both OWSs were capped with concrete to address this issue.

Please feel free to call me or Ken Vogel at (651) 490-1405 with any questions or comments regarding this scope of work.

Sincerely,

LEGGETTE, BRASHEARS & GRAHAM, INC.

Rebecca Carlson

Rebecca Carlson
Environmental Engineer I

Reviewed by:
Kenneth D. Vogel

Kenneth D. Vogel, CPG, CHMM
Associate

RAC:kw
Attachments
cc: Mr. Joe Whitlock, Dayton Thermal Products Plant
Mr. Marvin Neargarder, Dayton Thermal Products Plant
S \TECH\3CHRY\DAYTON\FINALDOC\SEWER.LTR

TABLES

TABLE 1

DAYTON THERMAL PRODUCTS
DAYTON, OHIO

ANALYTICAL DATA FOR PIPE CONTENT IDENTIFICATION
BUILDING 40B SEWER CLEAN-OUT

LINE SAMPLED	SAMPLE LOCATION	DATE COLLECTED	TCLP VOCs, Method SW846 8260										
			Carbon Tetra-chloride (ug/L)	Chloro-benzene (ug/L)	Chloroform (ug/L)	1,4-Dichloro-benzene (ug/L)	1,1-Dichloro-ethane (ug/L)	1,2-Dichloro-ethene (ug/L)	Tetrachloro-ethene (ug/L)	Trichloro-ethene (ug/L)	Vinyl chloride (ug/L)	Methyl ethyl ketone (ug/L)	Benzene (ug/L)
CFR § 261.30			500	100000	6000	7500	500	500	700	500	200	200000	0 5
B	Vault	7/17/98	<10	<10	<10	<10	<10	<10	<10	<10	<10	<50	<10
C	North Vault	7/20/98	<10	<10	<10	<10	<10	<10	<10	<10	<10	<50	<10
D	South Cut	7/17/98	<10	<10	<10	<10	<10	<10	<10	<10	<10	<50	<10
E	North Cut	7/17/98	<10	<10	<10	<10	<10	<10	<10	<10	<10	<50	<10
F	South Cut	7/17/98	<10	<10	<10	<10	<10	<10	<10	130	<10	<50	<10
OWS#1	OWS#1	7/17/98	<10	<10	<10	<10	<10	<10	<10	<10	<10	<50	<10
OWS#2	OWS#2	7/17/98	<10	<10	<10	<10	<10	<10	<10	16	<10	<50	<10

LINE SAMPLED	SAMPLE LOCATION	DATE COLLECTED	TCLP Semi-VOCs, Method SW846 8270										
			Cresol (ug/L)	Pentachloro-phenol (ug/L)	2,4,5-Trichloro-phenol (ug/L)	2,4,6-Trichloro-phenol (ug/L)	Hexachloro-benzene (ug/L)	Hexachloro-butadiene (ug/L)	Hexachloro-ethane (ug/L)	2,4-Dinitro-toluene (ug/L)	Nitro-benzene (ug/L)	Pyridine (ug/L)	PCB's Total (ug/L)
CFR § 261.30			200000	100000	400000	2000	1300	500	3000	130	2000	5000	50000*
B	Vault	7/17/98	<100000	<100000	<400000	<2000	<130	<500	<3000	<130	<2000	<5000	14006
C	North Vault	7/20/98	<100000	<100000	<400000	<2000	<130	<500	<3000	<130	<2000	<5000	96650
D	South Cut	7/17/98	<100000	<100000	<400000	<2000	<130	<500	<3000	<130	<2000	<5000	<2310
E	North Cut	7/17/98	<100000	<100000	<400000	<2000	<130	<500	<3000	<130	<2000	<5000	<2310
F	South Cut	7/17/98	<100000	<100000	<400000	<2000	<130	<500	<3000	<130	<2000	<5000	36000
OWS#1	OWS#1	7/17/98	<100000	<100000	<400000	<2000	<130	<500	<3000	<130	<2000	<5000	<1 8
OWS#2	OWS#2	7/17/98	<100000	<100000	<400000	<2000	<130	<500	<3000	<130	<2000	<5000	<27 2

LINE SAMPLED	SAMPLE LOCATION	DATE COLLECTED	TCLP METALS Method SW 846 6020									
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Lead (mg/L)	Mercury (mg/L)	Selenium (mg/L)	Silver (mg/L)	Zinc (mg/L)
CFR § 261 30			5 0	100.0	1.0	5.0	NE	5.0	0.2	1 0	5 0	NE
B	Vault	7/17/98	<0 20	<0 20	0 04	<0 01	<0 10	<0 20	0 013	<0 30	<0 10	2 6
C	North Vault	7/20/98	<0 20	<0 20	<0 04	<0 01	<0 10	<0 20	<0 002	<0 30	<0 10	0 56
D	South Cut	7/17/98	<0 20	<0 20	<0 04	<0 01	0 17	<0 20	<0 002	<0 30	<0 10	0 06
E	North Cut	7/17/98	<0 20	<0 20	<0 04	<0 01	0 20	<0 20	<0 002	<0 30	<0 10	0 66
F	South Cut	7/17/98	<0 20	<0 20	<0 04	<0 01	0 65	<0 20	<0 002	<0 30	<0 10	9 1
OWS#1	OWS#1	7/17/98	<0 20	0 39	<0 04	<0 01	<0 10	<0 20	<0 002	<0 30	<0 10	0 83
OWS#2	OWS#2	7/17/98	<0 20	0 58	<0 04	<0 01	<0 10	<0 20	<0 002	<0 30	<0 10	0 37

TABLE 1

DAYTON THERMAL PRODUCTS
DAYTON, OHIO

ANALYTICAL DATA FOR PIPE CONTENT IDENTIFICATION
BUILDING 40B SEWER CLEAN-OUT

LINE SAMPLED	SAMPLE LOCATION	DATE COLLECTED	Reactive Cyanide (mg/kg)	Ignitability (degrees F)	Reactive Sulfide (mg/kg)	% Solids	pH	Reported Volume in Roll Off (gallons)
B	Vault	7/17/98	<50	DNF	<50	89 3	8 3	40
C	North Vault	7/20/98	<50	DNF	<50	58 2	8 3	1500
D	South Cut	7/17/98	<50	DNF	<50	93 2	8 3	1000
E	North Cut	7/17/98	<50	DNF	<50	---	4 9	3300
F	South Cut	7/17/98	<50	DNF	<50	70 5	6 2	2600
OWS#1	OWS#1	7/17/98	<50	DNF	<50	Liquid	7 0	1700
OWS#2	OWS#2	7/17/98	<50	DNF	<50	Liquid	6 0	2200

12,340 gallons total reported

Notes:

OWS#1	Oil Water Separator 1
TCLP	Toxicity Characteristic Leaching Procedure
µg/L	micrograms per liter
mg/L	milligrams per liter
mg/Kg	milligrams per kilogram
DNF	Sample did not flash between 60 and 200 degrees Fahrenheit
deg F	Degrees Fahrenheit
NA	Not available
ND	Non-detect, no limit stated in analytical report
PCBs	Polychlorinated biphenols
VOCs	Volatile organic compounds
*	PCB concentrations in a material above 50,000 ug/L are considered PCB waste
CFR	Code of Federal Regulations

TABLE 2

DAYTON THERMAL PRODUCTS
DAYTON, OHIO

ANALYTICAL DATA FOR WASTE CHARACTERIZATION
BUILDING 40B SEWER CLEAN-OUT

			TCLP VOCs, Method SW846 8260										
LINE SAMPLED	SAMPLE LOCATION	DATE COLLECTED	Carbon Tetra-chloride (ug/L)	Chloro-benzene (ug/L)	Chloroform (ug/L)	1,4-Dichloro benzene (ug/L)	1,1-Dichloro ethane (ug/L)	1,2-Dichloro ethene (ug/L)	Tetrachloro-ethene (ug/L)	Trichloro-ethene (ug/L)	Vinyl chloride (ug/L)	Methyl ethyl ketone (ug/L)	Benzene (ug/L)
CFR § 261.30			500	100000	6000	7500	500	500	700	500	200	200000	0 5
D	Roll Off	8/14/98	<1	<1	<1	<1	<1	2	2	3	3	<5	<1
OWS#2	Roll Off	7/27/98	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10

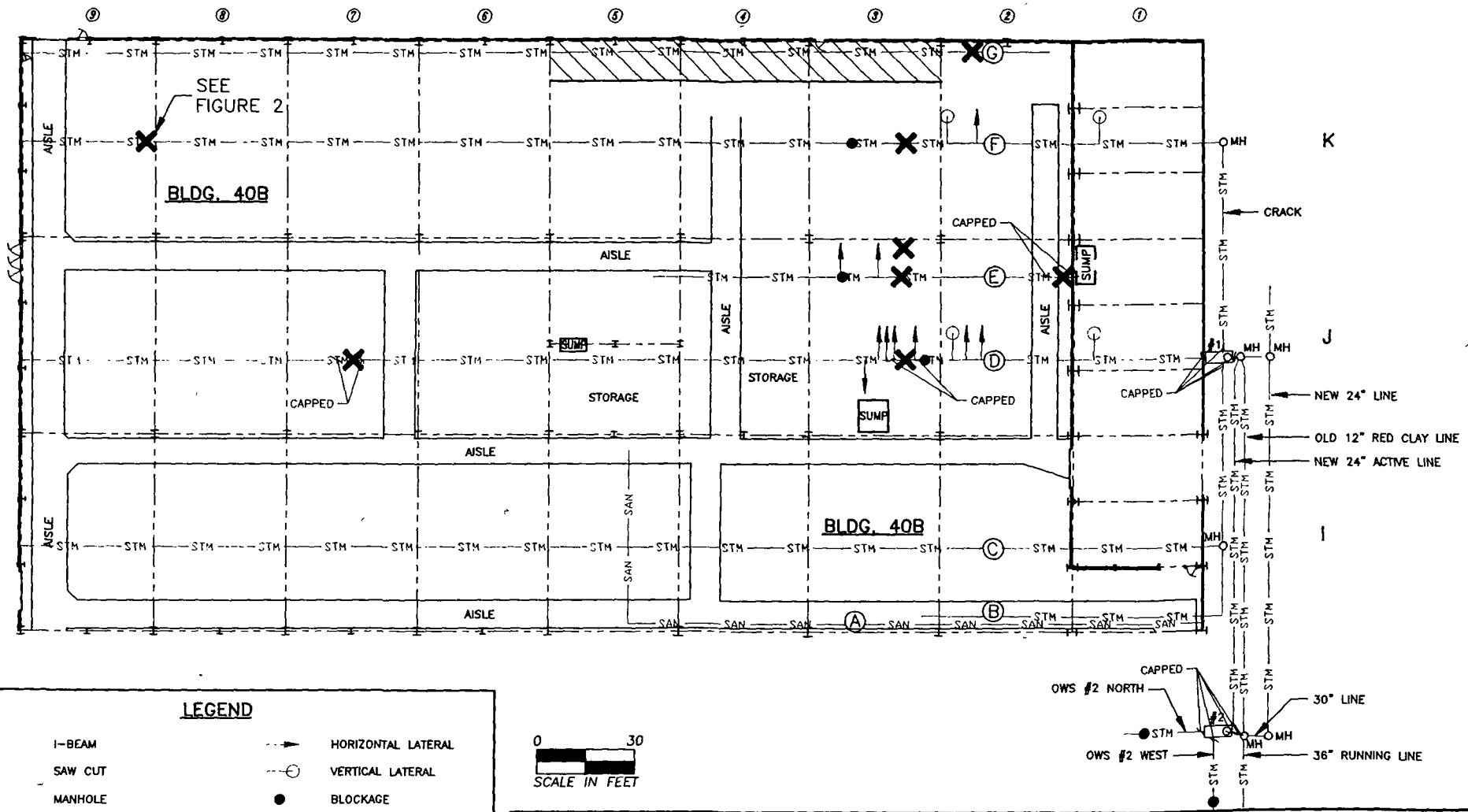
			TCLP Semi-VOCs, Method SW846 8270										
LINE SAMPLED	SAMPLE LOCATION	DATE COLLECTED	Cresol (ug/L)	Penta-chloro-phenol (ug/L)	2,4,5-Tri-chloro-phenol (ug/L)	2,4,6-Tri-chloro-phenol (ug/L)	Hexachloro-benzene (ug/L)	Hexachloro-butadiene (ug/L)	Hexachloro-ethane (ug/L)	2,4-Dinitro-toluene (ug/L)	Nitro-benzene (ug/L)	Pyridine (ug/L)	PCB's Total (ug/L)
CFR § 261.30			200000	100000	400000	2000	1300	500	3000	130	2000	5000	50000*
OWS#2	Roll Off	7/27/98	<100000	<100000	<400000	<2000	<130	<500	<3000	<130	<2000	<5000	<1600

			TCLP METALS Method SW 846 6020									
LINE SAMPLED	SAMPLE LOCATION	DATE COLLECTED	Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Lead (mg/L)	Mercury (mg/L)	Selenium (mg/L)	Silver (mg/L)	Zinc (mg/L)
CFR § 261.30			5.0	100.0	1.0	5.0	NE	5.0	0.2	1.0	5.0	NE
D	Roll Off	8/14/98	NA	NA	0 54	NA	NA	0 12	NA	NA	NA	NA
F	Roll Off	8/14/98	NA	NA	0 54	NA	NA	NA	NA	NA	NA	NA
OWS#2	Roll Off	7/27/98	<0 20	0 40	<0 40	<0 01	<0 10	<0 20	<0 002	<0 30	<0 10	0 58

Notes:

OWS#1	Oil Water Separator 1
TCLP	Toxicity Characteristic Leaching Procedure
µg/L	micrograms per liter
mg/L	milligrams per liter
mg/Kg	milligrams per kilogram
DNF	Sample did not flash between 60 and 200 degrees Fahrenheit
deg F	Degrees Fahrenheit
NA	Not available
ND	Non-detect, no limit stated in analytical report
PCBs	Polychlorinated biphenols
VOCs	Volatile organic compounds
*	PCB concentrations in a material above 50,000 ug/L are considered PCB waste

FIGURES



LEGEND

I	I-BEAM		HORIZONTAL LATERAL
X	SAW CUT		VERTICAL LATERAL
O MH	MANHOLE	●	BLOCKAGE
	OIL/WATER SEPARATOR		
- - SAN - -	SANITARY SEWER LINE		
— STM —	STORM SEWER LINE		

0 30
SCALE IN FEET

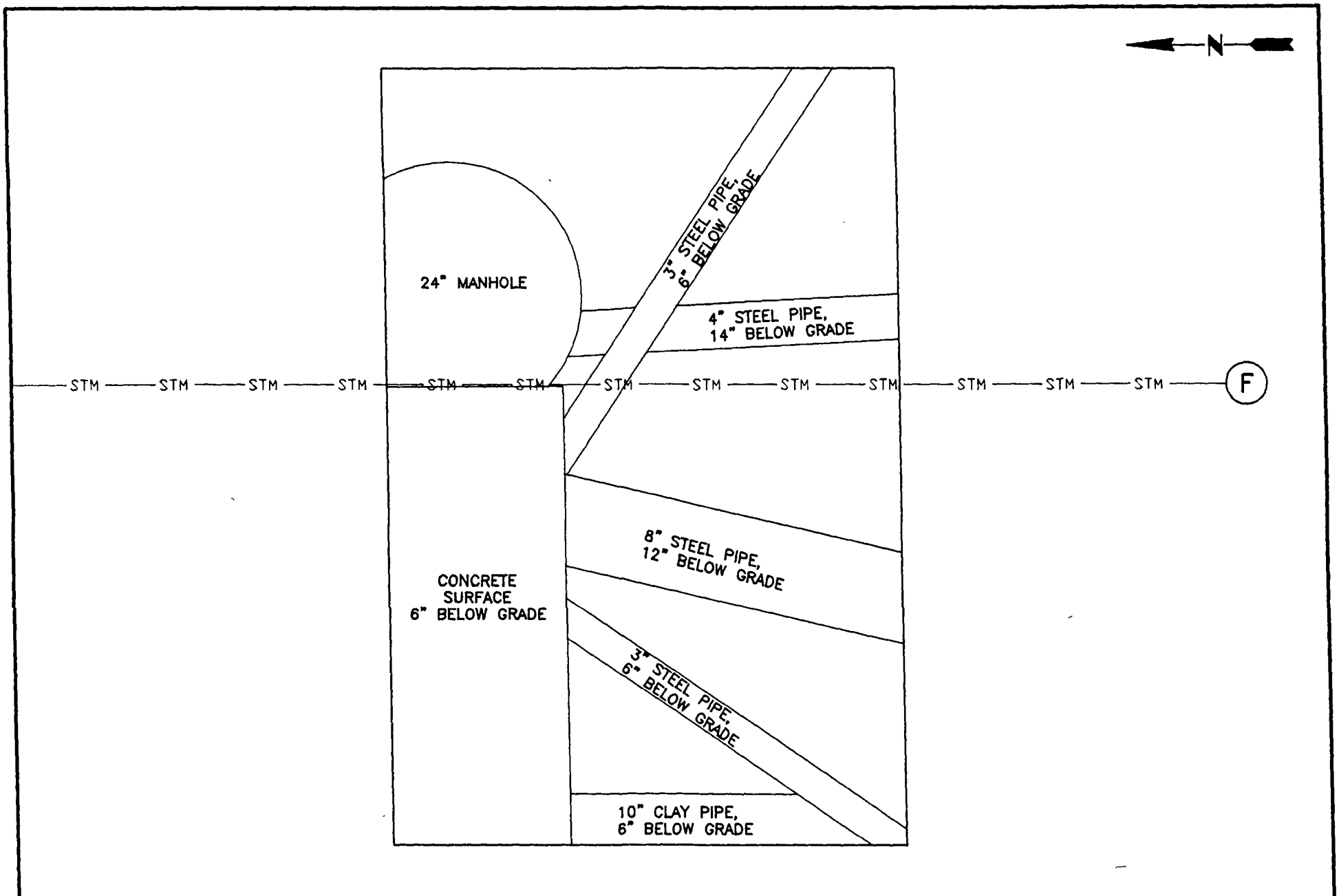
DATE	REVISED

Prepared By
LEGGETTE, BRASHEARS & GRAHAM, INC
Professional Ground-Water and Environmental Services
Northpark Corporate Center
1210 W County Road E, Suite 700
St Paul, MN 55112
(651) 490-1405

DAYTON THERMAL PRODUCTS PLANT
DAYTON, OHIO

SEWER PIPE LOCATIONS UNDER BUILDING 40B

FILE 3CHDA06D DWG | DATE NOVEMBER 1998 | FIGURE 1



DATE	REVISED

Prepared By:
LEGGETTE, BRASHEARS & GRAHAM, INC.
Professional Ground-Water and Environmental Services
Northpark Corporate Center
1210 W. County Road E, Suite 700
St. Paul, MN 55112
(651) 490-1405

DAYTON THERMAL PRODUCTS PLANT
DAYTON, OHIO

SUB-GRADE PIPING DETAIL

FILE: 3CHDA06E.DWG | DATE: OCTOBER 1998 | FIGURE: 2

ATTACHMENT 1

Sewer Line Content Identification Analytical Data

BBC
ENVIRONMENTAL ENTERPRISES

PSC
INDUSTRIAL SERVICES GROUP

1801 E. Matzinger Rd.
Toledo, Ohio 43612
(419) 726-1500
(800) 433-6754
Fax (419) 729-8506

Date: 08/11/98

To: MPS Group, Inc.,
19971 James Couzens
Detroit, MI 48235

attn: Barry Cousins/ Courtland Colding

We are pleased to inform you that your waste, as listed below, has been approved for treatment at our Toledo facility.

Generator: CHRYSLER CORPORATION

Waste description: SEPARATOR 1
(manifest section D)

Approval Number: C9808095-B
(manifest section D)

D.O.T. Waste Shipping Name: NON-HAZARDOUS MATERIAL
(manifest section 11. A.)

BBC TSDF EPA ID#: OHD 981000557
(manifest section 6)
TSDF Address: 1801 E. Matzinger Rd., Toledo, OH 43612

Please be sure to use the above waste description and include all assigned approval numbers on your non-hazardous waste manifest when shipping.
You may contact either Sharon White, ext. 210 or BBC Laboratory, ext. 282 to schedule drop offs.

We are looking forward to serving you and hope that you will consider our facility again to accommodate your future disposal/ recycling needs

Sincerely,

Cyndy Cousino

Cyndy Cousino
Approvals Coordinator

Brighton Analytical Inc.
TM

Brighton Analytical Inc.
2105 Pless Drive
Brighton, Michigan 48116
Phone:(810)229-7575 FAX: (810)229-8650

To: Cousins Waste Control Corp.
1701-1801 Matzinger Road
Toledo, OH 43612

Report Date: 07/27/98 Date Submitted: 07/20/98 Date Sampled: 07/17/98

Sample ID: **25316 Sample from Seperator #1** Project Name: **Sewer Line Cleaning/Chrysler Dayton**

BA Report Number: **29912** Project Number: **MPS**

BA Sample ID: **AN06358**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
TCLP Metal Analysis						
TCLP Arsenic	**Not detected**	mg/L	0.20	SW846 6020	BC	07/22/98
TCLP Barium	**0.39**	mg/L	0.20	SW846 6020	BC	07/22/98
TCLP Cadmium	**Not detected**	mg/L	0.04	SW846 6020	BC	07/22/98
TCLP Chromium	**Not detected**	mg/L	0.01	SW846 6020	BC	07/22/98
TCLP Copper	**Not detected**	mg/L	0.10	SW846 6020	BC	07/22/98
TCLP Lead	**Not detected**	mg/L	0.20	SW846 6020	BC	07/22/98
TCLP Mercury	**Not detected**	mg/L	0.002	SW846 7470	GW	07/23/98
TCLP Selenium	**Not detected**	mg/L	0.30	SW846 6020	BC	07/22/98
TCLP Silver	**Not detected**	mg/L	0.10	SW846 6020	BC	07/22/98
TCLP Zinc	**0.83**	mg/L	0.07	SW846 6020	BC	07/22/98
TCLP Metal (digestion)	**Digested**				LS	07/22/98
TCLP Mercury (digestion)	**Digested**				GW	07/22/98
RCI Analysis						
Reactive Cyanide	**Not detected**	mg/Kg	50	9010/7.3.3.2	RM	07/23/98
Ignitability	**Did not flash**	deg. F	60-200	SW846 1010	LS	07/22/98
Reactive Sulfide	**Not detected**	mg/Kg	50	9030/7.3.4.2	RM	07/23/98
pH	**7.0**	S.I.		EPA 150.1	LS	07/22/98
PCB Analysis						
ARO 1016	**Not detected**	ug/L	0.2	EPA 608	YH	07/22/98
ARO 1221	**Not detected**	ug/L	0.2	EPA 608	YH	07/22/98
ARO 1232	**Not detected**	ug/L	0.4	EPA 608	YH	07/22/98
ARO 1242	**Not detected**	ug/L	0.2	EPA 608	YH	07/22/98
ARO 1248	**Not detected**	ug/L	0.2	EPA 608	YH	07/22/98
ARO 1254	**Not detected**	ug/L	0.2	EPA 608	YH	07/22/98
ARO 1260	**Not detected**	ug/L	0.2	EPA 608	YH	07/22/98
PCB (extraction)	**Extracted**			8082/608	BY	07/21/98
TCLP ZHE Volatile Analysis						
Carbon tetrachloride	**Not detected**	ug/L	10	SW846 8260	JH	07/25/98
Chlorobenzene	**Not detected**	ug/L	10	SW846 8260	JH	07/25/98
Chloroform	**Not detected**	ug/L	10	SW846 8260	JH	07/25/98
1,4-Dichlorobenzene	**Not detected**	ug/L	10	SW846 8260	JH	07/25/98
1,2-Dichloroethane	**Not detected**	ug/L	10	SW846 8260	JH	07/25/98

Brighton Analytical Inc.
TM

Brighton Analytical Inc.
2105 Pless Drive
Brighton, Michigan 48116
Phone:(810)229-7575 FAX: (810)229-8650

To: Cousins Waste Control Corp.
1701-1801 Matzinger Road
Toledo, OH 43612

Report Date: 07/27/98 Date Submitted: 07/20/98 Date Sampled: 07/17/98

Sample ID: **25316 Sample from Seperator #1** Project Name: **Sewer Line Cleaning/Chrysler Dayton**

BA Report Number: **29912** Project Number: **MPS**

BA Sample ID: **AN06358**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,1-Dichloroethene	**Not detected**	ug/L	10	SW846 8260	JH	07/25/98
Tetrachloroethene	**Not detected**	ug/L	10	SW846 8260	JH	07/25/98
Trichloroethene	**Not detected**	ug/L	10	SW846 8260	JH	07/25/98
Vinyl chloride	**Not detected**	ug/L	10	SW846 8260	JH	07/25/98
Methyl ethyl ketone	**Not detected**	ug/L	50	SW846 8260	JH	07/25/98
Benzene	**Not detected**	ug/L	10	SW846 8260	JH	07/25/98
TCLP Semi-Volatile Analysis						
Cresol	**Not detected**	ug/L	100000	SW846 8270	CW	07/22/98
Pentachlorophenol	**Not detected**	ug/L	100000	SW846 8270	CW	07/22/98
2,4,5-Trichlorophenol	**Not detected**	ug/L	400000	SW846 8270	CW	07/22/98
2,4,6-Trichlorophenol	**Not detected**	ug/L	2000	SW846 8270	CW	07/22/98
Hexachlorobenzene	**Not detected**	ug/L	130	SW846 8270	CW	07/22/98
Hexachlorobutadiene	**Not detected**	ug/L	500	SW846 8270	CW	07/22/98
Hexachloroethane	**Not detected**	ug/L	3000	SW846 8270	CW	07/22/98
2,4-Dinitrotoluene	**Not detected**	ug/L	130	SW846 8270	CW	07/22/98
Nitrobenzene	**Not detected**	ug/L	2000	SW846 8270	CW	07/22/98
Pyridine	**Not detected**	ug/L	5000	SW846 8270	CW	07/22/98
TCLP BNA (extraction)	**Extracted**			8270/625	MB	07/22/98

DL = Detection Limit as recommended by MDEQ.

Released by: J. Kenyon

Date: 7/27/98

BBC
ENVIRONMENTAL ENTERPRISES

PSC
SERVICES
INDUSTRIAL SERVICES GROUP

1801 E. Matzinger Rd.
Toledo, Ohio 43612
(419) 726-1500
(800) 433-6754
Fax (419) 729-8506

Date: 08/11/98

To: MPS Group, Inc.,
19971 James Couzens
Detroit, MI 48235

attn: Barry Cousins/ Courtland Colding

We are pleased to inform you that your waste, as listed below, has been approved for treatment at our Toledo facility.

Generator: CHRYSLER CORPORATION

Waste description: SEPARATOR 2
(manifest section D)

Approval Number: C9808095-C
(manifest section D)

D.O.T. Waste Shipping Name: NON-HAZARDOUS MATERIAL
(manifest section 11. A.)

BBC TSDF EPA ID#: OHD 981000557
(manifest section 6)
TSDF Address: 1801 E. Matzinger Rd., Toledo, OH 43612

Please be sure to use the above waste description and include all assigned approval numbers on your non-hazardous waste manifest when shipping.
You may contact either Sharon White, ext. 210 or BBC Laboratory, ext. 282 to schedule drop offs.

We are looking forward to serving you and hope that you will consider our facility again to accommodate your future disposal/ recycling needs

Sincerely,

Cyndy Cousino

Cyndy Cousino
Approvals Coordinator

Brighton Analytical Inc.
TM

Brighton Analytical Inc.
2105 Pless Drive
Brighton, Michigan 48116
Phone:(810)229-7575 FAX: (810)229-8650

To: Cousins Waste Control Corp.
1701-1801 Matzinger Road
Toledo, OH 43612

Report Date: 07/27/98 Date Submitted: 07/20/98 Date Sampled: 07/17/98

Sample ID: **25315 Seperator #2**

Project Name: **Sewer Line Cleaning/Chrysler Dayton**
Project Number: **MPS**

BA Report Number: **29914**
BA Sample ID: **AN06360**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
TCLP Metal Analysis						
TCLP Arsenic	**Not detected**	mg/L	0.20	SW846 6020	BC	07/22/98
TCLP Barium	**0.68**	mg/L	0.20	SW846 6020	BC	07/22/98
TCLP Cadmium	**Not detected**	mg/L	0.04	SW846 6020	BC	07/22/98
TCLP Chromium	**Not detected**	mg/L	0.01	SW846 6020	BC	07/22/98
TCLP Copper	**Not detected**	mg/L	0.10	SW846 6020	BC	07/22/98
TCLP Lead	**Not detected**	mg/L	0.20	SW846 6020	BC	07/22/98
TCLP Mercury	**Not detected**	mg/L	0.002	SW846 7470	GW	07/23/98
TCLP Selenium	**Not detected**	mg/L	0.30	SW846 6020	BC	07/22/98
TCLP Silver	**Not detected**	mg/L	0.10	SW846 6020	BC	07/22/98
TCLP Zinc	**0.37**	mg/L	0.07	SW846 6020	BC	07/22/98
TCLP Metal (digestion)	**Digested**				LS	07/22/98
TCLP Mercury (digestion)	**Digested**				GW	07/22/98
RCI Analysis						
Ignitability	**Did not flash**	deg. F	60-200	SW846 1010	LS	07/22/98
Reactive Cyanide	**Not detected**	mg/Kg	50	9010/7.3.3.2	RM	07/23/98
Reactive Sulfide	**Not detected**	mg/Kg	50	9030/7.3.4.2	RM	07/23/98
pH	**5.0**	S.I.		EPA 150.1	LS	07/22/98
PCB Analysis						
ARO 1016	**Not detected**	ug/L	3.4	EPA 608	YH	07/22/98
ARO 1221	**Not detected**	ug/L	3.4	EPA 608	YH	07/22/98
ARO 1232	**Not detected**	ug/L	6.8	EPA 608	YH	07/22/98
ARO 1242	**Not detected**	ug/L	3.4	EPA 608	YH	07/22/98
ARO 1248	**Not detected**	ug/L	3.4	EPA 608	YH	07/22/98
ARO 1254	**Not detected**	ug/L	3.4	EPA 608	YH	07/22/98
ARO 1260	**Not detected**	ug/L	3.4	EPA 608	YH	07/22/98
PCB (extraction)	**Extracted**			8082/608	BY	07/21/98
TCLP ZHE Volatile Analysis						
Carbon tetrachloride	**Not detected**	ug/L	10	SW846 8260	JH	07/25/98
Chlorobenzene	**Not detected**	ug/L	10	SW846 8260	JH	07/25/98
Chloroform	**Not detected**	ug/L	10	SW846 8260	JH	07/25/98
1,4-Dichlorobenzene	**Not detected**	ug/L	10	SW846 8260	JH	07/25/98
1,2-Dichloroethane	**Not detected**	ug/L	10	SW846 8260	JH	07/25/98

Brighton Analytical Inc.
TM

Brighton Analytical Inc.
2105 Pless Drive
Brighton, Michigan 48116
Phone:(810)229-7575 FAX: (810)229-8650

To: Cousins Waste Control Corp.
1701-1801 Matzinger Road
Toledo, OH 43612

Report Date: 07/27/98 Date Submitted: 07/20/98 Date Sampled: 07/17/98

Sample ID: **25315 Seperator #2**

Project Name: **Sewer Line Cleaning/Chrysler Dayton**
Project Number: **MPS**

BA Report Number: **29914**
BA Sample ID: **AN06360**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,1-Dichloroethene	**Not detected**	ug/L	10	SW846 8260	JH	07/25/98
Tetrachloroethene	**Not detected**	ug/L	10	SW846 8260	JH	07/25/98
Trichloroethene	**16**	ug/L	10	SW846 8260	JH	07/25/98
Vinyl chloride	**Not detected**	ug/L	10	SW846 8260	JH	07/25/98
Methyl ethyl ketone	**Not detected**	ug/L	50	SW846 8260	JH	07/25/98
Benzene	**Not detected**	ug/L	10	SW846 8260	JH	07/25/98
TCLP Semi-Volatile Analysis						
Cresol	**Not detected**	ug/L	100000	SW846 8270	CW	07/22/98
Pentachlorophenol	**Not detected**	ug/L	100000	SW846 8270	CW	07/22/98
2,4,5-Trichlorophenol	**Not detected**	ug/L	400000	SW846 8270	CW	07/22/98
2,4,6-Trichlorophenol	**Not detected**	ug/L	2000	SW846 8270	CW	07/22/98
Hexachlorobenzene	**Not detected**	ug/L	130	SW846 8270	CW	07/22/98
Hexachlorobutadiene	**Not detected**	ug/L	500	SW846 8270	CW	07/22/98
Hexachloroethane	**Not detected**	ug/L	3000	SW846 8270	CW	07/22/98
2,4-Dinitrotoluene	**Not detected**	ug/L	130	SW846 8270	CW	07/22/98
Nitrobenzene	**Not detected**	ug/L	2000	SW846 8270	CW	07/22/98
Pyridine	**Not detected**	ug/L	5000	SW846 8270	CW	07/22/98
TCLP BNA (extraction)	**Extracted**			8270/625	MB	07/22/98

DL = Detection Limit as recommended by MDEQ.

Released by: J. Kenyon
Date: 7/27/98

Elevated PCB dl due to dilution.

BBC
ENVIRONMENTAL ENTERPRISES

PSC
INDUSTRIAL SERVICES GROUP

1801 E. Matzinger Rd.
Toledo, Ohio 43612
(419) 726-1500
(800) 433-6754
Fax (419) 729-8506

Date: 08/11/98

To: MPS Group, Inc.,
19971 James Couzens
Detroit, MI 48235

attn: Barry Cousins/ Courtland Colding

We are pleased to inform you that your waste, as listed below, has been approved for treatment at our Toledo facility.

Generator: CHRYSLER CORPORATION

Waste description: PIPE E
(manifest section D)

Approval Number: C9808095-A
(manifest section D)

D.O.T. Waste Shipping Name: NON-HAZARDOUS MATERIAL
(manifest section 11. A.)

BBC TSDF EPA ID#: OHD 981000557
(manifest section 6)
TSDF Address: 1801 E. Matzinger Rd., Toledo, OH 43612

Please be sure to use the above waste description and include all assigned approval numbers on your non-hazardous waste manifest when shipping.
You may contact either Sharon White, ext. 210 or BBC Laboratory, ext. 282 to schedule drop offs.

We are looking forward to serving you and hope that you will consider our facility again to accommodate your future disposal/ recycling needs

Sincerely,

Cyndy Cousino

Cyndy Cousino
Approvals Coordinator

Brighton Analytical Inc.
TM

Brighton Analytical Inc.
2105 Pless Drive
Brighton, Michigan 48116
Phone:(810)229-7575 FAX: (810)229-8650

To: Cousins Waste Control Corp.
1701-1801 Matzinger Road
Toledo, OH 43612

Report Date: 07/27/98 Date Submitted: 07/20/98 Date Sampled: 07/17/98

Sample ID: **25311 Pipe 'E'**

Project Name: **Sewer Line Cleaning/Chrysler Dayton**
Project Number: **MPS**

BA Report Number: **29910**
BA Sample ID: **AN06356**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
TCLP Metal Analysis						
TCLP Arsenic	**Not detected**	mg/L	0.20	SW846 6020	BC	07/22/98
TCLP Barium	**Not detected**	mg/L	0.20	SW846 6020	BC	07/22/98
TCLP Cadmium	**Not detected**	mg/L	0.04	SW846 6020	BC	07/22/98
TCLP Chromium	**0.01**	mg/L	0.01	SW846 6020	BC	07/22/98
TCLP Copper	**0.20**	mg/L	0.10	SW846 6020	BC	07/22/98
TCLP Lead	**Not detected**	mg/L	0.20	SW846 6020	BC	07/22/98
TCLP Mercury	**Not detected**	mg/L	0.002	SW846 7470	GW	07/23/98
TCLP Selenium	**Not detected**	mg/L	0.30	SW846 6020	BC	07/22/98
TCLP Silver	**Not detected**	mg/L	0.10	SW846 6020	BC	07/22/98
TCLP Zinc	**0.66**	mg/L	0.07	SW846 6020	BC	07/22/98
TCLP Metal (digestion)	**Digested**				LS	07/22/98
TCLP Mercury (digestion)	**Digested**				GW	07/22/98
RCI Analysis						
pH	**4.9**	S.I.		EPA 150.1	LS	07/22/98
Reactive Sulfide	**Not detected**	mg/Kg	50	9030/7.3.4.2	RM	07/23/98
Reactive Cyanide	**Not detected**	mg/Kg	50	9010/7.3.3.2	RM	07/23/98
Ignitability	**Did not flash**	deg. F	60-200	SW846 1010	LS	07/22/98
TCLP ZHE Volatile Analysis						
Carbon tetrachloride	**Not detected**	ug/L	10	SW846 8260	GH	07/23/98
Chlorobenzene	**Not detected**	ug/L	10	SW846 8260	GH	07/23/98
Chloroform	**Not detected**	ug/L	10	SW846 8260	GH	07/23/98
1,4-Dichlorobenzene	**Not detected**	ug/L	10	SW846 8260	GH	07/23/98
1,2-Dichloroethane	**Not detected**	ug/L	10	SW846 8260	GH	07/23/98
1,1-Dichloroethene	**Not detected**	ug/L	10	SW846 8260	GH	07/23/98
Tetrachloroethene	**Not detected**	ug/L	10	SW846 8260	GH	07/23/98
Trichloroethene	**Not detected**	ug/L	10	SW846 8260	GH	07/23/98
Vinyl chloride	**Not detected**	ug/L	10	SW846 8260	GH	07/23/98
Methyl ethyl ketone	**Not detected**	ug/L	50	SW846 8260	GH	07/23/98
Benzene	**Not detected**	ug/L	10	SW846 8260	GH	07/23/98
TCLP Semi-Volatile Analysis						
Cresol	**Not detected**	ug/L	100000	SW846 8270	CW	07/22/98
Pentachlorophenol	**Not detected**	ug/L	100000	SW846 8270	CW	07/22/98

BBC
ENVIRONMENTAL ENTERPRISES

PSC
INDUSTRIAL SERVICES GROUP

1801 E. Matzinger Rd.
Toledo, Ohio 43612
(419) 726-1500
(800) 433-6754
Fax (419) 729-8506

Date: 08/11/98

To: MPS Group, Inc.,
19971 James Couzens
Detroit, MI 48235

attn: Barry Cousins/ Courtland Colding

We are pleased to inform you that your waste, as listed below, has been approved for treatment at our Toledo facility.

Generator: CHRYSLER CORPORATION

Waste description: PIPE B
(manifest section D)

Approval Number: CHR01(1AX)-0801
(manifest section D)

D.O.T. Waste Shipping Name: NON-HAZARDOUS MATERIAL
(manifest section 11. A.)

BBC TSDF EPA ID#: OHD 981000557
(manifest section 6)
TSDF Address: 1801 E. Matzinger Rd., Toledo, OH 43612

Please be sure to use the above waste description and include all assigned approval numbers on your non-hazardous waste manifest when shipping.
You may contact either Sharon White, ext. 210 or BBC Laboratory, ext. 282 to schedule drop offs.

We are looking forward to serving you and hope that you will consider our facility again to accommodate your future disposal/ recycling needs

Sincerely,

Cyndy Cousino

Cyndy Cousino
Approvals Coordinator

Brighton Analytical Inc.
TM

Brighton Analytical Inc.
2105 Pless Drive
Brighton, Michigan 48116
Phone:(810)229-7575 FAX: (810)229-8650

To: Cousins Waste Control Corp.
1701-1801 Matzinger Road
Toledo, OH 43612

Report Date: 07/27/98 Date Submitted: 07/20/98 Date Sampled: 07/17/98

Sample ID: **25314 Pipe 'B'** Project Name: **Sewer Line Cleaning/Chrysler Dayton**

BA Report Number: **29913** Project Number: **MPS**

BA Sample ID: **AN06359**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Metal Analysis						
TCLP Arsenic	**Not detected**	mg/L	0.20	SW846 6020	BC	07/22/98
TCLP Barium	**Not detected**	mg/L	0.20	SW846 6020	BC	07/22/98
TCLP Cadmium	**0.04**	mg/L	0.04	SW846 6020	BC	07/22/98
TCLP Chromium	**Not detected**	mg/L	0.01	SW846 6020	BC	07/22/98
TCLP Copper	**Not detected**	mg/L	0.10	SW846 6020	BC	07/22/98
TCLP Lead	**Not detected**	mg/L	0.20	SW846 6020	BC	07/22/98
TCLP Mercury	**0.018**	mg/L	0.002	SW846 7470	GW	07/23/98
TCLP Selenium	**Not detected**	mg/L	0.30	SW846 6020	BC	07/22/98
TCLP Silver	**Not detected**	mg/L	0.10	SW846 6020	BC	07/22/98
TCLP Zinc	**2.6**	mg/L	0.07	SW846 6020	BC	07/22/98
TCLP Metal (digestion)	**Digested**				LS	07/22/98
TCLP Mercury (digestion)	**Digested**				GW	07/22/98
RCI Analysis						
pH	**6.6**	S.I.		EPA 150.1	LS	07/22/98
Reactive Sulfide	**Not detected**	mg/Kg	50	9030/7.3.4.2	RM	07/23/98
Reactive Cyanide	**Not detected**	mg/Kg	50	9010/7.3.3.2	RM	07/23/98
Ignitability	**Did not flash**	deg. F	60-200	SW846 1010	LS	07/22/98
TCLP ZHE Volatile Analysis						
Carbon tetrachloride	**Not detected**	ug/L	10	SW846 8260	JH	07/25/98
Chlorobenzene	**Not detected**	ug/L	10	SW846 8260	JH	07/25/98
Chloroform	**Not detected**	ug/L	10	SW846 8260	JH	07/25/98
1,4-Dichlorobenzene	**Not detected**	ug/L	10	SW846 8260	JH	07/25/98
1,2-Dichloroethane	**Not detected**	ug/L	10	SW846 8260	JH	07/25/98
1,1-Dichloroethene	**Not detected**	ug/L	10	SW846 8260	JH	07/25/98
Tetrachloroethene	**Not detected**	ug/L	10	SW846 8260	JH	07/25/98
Trichloroethene	**Not detected**	ug/L	10	SW846 8260	JH	07/25/98
Vinyl chloride	**Not detected**	ug/L	10	SW846 8260	JH	07/25/98
Methyl ethyl ketone	**Not detected**	ug/L	50	SW846 8260	JH	07/25/98
Benzene	**Not detected**	ug/L	10	SW846 8260	JH	07/25/98
TCLP Semi-Volatile Analysis						
Cresol	**Not detected**	ug/L	100000	SW846 8270	CW	07/22/98
Pentachlorophenol	**Not detected**	ug/L	100000	SW846 8270	CW	07/22/98

Brighton Analytical Inc.
TM

Brighton Analytical Inc.
2105 Pless Drive
Brighton, Michigan 48116
Phone:(810)229-7575 FAX: (810)229-8650

To: Cousins Waste Control Corp.
1701-1801 Matzinger Road
Toledo, OH 43612

Report Date: 07/27/98 Date Submitted: 07/20/98 Date Sampled: 07/17/98

Sample ID: **25314 Pipe 'B'** Project Name: **Sewer Line Cleaning/Chrysler Dayton**

BA Report Number: **29913** Project Number: **MPS**

BA Sample ID: **AN06359**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
2,4,5-Trichlorophenol	**Not detected**	ug/L	400000	SW846 8270	CW	07/22/98
2,4,6-Trichlorophenol	**Not detected**	ug/L	2000	SW846 8270	CW	07/22/98
Hexachlorobenzene	**Not detected**	ug/L	130	SW846 8270	CW	07/22/98
Hexachlorobutadiene	**Not detected**	ug/L	500	SW846 8270	CW	07/22/98
Hexachloroethane	**Not detected**	ug/L	3000	SW846 8270	CW	07/22/98
2,4-Dinitrotoluene	**Not detected**	ug/L	130	SW846 8270	CW	07/22/98
Nitrobenzene	**Not detected**	ug/L	2000	SW846 8270	CW	07/22/98
Pyridine	**Not detected**	ug/L	5000	SW846 8270	CW	07/22/98
TCLP BNA (extraction)	**Extracted**			8270/625	MB	07/22/98
PCB Analysis						
ARO 1016	**Not detected**	ug/Kg	330	SW846 8082	YH	07/21/98
ARO 1221	**Not detected**	ug/Kg	330	SW846 8082	YH	07/21/98
ARO 1232	**Not detected**	ug/Kg	330	SW846 8082	YH	07/21/98
ARO 1242	**Not detected**	ug/Kg	330	SW846 8082	YH	07/21/98
ARO 1248	**Not detected**	ug/Kg	330	SW846 8082	YH	07/21/98
ARO 1254	**14000**	ug/Kg	330	SW846 8082	YH	07/21/98
ARO 1260	**Not detected**	ug/Kg	330	SW846 8082	YH	07/21/98
PCB (extraction)	**Extracted**			8082/608	MB	07/21/98
%Solid	**89.3**	%		ASTM D-2216	BC	07/22/98

All soil results based on dry weight.

DL = Detection Limit as recommended by MDEQ.

Released by: J. Benyn

Date: 7/27/98

BBC
ENVIRONMENTAL ENTERPRISES

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INDUSTRIAL SERVICES GROUP

1801 E. Matzinger Rd.
Toledo, Ohio 43612
(419) 726-1500
(800) 433-6754
Fax (419) 729-8506

Date: 09/08/98

To: MPS Group, Inc.,
19971 James Couzens
Detroit, MI 48235

attn: Barry Cousins/ Courtland Colding

We are pleased to inform you that your waste, as listed below, has been approved for treatment at our Toledo facility.

Generator: CHRYSLER CORPORATION

Waste description: PIPE F, BOX 2
(manifest section D)

Approval Number: C9808093-A
(manifest section D)

D.O.T. Waste Shipping Name: NON-HAZARDOUS MATERIAL
(manifest section 11. A.)

BBC TSDF EPA ID#: OHD 981000557
(manifest section 6)
TSDF Address: 1801 E. Matzinger Rd., Toledo, OH 43612

Please be sure to use the above waste description and include all assigned approval numbers on your non-hazardous waste manifest when shipping.
You may contact either Sharon White, ext. 210 or BBC Laboratory, ext. 282 to schedule drop offs.

We are looking forward to serving you and hope that you will consider our facility again to accommodate your future disposal/ recycling needs

Sincerely,

Cyndy Cousino

Cyndy Cousino
Approvals Coordinator

Brighton Analytical Inc.
TM

Brighton Analytical Inc.
2105 Pless Drive
Brighton, Michigan 48116
Phone:(810)229-7575 FAX: (810)229-8650

To: Cousins Waste Control Corp.
1701-1801 Matzinger Road
Toledo, OH 43612

Report Date: 07/27/98 Date Submitted: 07/20/98 Date Sampled: 07/17/98

Sample ID: **25313 Pipe 'F'**

Project Name: **Sewer Line Cleaning/Chrysler Dayton**
Project Number: **MPS**

BA Report Number: **29911**
BA Sample ID: **AN06357**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
TCLP Metal Analysis						
TCLP Arsenic	**Not detected**	mg/L	0.20	SW846 6020	BC	07/22/98
TCLP Barium	**Not detected**	mg/L	0.20	SW846 6020	BC	07/22/98
TCLP Cadmium	**1.1**	mg/L	0.04	SW846 6020	BC	07/22/98
TCLP Chromium	**Not detected**	mg/L	0.01	SW846 6020	BC	07/22/98
TCLP Copper	**0.65**	mg/L	0.10	SW846 6020	BC	07/22/98
TCLP Lead	**Not detected**	mg/L	0.20	SW846 6020	BC	07/22/98
TCLP Mercury	**Not detected**	mg/L	0.002	SW846 7470	GW	07/23/98
TCLP Selenium	**Not detected**	mg/L	0.30	SW846 6020	BC	07/22/98
TCLP Silver	**Not detected**	mg/L	0.10	SW846 6020	BC	07/22/98
TCLP Zinc	**9.1**	mg/L	0.07	SW846 6020	BC	07/22/98
TCLP Metal (digestion)	**Digested**				LS	07/22/98
TCLP Mercury (digestion)	**Digested**				GW	07/22/98
RCI Analysis						
pH	**6.2**	S.I.		EPA 150.1	LS	07/22/98
Reactive Sulfide	**Not detected**	mg/Kg	50	9030/7.3.4.2	RM	07/23/98
Reactive Cyanide	**Not detected**	mg/Kg	50	9010/7.3.3.2	RM	07/23/98
Ignitability	**Did not flash**	deg. F	60-200	SW846 1010	LS	07/22/98
TCLP ZHE Volatile Analysis						
Carbon tetrachloride	**Not detected**	ug/L	10	SW846 8260	GH	07/23/98
Chlorobenzene	**Not detected**	ug/L	10	SW846 8260	GH	07/23/98
Chloroform	**Not detected**	ug/L	10	SW846 8260	GH	07/23/98
1,4-Dichlorobenzene	**Not detected**	ug/L	10	SW846 8260	GH	07/23/98
1,2-Dichloroethane	**Not detected**	ug/L	10	SW846 8260	GH	07/23/98
1,1-Dichloroethene	**Not detected**	ug/L	10	SW846 8260	GH	07/23/98
Tetrachloroethene	**Not detected**	ug/L	10	SW846 8260	GH	07/23/98
Trichloroethene	**130**	ug/L	10	SW846 8260	GH	07/23/98
Vinyl chloride	**Not detected**	ug/L	10	SW846 8260	GH	07/23/98
Methyl ethyl ketone	**Not detected**	ug/L	50	SW846 8260	GH	07/23/98
Benzene	**Not detected**	ug/L	10	SW846 8260	GH	07/23/98
TCLP Semi-Volatile Analysis						
Cresol	**Not detected**	ug/L	100000	SW846 8270	CW	07/22/98
Pentachlorophenol	**Not detected**	ug/L	100000	SW846 8270	CW	07/22/98

Brighton Analytical Inc.
TM

Brighton Analytical Inc.
2105 Pless Drive
Brighton, Michigan 48116
Phone:(810)229-7575 FAX: (810)229-8650

To: Cousins Waste Control Corp.
1701-1801 Matzinger Road
Toledo, OH 43612

Report Date: 07/27/98 Date Submitted: 07/20/98 Date Sampled: 07/17/98

Sample ID: **25313 Pipe 'F'**

Project Name: **Sewer Line Cleaning/Chrysler Dayton**
Project Number: **MPS**

BA Report Number: **29911**
BA Sample ID: **AN06357**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
2,4,5-Trichlorophenol	**Not detected**	ug/L	400000	SW846 8270	CW	07/22/98
2,4,6-Trichlorophenol	**Not detected**	ug/L	2000	SW846 8270	CW	07/22/98
Hexachlorobenzene	**Not detected**	ug/L	130	SW846 8270	CW	07/22/98
Hexachlorobutadiene	**Not detected**	ug/L	500	SW846 8270	CW	07/22/98
Hexachloroethane	**Not detected**	ug/L	3000	SW846 8270	CW	07/22/98
2,4-Dinitrotoluene	**Not detected**	ug/L	130	SW846 8270	CW	07/22/98
Nitrobenzene	**Not detected**	ug/L	2000	SW846 8270	CW	07/22/98
Pyridine	**Not detected**	ug/L	5000	SW846 8270	CW	07/22/98
TCLP BNA (extraction)	**Extracted**			8270/625	MB	07/22/98
PCB Analysis						
ARO 1016	**Not detected**	ug/Kg	330	SW846 8082	YH	07/21/98
ARO 1221	**Not detected**	ug/Kg	330	SW846 8082	YH	07/21/98
ARO 1232	**Not detected**	ug/Kg	330	SW846 8082	YH	07/21/98
ARO 1242	**Not detected**	ug/Kg	330	SW846 8082	YH	07/21/98
ARO 1248	**Not detected**	ug/Kg	330	SW846 8082	YH	07/21/98
ARO 1254	**36000**	ug/Kg	330	SW846 8082	YH	07/21/98
ARO 1260	**Not detected**	ug/Kg	330	SW846 8082	YH	07/21/98
PCB (extraction)	**Extracted**			8082/608	MB	07/21/98
%Solid	**70.5**	%		ASTM D-2216	BC	07/22/98

All soil results based on dry weight.

DL = Detection Limit as recommended by MDEQ.

Released by: J. Kenyon

Date: 7/27/98

BBC
ENVIRONMENTAL ENTERPRISES

PSC
PHILIP SERVICES
INDUSTRIAL SERVICES GROUP

1801 E. Matzinger Rd.
Toledo, Ohio 43612
(419) 726-1500
(800) 433-6754
Fax (419) 729-8508

Date: 09/08/98

To: MPS Group, Inc.,
19971 James Couzens
Detroit, MI 48235

attn: Barry Cousins/ Courtland Colding

We are pleased to inform you that your waste, as listed below, has been approved for treatment at our Toledo facility.

Generator: CHRYSLER CORPORATION

Waste description: PIPE D, BOX 4
(manifest section D)

Approval Number: C9808093-B
(manifest section D)

D.O.T. Waste Shipping Name: NON-HAZARDOUS MATERIAL
(manifest section 11. A.)

BBC TSDF EPA ID#: OHD 981000557
(manifest section 6)
TSDF Address: 1801 E. Matzinger Rd., Toledo, OH 43612

Please be sure to use the above waste description and include all assigned approval numbers on your non-hazardous waste manifest when shipping.
You may contact either Sharon White, ext. 210 or BBC Laboratory, ext. 282 to schedule drop offs.

We are looking forward to serving you and hope that you will consider our facility again to accommodate your future disposal/ recycling needs

Sincerely,

Cyndy Cousino

Cyndy Cousino
Approvals Coordinator

Brighton Analytical Inc.
TM

Brighton Analytical Inc.
2105 Pless Drive
Brighton, Michigan 48116
Phone:(810)229-7575 FAX: (810)229-8650

To: Cousins Waste Control Corp.
1701-1801 Matzinger Road
Toledo, OH 43612

Report Date: 07/27/98 Date Submitted: 07/20/98 Date Sampled: 07/17/98

Sample ID: **25312 Pipe 'D'**

Project Name: **Sewer Line Cleaning/Chrysler Dayton**
Project Number: **MPS**

BA Report Number: **29915**
BA Sample ID: **AN06361**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Metal Analysis						
TCLP Arsenic	**Not detected**	mg/L	0.20	SW846 6020	BC	07/22/98
TCLP Barium	**Not detected**	mg/L	0.20	SW846 6020	BC	07/22/98
TCLP Cadmium	**Not detected**	mg/L	0.04	SW846 6020	BC	07/22/98
TCLP Chromium	**Not detected**	mg/L	0.01	SW846 6020	BC	07/22/98
TCLP Copper	**0.17**	mg/L	0.10	SW846 6020	BC	07/22/98
TCLP Lead	**Not detected**	mg/L	0.20	SW846 6020	BC	07/22/98
TCLP Mercury	**Not detected**	mg/L	0.002	SW846 7470	GW	07/23/98
TCLP Selenium	**Not detected**	mg/L	0.30	SW846 6020	BC	07/22/98
TCLP Silver	**Not detected**	mg/L	0.10	SW846 6020	BC	07/22/98
TCLP Zinc	**0.06**	mg/L	0.07	SW846 6020	BC	07/22/98
TCLP Metal (digestion)	**Digested**				LS	07/22/98
TCLP Mercury (digestion)	**Digested**				GW	07/22/98
RCI Analysis						
pH	**8.3**	S I.		EPA 150.1	LS	07/22/98
Reactive Sulfide	**Not detected**	mg/Kg	50	9030/7.3.4.2	RM	07/23/98
Reactive Cyanide	**Not detected**	mg/Kg	50	9010/7.3.3.2	RM	07/23/98
Ignitability	**Did not flash**	deg. F	60-200	SW846 1010	LS	07/22/98
TCLP ZHE Volatile Analysis						
Carbon tetrachloride	**Not detected**	ug/L	10	SW846 8260	JH	07/25/98
Chlorobenzene	**Not detected**	ug/L	10	SW846 8260	JH	07/25/98
Chloroform	**Not detected**	ug/L	10	SW846 8260	JH	07/25/98
1,4-Dichlorobenzene	**Not detected**	ug/L	10	SW846 8260	JH	07/25/98
1,2-Dichloroethane	**Not detected**	ug/L	10	SW846 8260	JH	07/25/98
1,1-Dichloroethene	**Not detected**	ug/L	10	SW846 8260	JH	07/25/98
Tetrachloroethene	**Not detected**	ug/L	10	SW846 8260	JH	07/25/98
Trichloroethene	**Not detected**	ug/L	10	SW846 8260	JH	07/25/98
Vinyl chloride	**Not detected**	ug/L	10	SW846 8260	JH	07/25/98
Methyl ethyl ketone	**Not detected**	ug/L	50	SW846 8260	JH	07/25/98
Benzene	**Not detected**	ug/L	10	SW846 8260	JH	07/25/98
TCLP Semi-Volatile Analysis						
Cresol	**Not detected**	ug/L	100000	SW846 8270	CW	07/22/98
Pentachlorophenol	**Not detected**	ug/L	100000	SW846 8270	CW	07/22/98

Brighton Analytical Inc.
TM

Brighton Analytical Inc.
2105 Pless Drive
Brighton, Michigan 48116
Phone:(810)229-7575 FAX: (810)229-8650

To: Cousins Waste Control Corp.
1701-1801 Matzinger Road
Toledo, OH 43612

Report Date: 07/27/98 Date Submitted: 07/20/98 Date Sampled: 07/17/98

Sample ID: **25312 Pipe 'D'**

Project Name: **Sewer Line Cleaning/Chrysler Dayton**
Project Number: **MPS**

BA Report Number: **29915**
BA Sample ID: **AN06361**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
2,4,5-Trichlorophenol	**Not detected**	ug/L	400000	SW846 8270	CW	07/22/98
2,4,6-Trichlorophenol	**Not detected**	ug/L	2000	SW846 8270	CW	07/22/98
Hexachlorobenzene	**Not detected**	ug/L	130	SW846 8270	CW	07/22/98
Hexachlorobutadiene	**Not detected**	ug/L	500	SW846 8270	CW	07/22/98
Hexachloroethane	**Not detected**	ug/L	3000	SW846 8270	CW	07/22/98
2,4-Dinitrotoluene	**Not detected**	ug/L	130	SW846 8270	CW	07/22/98
Nitrobenzene	**Not detected**	ug/L	2000	SW846 8270	CW	07/22/98
Pyridine	**Not detected**	ug/L	5000	SW846 8270	CW	07/22/98
TCLP BNA (extraction)	**Extracted**			8270/625	MB	07/22/98
PCB Analysis						
ARO 1016	**Not detected**	ug/Kg	330	SW846 8082	YH	07/21/98
ARO 1221	**Not detected**	ug/Kg	330	SW846 8082	YH	07/21/98
ARO 1232	**Not detected**	ug/Kg	330	SW846 8082	YH	07/21/98
ARO 1242	**Not detected**	ug/Kg	330	SW846 8082	YH	07/21/98
ARO 1248	**Not detected**	ug/Kg	330	SW846 8082	YH	07/21/98
ARO 1254	**Not detected**	ug/Kg	330	SW846 8082	YH	07/21/98
ARO 1260	**Not detected**	ug/Kg	330	SW846 8082	YH	07/21/98
PCB (extraction)	**Extracted**			8082/608	MB	07/21/98
%Solid	**93.2**	%		ASTM D-2216	BC	07/22/98

All soil results based on dry weight.

DL = Detection Limit as recommended by MDEQ.

Released by: J. Kenyon
Date: 7/27/98

BBC
ENVIRONMENTAL ENTERPRISES

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Fax (419) 729-8506

Date: 09/08/98

To: MPS Group, Inc.,
19971 James Couzens
Detroit, MI 48235

attn: Barry Cousins/ Courtland Colding

We are pleased to inform you that your waste, as listed below, has been approved for treatment at our Toledo facility.

Generator: CHRYSLER CORPORATION

Waste description: PIPE C, BOX 7
(manifest section D)

Approval Number: C9808093-C
(manifest section D)

D.O.T. Waste Shipping Name: NON-HAZARDOUS MATERIAL
(manifest section 11. A.)

BBC TSDF EPA ID#: OHD 981000557
(manifest section 6)
TSDF Address: 1801 E. Matzinger Rd., Toledo, OH 43612

Please be sure to use the above waste description and include all assigned approval numbers on your non-hazardous waste manifest when shipping.
You may contact either Sharon White, ext. 210 or BBC Laboratory, ext. 282 to schedule drop offs.

We are looking forward to serving you and hope that you will consider our facility again to accommodate your future disposal/ recycling needs

Sincerely,

Cyndy Cousino

Cyndy Cousino
Approvals Coordinator

Brighton Analytical Inc.
TM

Brighton Analytical Inc.
2105 Pless Drive
Brighton, Michigan 48116
Phone:(810)229-7575 FAX: (810)229-8650

To: Cousins Waste Control Corp.
1701-1801 Matzinger Road
Toledo, OH 43612

Report Date: 08/04/98 Date Submitted: 07/24/98 Date Sampled: 07/20/98

Sample ID: **25308 Pipe drains in to pipe 'C'** Project Name: **Chrysler Dayton Product**

BA Report Number: **30051** Project Number: **MPS**

BA Sample ID: **AN06657**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
TCLP Metal Analysis						
TCLP Arsenic	**Not detected**	mg/L	0.20	SW846 6020	GW	07/28/98
TCLP Barium	**Not detected**	mg/L	0.20	SW846 6020	GW	07/28/98
TCLP Cadmium	**Not detected**	mg/L	0.04	SW846 6020	GW	07/28/98
TCLP Chromium	**Not detected**	mg/L	0.01	SW846 6020	GW	07/28/98
TCLP Copper	**Not detected**	mg/L	0.10	SW846 6020	GW	07/28/98
TCLP Lead	**Not detected**	mg/L	0.20	SW846 6020	GW	07/28/98
TCLP Mercury	**Not detected**	mg/L	0.002	SW846 7470	GW	07/31/98
TCLP Selenium	**Not detected**	mg/L	0.30	SW846 6020	GW	07/28/98
TCLP Silver	**Not detected**	mg/L	0.10	SW846 6020	GW	07/28/98
TCLP Zinc	**0.56**	mg/L	0.07	SW846 6020	GW	07/28/98
TCLP Metal (digestion)	**Digested**				LS	07/28/98
TCLP Mercury (digestion)	**Digested**				GW	07/30/98
RCI Analysis						
pH	**7.5**	S.I.		EPA 150.1	LS	07/27/98
Reactive Sulfide	**Not detected**	mg/Kg	50	9030/7.3.4.2	RM	07/29/98
Reactive Cyanide	**Not detected**	mg/Kg	50	9010/7.3.3.2	RM	07/27/98
Ignitability	**Did not flash**	deg. F	60-200	SW846 1010	LS	07/27/98
TCLP ZHE Volatile Analysis						
Carbon tetrachloride	**Not detected**	ug/L	10	SW846 8260	GH	08/04/98
Chlorobenzene	**Not detected**	ug/L	10	SW846 8260	GH	08/04/98
Chloroform	**Not detected**	ug/L	10	SW846 8260	GH	08/04/98
1,4-Dichlorobenzene	**Not detected**	ug/L	10	SW846 8260	GH	08/04/98
1,2-Dichloroethane	**Not detected**	ug/L	10	SW846 8260	GH	08/04/98
1,1-Dichloroethene	**Not detected**	ug/L	10	SW846 8260	GH	08/04/98
Tetrachloroethene	**Not detected**	ug/L	10	SW846 8260	GH	08/04/98
Trichloroethene	**Not detected**	ug/L	10	SW846 8260	GH	08/04/98
Vinyl chloride	**Not detected**	ug/L	10	SW846 8260	GH	08/04/98
Methyl ethyl ketone	**Not detected**	ug/L	50	SW846 8260	GH	08/04/98
Benzene	**Not detected**	ug/L	10	SW846 8260	GH	08/04/98
TCLP Semi-Volaitle Analysis						
Cresol	**Not detected**	ug/L	100000	SW846 8270	CW	07/28/98
Pentachlorophenol	**Not detected**	ug/L	100000	SW846 8270	CW	07/28/98

Brighton Analytical Inc.
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2105 Pless Drive
Brighton, Michigan 48116
Phone:(810)229-7575 FAX: (810)229-8650

To: Cousins Waste Control Corp.
1701-1801 Matzinger Road
Toledo, OH 43612

Report Date: 08/25/98 Date Submitted: 08/18/98 Date Sampled: 08/14/98

Sample ID: **25402 Pipe C - Box 7**

Project Name: **Payton Thermal Products**
Project Number: **09521**

BA Report Number: **30454**
BA Sample ID: **AN08331**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
PCB Analysis						
ARO 1016	**Not detected**	ug/L	20.0	EPA 608	YH	08/20/98
ARO 1221	**Not detected**	ug/L	20.0	EPA 608	YH	08/20/98
ARO 1232	**Not detected**	ug/L	40.0	EPA 608	YH	08/20/98
ARO 1242	**Not detected**	ug/L	20.0	EPA 608	YH	08/20/98
ARO 1248	**Not detected**	ug/L	20.0	EPA 608	YH	08/20/98
ARO 1254	**Not detected**	ug/L	20.0	EPA 608	YH	08/20/98
ARO 1260	**Not detected**	ug/L	20.0	EPA 608	YH	08/20/98
PCB (extraction)	**Extracted**			8082/608	ST	08/20/98

DL = Detection Limit as recommended by MDEQ.

Released by: [signature]
Date: 8/26/98

Elevated PCB dl due to sample matrix.

Brighton Analytical Inc.
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Brighton Analytical Inc.
2105 Pless Drive
Brighton, Michigan 48116
Phone:(810)229-7575 FAX: (810)229-8650

To: Cousins Waste Control Corp.
1701-1801 Matzinger Road
Toledo, OH 43612

Report Date: 08/26/98 | Date Submitted: 08/18/98 | Date Sampled: 08/14/98

DL = Detection Limit as recommended by MDEQ.

Released by: J. Kenyon
Date: 8/26/98

Brighton
Analytical
Inc.

BRIGHTON ANALYTICAL, INC.

QUALITY ASSURANCE/QUALITY CONTROL

Brighton Analytical Inc.

METALS QC

Page 1 - Results of Independent Check Standard

Page 2 - Percent Recovery of Method Standard (M.STD)

Page 3 - Percent Recovery of Sample Matrix Spike (MS)

Page 4 - Percent Recovery of Sample Matrix Spike Duplicate (MSD)

Page 5 - Relative Percent Difference (RPD) of MS/MSD

LCS QC Report

File : d:\hpchem\1\data\aug0198.08a\0091cs_.d\0091cs_.d#
Acquired : Aug 1 98 09:14 am using AcqMethod DB200_8.M
Operator : G.J.W.
Sample Name: SPEX 1 & 3
Misc Info : ,
Vial Number: 2101
CurrentMeth: c:\hpchem\1\methods\db200_8.m
BkgFile : --------
Sample Type: LCS
Dilution : 100.000000

Element		Concentration		Expected	QC Range	Flag
Be	9	10440.000	µg/L	10000.00	9000.00-11000.00	Pass
Na	23	201800.000	µg/L	200000.00	1.8000E+5-2.2000E+5	Pass
Mg	26	194100.000	µg/L	200000.00	1.8000E+5-2.2000E+5	Pass
Al	27	10270.000	µg/L	10000.00	9000.00-11000.00	Pass
K	39	208900.000	µg/L	200000.00	1.8000E+5-2.2000E+5	Pass
Ca	44	205700.000	µg/L	200000.00	1.8000E+5-2.2000E+5	Pass
V	51	10090.000	µg/L	10000.00	9000.00-11000.00	Pass
Cr	52	10080.000	µg/L	10000.00	9000.00-11000.00	Pass
Cr	53	10230.000	µg/L	10000.00	9000.00-11000.00	Pass
Mn	55	10150.000	µg/L	10000.00	9000.00-11000.00	Pass
Fe	57	209300.000	µg/L	200000.00	1.8000E+5-2.2000E+5	Pass
Co	59	9843.000	µg/L	10000.00	9000.00-11000.00	Pass
Ni	60	9969.000	µg/L	10000.00	9000.00-11000.00	Pass
Cu	63	10410.000	µg/L	10000.00	9000.00-11000.00	Pass
Cu	65	10520.000	µg/L	10000.00	9000.00-11000.00	Pass
Zn	66	10880.000	µg/L	10000.00	9000.00-11000.00	Pass
As	75	10190.000	µg/L	10000.00	9000.00-11000.00	Pass
Se	77	10360.000	µg/L	10000.00	9000.00-11000.00	Pass
Se	82	10250.000	µg/L	10000.00	9000.00-11000.00	Pass
Mo	98	9653.000	µg/L	10000.00	9000.00-11000.00	Pass
Ag	107	10110.000	µg/L	10000.00	9000.00-11000.00	Pass
Cd	111	10270.000	µg/L	10000.00	9000.00-11000.00	Pass
Sb	123	8280.000	µg/L	8500.00	7650.00-9350.00	Pass
Ba	137	10210.000	µg/L	10000.00	9000.00-11000.00	Pass
Tl	205	10390.000	µg/L	10000.00	9000.00-11000.00	Pass
Pb	208	10040.000	µg/L	10000.00	9000.00-11000.00	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	10541	8787	Pass
45	15744	15114	Pass
89	16504	14559	Pass
115	15252	14145	Pass

0 Element Failures. Maximum Number of Failures Allowed (5)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (2)

Spiked Sample QC Report

File : d:\HPCHEM\1\DATA\Aug0198.08A\012SPK_.D\012SPK_.D#
Acquired : Aug 1 98 09:28 am using AcqMethod DB200_8.M
Operator : G.J.W.
Sample Name: M.STD. 7-31-98 TCLP
Misc Info : TCLP
Vial Number: 2104
CurrentMeth: c:\hpchem\1\methods\DB200_8.M
BkgFile : --------
Sample Type: SPIKE
Dilution : 10.000000

Spike Reference Sample is d:\HPCHEM\1\DATA\Aug0198.08A\011SPKR.D\011SPKR.D

Spike Recovery

Element		Conc.		Ref. Conc.	Conc. Added	%Rec.	QC Range	Flag
Be	9	2006.000	µg/L	-0.026	2000.0	100	80-120	Spk>Cal
Na	23	20400.000	µg/L	521.300	20000	99	80-120	Pass
Mg	26	19650.000	µg/L	14.190	20000	98	80-120	Pass
Al	27	2133.000	µg/L	200.500	2000.0	97	80-120	Spk>Cal
K	39	20350.000	µg/L	-6.835	20000	102	80-120	Pass
Ca	44	20560.000	µg/L	36.510	20000	103	80-120	Pass
V	51	2055.000	µg/L	-0.109	2000.0	103	80-120	Spk>Cal
Cr	52	2021.000	µg/L	-0.329	2000.0	101	80-120	Spk>Cal
Cr	53	2028.000	µg/L	-4.005	2000.0	101	80-120	Spk>Cal
Mn	55	2044.000	µg/L	0.547	2000.0	102	80-120	Spk>Cal
Fe	57	21430.000	µg/L	265.900	20000	106	80-120	Pass
Co	59	2013.000	µg/L	0.107	2000.0	101	80-120	Spk>Cal
Ni	60	1969.000	µg/L	8.004	2000.0	98	80-120	Spk>Cal
Cu	63	2066.000	µg/L	0.498	2000.0	103	80-120	Spk>Cal
Cu	65	2110.000	µg/L	0.518	2000.0	106	80-120	Spk>Cal
Zn	66	2223.000	µg/L	33.030	2000.0	109	80-120	Spk>Cal
As	75	2124.000	µg/L	0.106	2000.0	106	80-120	Spk>Cal
Se	77	2130.000	µg/L	-0.126	2000.0	106	80-120	Spk>Cal
Se	82	2135.000	µg/L	1.127	2000.0	107	80-120	Spk>Cal
Mo	98	1989.000	µg/L	4.738	2000.0	99	80-120	Spk>Cal
Ag	107	17.470	µg/L	0.248	20.000	87	80-120	Pass
Cd	111	2171.000	µg/L	0.182	2000.0	109	80-120	Spk>Cal
Sb	123	2100.000	µg/L	19.760	2000.0	104	80-120	Spk>Cal
Ba	137	2078.000	µg/L	0.610	2000.0	104	80-120	Spk>Cal
Tl	205	2079.000	µg/L	0.107	2000.0	104	80-120	Spk>Cal
Pb	208	2079.000	µg/L	0.014	2000.0	104	80-120	Spk>Cal

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	10541	9212	Pass
45	15744	15078	Pass
89	16504	14350	Pass
115	15252	14160	Pass

0 Element Failures. Maximum Number of Failures Allowed (5)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (2)

Spiked Sample QC Report

File : d:\HPCHEM\1\DATA\Aug0198.08A\022SPK_.D\022SPK_.D#
Acquired : Aug 1 98 10:15 am using AcqMethod DB200_8.M
Operator : G.J.W.
Sample Name: 6913 MS
Misc Info : TCLP
Vial Number: 2112
CurrentMeth: c:\hpchem\1\methods\DB200_8.M
BkgFile : --------
Sample Type: SPIKE
Dilution : 10.000000

Spike Reference Sample is d:\HPCHEM\1\DATA\Aug0198.08A\021SPKR.D\021SPKR.D

Spike Recovery

Element		Conc.		Ref. Conc.	Conc. Added	%Rec.	QC Range	Flag
Be	9	1977.000	µg/L	0.157	2000.0	99	80-120	Spk>Cal
Na	23	-----	µg/L	-----	20000	---	80-120	OverRng
Mg	26	23730.000	µg/L	6713.000	20000	85	80-120	Pass
Al	27	2296.000	µg/L	551.400	2000.0	87	80-120	Spk>Cal
K	39	125100.000	µg/L	1.0360E+5	20000	108	80-120	High in Sl
Ca	44	773200.000	µg/L	7.4550E+5	20000	138	80-120	High in Sl
V	51	2169.000	µg/L	1.236	2000.0	108	80-120	Spk>Cal
Cr	52	2129.000	µg/L	20.400	2000.0	105	80-120	Spk>Cal
Cr	53	2155.000	µg/L	13.050	2000.0	107	80-120	Spk>Cal
Mn	55	2172.000	µg/L	93.830	2000.0	104	80-120	Spk>Cal
Fe	57	24300.000	µg/L	3199.000	20000	106	80-120	Pass
Co	59	2025.000	µg/L	13.320	2000.0	101	80-120	Spk>Cal
Ni	60	2184.000	µg/L	264.500	2000.0	96	80-120	Spk>Cal
Cu	63	2310.000	µg/L	70.450	2000.0	112	80-120	Spk>Cal
Cu	65	1996.000	µg/L	5.669	2000.0	100	80-120	Spk>Cal
Zn	66	1936.000	µg/L	151.700	2000.0	89	80-120	Spk>Cal
As	75	2097.000	µg/L	4.202	2000.0	105	80-120	Spk>Cal
Se	77	1948.000	µg/L	0.957	2000.0	97	80-120	Spk>Cal
Se	82	1928.000	µg/L	3.869	2000.0	96	80-120	Spk>Cal
Mo	98	2304.000	µg/L	88.360	2000.0	111	80-120	Spk>Cal
Ag	107	19.270	µg/L	0.257	20.000	96	80-120	Pass
Cd	111	2028.000	µg/L	0.369	2000.0	101	80-120	Spk>Cal
Sb	123	2216.000	µg/L	45.470	2000.0	109	80-120	Spk>Cal
Ba	137	2451.000	µg/L	204.500	2000.0	112	80-120	Spk>Cal
Tl	205	1911.000	µg/L	-0.013	2000.0	96	80-120	Spk>Cal
Pb	208	1903.000	µg/L	6.282	2000.0	95	80-120	Spk>Cal

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	10541	8866	Pass
45	15744	16098	Pass
89	16504	14112	Pass
115	15252	14403	Pass

0 Element Failures. Maximum Number of Failures Allowed (5)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (2)

Spiked Sample QC Report

File : d:\HPCHEM\1\DATA\Aug0198.08A\023SPK_.D\023SPK_.D#
Acquired : Aug 1 98 10:20 am using AcqMethod DB200_8.M
Operator : G.J.W.
Sample Name: 6913 MSD
Misc Info : TCLP
Vial Number: 2113
CurrentMeth: c:\hpchem\1\methods\DB200_8.M
BkgFile : --------
Sample Type: SPIKE
Dilution : 10.000000

Spike Reference Sample is d:\HPCHEM\1\DATA\Aug0198.08A\021SPKR.D\021SPKR.D

Spike Recovery

Element		Conc.		Ref. Conc.	Conc. Added	%Rec.	QC Range	Flag
Be	9	1861.000	µg/L	0.157	2000.0	93	80-120	Spk>Cal
Na	23	-----	µg/L	-----	20000	---	80-120	OverRng
Mg	26	23660.000	µg/L	6713.000	20000	85	80-120	Pass
Al	27	2410.000	µg/L	551.400	2000.0	93	80-120	Spk>Cal
K	39	121700.000	µg/L	1.0360E+5	20000	90	80-120	High in S
Ca	44	755100.000	µg/L	7.4550E+5	20000	48	80-120	High in S.
V	51	2178.000	µg/L	1.236	2000.0	109	80-120	Spk>Cal
Cr	52	2118.000	µg/L	20.400	2000.0	105	80-120	Spk>Cal
Cr	53	2150.000	µg/L	13.050	2000.0	107	80-120	Spk>Cal
Mn	55	2156.000	µg/L	93.830	2000.0	103	80-120	Spk>Cal
Fe	57	23750.000	µg/L	3199.000	20000	103	80-120	Pass
Co	59	1929.000	µg/L	13.320	2000.0	96	80-120	Spk>Cal
Ni	60	2121.000	µg/L	264.500	2000.0	93	80-120	Spk>Cal
Cu	63	2250.000	µg/L	70.450	2000.0	109	80-120	Spk>Cal
Cu	65	1988.000	µg/L	5.669	2000.0	99	80-120	Spk>Cal
Zn	66	1956.000	µg/L	151.700	2000.0	90	80-120	Spk>Cal
As	75	2034.000	µg/L	4.202	2000.0	101	80-120	Spk>Cal
Se	77	1892.000	µg/L	0.957	2000.0	95	80-120	Spk>Cal
Se	82	1888.000	µg/L	3.869	2000.0	94	80-120	Spk>Cal
Mo	98	2225.000	µg/L	88.360	2000.0	107	80-120	Spk>Cal
Ag	107	17.470	µg/L	0.257	20.000	87	80-120	Pass
Cd	111	1945.000	µg/L	0.369	2000.0	97	80-120	Spk>Cal
Sb	123	2211.000	µg/L	45.470	2000.0	108	80-120	Spk>Cal
Ba	137	2340.000	µg/L	204.500	2000.0	107	80-120	Spk>Cal
Tl	205	2029.000	µg/L	-0.013	2000.0	101	80-120	Spk>Cal
Pb	208	1979.000	µg/L	6.282	2000.0	99	80-120	Spk>Cal

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	10541	9087	Pass
45	15744	15966	Pass
89	16504	14314	Pass
115	15252	13334	Pass

0 Element Failures. Maximum Number of Failures Allowed (5)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (2)

Duplicate QC Report

File : d:\hpchem\1\data\aug0198.08a\023spk_.d\023spk_.d#
Acquired : Aug 1 98 10:20 am using AcqMethod DB200_8.M
Operator : G.J.W.
Sample Name: 6913 MSD
Misc Info : TCLP
Vial Number: 2113
CurrentMeth: c:\hpchem\1\methods\db200_8.m
BkgFile : --------
Sample Type: SPIKE
Dilution : 10.000000

Duplicate Reference Sample is D:\HPCHEM\1\DATA\AUG0198.08A\022SPK_.D\022S

Element		Concentration	Reference	RPD or Delta	Allowed RPD or CRDL limit	Flag
Be	9	1861 µg/L	1977	6.05%	20%	Dup>Cal
Na	23	----- µg/L	-----	---	---	OverRng
Mg	26	23660 µg/L	23730	0.30%	20%	Pass
Al	27	2410 µg/L	2296	4.85%	20%	Dup>Cal
K	39	121700 µg/L	125100	2.76%	20%	Dup>Cal
Ca	44	755100 µg/L	773200	2.37%	20%	Dup>Cal
V	51	2178 µg/L	2169	0.41%	20%	Dup>Cal
Cr	52	2118 µg/L	2129	0.52%	20%	Dup>Cal
Cr	53	2150 µg/L	2155	0.23%	20%	Dup>Cal
Mn	55	2156 µg/L	2172	0.74%	20%	Dup>Cal
Fe	57	23750 µg/L	24300	2.29%	20%	Pass
Co	59	1929 µg/L	2025	4.86%	20%	Dup>Cal
Ni	60	2121 µg/L	2184	2.93%	20%	Dup>Cal
Cu	63	2250 µg/L	2310	2.63%	20%	Dup>Cal
Cu	65	1988 µg/L	1996	0.40%	20%	Dup>Cal
Zn	66	1956 µg/L	1936	1.03%	20%	Dup>Cal
As	75	2034 µg/L	2097	3.05%	20%	Dup>Cal
Se	77	1892 µg/L	1948	2.92%	20%	Dup>Cal
Se	82	1888 µg/L	1928	2.10%	20%	Dup>Cal
Mo	98	2225 µg/L	2304	3.49%	20%	Dup>Cal
Ag	107	17.47 µg/L	19.27	9.80%	20%	Pass
Cd	111	1945 µg/L	2028	4.18%	20%	Dup>Cal
Sb	123	2211 µg/L	2216	0.23%	20%	Dup>Cal
Ba	137	2340 µg/L	2451	4.63%	20%	Dup>Cal
Tl	205	2029 µg/L	1911	5.99%	20%	Dup>Cal
Pb	208	1979 µg/L	1903	3.92%	20%	Dup>Cal

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	10541	9087	Pass
45	15744	15966	Pass
89	16504	14314	Pass
115	15252	13334	Pass

0 Element Failures. Maximum Number of Failures Allowed (5)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (2)

Brighton Analytical Inc.

Representative Batch Quality Control Accuracy and Precision

Analyst: G.W.

Parameter: MERCURY

Analysis Date: 7/31/98

Mth. Reference: 7470/7471/245.1

ACCURACY					
Lab ID	**Spk. Conc.**	**Background**	**% Recoveries**	**Limits %**	**Mth. Blk. Conc.**
AN06746	0.0020	0.0003	92/98	80 - 120	<0.0002

PRECISION					
Lab ID	**Observed A**	**Observed B**	**RPD**	**Limits**	--
AN06746	0.00214	0.00224	5	≤20%	--

Comments: The percent recovery of the Independent Secondary Reference Material SPEX std was 101 %. The percent recovery of the method standard was 98 %.

MISC PA4/97

Brighton Analytical Inc.

Polychlorinated Biphenyl (PCB)- Method 608/8082

REPRESENTATIVE BATCH PRECISION AND ACCURACY QUALITY CONTROL SUMMARY

Analysis Date: 7/31/98 Standard ID: #546 Extraction Date 7/30/98

Laboratory ID# Method Stds. Matrix: WATER Analyst YH

SURROGATE	Matrix Spike - Precision *			Matrix Spike - Accuracy				
	Spike 1	Spike 2	Relative Percent Difference	Spk Conc	% Recovery	Range (%)	Method Stnd%	Method Blank%
TCMX	0 10	0.10	2 0	0 10ug/ml	99	60 - 130.	99	118
COMPOUND								
Aroclor 1260	0.66	0.77	15.4	1.0ug/ml	77	60-130	77	0 5

* Matrix Spike Precision +/-20 Relative Percent Difference
(ug/ml is equivalent to ppm)

Comments.

Brighton Analytical Inc

GC/MS
VOLATILE METHOD 8260

REPRESENTATIVE BATCH PRECISION AND ACCURACY QUALITY CONTROL SUMMARY

Analysis Date	8/4/98	Standard ID	# 633	Inst./Detec:	HP5972/GC-MS
Laboratory ID#:	AN06999	Matrix.	WATER	Analyst:	GH

SURROGATES	Matrix Spike - Precision *			Matrix Spike - Accuracy			
	Spike 1	Spike 2	Relative Percent Difference	Spk Conc	% Recovery	Range (%)	Method Blank ug/L
D4-1,2-Dichloroethane	56.7	56.7	0 0	50ug/L	113	80 - 120	114
D8-Toluene	55.4	55.5	0.2	50ug/L	111	80 - 120	92
4-Bromofluorobenzene	48.6	48.6	0.0	50ug/L	97	80 - 120	91
COMPOUNDS							
1,1-Dichloroethene	10.0	10.2	2 0	10ug/L	102	61 - 145	<1
Benzene	7.2	7.6	5.4	10ug/L	76	76 - 127	<1
Trichloroethene	10.3	11.0	6.6	10ug/L	110	71 - 170	<1
Toluene	7 6	7.8	2 6	10ug/L	78	76 - 125	<1
Chlorobenzene	9.1	9 4	3.2	10ug/L	94	75 - 130	<1

* Matrix Spike Precision +/-20 Relative Percent Difference

(ug/L is equivalent to ppb)

Comments _____

hpmsvol xls

Brighton Analytical Inc.

GC/MS
SEMI-VOLATILE METHOD 8270

REPRESENTATIVE EXTRACTION BATCH QUALITY CONTROL SUMMARY

Analysis Date: 8/3/98 Extraction Date: 7/30/98

Standard ID: #558 Analyst: CW

Matrix: Water

SURROGATES	Method Standard % Recovery	Standard Concentration	Water Matrix Range	Method Blank µg/L
2-Fluorophenol	41	100ug/L	21 - 110	39
D6-Phenol	41	100ug/L	10 - 110	36
D5-Nitrobenzene	62	100ug/L	34 - 114	65
2-Fluorobiphenyl	74	100ug/L	43 - 116	69
2,4,6-Tribromophenol	21	100ug/L	10 - 123	15
D14-Terphenyl	127	100ug/L	33 - 141	109
COMPOUNDS				
Phenol	53	100ug/L	12 - 110	<5
2-Chlorophenol	86	100ug/L	27 - 123	<5
1,4-Dichlorobenzene	55	100ug/L	36 - 97	<5
N-nitrosodiprpylamine	77	100ug/L	41 - 116	<5
1,2,4-Trichloroenzene	64	100ug/L	39 - 98	<5
4-Chloro-3-Methyl Phenol	97	100ug/L	23 - 97	<5
Acenaphthene	82	100ug/L	10 - 118	<5
4-Nitrophenol	20	100ug/L	10 - 80	<5
2,4-Dinitrotoluene	59	100ug/L	49 - 80	<5
Pentachlorophenol	46	100ug/L	9 - 103	<1
Pyrene	120	100ug/L	26 - 127	<5

Comments

svmethw.xls

Brighton Analytical Inc

GC/MS
SEMI-VOLATILE METHOD 8270

REPRESENTATIVE BATCH PRECISION AND ACCURACY QUALITY CONTROL SUMMARY

Analysis Date: 8/3/98 Standard ID. #558 Inst./Detec· HP5972/GC-MS

Laboratory ID#. Method Stds. Matrix. WATER Analyst: CW

SURROGATES	Matrix Spike - Precision *			Matrix Spike - Accuracy			
	Spike 1	Spike 2	Relative Percent Difference	Spk Conc	% Recovery	Range (%)	Method Blank µg/L
2-Fluorophenol	41 4	44 3	6 8	100ug/L	44	21 - 110	39
D6-Phenol	41.3	43.7	5.6	100ug/L	44	10 - 110	36
D5-Nitrobenzene	61.8	69 4	11.6	100ug/L	69	34 - 114	65
2-Fluorobiphenyl	73.8	81.4	9 8	100ug/L	81	43 - 116	69
2,4,6-Tribromophenol	21 4	22 9	6 8	100ug/L	23	10 - 123	15
D14-Terphenyl	127.3	134.3	5 4	100ug/L	134	33 - 141	109
COMPOUNDS							
Phenol	53 3	57.5	7 6	100ug/L	58	12 - 110	<5
2-Chlorophenol	86 3	95 1	9 7	100ug/L	95	27 - 123	<5
1,4-Dichlorobenzene	55 1	53.4	3 1	100ug/L	53	36 - 97	<5
N-nitrosodipropylamine	77 4	89 4	14.4	100ug/L	89	41 - 116	<5
1,2,4-Trichlorobenzene	63 6	63.9	0.5	100ug/L	64	39 - 98	<5
4-Chloro-3-Methyl Phenol	97.2	108.8	11.3	100ug/L	109	23 - 97	<5
Acenaphthene	82 4	94.0	13.2	100ug/L	94	10 - 118	<5
4-Nitrophenol	20.0	20.3	1.5	100ug/L	20	10 - 80	<5
2,4-Dinitrotoluene	59 4	72.9	20.4	100ug/L	73	24 - 96	<5
Pentachlorophenol	46 3	50.9	9 5	100ug/L	51	9 - 103	<1
Pyrene	120.1	141.8	16 6	100ug/L	120	26 - 127	<5

* Matrix Spike Precision +/-20 Relative Percent Difference.

Comments:

Brighton
Analytical
Inc.

BRIGHTON ANALYTICAL, INC.

QUALITY ASSURANCE/QUALITY CONTROL

Brighton Analytical Inc.

METALS QC

Page 1 - Results of Independent Check Standard

Page 2 - Percent Recovery of Method Standard (M.STD)

Page 3 - Percent Recovery of Sample Matrix Spike (MS)

Page 4 - Percent Recovery of Sample Matrix Spike Duplicate (MSD)

Page 5 - Relative Percent Difference (RPD) of MS/MSD

LCS QC Report

File : d:\hpchem\1\data\jul2898.10a\0091cs_.d\0091cs_.d#
Acquired : Jul 28 98 11:16 am using AcqMethod DB200_8.M
Operator : G.J.W.
Sample Name: SPEX 1 & 3
Misc Info : ,
Vial Number: 2101
CurrentMeth: c:\hpchem\1\methods\db200_8.m
BkgFile : --------
Sample Type: LCS
Dilution : 100.000000

Element		Concentration	Expected	QC Range	Flag
Be	9	9874.000 µg/L	10000.00	9000.00-11000.00	Pass
Na	23	204000.000 µg/L	200000.00	1.8000E+5-2.2000E+5	Pass
Mg	26	210100.000 µg/L	200000.00	1.8000E+5-2.2000E+5	Pass
Al	27	10370.000 µg/L	10000.00	9000.00-11000.00	Pass
K	39	201100.000 µg/L	200000.00	1.8000E+5-2.2000E+5	Pass
Ca	44	202800.000 µg/L	200000.00	1.8000E+5-2.2000E+5	Pass
V	51	9886.000 µg/L	10000.00	9000.00-11000.00	Pass
Cr	52	9964.000 µg/L	10000.00	9000.00-11000.00	Pass
Cr	53	9828.000 µg/L	10000.00	9000.00-11000.00	Pass
Mn	55	9934.000 µg/L	10000.00	9000.00-11000.00	Pass
Fe	57	205400.000 µg/L	200000.00	1.8000E+5-2.2000E+5	Pass
Co	59	10050.000 µg/L	10000.00	9000.00-11000.00	Pass
Ni	60	10250.000 µg/L	10000.00	9000.00-11000.00	Pass
Cu	63	10300.000 µg/L	10000.00	9000.00-11000.00	Pass
Cu	65	10270.000 µg/L	10000.00	9000.00-11000.00	Pass
Zn	66	10460.000 µg/L	10000.00	9000.00-11000.00	Pass
As	75	9857.000 µg/L	10000.00	9000.00-11000.00	Pass
Se	77	10030.000 µg/L	10000.00	9000.00-11000.00	Pass
Se	82	10090.000 µg/L	10000.00	9000.00-11000.00	Pass
Mo	98	9413.000 µg/L	10000.00	9000.00-11000.00	Pass
Ag	107	9679.000 µg/L	10000.00	9000.00-11000.00	Pass
Cd	111	9949.000 µg/L	10000.00	9000.00-11000.00	Pass
Sb	123	8133.000 µg/L	10000.00	9000.00-11000.00	*Fail*
Ba	137	9895.000 µg/L	10000.00	9000.00-11000.00	Pass
Tl	205	9628.000 µg/L	10000.00	9000.00-11000.00	Pass
Pb	208	9528.000 µg/L	10000.00	9000.00-11000.00	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	9829	8570	Pass
45	17488	14799	Pass
89	25759	22324	Pass
115	23784	20650	Pass
209	26664	25019	Pass

Internal Standards referenced to 001CALB.D#

1 Element Failures. Maximum Number of Failures Allowed (5)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (3)

Spiked Sample QC Report

File : d:\HPCHEM\1\DATA\Jul2898.10A\018SPK_.D\018SPK_.D#
Acquired : Jul 28 98 11:58 am using AcqMethod DB200_8.M
Operator : G.J.W.
Sample Name: M.STD. 7-28-98 TCLP
Misc Info : TCLP
Vial Number: 2110
CurrentMeth: c:\hpchem\1\methods\DB200_8.M
BkgFile : --------
Sample Type: SPIKE
Dilution : 10.000000

Spike Reference Sample is d:\HPCHEM\1\DATA\Jul2898.10A\017SPKR.D\017SPKR.D

Spike Recovery

Element		Conc.		Ref. Conc.	Conc. Added	%Rec.	QC Range	Flag
Be	9	1986.000	µg/L	0.556	2000.0	99	80-120	Spk>Cal
Na	23	20390.000	µg/L	334.400	20000	100	80-120	Pass
Mg	26	20490.000	µg/L	51.810	20000	102	80-120	Pass
Al	27	2239.000	µg/L	113.100	2000.0	106	80-120	Spk>Cal
K	39	19660.000	µg/L	112.900	20000	98	80-120	Pass
Ca	44	20070.000	µg/L	110.000	20000	100	80-120	Pass
V	51	1950.000	µg/L	0.997	2000.0	98	80-120	Spk>Cal
Cr	52	1954.000	µg/L	0.914	2000.0	98	80-120	Spk>Cal
Cr	53	1955.000	µg/L	-0.008	2000.0	98	80-120	Spk>Cal
Mn	55	1949.000	µg/L	3.154	2000.0	97	80-120	Spk>Cal
Fe	57	20020.000	µg/L	72.890	20000	100	80-120	Pass
Co	59	1970.000	µg/L	0.771	2000.0	98	80-120	Spk>Cal
Ni	60	1939.000	µg/L	0.424	2000.0	97	80-120	Spk>Cal
Cu	63	1994.000	µg/L	1.837	2000.0	100	80-120	Spk>Cal
Cu	65	1983.000	µg/L	-0.368	2000.0	99	80-120	Spk>Cal
Zn	66	2107.000	µg/L	14.680	2000.0	105	80-120	Spk>Cal
As	75	2071.000	µg/L	1.147	2000.0	103	80-120	Spk>Cal
Se	77	2110.000	µg/L	1.431	2000.0	105	80-120	Spk>Cal
Se	82	2107.000	µg/L	2.338	2000.0	105	80-120	Spk>Cal
Mo	98	1921.000	µg/L	44.310	2000.0	94	80-120	Spk>Cal
Ag	107	15.400	µg/L	0.552	20.000	74	80-120	*Fail*
Cd	111	2058.000	µg/L	0.770	2000.0	103	80-120	Spk>Cal
Sb	123	2029.000	µg/L	77.760	2000.0	98	80-120	Spk>Cal
Ba	137	1965.000	µg/L	2.542	2000.0	98	80-120	Spk>Cal
Tl	205	1895.000	µg/L	1.707	2000.0	95	80-120	Spk>Cal
Pb	208	1954.000	µg/L	4.186	2000.0	97	80-120	Spk>Cal

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	9829	8848	Pass
45	17488	15022	Pass
89	25759	22540	Pass
115	23784	20560	Pass
209	26664	24879	Pass

Internal Standards referenced to 001CALB.D#

1 Element Failures. Maximum Number of Failures Allowed (5)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (3)

Spiked Sample QC Report

File : d:\hpchem\1\data\jul2898.10a\024spk_.d\024spk_.d#
Acquired : Jul 28 98 00:27 pm using AcqMethod DB200_8.M
Operator : G.J.W.
Sample Name: 6530 MS
Misc Info : TCLP
Vial Number: 2114
CurrentMeth: c:\hpchem\1\methods\db200_8.m
BkgFile : --------
Sample Type: SPIKE
Dilution : 10.000000

Spike Reference Sample is D:\HPCHEM\1\DATA\JUL2898.10A\023SPKR.D\023SPKR.D

Spike Recovery

Element		Conc.		Ref. Conc.	Conc. Added	%Rec.	QC Range	Flag
Be	9	1955.000	µg/L	0.224	2000.0	98	80-120	Spk>Cal
Na	23	-----	µg/L	-----	20000	---	80-120	OverRng
Mg	26	323300.000	µg/L	3.2410E+5	20000	-4	80-120	High in S
Al	27	1961.000	µg/L	139.800	2000.0	91	80-120	Spk>Cal
K	39	146400.000	µg/L	1.3770E+5	20000	44	80-120	High in S
Ca	44	352700.000	µg/L	3.5630E+5	20000	-18	80-120	High in S
V	51	1934.000	µg/L	56.340	2000.0	94	80-120	Spk>Cal
Cr	52	1807.000	µg/L	3.310	2000.0	90	80-120	Spk>Cal
Cr	53	1784.000	µg/L	0.838	2000.0	89	80-120	Spk>Cal
Mn	55	1764.000	µg/L	6.661	2000.0	88	80-120	Spk>Cal
Fe	57	18300.000	µg/L	707.100	20000	88	80-120	Pass
Co	59	1737.000	µg/L	0.860	2000.0	87	80-120	Spk>Cal
Ni	60	1675.000	µg/L	3.959	2000.0	84	80-120	Spk>Cal
Cu	63	1845.000	µg/L	65.520	2000.0	89	80-120	Spk>Cal
Cu	65	1670.000	µg/L	3.157	2000.0	83	80-120	Spk>Cal
Zn	66	1828.000	µg/L	25.640	2000.0	90	80-120	Spk>Cal
As	75	1994.000	µg/L	5.953	2000.0	99	80-120	Spk>Cal
Se	77	1906.000	µg/L	33.900	2000.0	94	80-120	Spk>Cal
Se	82	1901.000	µg/L	35.350	2000.0	93	80-120	Spk>Cal
Mo	98	1971.000	µg/L	25.310	2000.0	97	80-120	Spk>Cal
Ag	107	17.460	µg/L	0.218	20.000	87	80-120	Pass
Cd	111	1838.000	µg/L	0.550	2000.0	92	80-120	Spk>Cal
Sb	123	2226.000	µg/L	12.180	2000.0	111	80-120	Spk>Cal
Ba	137	2130.000	µg/L	109.700	2000.0	101	80-120	Spk>Cal
Tl	205	2054.000	µg/L	0.819	2000.0	103	80-120	Spk>Cal
Pb	208	2029.000	µg/L	2.169	2000.0	101	80-120	Spk>Cal

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	9829	9137	Pass
45	17488	17044	Pass
89	25759	23075	Pass
115	23784	20565	Pass
209	26664	21602	Pass

Internal Standards referenced to 001CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (5)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (3)

Spiked Sample QC Report

File : d:\hpchem\1\data\jul2898.10a\025spk_.d\025spk_.d#
Acquired : Jul 28 98 00:32 pm using AcqMethod DB200_8.M
Operator : G.J.W.
Sample Name: 6530 MSD
Misc Info : TCLP
Vial Number: 2115
CurrentMeth: c:\hpchem\1\methods\db200_8.m
BkgFile : --------
Sample Type: SPIKE
Dilution : 10.000000

Spike Reference Sample is D:\HPCHEM\1\DATA\JUL2898.10A\023SPKR.D\023SPKR.D

Spike Recovery

Element		Conc.		Ref. Conc.	Conc. Added	%Rec.	QC Range	Flag
Be	9	1908.000	µg/L	0.224	2000.0	95	80-120	Spk>Cal
Na	23	-----	µg/L	-----	20000	---	80-120	OverRng
Mg	26	329000.000	µg/L	3.2410E+5	20000	24	80-120	High in S
Al	27	1998.000	µg/L	139.800	2000.0	93	80-120	Spk>Cal
K	39	152300.000	µg/L	1.3770E+5	20000	73	80-120	High in S
Ca	44	365900.000	µg/L	3.5630E+5	20000	48	80-120	High in S
V	51	1985.000	µg/L	56.340	2000.0	96	80-120	Spk>Cal
Cr	52	1844.000	µg/L	3.310	2000.0	92	80-120	Spk>Cal
Cr	53	1819.000	µg/L	0.838	2000.0	91	80-120	Spk>Cal
Mn	55	1819.000	µg/L	6.661	2000.0	91	80-120	Spk>Cal
Fe	57	18660.000	µg/L	707.100	20000	90	80-120	Pass
Co	59	1742.000	µg/L	0.860	2000.0	87	80-120	Spk>Cal
Ni	60	1693.000	µg/L	3.959	2000.0	85	80-120	Spk>Cal
Cu	63	1912.000	µg/L	65.520	2000.0	92	80-120	Spk>Cal
Cu	65	1681.000	µg/L	3.157	2000.0	84	80-120	Spk>Cal
Zn	66	1798.000	µg/L	25.640	2000.0	89	80-120	Spk>Cal
As	75	1930.000	µg/L	5.953	2000.0	96	80-120	Spk>Cal
Se	77	1846.000	µg/L	33.900	2000.0	91	80-120	Spk>Cal
Se	82	1833.000	µg/L	35.350	2000.0	90	80-120	Spk>Cal
Mo	98	1899.000	µg/L	25.310	2000.0	94	80-120	Spk>Cal
Ag	107	17.750	µg/L	0.218	20.000	89	80-120	Pass
Cd	111	1828.000	µg/L	0.550	2000.0	91	80-120	Spk>Cal
Sb	123	2207.000	µg/L	12.180	2000.0	110	80-120	Spk>Cal
Ba	137	2097.000	µg/L	109.700	2000.0	99	80-120	Spk>Cal
Tl	205	2016.000	µg/L	0.819	2000.0	101	80-120	Spk>Cal
Pb	208	1974.000	µg/L	2.169	2000.0	99	80-120	Spk>Cal

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	9829	9544	Pass
45	17488	17106	Pass
89	25759	24147	Pass
115	23784	21036	Pass
209	26664	21479	Pass

Internal Standards referenced to 001CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (5)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (3)

Duplicate QC Report

File : d:\hpchem\1\data\jul2898.10a\025spk_.d\025spk_.d#
Acquired : Jul 28 98 00:32 pm using AcqMethod DB200_8.M
Operator : G.J.W.
Sample Name: 6530 MSD
Misc Info : TCLP
Vial Number: 2115
CurrentMeth: c:\hpchem\1\methods\db200_8.m
BkgFile : --------
Sample Type: SPIKE
Dilution : 10.000000

Duplicate Reference Sample is D:\HPCHEM\1\DATA\JUL2898.10A\024SPK_.D\024SI

Element		Concentration	Reference	RPD or Delta	Allowed RPD or CRDL limit	Flag
Be	9	1908 µg/L	1955	2.43%	20%	Dup>Cal
Na	23	----- µg/L	-----	---	---	OverRng
Mg	26	329000 µg/L	323300	1.75%	20%	Dup>Cal
Al	27	1998 µg/L	1961	1.87%	20%	Dup>Cal
K	39	152300 µg/L	146400	3.95%	20%	Dup>Cal
Ca	44	365900 µg/L	352700	3.67%	20%	Dup>Cal
V	51	1985 µg/L	1934	2.60%	20%	Dup>Cal
Cr	52	1844 µg/L	1807	2.03%	20%	Dup>Cal
Cr	53	1819 µg/L	1784	1.94%	20%	Dup>Cal
Mn	55	1819 µg/L	1764	3.07%	20%	Dup>Cal
Fe	57	18660 µg/L	18300	1.95%	20%	Pass
Co	59	1742 µg/L	1737	0.29%	20%	Dup>Cal
Ni	60	1693 µg/L	1675	1.07%	20%	Dup>Cal
Cu	63	1912 µg/L	1845	3.57%	20%	Dup>Cal
Cu	65	1681 µg/L	1670	0.66%	20%	Dup>Cal
Zn	66	1798 µg/L	1828	1.66%	20%	Dup>Cal
As	75	1930 µg/L	1994	3.26%	20%	Dup>Cal
Se	77	1846 µg/L	1906	3.20%	20%	Dup>Cal
Se	82	1833 µg/L	1901	3.64%	20%	Dup>Cal
Mo	98	1899 µg/L	1971	3.72%	20%	Dup>Cal
Ag	107	17.75 µg/L	17.46	1.65%	20%	Pass
Cd	111	1828 µg/L	1838	0.55%	20%	Dup>Cal
Sb	123	2207 µg/L	2226	0.86%	20%	Dup>Cal
Ba	137	2097 µg/L	2130	1.56%	20%	Dup>Cal
Tl	205	2016 µg/L	2054	1.87%	20%	Dup>Cal
Pb	208	1974 µg/L	2029	2.75%	20%	Dup>Cal

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	9829	9544	Pass
45	17488	17106	Pass
89	25759	24147	Pass
115	23784	21036	Pass
209	26664	21479	Pass

Internal Standards referenced to 001CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (5)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (3)

Brighton Analytical Inc.

Representative Batch Quality Control Accuracy and Precision

Analyst: G.W.

Parameter: MERCURY

Analysis Date: 7/31/98

Mth. Reference: 7470/7471/245.1

ACCURACY					
Lab ID	**Spk. Conc.**	**Background**	**% Recoveries**	**Limits %**	**Mth. Blk. Conc.**
AN06746	0.0020	0.0003	92/98	80 - 120	<0.0002

PRECISION					
Lab ID	**Observed A**	**Observed B**	**RPD**	**Limits**	**--**
AN06746	0.00214	0.00224	5	≤20%	--

Comments: The percent recovery of the Independent Secondary Reference Material SPEX std was 101 %. The percent recovery of the method standard was 98 %.

MISC.PA4/97

Brighton Analytical Inc.

Representative Batch Quality Control Accuracy and Precision

Analyst: L.S.

Parameter: pH

Analysis Date: 7/27/98

Mth. Reference: EPA 150.1

ACCURACY					
Lab ID	**Spk. Conc.**	**Background**	**% Recoveries**	**Limits %**	**Mth. Blk. Conc.**
7.00 STD	7.00	--	100	80 - 120	

PRECISION					
Lab ID	**Observed A**	**Observed B**	**RPD**	**Limits**	**--**
AN06657	7.52	7.56	0.53	≤20%	--

MISC.PA4/97

Brighton Analytical Inc.

Representative Batch Quality Control Accuracy and Precision

Analyst: R.M.

Parameter: SULFIDES

Analysis Date: 7/29/98

Mth. Reference: 9030/376.2

ACCURACY					
Lab ID	Spk. Conc.	Background	% Recoveries	Limits %	Mth. Blk. Conc.
53.6 PPM STD	53.6 ppm	ND	107/102	50 - 120	ND

PRECISION					
Lab ID	Observed A	Observed B	RPD	Limits	--
53.6 PPM STD	57.6	54.8	5.0	≤20%	--

Comments:

MISC.PA4/97

Brighton Analytical Inc.

Representative Batch Quality Control Accuracy and Precision

Analyst: R.M.

Parameter: CYANIDES

Analysis Date: 7/27/98

Mth. Reference: 335.4/9010A

ACCURACY					
Lab ID	**Spk. Conc.**	**Background**	**% Recoveries**	**Limits %**	**Mth. Blk. Conc.**
ERA 9975	TV=0.238	ND	105/110	70 - 110	<0.005

PRECISION					
Lab ID	**Observed A**	**Observed B**	**RPD**	**Limits**	**--**
ERA 9975	0.249	0.262	5.1	≤20%	--

Comments:

MISC.PA4/97

Brighton Analytical Inc.

GC/MS
VOLATILE METHOD 8260

REPRESENTATIVE BATCH PRECISION AND ACCURACY QUALITY CONTROL SUMMARY

Analysis Date	8/4/98	Standard ID:	# 633	Inst./Detec:	HP5972/GC-MS
Laboratory ID#:	AN06999	Matrix:	WATER	Analyst:	GH

SURROGATES	Matrix Spike - Precision *			Matrix Spike - Accuracy			
	Spike 1	Spike 2	Relative Percent Difference	Spk Conc	% Recovery	Range (%)	Method Blank ug/L
D4-1,2-Dichloroethane	56.7	56.7	0 0	50ug/L	113	80 - 120	114
D8-Toluene	55.4	55.5	0.2	50ug/L	111	80 - 120	92
4-Bromofluorobenzene	48.6	48.6	0.0	50ug/L	97	80 - 120	91
COMPOUNDS							
1,1-Dichloroethene	10.0	10 2	2 0	10ug/L	102	61 - 145	<1
Benzene	7.2	7.6	5 4	10ug/L	76	76 - 127	<1
Trichloroethene	10.3	11.0	6.6	10ug/L	110	71 - 170	<1
Toluene	7.6	7.8	2 6	10ug/L	78	76 - 125	<1
Chlorobenzene	9 1	9 4	3 2	10ug/L	94	75 - 130	<1

* Matrix Spike Precision +/-20 Relative Percent Difference

(ug/L is equivalent to ppb)

Comments. _____

hpmsvol xls

Brighton Analytical Inc.

GC/MS SEMI-VOLATILE METHOD 8270

REPRESENTATIVE EXTRACTION BATCH QUALITY CONTROL SUMMARY

Analysis Date: 7/28/98 Extraction Date: 7/27/98

Standard ID: #558 Analyst: CW

Matrix: Water

SURROGATES	Method Standard % Recovery	Standard Concentration	Water Matrix Range	Method Blank µg/L
2-Fluorophenol	54	100ug/L	21 - 110	46
D6-Phenol	44	100ug/L	10 - 110	36
D5-Nitrobenzene	84	100ug/L	34 - 114	70
2-Fluorobiphenyl	95	100ug/L	43 - 116	66
2,4,6-Tribromophenol	119	100ug/L	10 - 123	93
D14-Terphenyl	109	100ug/L	33 - 141	90
COMPOUNDS				
Phenol	58	100ug/L	12 - 110	<5
2-Chlorophenol	95	100ug/L	27 - 123	<5
1,4-Dichlorobenzene	59	100ug/L	36 - 97	<5
N-nitrosodiprpylamine	92	100ug/L	41 - 116	<5
1,2,4-Trichloroenzene	66	100ug/L	39 - 98	<5
4-Chloro-3-Methyl Phenol	115	100ug/L	23 - 97	<5
Acenaphthene	95	100ug/L	10 - 118	<5
4-Nitrophenol	55	100ug/L	10 - 80	<5
2,4-Dinitrotoluene	67	100ug/L	49 - 80	<5
Pentachlorophenol	84	100ug/L	9 - 103	<1
Pyrene	101	100ug/L	26 - 127	<5

Comments:

Brighton Analytical Inc.

GC/MS
SEMI-VOLATILE METHOD 8270

REPRESENTATIVE BATCH PRECISION AND ACCURACY QUALITY CONTROL SUMMARY

Analysis Date: 7/28/98 Standard ID: #558 Inst./Detec: HP5972/GC-MS

Laboratory ID#: Method Stds. Matrix: WATER Analyst: CW

SURROGATES	Matrix Spike - Precision *			Matrix Spike - Accuracy			
	Spike 1	Spike 2	Relative Percent Difference	Spk Conc	% Recovery	Range (%)	Method Blank µg/L
2-Fluorophenol	53.6	62.2	14.9	100ug/L	62	21 - 110	476
D6-Phenol	43.8	48.9	11.0	100ug/L	49	10 - 110	36
D5-Nitrobenzene	83.9	93.9	11.2	100ug/L	94	34 - 114	70
2-Fluorobiphenyl	94.7	96.3	1.7	100ug/L	96	43 - 116	66
2,4,6-Tribromophenol	118.6	124.0	4.5	100ug/L	124	10 - 123	93
D14-Terphenyl	109.4	127.0	14.9	100ug/L	127	33 - 141	90
COMPOUNDS							
Phenol	58.4	69.9	17.9	100ug/L	70	12 - 110	<5
2-Chlorophenol	95.1	107.4	12.1	100ug/L	107	27 - 123	<5
1,4-Dichlorobenzene	59.1	71.0	18.3	100ug/L	71	36 - 97	<5
N-nitrosodipropylamine	92.0	100.2	8.5	100ug/L	100	41 - 116	<5
1,2,4-Trichlorobenzene	65.6	79.3	18.9	100ug/L	79	39 - 98	<5
4-Chloro-3-Methyl Phenol	114.9	136.3	17.0	100ug/L	136	23 - 97	<5
Acenaphthene	95.3	105.1	9.8	100ug/L	105	10 - 118	<5
4-Nitrophenol	54.6	57.8	5.7	100ug/L	58	10 - 80	<5
2,4-Dinitrotoluene	66.5	77.2	14.9	100ug/L	77	24 - 96	<5
Pentachlorophenol	84.0	86.4	2.8	100ug/L	86	9 - 103	<1
Pyrene	101.1	108.6	7.2	100ug/L	109	26 - 127	<5

* Matrix Spike Precision +/-20 Relative Percent Difference.

Comments:

Brighton Analytical Inc.

POLYCHLORINATED BIPHENYL (PCB's) - Method 8082

REPRESENTATIVE BATCH PRECISION AND ACCURACY QUALITY CONTROL SUMMARY

Analysis Date: 7/28/98 Standard ID # 546 Extraction Date: 7/27/98

Laboratory ID#: AN06699 Matrix SOIL Analyst: YH

SURROGATE	Matrix Spike - Precision *			Matrix Spike - Accuracy				
	Spike 1	Spike 2	Relative Percent Difference	Spk Conc	% Recovery	Range (%)	Method Std % Recovery	Method Blank ug/L
TCMX	0.94	0.82	13.6	1.0 ug/ l	94	60 - 130	120	117
COMPOUNDS								
Aroclor 1260	0.95	0.80	17.1	1.0ug/L	95	60 - 130	96	<330

* Matrix Spike Precision +/-20 Relative Percent Difference.

(ug/L is equivalent to ppb)

Comments: _____

Brighton Analytical Inc.

BRIGHTON ANALYTICAL, INC.

QUALITY ASSURANCE/QUALITY CONTROL

Brighton Analytical Inc.

METALS QC

Page 1 - Results of Independent Check Standard

Page 2 - Percent Recovery of Method Standard (MSTD)

Page 3 - Percent Recovery of Sample Matrix Spike (MS)

Page 4 - Percent Recovery of Sample Matrix Spike Duplicate (MSD)

Page 5 - Relative Percent Difference (RPD) of MS/MSD

LCS QC Report

File : d:\hpchem\1\data\aug2098.08b\0091cs_.d\0091cs_.d#
Acquired : Aug 20 98 09:19 am using AcqMethod DB200_8.M
Operator : G.J.W.
Sample Name: SPEX 1 & 3
Misc Info : ,
Vial Number: 2101
CurrentMeth: c:\hpchem\1\methods\db200_8.m
BkgFile : --------
Sample Type: LCS
Dilution : 100.000000

Element		Concentration	Expected	QC Range	Flag
Be	9	9964.000 µg/L	10000.00	9000.00-11000.00	Pass
Na	23	205800.000 µg/L	200000.00	1.8000E+5-2.2000E+5	Pass
Mg	26	207500.000 µg/L	200000.00	1.8000E+5-2.2000E+5	Pass
Al	27	10480.000 µg/L	10000.00	9000.00-11000.00	Pass
K	39	207300.000 µg/L	200000.00	1.8000E+5-2.2000E+5	Pass
Ca	44	208300.000 µg/L	200000.00	1.8000E+5-2.2000E+5	Pass
V	51	10170.000 µg/L	10000.00	9000.00-11000.00	Pass
Cr	52	10340.000 µg/L	10000.00	9000.00-11000.00	Pass
Cr	53	10360.000 µg/L	10000.00	9000.00-11000.00	Pass
Mn	55	10230.000 µg/L	10000.00	9000.00-11000.00	Pass
Fe	57	209000.000 µg/L	200000.00	1.8000E+5-2.2000E+5	Pass
Co	59	10400.000 µg/L	10000.00	9000.00-11000.00	Pass
Ni	60	10500.000 µg/L	10000.00	9000.00-11000.00	Pass
Cu	63	10620.000 µg/L	10000.00	9000.00-11000.00	Pass
Cu	65	10560.000 µg/L	10000.00	9000.00-11000.00	Pass
Zn	66	10480.000 µg/L	10000.00	9000.00-11000.00	Pass
As	75	10340.000 µg/L	10000.00	9000.00-11000.00	Pass
Se	77	10510.000 µg/L	10000.00	9000.00-11000.00	Pass
Se	82	10400.000 µg/L	10000.00	9000.00-11000.00	Pass
Mo	98	9678.000 µg/L	10000.00	9000.00-11000.00	Pass
Ag	107	10760.000 µg/L	10000.00	9000.00-11000.00	Pass
Cd	111	10400.000 µg/L	10000.00	9000.00-11000.00	Pass
Sb	123	8501.000 µg/L	8500.00	7650.00-9350.00	Pass
Ba	137	10210.000 µg/L	10000.00	9000.00-11000.00	Pass
Tl	205	10060.000 µg/L	10000.00	9000.00-11000.00	Pass
Pb	208	9971.000 µg/L	10000.00	9000.00-11000.00	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	11170	9920	Pass
45	16433	15584	Pass
89	24220	22684	Pass
115	22573	21024	Pass
209	26975	28047	Pass

Internal Standards referenced to 001CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (5)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (2)

Spiked Sample QC Report

File : d:\HPCHEM\1\DATA\Aug2098.08B\033SPK_.D\033SPK_.D#
Acquired : Aug 20 98 11:16 am using AcqMethod DB200_8.M
Operator : G.J.W.
Sample Name: 8189 MS
Misc Info : DISSOLVED WATER
Vial Number: 2206
CurrentMeth: c:\hpchem\1\methods\DB200_8.M
BkgFile : --------
Sample Type: SPIKE
Dilution : 10.000000

Spike Reference Sample is d:\HPCHEM\1\DATA\Aug2098.08B\030SPKR.D\030SPKR.I

Spike Recovery

Element		Conc.		Ref. Conc.	Conc. Added	%Rec.	QC Range	Flag
Be	9	1873.000	µg/L	1.011	2000.0	94	80-120	Spk>Cal
Na	23	150000.000	µg/L	1.2770E+5	20000	112	80-120	High in S
Mg	26	67830.000	µg/L	47540.000	20000	101	80-120	Pass
Al	27	2066.000	µg/L	34.880	2000.0	102	80-120	Spk>Cal
K	39	31580.000	µg/L	11620.000	20000	100	80-120	Pass
Ca	44	286000.000	µg/L	2.6200E+5	20000	120	80-120	High in S
V	51	1924.000	µg/L	2.214	2000.0	96	80-120	Spk>Cal
Cr	52	1915.000	µg/L	4.983	2000.0	96	80-120	Spk>Cal
Cr	53	1900.000	µg/L	-2.565	2000.0	95	80-120	Spk>Cal
Mn	55	3180.000	µg/L	1201.000	2000.0	99	80-120	Spk>Cal
Fe	57	20320.000	µg/L	1095.000	20000	96	80-120	Pass
Co	59	1867.000	µg/L	3.141	2000.0	93	80-120	Spk>Cal
Ni	60	1852.000	µg/L	6.891	2000.0	93	80-120	Spk>Cal
Cu	63	1861.000	µg/L	5.634	2000.0	93	80-120	Spk>Cal
Cu	65	1853.000	µg/L	3.235	2000.0	92	80-120	Spk>Cal
Zn	66	1894.000	µg/L	9.102	2000.0	94	80-120	Spk>Cal
As	75	2021.000	µg/L	1.679	2000.0	101	80-120	Spk>Cal
Se	77	2017.000	µg/L	4.592	2000.0	101	80-120	Spk>Cal
Se	82	1994.000	µg/L	3.362	2000.0	100	80-120	Spk>Cal
Mo	98	1971.000	µg/L	5.522	2000.0	98	80-120	Spk>Cal
Ag	107	19.630	µg/L	0.015	20.000	98	80-120	Pass
Cd	111	1966.000	µg/L	1.034	2000.0	98	80-120	Spk>Cal
Sb	123	1977.000	µg/L	1.383	2000.0	99	80-120	Spk>Cal
Ba	137	2004.000	µg/L	122.400	2000.0	94	80-120	Spk>Cal
Tl	205	1937.000	µg/L	0.446	2000.0	97	80-120	Spk>Cal
Pb	208	1904.000	µg/L	1.272	2000.0	95	80-120	Spk>Cal

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	11170	12304	Pass
45	16433	19048	Pass
89	24220	26832	Pass
115	22573	24195	Pass
209	26975	30553	Pass

Internal Standards referenced to 001CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (5)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (2)

Spiked Sample QC Report

File : d:\HPCHEM\1\DATA\Aug2098.08B\034SPK_.D\034SPK_.D#
Acquired : Aug 20 98 11:21 am using AcqMethod DB200_8.M
Operator : G.J.W.
Sample Name: 8189 MSD
Misc Info : DISSOLVED WATER
Vial Number: 2207
CurrentMeth: c:\hpchem\1\methods\DB200_8.M
BkgFile : --------
Sample Type: SPIKE
Dilution : 10.000000

Spike Reference Sample is d:\HPCHEM\1\DATA\Aug2098.08B\030SPKR.D\030SPKR.D

Spike Recovery

Element		Conc.		Ref. Conc.	Conc. Added	%Rec.	QC Range	Flag
Be	9	1927.000	µg/L	1.011	2000.0	96	80-120	Spk>Cal
Na	23	155700.000	µg/L	1.2770E+5	20000	140	80-120	High in S
Mg	26	70290.000	µg/L	47540.000	20000	114	80-120	Pass
Al	27	2060.000	µg/L	34.880	2000.0	101	80-120	Spk>Cal
K	39	32560.000	µg/L	11620.000	20000	105	80-120	Pass
Ca	44	295700.000	µg/L	2.6200E+5	20000	168	80-120	High in Sl
V	51	1976.000	µg/L	2.214	2000.0	99	80-120	Spk>Cal
Cr	52	1970.000	µg/L	4.983	2000.0	98	80-120	Spk>Cal
Cr	53	1964.000	µg/L	-2.565	2000.0	98	80-120	Spk>Cal
Mn	55	3301.000	µg/L	1201.000	2000.0	105	80-120	Spk>Cal
Fe	57	21130.000	µg/L	1095.000	20000	100	80-120	Pass
Co	59	1940.000	µg/L	3.141	2000.0	97	80-120	Spk>Cal
Ni	60	1904.000	µg/L	6.891	2000.0	95	80-120	Spk>Cal
Cu	63	1913.000	µg/L	5.634	2000.0	95	80-120	Spk>Cal
Cu	65	1913.000	µg/L	3.235	2000.0	95	80-120	Spk>Cal
Zn	66	1941.000	µg/L	9.102	2000.0	97	80-120	Spk>Cal
As	75	2052.000	µg/L	1.679	2000.0	103	80-120	Spk>Cal
Se	77	2056.000	µg/L	4.592	2000.0	103	80-120	Spk>Cal
Se	82	2021.000	µg/L	3.362	2000.0	101	80-120	Spk>Cal
Mo	98	1984.000	µg/L	5.522	2000.0	99	80-120	Spk>Cal
Ag	107	20.200	µg/L	0.015	20.000	101	80-120	Pass
Cd	111	1970.000	µg/L	1.034	2000.0	98	80-120	Spk>Cal
Sb	123	2084.000	µg/L	1.383	2000.0	104	80-120	Spk>Cal
Ba	137	2104.000	µg/L	122.400	2000.0	99	80-120	Spk>Cal
Tl	205	1974.000	µg/L	0.446	2000.0	99	80-120	Spk>Cal
Pb	208	1969.000	µg/L	1.272	2000.0	98	80-120	Spk>Cal

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	11170	12399	Pass
45	16433	19342	Pass
89	24220	27706	Pass
115	22573	24989	Pass
209	26975	31157	Pass

Internal Standards referenced to 001CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (5)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (2)

Duplicate QC Report

File : d:\hpchem\1\data\aug2098.08b\034spk_.d\034spk_.d#
Acquired : Aug 20 98 11:21 am using AcqMethod DB200_8.M
Operator : G.J.W.
Sample Name: 8189 MSD
Misc Info : DISSOLVED WATER
Vial Number: 2207
CurrentMeth: c:\hpchem\1\methods\db200_8.m
BkgFile : --------
Sample Type: SPIKE
Dilution : 10.000000

Duplicate Reference Sample is D:\HPCHEM\1\DATA\AUG2098.08B\033SPK_.D\033SP

Element		Concentration	Reference	RPD or Delta	Allowed RPD or CRDL limit	Flag
Be	9	1927 µg/L	1873	2.84%	20%	Dup>Cal
Na	23	159700 µg/L	150000	6.26%	20%	Dup>Cal
Mg	26	72080 µg/L	67830	6.08%	20%	Pass
Al	27	2118 µg/L	2066	2.49%	20%	Dup>Cal
K	39	33400 µg/L	31580	5.60%	20%	Pass
Ca	44	303200 µg/L	286000	5.84%	20%	Dup>Cal
V	51	2026 µg/L	1924	5.17%	20%	Dup>Cal
Cr	52	2020 µg/L	1915	5.34%	20%	Dup>Cal
Cr	53	2019 µg/L	1900	6.07%	20%	Dup>Cal
Mn	55	3384 µg/L	3180	6.22%	20%	Dup>Cal
Fe	57	21660 µg/L	20320	6.38%	20%	Pass
Co	59	1989 µg/L	1867	6.33%	20%	Dup>Cal
Ni	60	1951 µg/L	1852	5.21%	20%	Dup>Cal
Cu	63	1960 µg/L	1861	5.18%	20%	Dup>Cal
Cu	65	1961 µg/L	1853	5.66%	20%	Dup>Cal
Zn	66	1990 µg/L	1894	4.94%	20%	Dup>Cal
As	75	2052 µg/L	2021	1.52%	20%	Dup>Cal
Se	77	2056 µg/L	2017	1.92%	20%	Dup>Cal
Se	82	2021 µg/L	1994	1.35%	20%	Dup>Cal
Mo	98	1984 µg/L	1971	0.66%	20%	Dup>Cal
Ag	107	20.2 µg/L	19.63	2.86%	20%	Pass
Cd	111	1970 µg/L	1966	0.20%	20%	Dup>Cal
Sb	123	2084 µg/L	1977	5.27%	20%	Dup>Cal
Ba	137	2104 µg/L	2004	4.87%	20%	Dup>Cal
Tl	205	1974 µg/L	1937	1.89%	20%	Dup>Cal
Pb	208	1969 µg/L	1904	3.36%	20%	Dup>Cal

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	11170	12399	Pass
45	16433	19342	Pass
89	24220	27706	Pass
115	22573	24989	Pass
209	26975	31157	Pass

Internal Standards referenced to 001CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (5)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (2)

Spiked Sample QC Report

File : d:\HPCHEM\1\DATA\Aug2098.08B\069SPK_.D\069SPK_.D#
Acquired : Aug 20 98 02:12 pm using AcqMethod DB200_8.M
Operator : G.J.W.
Sample Name: M.STD. 8-19-98 DISSOLVED
Misc Info : DISSOLVED WATER
Vial Number: 2404
CurrentMeth: c:\hpchem\1\methods\DB200_8.M
BkgFile : --------
Sample Type: SPIKE
Dilution : 10.000000

Spike Reference Sample is d:\HPCHEM\1\DATA\Aug2098.08B\066SPKR.D\066SPKR.D

Spike Recovery

Element		Conc.		Ref. Conc.	Conc. Added	%Rec.	QC Range	Flag
Be	9	1873.000	µg/L	0.132	2000.0	94	80-120	Spk>Cal
Na	23	21450.000	µg/L	524.500	20000	105	80-120	Pass
Mg	26	21140.000	µg/L	8.326	20000	106	80-120	Pass
Al	27	2143.000	µg/L	6.334	2000.0	107	80-120	Spk>Cal
K	39	20910.000	µg/L	82.410	20000	105	80-120	Pass
Ca	44	20380.000	µg/L	-30.270	20000	102	80-120	Pass
V	51	1956.000	µg/L	0.079	2000.0	98	80-120	Spk>Cal
Cr	52	1969.000	µg/L	0.085	2000.0	98	80-120	Spk>Cal
Cr	53	1975.000	µg/L	-2.564	2000.0	99	80-120	Spk>Cal
Mn	55	2009.000	µg/L	0.454	2000.0	100	80-120	Spk>Cal
Fe	57	20150.000	µg/L	21.550	20000	101	80-120	Pass
Co	59	1968.000	µg/L	0.131	2000.0	98	80-120	Spk>Cal
Ni	60	1960.000	µg/L	0.112	2000.0	98	80-120	Spk>Cal
Cu	63	1963.000	µg/L	6.715	2000.0	98	80-120	Spk>Cal
Cu	65	1954.000	µg/L	1.960	2000.0	98	80-120	Spk>Cal
Zn	66	2039.000	µg/L	2.419	2000.0	102	80-120	Spk>Cal
As	75	2015.000	µg/L	0.693	2000.0	101	80-120	Spk>Cal
Se	77	2043.000	µg/L	2.178	2000.0	102	80-120	Spk>Cal
Se	82	2043.000	µg/L	3.453	2000.0	102	80-120	Spk>Cal
Mo	98	1993.000	µg/L	0.323	2000.0	100	80-120	Spk>Cal
Ag	107	21.320	µg/L	-0.033	20.000	107	80-120	Pass
Cd	111	2048.000	µg/L	0.040	2000.0	102	80-120	Spk>Cal
Sb	123	2008.000	µg/L	-0.050	2000.0	100	80-120	Spk>Cal
Ba	137	2001.000	µg/L	0.356	2000.0	100	80-120	Spk>Cal
Tl	205	1949.000	µg/L	-0.193	2000.0	97	80-120	Spk>Cal
Pb	208	1970.000	µg/L	0.741	2000.0	98	80-120	Spk>Cal

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	11170	10861	Pass
45	16433	15659	Pass
89	24220	23152	Pass
115	22573	20982	Pass
209	26975	28003	Pass

Internal Standards referenced to 001CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (5)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (2)

ATTACHMENT 2

Sewer Line Waste Characterization Analytical Data

Brighton Analytical Inc.
TM

Brighton Analytical Inc.
2105 Pless Drive
Brighton, Michigan 48116
Phone:(810)229-7575 FAX: (810)229-8650

To: Cousins Waste Control Corp.
1701-1801 Matzinger Road
Toledo, OH 43612

Report Date: 08/04/98 Date Submitted: 07/30/98 Date Sampled: 07/27/98

Sample ID: **WL-OW52 Oil&Water Seperator #2** Project Name: **Chrysler Thermal Products**

BA Report Number: **30148** Project Number: **MPS**

BA Sample ID: **AN07029**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
TCLP Metal Analysis						
TCLP Arsenic	**Not detected**	mg/L	0.20	SW846 6020	GW	08/01/98
TCLP Barium	**0.40**	mg/L	0.20	SW846 6020	GW	08/01/98
TCLP Cadmium	**Not detected**	mg/L	0.04	SW846 6020	GW	08/01/98
TCLP Chromium	**Not detected**	mg/L	0.01	SW846 6020	GW	08/01/98
TCLP Copper	**Not detected**	mg/L	0.10	SW846 6020	GW	08/01/98
TCLP Lead	**Not detected**	mg/L	0.20	SW846 6020	GW	08/01/98
TCLP Mercury	**Not detected**	mg/L	0.002	SW846 7470	GW	07/31/98
TCLP Selenium	**Not detected**	mg/L	0.30	SW846 6020	GW	08/01/98
TCLP Silver	**Not detected**	mg/L	0.10	SW846 6020	GW	08/01/98
TCLP Zinc	**0.58**	mg/L	0.07	SW846 6020	GW	08/01/98
TCLP Metal (digestion)	**Digested**				LS	07/31/98
TCLP Mercury (digestion)	**Digested**				GW	07/30/98
Inorganic Analysis						
pH	**Not available***	S.I.		EPA 150.1	LS	07/31/98
Reactive Sulfide	**Not available***	mg/Kg	50	9030/7.3.4.2	RM	07/31/98
Reactive Cyanide	**Not available***	mg/Kg	50	9010/7.3.3.2	RM	07/31/98
Ignitability	**Not available***	deg. F	60-200	SW846 1010	LS	07/31/98
PCB Analysis						
ARO 1016	**Not detected**	ug/L	200.0	EPA 608	YH	07/31/98
ARO 1221	**Not detected**	ug/L	200.0	EPA 608	YH	07/31/98
ARO 1232	**Not detected**	ug/L	400.0	EPA 608	YH	07/31/98
ARO 1242	**Not detected**	ug/L	200.0	EPA 608	YH	07/31/98
ARO 1248	**Not detected**	ug/L	200.0	EPA 608	YH	07/31/98
ARO 1254	**Not detected**	ug/L	200.0	EPA 608	YH	07/31/98
ARO 1260	**Not detected**	ug/L	200.0	EPA 608	YH	07/31/98
PCB (extraction)	**Extracted**			8082/608	KW	07/30/98
TCLP ZHE Volatile Analysis						
Carbon tetrachloride	**Not detected**	ug/L	10	SW846 8260	GH	08/04/98
Chlorobenzene	**Not detected**	ug/L	10	SW846 8260	GH	08/04/98
Chloroform	**Not detected**	ug/L	10	SW846 8260	GH	08/04/98
1,4-Dichlorobenzene	**Not detected**	ug/L	10	SW846 8260	GH	08/04/98
1,2-Dichloroethane	**Not detected**	ug/L	10	SW846 8260	GH	08/04/98

Brighton Analytical Inc.
TM

Brighton Analytical Inc.
2105 Pless Drive
Brighton, Michigan 48116
Phone:(810)229-7575 FAX: (810)229-8650

To: Cousins Waste Control Corp.
1701-1801 Matzinger Road
Toledo, OH 43612

Report Date: 08/04/98 Date Submitted: 07/30/98 Date Sampled: 07/27/98

Sample ID: **WL-OW52 Oil&Water Seperator #2** Project Name: **Chrysler Thermal Products**
Project Number: **MPS**

BA Report Number: **30148**
BA Sample ID: **AN07029**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,1-Dichloroethene	**Not detected**	ug/L	10	SW846 8260	GH	08/04/98
Tetrachloroethene	**Not detected**	ug/L	10	SW846 8260	GH	08/04/98
Trichloroethene	**Not detected**	ug/L	10	SW846 8260	GH	08/04/98
Vinyl chloride	**Not detected**	ug/L	10	SW846 8260	GH	08/04/98
Methyl ethyl ketone	**Not detected**	ug/L	50	SW846 8260	GH	08/04/98
Benzene	**Not detected**	ug/L	10	SW846 8260	GH	08/04/98
TCLP Semi-Volatile Analysis						
Cresol	**Not detected**	ug/L	100000	SW846 8270	GH	08/03/98
Pentachlorophenol	**Not detected**	ug/L	100000	SW846 8270	GH	08/03/98
2,4,5-Trichlorophenol	**Not detected**	ug/L	400000	SW846 8270	GH	08/03/98
2,4,6-Trichlorophenol	**Not detected**	ug/L	2000	SW846 8270	GH	08/03/98
Hexachlorobenzene	**Not detected**	ug/L	130	SW846 8270	GH	08/03/98
Hexachlorobutadiene	**Not detected**	ug/L	500	SW846 8270	GH	08/03/98
Hexachloroethane	**Not detected**	ug/L	3000	SW846 8270	GH	08/03/98
2,4-Dinitrotoluene	**Not detected**	ug/L	130	SW846 8270	GH	08/03/98
Nitrobenzene	**Not detected**	ug/L	2000	SW846 8270	GH	08/03/98
Pyridine	**Not detected**	ug/L	5000	SW846 8270	GH	08/03/98
TCLP BNA (extraction)	**Extracted**			8270/625	MB	07/30/98

DL = Detection Limit as recommended by MDEQ.

Released by: B Kenyon
Date: 8/4/98

* Not available due to insufficient sample.
Elevated PCB dl due to dilution.

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Brighton, Michigan 48116
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To: Cousins Waste Control Corp.
1701-1801 Matzinger Road
Toledo, OH 43612

Report Date: 08/21/98 Date Submitted: 08/18/98 Date Sampled: 08/14/98

Sample ID: **25403 Pipe F - Box 2**

Project Name: **Payton Thermal Products**
Project Number: **09521**

BA Report Number: **30454**
BA Sample ID: **AN08332**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Metal Analysis						
Total Cadmium	**0.54**	mg/L	0.0002	EPA 200.8	BC	08/20/98
Metal Water Total(digestion)	**Digested**				LS	08/19/98

DL = Detection Limit as recommended by MDEQ.

Released by: J. Kenyon
Date: 8/26/98

Brighton Analytical Inc.
TM

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2105 Pless Drive
Brighton, Michigan 48116
Phone:(810)229-7575 FAX: (810)229-8650

To: Cousins Waste Control Corp.
1701-1801 Matzinger Road
Toledo, OH 43612

Report Date: 08/26/98 Date Submitted: 08/18/98 Date Sampled: 08/14/98

Sample ID: **25401 Pipe D - Box 4** Project Name: **Payton Thermal Products**
Project Number: **09521**
BA Report Number: **30454**
BA Sample ID: **AN08330**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Metal Analysis						
Total Lead	**0.12**	mg/L	0.003	EPA 239.2	BC	08/20/98
Metal Water Total(digestion)	**Digested**				LS	08/18/98
Volatile Analysis						
Acetone	**Not detected**	ug/L	25	SW846 8260	JH	08/26/98
Acrylonitrile	**Not detected**	ug/L	5	SW846 8260	JH	08/26/98
Benzene	**Not detected**	ug/L	1	SW846 8260	JH	08/26/98
Bromochloromethane	**Not detected**	ug/L	1	SW846 8260	JH	08/26/98
Bromodichloromethane	**Not detected**	ug/L	1	SW846 8260	JH	08/26/98
Bromoform	**Not detected**	ug/L	1	SW846 8260	JH	08/26/98
Bromomethane(Methyl Bromide)	**Not detected**	ug/L	5	SW846 8260	JH	08/26/98
2-Butanone (MEK)	**Not detected**	ug/L	5	SW846 8260	JH	08/26/98
Carbon disulfide	**Not detected**	ug/L	5	SW846 8260	JH	08/26/98
Carbon tetrachloride	**Not detected**	ug/L	1	SW846 8260	JH	08/26/98
Chlorobenzene	**Not detected**	ug/L	1	SW846 8260	JH	08/26/98
Chloroethane	**Not detected**	ug/L	5	SW846 8260	JH	08/26/98
Chloroform	**Not detected**	ug/L	1	SW846 8260	JH	08/26/98
Chloromethane(Methyl Chloride)	**Not detected**	ug/L	5	SW846 8260	JH	08/26/98
Dibromochloromethane	**Not detected**	ug/L	1	SW846 8260	JH	08/26/98
1,2-Dibromoethane	**Not detected**	ug/L	1	SW846 8260	JH	08/26/98
1,2-Dibromo-3-Chloropropane	**Not detected**	ug/L	5	SW846 8260	JH	08/26/98
Dibromomethane(Methylene Bromide)	**Not detected**	ug/L	1	SW846 8260	JH	08/26/98
1,2-Dichlorobenzene	**Not detected**	ug/L	1	SW846 8260	JH	08/26/98
1,3-Dichlorobenzene	**Not detected**	ug/L	1	SW846 8260	JH	08/26/98
1,4-Dichlorobenzene	**Not detected**	ug/L	1	SW846 8260	JH	08/26/98
Dichlorodifluoromethane	**Not detected**	ug/L	5	SW846 8260	JH	08/26/98
1,1-Dichloroethane	**2**	ug/L	1	SW846 8260	JH	08/26/98
1,2-Dichloroethane	**Not detected**	ug/L	1	SW846 8260	JH	08/26/98
1,1-Dichloroethene	**Not detected**	ug/L	1	SW846 8260	JH	08/26/98
cis-1,2-Dichloroethene	**15**	ug/L	1	SW846 8260	JH	08/26/98
trans-1,2-Dichloroethene	**Not detected**	ug/L	1	SW846 8260	JH	08/26/98
1,2-Dichloropropane	**Not detected**	ug/L	1	SW846 8260	JH	08/26/98
cis-1,3-Dichloropropene	**Not detected**	ug/L	1	SW846 8260	JH	08/26/98
trans-1,3-Dichloropropene	**Not detected**	ug/L	1	SW846 8260	JH	08/26/98
trans-1,4-Dichloro-2-butene	**Not detected**	ug/L	1	SW846 8260	JH	08/26/98

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To: Cousins Waste Control Corp.
1701-1801 Matzinger Road
Toledo, OH 43612

Report Date: 08/26/98 Date Submitted: 08/18/98 Date Sampled: 08/14/98

Sample ID: **25401 Pipe D - Box 4**

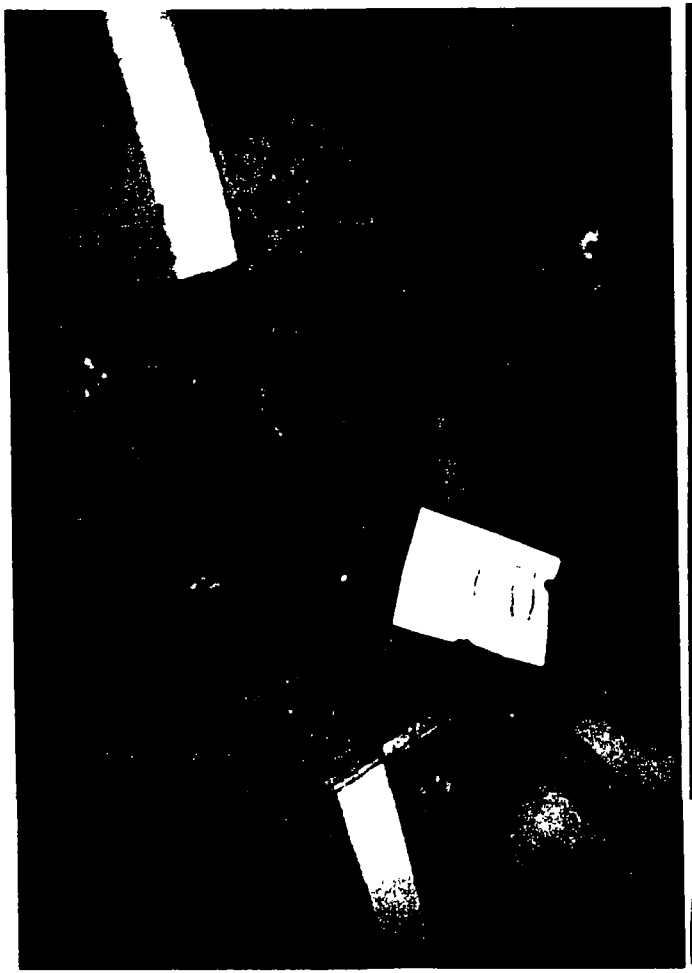
Project Name: **Payton Thermal Products**
Project Number: **09521**

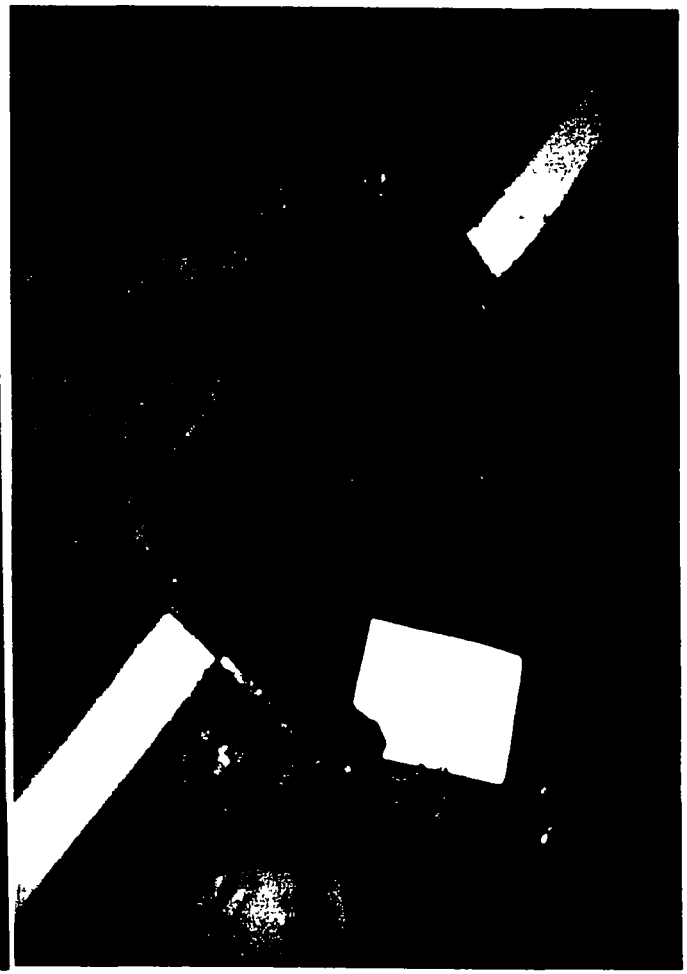
BA Report Number: **30454**
BA Sample ID: **AN08330**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Diethyl ether	Not detected	ug/L	10	SW846 8260	JH	08/26/98
Ethyl benzene	Not detected	ug/L	1	SW846 8260	JH	08/26/98
2-Hexanone	Not detected	ug/L	5	SW846 8260	JH	08/26/98
Hexachloroethane	Not detected	ug/L	1	SW846 8260	JH	08/26/98
Isopropylbenzene	Not detected	ug/L	1	SW846 8260	JH	08/26/98
Methyl iodide	Not detected	ug/L	1	SW846 8260	JH	08/26/98
Methylene chloride	Not detected	ug/L	5	SW846 8260	JH	08/26/98
4-Methyl-2-pentanone(MIBK)	Not detected	ug/L	5	SW846 8260	JH	08/26/98
Methyl(tert)butyl ether(MTBE)	Not detected	ug/L	5	SW846 8260	JH	08/26/98
Naphthalene	Not detected	ug/L	5	SW846 8260	JH	08/26/98
n-Propylbenzene	Not detected	ug/L	1	SW846 8260	JH	08/26/98
Styrene	Not detected	ug/L	1	SW846 8260	JH	08/26/98
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW846 8260	JH	08/26/98
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW846 8260	JH	08/26/98
Tetrachloroethene	2	ug/L	1	SW846 8260	JH	08/26/98
Toluene	Not detected	ug/L	1	SW846 8260	JH	08/26/98
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW846 8260	JH	08/26/98
1,1,1-Trichloroethane	Not detected	ug/L	1	SW846 8260	JH	08/26/98
1,1,2-Trichloroethane	Not detected	ug/L	1	SW846 8260	JH	08/26/98
Trichloroethene	3	ug/L	1	SW846 8260	JH	08/26/98
Trichlorofluoromethane	Not detected	ug/L	5	SW846 8260	JH	08/26/98
1,2,3-Trichloropropane	Not detected	ug/L	1	SW846 8260	JH	08/26/98
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW846 8260	JH	08/26/98
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW846 8260	JH	08/26/98
Vinyl chloride	3	ug/L	1	SW846 8260	JH	08/26/98
o-Xylene	Not detected	ug/L	1	SW846 8260	JH	08/26/98
m&p-Xylenes	Not detected	ug/L	2	SW846 8260	JH	08/26/98
Xylenes	Not detected	ug/L	3	SW846 8260	JH	08/26/98

ATTACHMENT 3

Photos & MPS T.V. Inspection Report





SEP.
#2

SEPARATOR
2

CHRYSLER PLANT

T.V. INSPECTION OF COMBINED WASTEWATER LINES

FOR

P.S.C.

BY

ADVANCED SEWER TECHNOLOGY

JULY 1998

ADVANCED SEWER TECHNOLOGY

ADVANCED SEWER TECHNOLOGY
9341 Seward Road
Fairfield, Ohio 45014
Tel: (513) 942-0665, Fax: (513) 942-4323

TV INSPECTION:

DATE.	TIME.	WEATHER.	OPERATOR:	SECTION NR.	PAGE NR.
07/23/98	13:08	cloudy	R. Burns	1	1 / 1
VISITOR:	VEHICLE.	CAMERA:	CATALOG	PRESET FTG:	PROJECT
	Van #1	pan/tilt	general		psc.mdb

CITY: Dayton	PLAN #:	SECTION LENGTH 19.86 ft
STREET. Bld 40 B		FROM MH: F- north
SITUATION: Chrysler plant	TAPE:	TO MH: intercepte

REASON OF INSPECTION: interior repair	PIPE SIZE. 12"
SEWAGE: combined wastewater	PIPE TYPE. vitrified clay, JT LNGTH: 4 '
AREA/ZONE: B	

COMMENT 1:

1:50	FTG	OBSERVATION	CNTR #	PHOTO	LEVEL
F- north	0.0	start inspection			0
	17 6	debris medium			1
intercepte	19.9	end inspection			0

ADVANCED SEWER TECHNOLOGY

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9341 Seward Road
Fairfield, Ohio 45014
Tel: (513) 942-0666, Fax: (513) 942-4323

TV INSPECTION:

DATE.	TIME:	WEATHER.	OPERATOR.	SECTION NR	PAGE NR.
07/23/98	11:29	cloudy	R. Burns	2	1 / 1
VISITOR	VEHICLE.	CAMERA:	CATALOG:	PRESET FTG	PROJECT:
	Van #1	pan/tilt	general		psc.mdb

CITY Dayton	PLAN #:	SECTION LENGTH: 19.76 ft
STREET. Bld 40 B		FROM MH E-north
SITUATION: Chrysler plant	TAPE:	TO MH: intercept

REASON OF INSPECTION interior repair	PIPE SIZE. 12"
SEWAGE. combined wastewater	PIPE TYPE: vitrified clay, JT LNGTH: 4 '
AREA/ZONE.	

COMMENT 1

1:50	FTG	OBSERVATION	CNTR #	PHOTO	LEVEL
E-north	0.0	start inspection			0
	6.0	lateral right		1a	1
	19.8	crack longitudinal		2a	1
intercept	19.8	lateral right		3a	1
	19.8	end inspection		4a	0

ADVANCED SEWER TECHNOLOGY

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9341 Seward Road
Fairfield, Ohio 45014
Tel: (513) 942-0666, Fax: (513) 942-4323

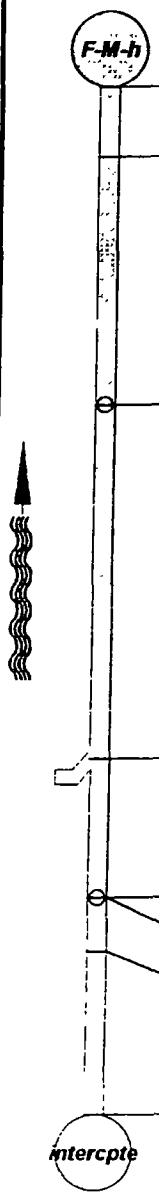
TV INSPECTION:

DATE	TIME	WEATHER	OPERATOR.	SECTION NR.	PAGE NR
07/23/98	11:46	cloudy	R. Burns	3	1 / 1
VISITOR:	VEHICLE.	CAMERA:	CATALOG	PRESET FTG:	PROJECT:
	Van #1	pan/tilt	general		psc.mdb

CITY: Dayton	PLAN #:	SECTION LENGTH. 99.96 ft
STREET: Bld 40 B		FROM MH. F-M-h
SITUATION: Chrysler plant	TAPE:	TO MH. intercpte

REASON OF INSPECTION: interior repair	PIPE SIZE. 12"
SEWAGE: combined wastewater	PIPE TYPE. vitrified clay, JT LNGTH: 4 '
AREA/ZONE.	

COMMENT 1:



1:225 FTG	OBSERVATION	CNTR #	PHOTO	LEVEL
0.0	start inspection			0
7.0	sag 1 inch			1
31.2	lateral to top		5a	1
65 5	lateral right		6a	1
79.1	sag end			1
79.1	lateral to top		7a	1
84 3	hammer tap		8a	1
100.0	end inspection		9a	0

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Fairfield, Ohio 45014
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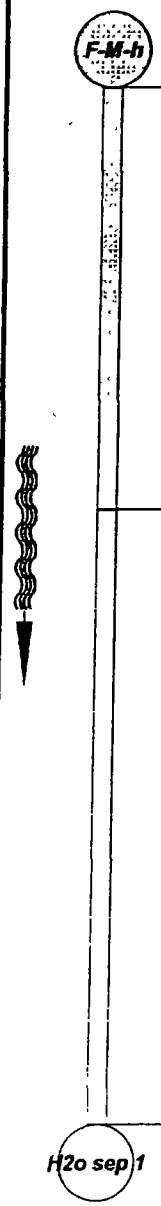
TV INSPECTION:

DATE.	TIME.	WEATHER.	OPERATOR:	SECTION NR	PAGE NR.
07/23/98	13:25	cloudy	R. Burns	4	1 / 1
VISITOR.	VEHICLE.	CAMERA.	CATALOG:	PRESET FTG	PROJECT.
	Van #1	pan/tilt	general		psc.mdb

CITY: Dayton	PLAN #:	SECTION LENGTH: 56.21 ft
STREET. Bld 40 B		FROM MH: F-M-h
SITUATION: Chrysler plant	TAPE.	TO MH: H2o sep 1

REASON OF INSPECTION. interior repair	PIPE SIZE. 12"
SEWAGE. combined wastewater	PIPE TYPE: vitrified clay, JT LNGTH: 4 '
AREA/ZONE:	

COMMENT 1:



1:125 FTG	OBSERVATION	CNTR #	PHOTO	LEVEL
0.0	start inspection			0
23.1	crack		10a	1
56.2	end inspection			0

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Fairfield, Ohio 45014
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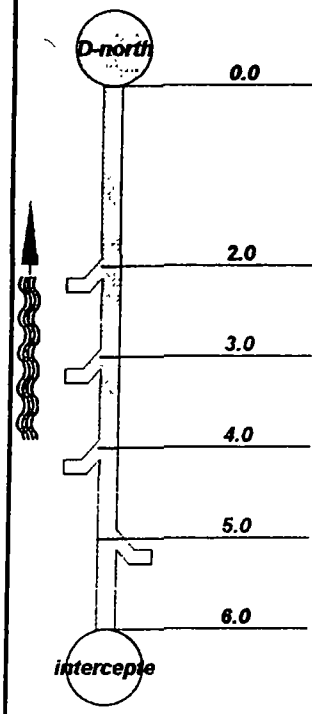
TV INSPECTION:

DATE	TIME.	WEATHER.	OPERATOR.	SECTION NR:	PAGE NR
07/27/98	09:48	sunny, dry	R. Burns	5	1 / 1
VISITOR.	VEHICLE.	CAMERA	CATALOG:	PRESET FTG.	PROJECT
	Van #1	pan/tilt	general		psc.mdb

CITY Dayton	PLAN #:	SECTION LENGTH: 6 ft
STREET Bld 40 B		FROM MH: D-north
SITUATION: Chrysler plant	TAPE:	TO MH: intercepte

REASON OF INSPECTION: interior repair	PIPE SIZE. 12"
SEWAGE combined wastewater	PIPE TYPE: vitrified clay, JT LNGTH: 4 '
AREA/ZONE.	

COMMENT 1



1:25 FTG	OBSERVATION	CNTR #	PHOTO	LEVEL
0.0	start inspection			0
2.0	lateral right		11a	1
3.0	lateral right		12a	1
4.0	lateral right		13a	1
5.0	lateral left		14a	1
6.0	end inspection		15a	0

ADVANCED SEWER TECHNOLOGY

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Fairfield, Ohio 45014
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TV INSPECTION:

DATE	TIME	WEATHER.	OPERATOR.	SECTION NR:	PAGE NR
07/27/98	10:23	sunny, dry	R. Burns	6	1 / 1
VISITOR:	VEHICLE.	CAMERA:	CATALOG.	PRESET FTG:	PROJECT.
	Van #1	pan/tilt	general		psc.mdb

CITY: Dayton	PLAN #:	SECTION LENGTH 3 ft
STREET. Bld 40 B /		FROM MH: D-south
SITUATION: Chrysler plant	TAPE	TO MH: intercepte

REASON OF INSPECTION: Interior repair	PIPE SIZE: 12"
SEWAGE. combined wastewater	PIPE TYPE. vitrified clay, JT LNGTH: 4 '
AREA/ZONE.	

COMMENT 1:

1:25	FTG	OBSERVATION	CNTR #	PHOTO	LEVEL
D-south	0.0	start inspection			0
	2.0	debris light			1
	3.0	end inspection			0
intercepte					

ADVANCED SEWER TECHNOLOGY

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Fairfield, Ohio 45014
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TV INSPECTION:

DATE.	TIME	WEATHER.	OPERATOR.	SECTION NR·	PAGE NR
		sunny, dry	R. Burns	7	1 / 1
VISITOR	VEHICLE.	CAMERA.	CATALOG	PRESET FTG·	PROJECT
	Van #1	pan/tilt	general		psc.mdb

CITY Dayton	PLAN #	SECTION LENGTH: 3 ft
STREET. Bld 40 B		FROM MH: F-noth
SITUATION Chrysler plant	TAPE	TO MH intercepte

REASON OF INSPECTION: interior repair	PIPE SIZE. 12"
SEWAGE: combined wastewater	PIPE TYPE: vitrified clay, JT LNGTH: 4 '
AREA/ZONE.	

COMMENT 1·

1:25	FTG	OBSERVATION	CNTR #	PHOTO	LEVEL
F-noth	0.0	start inspection retv			0
	2.0	debris medium			1
	3.0	end inspection			0
intercepte					

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TV INSPECTION:

DATE.	TIME.	WEATHER:	OPERATOR:	SECTION NR	PAGE NR
		sunny, dry	R. Burns	8	1 / 1
VISITOR	VEHICLE.	CAMERA:	CATALOG:	PRESET FTG	PROJECT
	Van #1	pan/tilt	general		psc.mdb

CITY Dayton	PLAN #:	SECTION LENGTH 6 ft
STREET: Bld 40 B		FROM MH: D-north
SITUATION: Chrysler plant	TAPE:	TO MH: intercepte

REASON OF INSPECTION: interior repair	PIPE SIZE: 12"
SEWAGE. combined wastewater	PIPE TYPE: vitrified clay, JT LNGTH: 4 '
AREA/ZONE.	

COMMENT 1.

1:25	FTG	OBSERVATION	CNTR #	PHOTO	LEVEL
D-north	0.0	start inspection			0
	6.0	debris heavy			2
intercepte	6.0	end inspection			2

ADVANCED SEWER TECHNOLOGY

ADVANCED SEWER TECHNOLOGY
9341 Seward Road
Fairfield, Ohio 45014
Tel: (513) 942-0666, Fax: (513) 942-4323

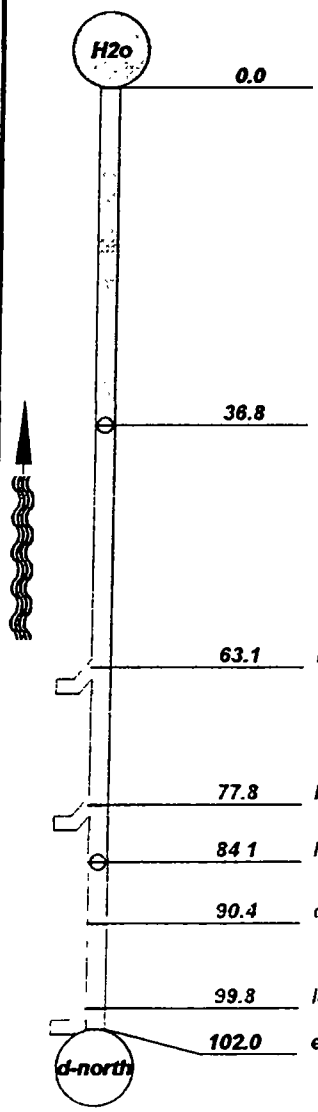
TV INSPECTION:

DATE.	TIME.	WEATHER:	OPERATOR	SECTION NR:	PAGE NR
07/27/98	11:16	sunny, dry	R. Burns	9	1 / 1
VISITOR.	VEHICLE.	CAMERA:	CATALOG:	PRESET FTG	PROJECT
	Van #1	pan/tilt	general		psc.mdb

CITY Dayton	PLAN #:	SECTION LENGTH: 102.03 ft
STREET. Bld 40 B		FROM MH. H2o
SITUATION: Chrysler plant	TAPE:	TO MH: d-north

REASON OF INSPECTION. Interior repair	PIPE SIZE. 12"
SEWAGE: combined wastewater	PIPE TYPE: vitrified clay, JT LNGTH: 4 '
AREA/ZONE.	

COMMENT 1:



1:250 FTG	OBSERVATION	CNTR #	PHOTO	LEVEL
0.0	start inspection			0
36.8	lateral to top		16a	1
63.1	lateral right		17a	1
77.8	lateral right		18a	1
84.1	lateral to top		19a	1
90.4	crack longitudinal		20a	1
99.8	lateral right		21a	1
102.0	end inspection			0

ADVANCED SEWER TECHNOLOGY

ADVANCED SEWER TECHNOLOGY
9341 Seward Road
Fairfield, Ohio 45014
Tel: (513) 942-0555, Fax: (513) 942-4323

TV INSPECTION:

DATE.	TIME	WEATHER	OPERATOR.	SECTION NR.	PAGE NR
07/28/98	08:45	sunny, dry	R. Burns	10	1 / 1
VISITOR:	VEHICLE	CAMERA.	CATALOG.	PRESET FTG	PROJECT.
	Van #1	pan/tilt	general		psc.mdb

CITY Dayton	PLAN #:	SECTION LENGTH: 10.5 ft
STREET Bld 40 B		FROM MH: C-north
SITUATION: Chrysler plant	TAPE	TO MH: intercepte

REASON OF INSPECTION. interior repair	PIPE SIZE: 10"
SEWAGE. *combined wastewater*	PIPE TYPE. *vitrified clay, JT LNGTH: 5 '*
AREA/ZONE.	

COMMENT 1:

1:25	FTG	OBSERVATION	CNTR #	PHOTO	LEVEL
C-north	0.0	*start inspection*			0
	10.5	*debris light*			1
intercepte	10.5	*end inspection*			0

ADVANCED SEWER TECHNOLOGY

ADVANCED SEWER TECHNOLOGY
9341 Seward Road
Fairfield, Ohio 45014
Tel: (513) 942-0666, Fax: (513) 942-4323

TV INSPECTION:

DATE.	TIME	WEATHER.	OPERATOR:	SECTION NR	PAGE NR
07/28/98	08:54	sunny, dry	R. Burns	11	1 / 1
VISITOR	VEHICLE.	CAMERA.	CATALOG	PRESET FTG	PROJECT
	Van #1	pan/tilt	general		psc.mdb

CITY: Dayton	PLAN #:	SECTION LENGTH. 19.58 ft
STREET. Bld 40 B		FROM MH. B-west
SITUATION Chrysler plant	TAPE	TO MH: turn

REASON OF INSPECTION Interior repair	PIPE SIZE: 8"
SEWAGE: combined wastewater	PIPE TYPE: cast iron, JT LNGTH: 5 '
AREA/ZONE:	

COMMENT 1:

1:50	FTG	OBSERVATION	CNTR #	PHOTO	LEVEL
B-west	0.0	start inspection			0
	19.6	pipe changes to six inch			1
turn	19.6	end inspection			0

ADVANCED SEWER TECHNOLOGY

ADVANCED SEWER TECHNOLOGY
9341 Seward Road
Fairfield, Ohio 45014
Tel: (513) 942-0666, Fax: (513) 942-4323

TV INSPECTION:

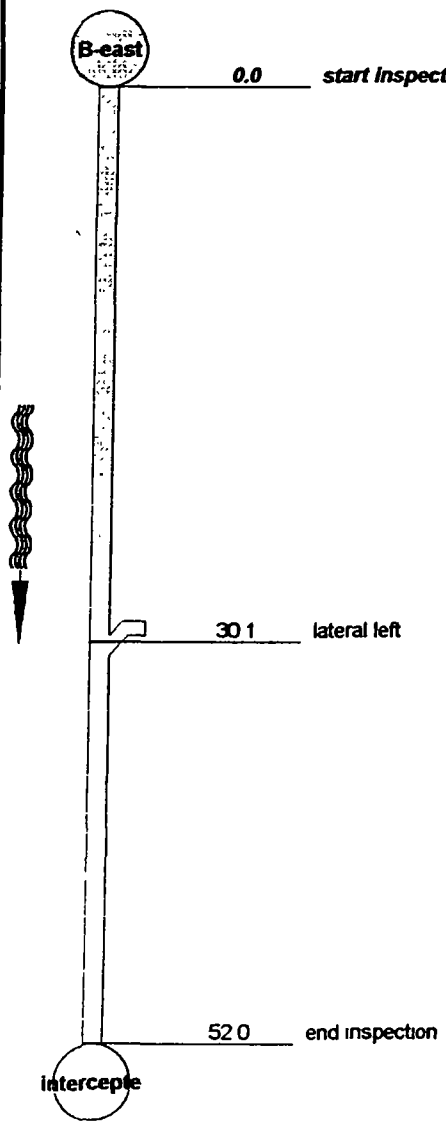
DATE	TIME.	WEATHER	OPERATOR	SECTION NR.	PAGE NR
07/28/98	09:05	sunny, dry	R. Burns	12	1 / 1
VISITOR.	VEHICLE	CAMERA.	CATALOG	PRESET FTG	PROJECT
	Van #1	pan/tilt	general		psc.mdb

CITY: Dayton	PLAN #	SECTION LENGTH 52 ft
STREET. Bld 40 B		FROM MH: B-east
SITUATION: Chrysler plant	TAPE:	TO MH: intercepte

REASON OF INSPECTION: interior repair	PIPE SIZE. 10"
SEWAGE. combined wastewater	PIPE TYPE: vitrified clay, JT LNGTH: 5 '
AREA/ZONE:	

COMMENT 1:

1:125	FTG	OBSERVATION	CNTR #	PHOTO	LEVEL
	0.0	*start inspection*			0
	30 1	lateral left		22a	
	52 0	end inspection			



ADVANCED SEWER TECHNOLOGY

ADVANCED SEWER TECHNOLOGY
9341 Seward Road
Fairfield, Ohio 45014
Tel: (513) 942-0666, Fax: (513) 942-4323

TV INSPECTION:

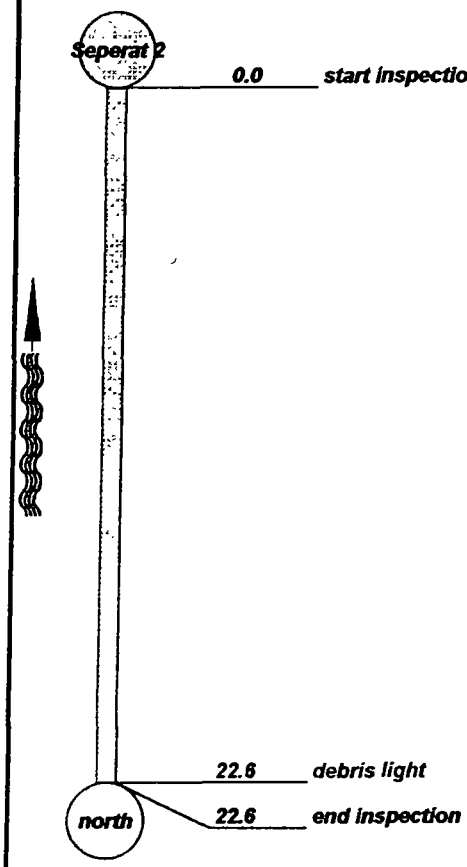
DATE.	TIME:	WEATHER.	OPERATOR	SECTION NR	PAGE NR
07/28/98	09:34	sunny, dry	R. Burns	13	1 / 1
VISITOR:	VEHICLE	CAMERA:	CATALOG	PRESET FTG.	PROJECT
	Van #1	pan/tilt	general		psc.mdb

CITY Dayton	PLAN #	SECTION LENGTH: 22.6 ft
STREET Bld 40 B		FROM MH: Seperat 2
SITUATION. Chrysler plant	TAPE:	TO MH: north

REASON OF INSPECTION: interior repair	PIPE SIZE: 12"
SEWAGE. combined wastewater	PIPE TYPE: vitrified clay, JT LNGTH: 5 '
AREA/ZONE:	

COMMENT 1.

1:75	FTG	OBSERVATION	CNTR #	PHOTO	LEVEL
	0.0	start inspection			0
	22.6	debris light			1
	22.6	end inspection			0



ADVANCED SEWER TECHNOLOGY

ADVANCED SEWER TECHNOLOGY
9341 Seward Road
Fairfield, Ohio 45014
Tel: (513) 942-0666, Fax: (513) 942-4323

TV INSPECTION:

DATE.	TIME	WEATHER	OPERATOR:	SECTION NR.	PAGE NR
07/28/98	09:49	sunny, dry	R. Burns	14	1 / 1
VISITOR:	VEHICLE	CAMERA:	CATALOG.	PRESET FTG	PROJECT:
	Van #1	pan/tilt	general		psc.mdb

CITY: Dayton	PLAN #:	SECTION LENGTH. 23.36 ft
STREET. Bld 40 B		FROM MH: Seperat 2
SITUATION: Chrysler plant	TAPE	TO MH: west

REASON OF INSPECTION: interior repair	PIPE SIZE: 12"
SEWAGE: combined wastewater	PIPE TYPE: vitrified clay, JT LNGTH: 5 '
AREA/ZONE.	

COMMENT 1.

1:75	FTG	OBSERVATION	CNTR #	PHOTO	LEVEL
Seperat 2	0.0	start inspection			0
	23.4	debris light			1
west	23.4	end inspection			0

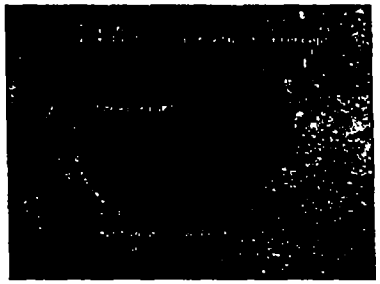


PHOTO 1a, VCR ,
lateral right

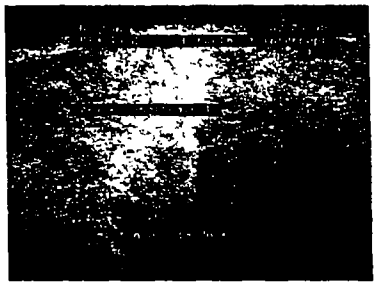


PHOTO 2a, VCR ,
crack longitudinal

PHOTO 3a, VCR ,
lateral right

PHOTO 4a, VCR ,
end inspection

PHOTO. 5a, VCR ,
lateral to top

PHOTO 6a, VCR ,
lateral right

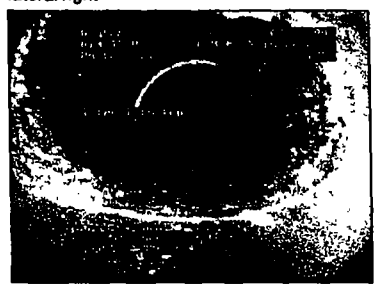


PHOTO 7a, VCR ,
lateral to top

PHOTO 8a, VCR ,
hammer tap

PHOTO 9a, VCR ,
end inspection

PHOTO 10a, VCR ,
crack

PHOTO 11a, VCR ,
lateral right

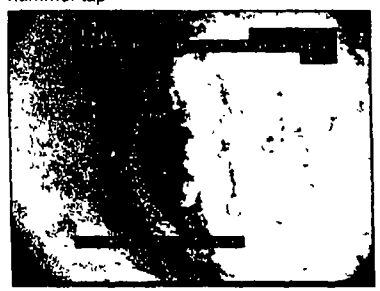


PHOTO 12a, VCR ,
lateral right

PHOTO 13a, VCR ,
lateral right

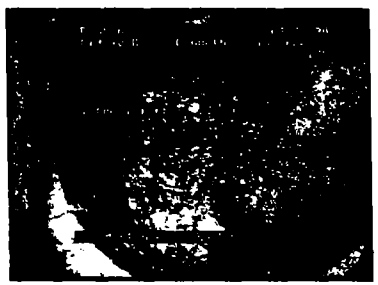


PHOTO 14a, VCR ,
lateral left

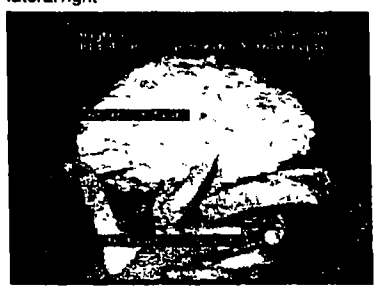


PHOTO 15a, VCR ,
end inspection

PHOTO 16a, VCR ,
lateral to top

PHOTO 17a, VCR. ,
lateral right

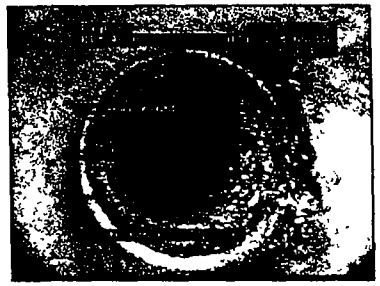


PHOTO. 18a, VCR ,
lateral right

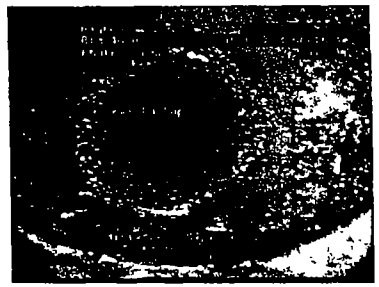


PHOTO 19a, VCR ,
lateral to top

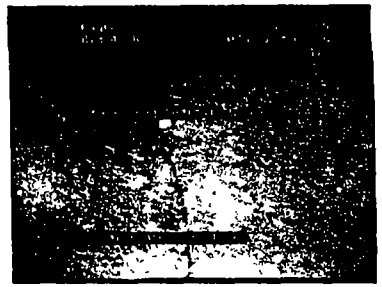


PHOTO 20a, VCR ,
crack longitudinal

PHOTO. 20b, VCR ,
crack longitudinal

PHOTO. 21a, VCR ,
lateral right

PHOTO 22a, VCR ,
lateral left

ATTACHMENT 4

Waste Manifests

Signature: _____

EVERGREEN R.D.F.

Waste Ticket

Date: 09/28/1998
Ticket: 180171

Cust: 0008082
BBC
Truck: 907L20
Waste Type: ISW
Profile: C332231-281
Info: BBC, SOLIDS

In: 09/28/1998 04:27 PM MLG
Out: 09/28/1998 04:42 PM PKL

LocID	County	St	Pct
048	Lucas	OH	100%

Weight: Gross: 60,980
Tare: 38,500
Net: 11.24

CommCd	Yd/Unit
0	20.00

I hereby certify that the waste being transported herein was generated as follows, and that I hold harmless Evergreen and its employees for any injuries incurred while on WM property.

:ST **Nº 25659**

GEN

BB

18

TO

Carri

Vehi

☐ V

RDF (E. Sparta, Ohio)
Cincinnati, Ohio)
DF (Northwood, Ohio)
w RDF (Dayton, Ohio)
DF (Brownsville, Ohio)

sible for Disposal Charges:
IRONMENTAL

Profi		Apx. Volume	Act. Weights
33	L		Gross Wt:
			Tare Wt:
			Net Wt:

Shipper: Cyndy Cousino Date: 09-28-98

Received at Transfer Station: Ken Evans Date: 09-28-98

Received at Disposal Facility: Mary Good Date: 9/28/98

White: Generator Canary: Disposal Facility Pink: Carrier Gold: Generator

Dayton Thermal

Please print or type
(Form designed for use on elite (12-pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST

1 Generator's US EPA ID No.: OHD074703547
Manifest Document No.: 00005
2. Page 1 of 1

3 Generator's Name and Mailing Address: Dayton Thermal Products, 1600 Webster St, Dayton, OH
4 Generator's Phone: 937 224-2358

5. Transporter 1 Company Name: Allwaste Enviro
6. US EPA ID Number: OHD072864370
A. Transporter's Phone: (937)-233-8911

7 Transporter 2 Company Name:
8. US EPA ID Number:
B. Transporter's Phone:

9 Designated Facility Name and Site Address: BBC Environmental Env, 1801 E. Matzinger, Toledo, OH 43612
10. US EPA ID Number: OHD981000557
C. Facility's Phone: 419-726-1500

11 Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol
a. Concrete + Construction Debris	001	RO	00020	Y
b.				
c				
d				

D Additional Descriptions for Materials Listed Above: Approval # CHR01 (A-0998)

E Handling Codes for Wastes Listed Above:

15 Special Handling Instructions and Additional Information:

16 GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste

Printed/Typed Name: Joe Whitlock
Signature: [signature]
Month Day Year

17 Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Ken Evans
Signature: [signature]
Month Day Year: 09 27 98

18 Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name:
Signature:
Month Day Year

19 Discrepancy Indication Space

20 Facility Owner or Operator Certification of receipt of waste materials covered by this manifest except as noted in Item 19

Printed/Typed Name: CYNDY CONSINO
Signature: Cyndy Consino
Month Day Year: 09 28 98

GENERATOR

TRANSPORTER

FACILITY

Printed by [illegible] Associates, Neenah, WI [illegible]

ORIGINAL – RETURN TO GENERATOR

[illegible] Rev. 1/97

NON-HAZARDOUS WASTE MANIFEST	1 Generator's US EPA ID No: OHD074703547	Manifest Document No: 0001	2 Page 1 of 1

GENERATOR

3 Generator's Name and Mailing Address: Chrysler Corp. [illegible]

4 Generator's Phone: [illegible]

5. Transporter 1 Company Name	6 US EPA ID Number	A Transporter's Phone
Allwaste Environmental Inc	[illegible]	[illegible]
7. Transporter 2 Company Name	8 US EPA ID Number	B Transporter's Phone
9 Designated Facility Name and Site Address	10 US EPA ID Number	C Facility's Phone
[illegible] Environmental [illegible] 1801 [illegible] Toledo, Ohio 43612	[illegible]	(4F) [illegible] 1800 1FT 433-6754

11. Waste Shipping Name and Description	12 Containers No	Type	13 Total Quantity	14 Unit Wt/V
a. NON [illegible]	001	TT	4200	G
b				
c.				
d				

D Additional Descriptions for Materials Listed Above

a) ~~[illegible]~~ Generator #1 [illegible]
(N) ~~[illegible]~~ Generator #2 [illegible]
c 980805-[illegible] [illegible]

E Handling Codes for Wastes Listed Above

15 Special Handling Instructions and Additional Information

Emergency Phone Number - 24 Hr Emergency Service (800) 433-6754

TRANSPORTER

16 GENERATOR'S CERTIFICATION. I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste

Printed/Typed Name	Signature	Month	Day	Year
Generator Coordinator Joe Whitlock	[signature]	08	13	19

17 Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Ken Evans	Ken Evans	08	13	

18 Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day

FACILITY

19 Discrepancy Indication Space

20 Facility Owner or Operator Certification of receipt of waste materials covered by this manifest except as noted in Item 19

Printed/Typed Name	Signature	Month	Day
[illegible]	[signature]	[illegible]	

MPS Ø1 (8665)

[redacted]

NON-HAZARDOUS WASTE MANIFEST	1 Generator's US EPA ID No	Manifest Document No. 00002	2. Page 1 of

3. Generator's Name and Mailing Address
DAYTON THERMAL SYSTEMS
1600 WEBSTER ST. DAYTON, OH 45404

4 Generator's Phone ( )

5 Transporter 1 Company Name	6 US EPA ID Number	A Transporter's Phone
~~ALLW~~ COUSINS WASTE CONTROL	O.H.D.9.8.1.0.0.0.5.5.7	(419) 726-1500
7. Transporter 2 Company Name	8 US EPA ID Number	B Transporter's Phone

9 Designated Facility Name and Site Address	10 US EPA ID Number	C. Facility's Phone
BBC ENVIRONMENTAL ENTERPRISES, INC 1801 E. MATZINGER RD. TOLEDO, OH 43612	O.H.D.9.8.1.0.0.0.5.5.7	(419) 726-1500 (800) 433-6754

11. Waste Shipping Name and Description	12. Containers No	Type	13 Total Quantity	14 Unit Wt/
a. NON-HAZARDOUS WASTE	001	DM	x.x.x.55	(
b				
c				
d				

D Additional Descriptions for Materials Listed Above
11. a.) CHR01 (1AX)-0801, PIPE B

E Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
EMERGENCY PHONE NUMBER - 24 HR. EMERGENCY SERVICE
(800) 433-6754

16 GENERATOR'S CERTIFICATION I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Wa

Printed/Typed Name	Signature	Month	Day	Y
ALBERTO VILLALON	[signature]	8	11	3

17 Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Y
Cortland Colding - MPS / PH.LIP	[signature]	8	13	8

18 Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Y

19 Discrepancy Indication Space

20 Facility Owner or Operator Certification of receipt of waste materials covered by this manifest except as noted in Item 19

Printed/Typed Name	Signature	Month	Day	Y
Anthony Jackson	Anthony Jackson	08	11	41

GENERATOR

TRANSPORTER

FACILITY

MPSØ1 9083

[redacted]

NON-HAZARDOUS WASTE MANIFEST	1 Generator's US EPA ID No OHD074703547	Manifest Document No. 00003	2 Page 1 of

3. Generator's Name and Mailing Address
Dayton Thermal Products
1600 Webster St. DAYTON, OH 45404
4. Generator's Phone ( )

5. Transporter 1 Company Name: Allwaste Envs. Services
6. US EPA ID Number: OH.D.0.7.2.8.6.4.3.9.0

7. Transporter 2 Company Name
8. US EPA ID Number

9. Designated Facility Name and Site Address
BBC Environmental Ent
1801 E. Matzinger
Toledo, OH 43612
10. US EPA ID Number: OH.D.9.8.1.0.0.0.5.5.7

A. Transporter's Phone 937-237-8911
B. Transporter's Phone
C. Facility's Phone 419-726-1500

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol
a. Non-HAZARDOUS Material	001	T.T	5000	G
b.				
c.				
d.				

D Additional Descriptions for Materials Listed Above
11. a) C9808093-A, Pipe F, Box #2, 0600 G
C9808093-B, Pipe D, Box 4, 2000 G
C9808093-C, Pipe C, Box 7, 2400 G

E Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
Emergency Contact Phone # 800-433-6754

16 GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste

Printed/Typed Name	Signature	Month	Day	Year
JE Whitlock	[signature]	09	09	98

17 Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Ken Evans	[signature]	09	09	98

18 Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19 Discrepancy Indication Space

20 Facility Owner or Operator Certification of receipt of waste materials covered by this manifest except as noted in Item 19

Printed/Typed Name	Signature	Month	Day	Year
GLEN GALTER	[signature]	9	9	98

GENERATOR
TRANSPORTER
FACILITY

[redacted]

MPS01

405

NON-HAZARDOUS WASTE MANIFEST	1 Generator's US EPA ID No OHD074703547	Manifest Document No 00004	2 Page 1 of 1

3. Generator's Name and Mailing Address CHRYSLER DAYTON THERMAL PRODUCTS 1600 WEBSTER STREET, DAYTON, OHIO 45404

4. Generator's Phone ( )

5. Transporter 1 Company Name: ALL WASTE ENV. SERVICES — 6. US EPA ID Number: OAD072864390

7. Transporter 2 Company Name — 8. US EPA ID Number

9. Designated Facility Name and Site Address: BBC ENVIRONMENTAL 1801 E. MATZINGER TOLEDO - OHIO 43612 — 10. US EPA ID Number: OHD981000557

A. Transporter's Phone 937-233-8911

B. Transporter's Phone

C. Facility's Phone 419-726-1500

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol
a. NON HAZARDOUS MATERIAL	001	TT	02600	G
b.				
c.				
d				

D. Additional Descriptions for Materials Listed Above: Sludge + water taken from R.O. Boxes #2 thru #7.

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information: EMERGENCY CONTACT 800-433-6754

42% SOLIDS/CC

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste

Printed/Typed Name: JE Whitlock — Signature — Month Day Year: 09 14 98

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Ken Evans — Signature — Month Day Year: 09 14 98

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name — Signature — Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of waste materials covered by this manifest except as noted in Item 19

Printed/Typed Name: GLEN GARTER — Signature — Month Day Year: 9 14 98

GENERATOR — TRANSPORTER — FACILITY

Vendor numbers provided to Chrysler Environmental Dept.

PSC/ Cousins Waste Control/ BBC Environmental
Chrysler Approved Facility/ Vendor Number: 25955

BBC landfill disposal through:
Waste Management/ Northwood, OH (pseudonym: Evergreen Disposal Facility)
Chrysler Approved Facility/ Vendor Number: 98535

Gary Stanczuk
Daimler Chrysler
800 Chrysler Dr 482-00-51
Auburn Hills, MI 48326

482005190

VAPORTECH
Services, Inc.
1158 Pittsburgh Road • Suite 201
Valencia, PA 16059

Geoprobe

Mobile Laboratory

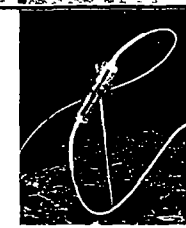
Monitored Natural Attenuation

Soil Gas Surveys

VAPORTECH
Services, Inc.

1158 Pittsburgh Road • Suite 201 • Valencia, PA 16059
Tel 724-898-2622 • Fax 724-898-2633

Vaportech Voice Summer 2000 - Vol. 1 No. 1



VAPORTECH HYDROGEN FIELD SAMPLING KIT

If you've ever sampled for dissolved hydrogen using the Chapelle[1] "Bubble Strip Method" you are aware of some of the difficulties The equipment is fragile and cumbersome and sampling time can be lengthy

Vaportech Services has developed a more efficient stripper that utilizes a unique spray nozzle to optimize agitation and decrease sampling time The Vaportech stripper, constructed of thick acrylic plastic, is virtually unbreakable The stripper is provided with easy to follow instructions and is shipped along with the sample containers at no additional cost

1 Chapelle, F H, Vroblesky D A, Woodward, J C, Lovley D R 1997 Practical Considerations for Measuring Hydrgen Concentrations in Groundwater, Environ Sci Tech 1997 31 2873-2877

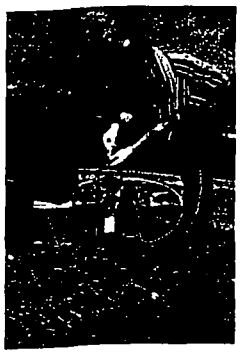
HYDROGEN SAMPLING: THE DO'S & DON'TS

The measurement of dissolved hydrogen has been shown to significantly characterize the redox levels in groundwater contaminated with recalcitrant compounds, i e, TCE, PCE and DCE In an aquifer where bioemediation is occurring under anaerobic conditions, the respiration of microorganisms creates hydrogen At the same time hydrogen is consumed by microorganisms, which use a terminal electron acceptor as an electron sink This process of hydrogen creation and consumption creates a steady state of dissolved hydrogen, which can then be used to determine the redox condition of the aquifer

As significant as this indicator can be, extreme care must be taken when sampling dissolved hydrogen Outlined below are some key factors, that if ignored could adversely impact your dissolved hydrogen data

Sample Well Construction

- ✔ Wells contructed of metal should be avoided (high quality stainless may be acceptable)
- ✔ Deep wells are generally not suitable due to pumping limitations
- ✔ Recently installed wells (less than 3 months) typically show elevated levels of H_2 and should not be sampled for hydrogen



Pump Considerations

- ✔ As with well construction, metal should not come in contact with the water
- ✔ Direct current driven submersible pump should not be used (H_2 can be electrically produced)
- ✔ Peristalic, bladder & piston pumps provide the best results depending on well depth

Sampling Considerations

- ✔ Water flow should be as constant as possible
- ✔ Optimum flow is 300ml - 500ml
- ✔ For low flow wells, flow time in excess of 35 minutes may be necessary

Prior to the development of the Vaportech hydrogen vial system, hydrogen was to be analyzed on-site Now the choice is yours, on-site with our mobile laboratory or off-site using our vials If you would like to discuss your hydrogen sampling project, please call Dave Masdea, Joe Montore or Dave Unrue at (724) 898-2622

VAPORTECH
Services, Inc

WEB SITES

ENVIRONMENTAL SITES

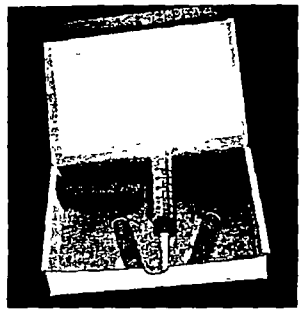
www.sandia.gov
The MNA Tool Box. Excellent database that identifies primary attenuation pathways, and points out processes that might mitigate MNA. At their home page use the Search tool to locate the Toolbox.

www.clu-in.org
Hazardous waste Cleanup info, new publications, new technologies

www.epa.gov/ada/reports.html
Download the MNA Technical Protocols from this site.

www.isinet.com
Institute for Scientific Information Need a formula, or information on a particular compound Find it here There is a cost for some of their services

Improved Sampling Kit Provides Easier & More Accurate Vapor Analysis



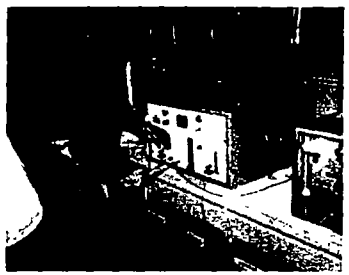
Vaportech Services has introduced an improved sampling kit for SVE systems and other source air analysis Three primary factors that can affect the integrity of your samples are improper sampling, mishandling by the shipper and insufficient quality control at the lab

Vaportech Services is assisting the consultant in all three areas Our Laboratory procedures and QA/QC insure accurate results from our glass vials From the heated headspace analysis to the integrated data system the results are precise and verifiable Our simple and compact shipping package will protect your samples from even the worst handling Finally, our improved syringe and vial system and easy to follow instructions take the guesswork out of air sampling

When a sampling kit is requested, it is shipped with evacuated vials, syringes, needles, labels, chain of custody form and simple step by step instructions All this is enclosed in a pre-labled, quick-lock shipping box Just fill the vials with sample, place in the box along with the chain of custody form and ship The hold time for the vials is 14 days at ambient temperature

Do you need convinced our system is better? Before your next sampling event request one of our kits Use your standard sampling method and Vaportech's vial method We will analyze one sample free of charge to enable you to make a comparison Syringe sample ports can be provided, if necessary

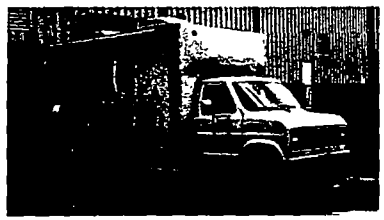
Superfund Natural Attenuation Studies Completed



Vaportech's mobile laboratory features two generators, temperature controls, positive ventilation system, ultra-pure water system, sample and standards refrigerators, fume hood and potable water system The lab can be customized with our Computerized Data Acquisition System, Volatile Gas Chromatograph, and our Natural Attenuation Gas Chromatograph

Not only can the lab be used for natural attenuation studies, but it can also be utilized for the delineation of petroleum and chlorinated hydrocarbon plumes, tank excavations and air monitoring Call for a free consultation on how Vaportech's mobile laboratory can help your clients

Recently for a Fortune 100 company, Vaportech Services provided analytical services for two natural attenuation studies at two different Superfund sites utilizing our mobile laboratory



Vaportech provided real-time analysis of dissolved hydrogen, methane ethane, ethylene oxygen nitrogen, carbon dioxide, anions and cations Data was provided daily to the consultant for quick & accurate decisions For hydrogen sampling, the consultants' field sampling crews used Vaportech's new Field Sampling Kit for Hydrogen The kit provides a convenient and easy system for performing the Chapelle method of hydrogen sampling

You Want Experience, We've Got It!

Vaportech Services provides **Geoprobe** "direct-push technology" services

"So what , your thinking 'I have several drilling contractors and I don't need another one' This may be true but Vaportech Services has something they don t have three of the most experienced operators in the country with 20 years of Geoprobe experience combined

Dave Masdea, president and founder of Vaportech Services, spent years in the "oil patch" conducting soil gas surveys all over the world Since 1989 Dave has managed well over a thousand Geoprobe projects on Superfund and UST sites

In South Carolina, **Mike Woodward,** Geoprobe Technician is a licensed well driller and groundwater sampler For clients interested in using ORC® or HRC®, Mike has injected product for groundwater cleanup **Brian Novak** brings five years of experience to the field along with the ingenuity and desire to get the job done right Along with our operators, field laboratory manager, **Joe Montore** has coordinated numerous drilling & sampling projects with Vaportech's mobile lab His experience includes military bases, Department of Energy sites, and private industry"

VAPORTECH Services, Inc.

For the environmental consultant, a key to a successful site assessment is the ability to gather data on a site as quickly and efficiently as possible Our experienced personnel and fully equipped Geoprobes keep your assessment costs to a minimum Vaportech Services currently provides two Geoprobe 5400 models, located in Valencia, PA and Columbia, SC When we arrive at your site, each probe is fully equipped to meet your soil gas, soil and groundwater sampling needs

WEB SITES

ENVIRONMENTAL SITES

www.epa.gov/oerrpage/superfund/resources/gwdocs/index.htm#
Key OSWER Groundwater Guidances & Reports MNA, Brownfields, Site Assessment, Technologies, NAPL's

www.epa.gov/epaoswer/hazwaste/test/index.htm
Office of Solid Waste site for RCRA analytical methods

Blogroup.gzea.com
A moderated mailing list on bioremediation topics

www.cpeo.org/lists/index.html
Military & brownfields newsgroup

OTHER GOVERNMENT WEB SITES

www.sba.gov
Small business Administration Home Page

www.business.gov
SBA Business Assistance Site

www.whitehouse.gov/wh/services cdb.savvy.com
Link to the Commerce Business Daily

BUSINESS SITES

www.bizproweb.com
Small business reference center with 1500 links

www.americanexpress.com/smallbusiness
American Express Small Business Services

www.eletter.com
Need to do a large mailing? Let this site handle it over the web We've used it

www.efax.com
Free service that will send faxes to your e-mail account

MICRO PURGE® BASICS

QED

MicroPurge® low-flow sampling offers important advantages over traditional purging and sampling methods, and can benefit many groundwater monitoring programs It requires three basic steps

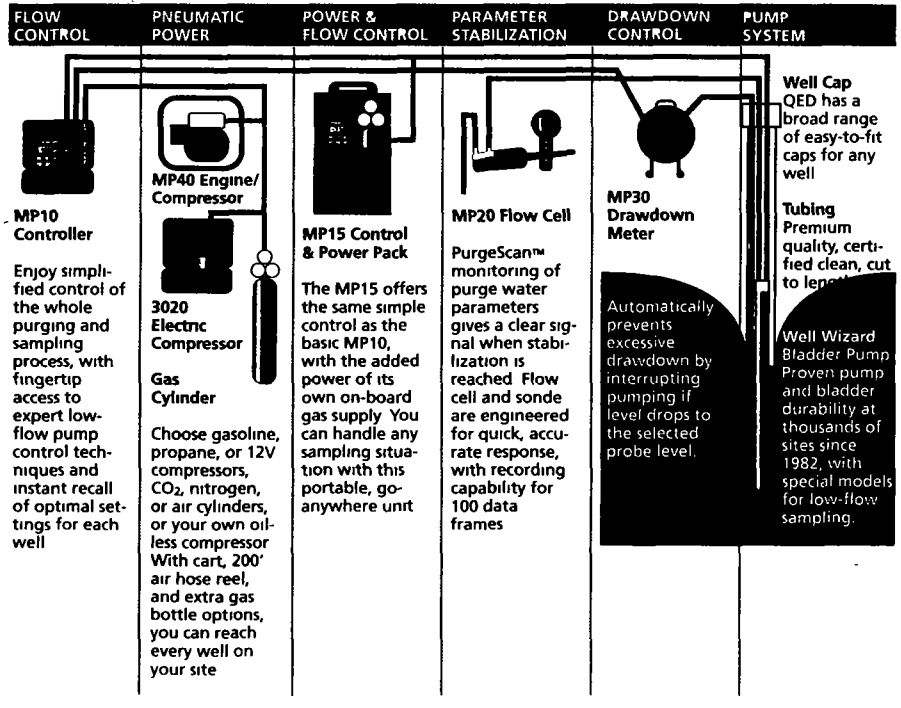
1 Set the purge flow rate,
2 Control drawdown in the well,
3 Stabilize the purge water quality indicator parameters

*MicroPurge **basics**™ means you can choose your own system — with the control and power to match your site requirements.*

MicroPurge **basics**™ is a revolution in low-flow sampling control The complete line of new MicroPurge **basics** products, combined with proven Well Wizard® pumps, will help you through all three steps with equipment that is easier to use, smaller, lighter, more powerful, and lower priced, too!

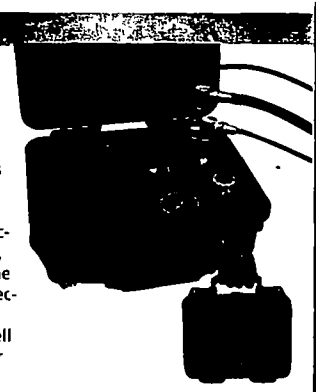
Every MicroPurge **basics** component is complete, ready to use, and engineered for rugged field duty The whole system is designed to let you choose the control and power options that fit your site needs now, with flexibility to meet future requirements

Microprocessor-based control with water-level feedback and exclusive monitoring devices delivers the most accurate, precise samples you can get, assuring you consistent, repeatable data and eliminating most regulatory hassles



[illegible] CHOICES: [illegible] Drawdown, and Stabilization

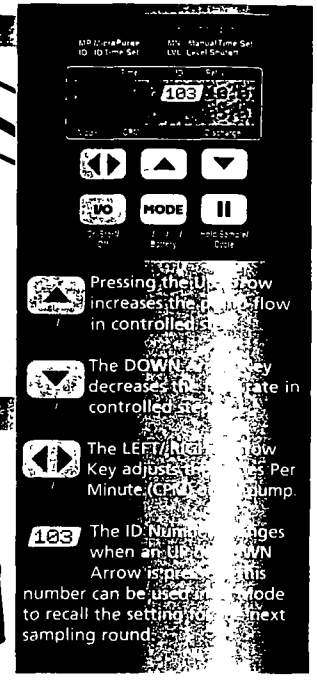
[illegible]



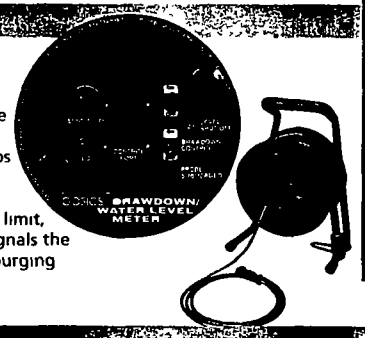
The new MP10 MicroPurge® **basics**™ Controller revolutionizes sampling pump flow control by making it simple, stable, and repeatable

Simple faster/slower keystrokes set the flow rate you want, smoothly and accurately There's no overshooting or flow rate fluctuation that can disturb the well, and no danger of overheating the pump or your sample, as with electric pumps

Optimized settings for each well are identified for easy recall later



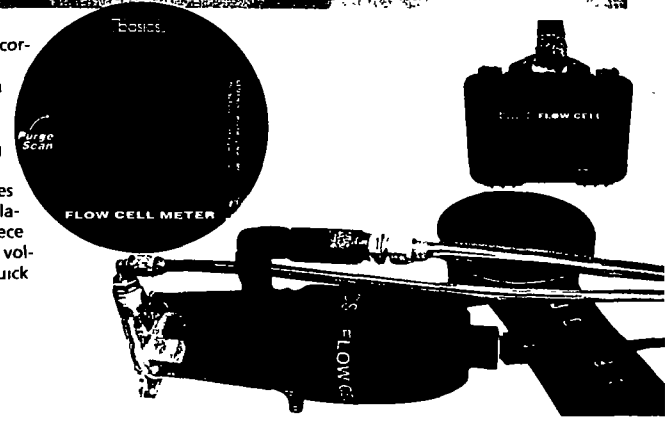
Drawdown



The unique, new MP30 MicroPurge **basics** Drawdown Control and Level Meter connects to the MicroPurge **basics** Controllers and automatically keeps well drawdown within the limits you choose

If drawdown reaches the limit, the MP30 alerts you and signals the basics controller to pause purging until the well recovers

[illegible] Stabilization



The easy-to-use, new MP20 MicroPurge **basics** Flow Cell incorporates QED's exclusive PurgeScan™ technology, which automatically signals stabilization of selected water quality parameters and stores purging data

There's no need to plot curves or perform simultaneous calculations And the molded, one-piece Flow Cell is designed with low volume and built-in stirring for quick response

MICRO PURGE BASICS QED

System Specifications

MP10 basics Controller PATENT PENDING
Microprocessor-based advanced logic puts easy 1-2-3 system control at your fingertips
- Simple up/down arrow keys adjust flow rates, with manual on/off control for sample collection
- Automatic drawdown control when connected to MP30 Drawdown Meter
- Compact, rugged, lightweight, allows easy recall of optimized settings for next sampling round

Dimensions 10-3/4"x9-3/4"x5" (27x25x13 cm) **Weight** 5 5 lb (2 5 kg) **Max Pressure** 120 PSI (8,275 kPa) **Max Pump Depth** 250 feet (76 m) **Power** 3 "AA" batteries f

MP15 basics Control & Power Pack PATENT PENDING
Backpack unit does it all, combining simple control and a quiet, portable compressed gas source
- At just 27 pounds, it makes remote monitoring wells easier than ever to reach and sample
- Automatic drawdown control when connected to MP30 Drawdown Meter
- Pumps up to 7 hours continuously at 50 feet on a single cylinder of CO_2

Dimensions 25-1/2"x12-1/2"x10" (65x32x25 cm), **Weight** 27 lb (12 kg), **Max Pressure** 120 PSI (8 275 kPa) **Max Pump Depth** 250 Feet (76 m) **Power** 3 "AA" batteries, **Cylinder** 5 lb (2 3 kg) CO_2

MP20 basics Flow Cell PATENT PENDING
Measures purge water indicator parameters in-line, compact, more portable size (50% smaller)
- PurgeScan technology provides automatic stabilization alert, with visible and audible signals
- Displays 6 parameters — temperature, DO, specific conductivity, pH, ORP (redox), salinity
- Engineered flow cell with automatic stirring for quicker, more accurate response

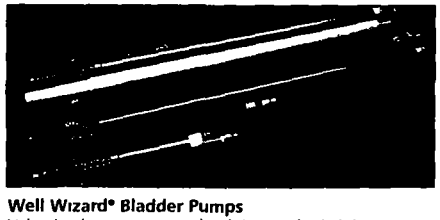
Overall Dimensions 18-1/2"x15"x6 1/2" (47x38x17 cm) **Weight** 14 lb (6 4 kg), **Power** 3 "C" batteries, **Sonde** 3"x9" (8x23 cm), 1 3 lbs (0 6 kg) **Meter** 3 5" (9 cm) Display, 2 1 lb (1 kg), **Memory** 100 Data Frames

MP30 basics Drawdown & Water Level Meter PATENT PENDING
Prevents excessive drawdown during low-flow sampling, also functions as a standard level meter
- Allows setting of drawdown limit, with link to controller for automatic interruption of purging when limit is reached, pumping resumes when well recharges
- Rugged polyethylene-coated steel tape provides durable performance, accuracy to 0 01 feet

Overall Dimensions 14"x10-1/2"x8" (37x27x20 cm), **Weight** 7 lb (3 2 kg) w/ 150 tape **Power** 9 volt battery, **Probe** 5/8" O D x 7 5" L (1 6 x 19 cm) **Tape Length** 150 or 300 feet (46 or 91 m)

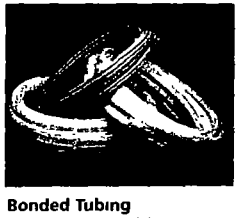
MP40 basics Engine/Compressor
Compact, oil-less compressor provides long-term durability and easy starting
- Ruggedized for tough field conditions, with shock-absorbing feet and a welded aluminum cage
- Direct-coupled engine/compressor set decreases weight and minimizes vibration
- Model 3020 Electric 12 VDC Compressor available as a lightweight (15 lb), low-output air source

Overall Dimensions 14"x18-1/4"x18-1/2" (36x46x47 cm), **Weight** 48 lb (22 kg), **Power** 4 0 HP Honda gasoline or propane engine, **Max Pressure** 125 psi (8,620 kPa), **Output** 7 0-2 2 CFM (11 9 3 74 m 3 /h) @ 0-125 psi, 20' air hose



Well Wizard® Bladder Pumps
Value leader in accuracy, durability, and reliability
- Proven superior over 18 years, 50,000+ wells worldwide
- Available in stainless steel, PVC, Teflon®

Length 1 25-3 8 ft (38 116 cm), **O D** 1 00 1 66" (2 54-4 22 cm) **Volume** 100-495 ml, **Max Lift** 250-1 000 ft (75 300 m)



Bonded Tubing
Quality controlled for purity and leak-tight, high strength connections
Sizes 1/4 3/8, 1/2", **Materials** Poly Teflon® and Teflon lined

Well Caps
Standard, locking, low-clearance & watertight, ID tags for MicroPurge settings
Sizes 2 4, 5, 6" & custom, **Materials** PVC, brass poly

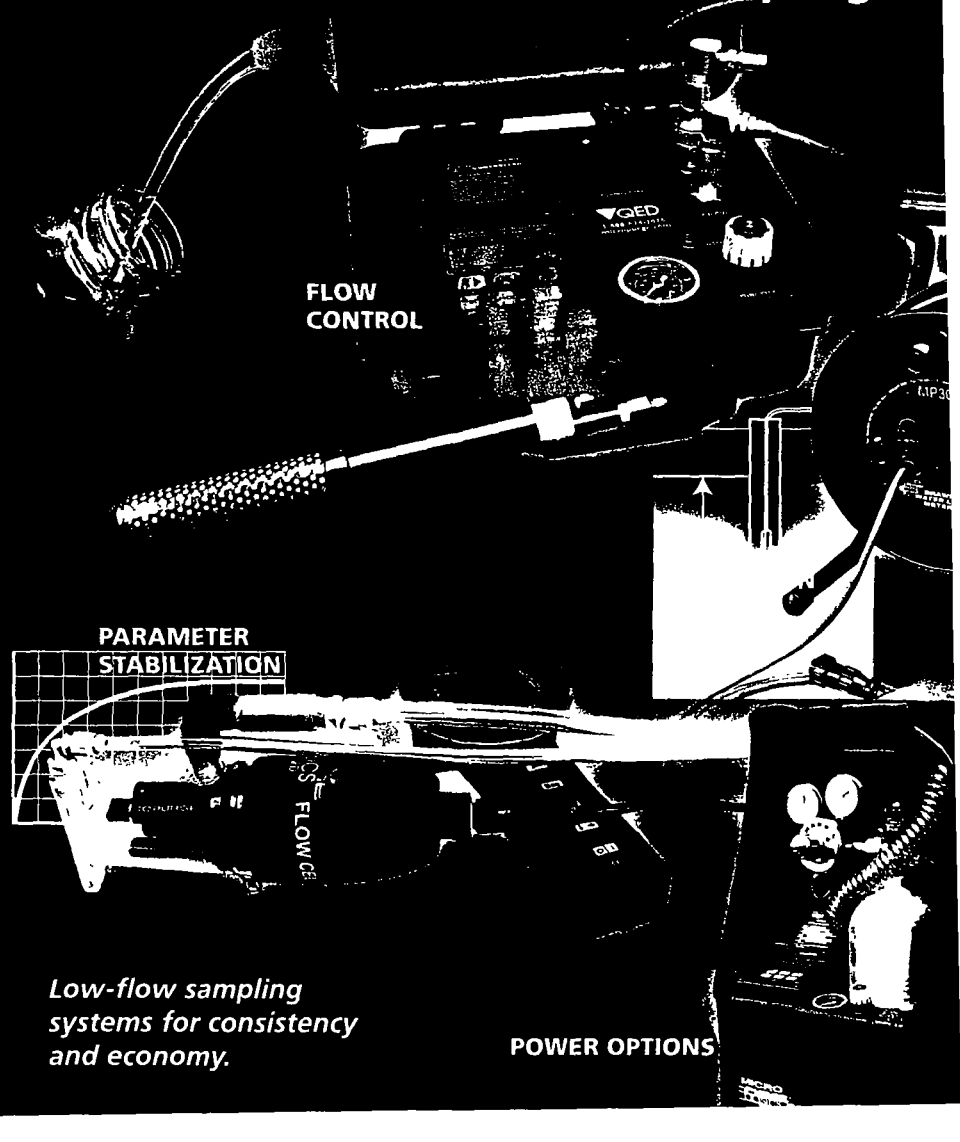
© COPYRIGHT 2000 QED Environmental Systems Inc

CODE 2248 REV 06-00

QED *First in Control & Power for Low-Flow Sampling*
PO Box 3726 Ann Arbor, MI 48106-3726 USA
FAX 734-995-1170 e-mail info@qedenv com
1-800-624-2026 www micropurge com

MICRO PURGE BASICS QED

First in Control & Power for Low-Flow Sampling



Low-flow sampling systems for consistency and economy.

LEGGETTE, BRASHEARS & GRAHAM, INC.
Professional Ground-Water Consultants

JOB 3CHRY41DAYTON
SHEET NO 1 OF 1
CALCULATED BY KSY DATE 3/31/00
CHECKED BY _____ DATE _____
SCALE _____

FIND: MASS OF PCBs IN OIL REMOVED FROM

GIVEN: 2606.78 gals OF OIL
CONTAINS AROCLOR 1254
CONCENCENTRATION 260 mg/kg
SPECIFIC GRAVITY = 1.5 → ASSUME FOR TOTAL OIL

POUNDS OIL:

1 gal H_2O = 8.34 lbs

1 gal AROCLOR 1254 = (8.34 lb)(1.5) = 12.51 lbs

(2606.78 gals)(12.51 lb) = 32,610.82 lbs

CONVERT TO Kg:

$$32{,}610.82 \text{ lb} \left(\frac{1 \text{ Kg}}{2.205 \text{ lb}}\right) = 14{,}789.5 \text{ Kg}$$

POUNDS AROCLOR 1254:

$$14{,}789.5 \text{ Kg} \left(\frac{260 \text{ mg}}{\text{Kg}}\right)\left(\frac{1 \text{ Kg}}{10^6 \text{ mg}}\right) = 3.9 \text{ Kg}$$

$$3.9 \text{ Kg} \left(\frac{2.205 \text{ lb}}{\text{Kg}}\right) = 8.53 \text{ lbs AROCLOR 1254}$$

DAIMLERCHRYSLER CORPORATION
DAYTON THERMAL PRODUCTS
DAYTON, OHIO

POTENTIAL TO EMIT FROM PURGE WATER TANK
CHARACTERISTIC 2 WATER

CHARACTERISTIC RATING	MONITOR WELL	DEPTH TO WATER	TOTAL DEPTH	TOP OF CASING ELEVATION	WATER ELEVATION	PURGE 3 VOLUMES gal.	TOTAL VOCS UG/L	MASS LBS
2	MWB-2	26.02	86.85	751.17	725.15	29.7	2 3	5 71E-07
2	MWB-4	26.75	35 35	751.64	724 89	4 2	4 8	1 68E-07
2	MWB-5	24.54	89.90	750.12	725.58	32 0	28 2	7 52E-06
2	MWC-3	26.04	84 00	751.53	725 49	28 3	56.5	1 34E-05
2	MW-7S	24.53	30 25	750.18	725 65	2 8	29.3	6.84E-07
2	PZ-7I	24.31	55 35	749 90	725.59	15 2	11 8	1.49E-06
2	PZ-8D	24.32	78.65	749.84	725.52	26 6	28 5	6.31E-06
2	PZ-12I	25.76	57.85	751.16	725.40	15.7	1747.0	2.29E-04
2	PZ-12D	25.77	84 45	751.15	725 38	28 7	9.4	2.25E-06
2	PZ-14I	25.91	59.90	751 36	725 45	16.6	339.9	4 71E-05
2	MW-15S	20.81	29 45	746 35	725.54	4.2	81.8	2 88E-06
2	PZ-15I	21.26	50.05	746.76	725.50	14.1	33 0	3 87E-06
2	PZ-16D	23.35	80.90	748.76	725.41	28.1	1428.4	3 35E-04
2	PZ-17I	25.34	57 65	750 66	725 32	15 8	705 8	9 30E-05
2	PZ-17D	25.26	84.25	750 58	725 32	28.8	43 0	1 03E-05
2	PZ-19I	22.76	62 45	747 84	725.08	19.4	15 0	2 43E-06
2	MW-20S	22.98	27.80	748 24	725 26	2 4	9.7	1.91E-07
2	PZ-20D	22.96	84 90	748.18	725 22	30 3	3.9	9 85E-07
2	PZ-21I	26.17	54.85	751.07	724 90	14 0	20 6	2 41E-06
2	PZ-22I	21.76	44 50	747 03	725 27	11.1	19 0	1 76E-06
					TOTAL GAL.	368		0 000761

2=WELLS BELOW THE TOXICITY CHARACTERISTIC REGULATORY LEVEL

TABLE 1

DAYTON THERMAL PRODUCTS PLANT
DAYTON, OHIO

CALCULATION OF CONTAMINANTS IN SPENT CARBON FROM SVE SYSTEM

COMPOUND	CONCENTRATION	RANGE
Benzene	2,300 ug/Kg	0.0092 lbs
Toluene	6,400 ug/Kg	0.0256 lbs
Ethylbenzene	420 ug/Kg	0.0017 lbs
Xylene	2,700 ug/Kg	0.0108 lbs
Carbon Tetrachloride	130,000 ug/Kg	0.5199 lbs
Chloroform	2,200 ug/Kg	0.0088 lbs
1,1-Dichloroethane	70,000 ug/Kg	0.2800 lbs
1,2-Dichloroethane	35,000 ug/Kg	0.1400 lbs
1,1-Dichloroethene	8,800 ug/Kg	0.0352 lbs
trans 1,2-Dichloroethene	180,000 ug/Kg	0.7199 lbs
1,1,2,2, Tetrachloroethane	520 ug/Kg	0.0021 lbs
Tetrachloroethene	450,000 ug/Kg	1.7997 lbs
1,1,1-Trichloroethane	160,000 ug/Kg	0 6399 lbs
1,1,2-Trichloroethane	250 ug/Kg	0.0010 lbs
Trichloroethene	350,000 ug/Kg	1.3998 lbs
	Total VOCs:	5.5934 lbs
Barium	1.18 mg/L	
Chromium	0.05 mg/L	
Nickel	0.02 mg/L	

LEGGETTE, BRASHEARS & GRAHAM, INC.
Professional Ground-Water Consultants

JOB 3CHRM4 - DAYTON
SHEET NO. 1 OF 1
CALCULATED BY RAC DATE 10-23-98
CHECKED BY MPP DATE 10/23/98
SCALE SPENT CARBON WASTE CHARACTERIZATION

SAMPLE CALC:

BENZENE @ 2,300 µg/Kg in 4,000 lbs CARBON. DETERMINE WEIGHT OF BENZENE IN CARBON.

$$\left(\frac{2{,}300\,\mu g}{Kg}\right)\cdot\left(4{,}000\,lbs\right)\cdot\left(\frac{Kg}{2.205\,lb}\right)\left(\frac{\mu g}{1{,}000\,mg}\right)\left(\frac{g}{1000\,mg}\right)\left(\frac{lb}{453.59\,g}\right)=$$

= .0092 lbs Benzene.

Water Well Log and Drilling Report
Ohio Department of Natural Resources
Division of Water
Phone 614-265-6740
e-mail water@dnr state oh us
web site. http //www dnr state oh us

WELL LOG AND DRILLING REPORT

Well Log Number: *201049*

ORIGINAL OWNER AND LOCATION

Original Owners Name: *BLUE BIRD PIE CO.*
County: *MONTGOMERY* **Township:** *DAYTON* **Section #:** *5*
Address: *KISER STREET* **Lot #:**
City: **State:** *OH* **Zip Code:**

CONSTRUCTION DETAILS

Borehole Diameter: **Casing Diameter:** *6 in* **Casing Thickness:** **Casing Length:** *91 ft*
Borehole Diameter: **Casing Diameter:** **Casing Thickness:** **Casing Length:** *91 ft.*
Total Depth: *91 ft.* **Depth to Bedrock:** **Screen Length:**
Well Use: **Date of Completion:** *1/12/61*
Aquifer Type:
Driller's Name: *BOONE WATER SYSTEMS INC.*

WELL TEST DETAILS

Static Water Level: *18 ft.* **Test Rate:** *15 gpm*
Drawdown: *0 ft.* **Test Duration:** *99 hrs*

WELL LOG

Associated Reports
NONE

Formations	From	To
CLAY	0	5
DRY GRAVEL	5	25
CLAY	25	50
SAND	50	70
GRAVEL	70	91
WATER AT	91	91

Table 3

PROCESS EQUIPMENT DESCRIPTION

ENVIRONMENTAL SITE ASSESSMENT
DAYTON THERMAL PRODUCTS DIVISION
DAYTON, OHIO

A.	First Impregnation, Loctite System
B.	Shaft Assembly, Washer Dept 9295
C.	West Coolant Pit
D.	Cargill Washer
E.	Piston Washer
F.	South Shell Washer
G.	East Coolant Pit
H.	South Coolant Pit
I.	Second Impregnation, Loctite System
J.	North Coolant Pit
K.	Shaft Washer, Dept. 9290
L.	Clutch Retainer Washer
M.	Steel Machining Coolant Pit
N.	Phosphating Washer
O.	Cleaner Tanks, Dept. 9221
P.	Paint Booth
Q.	Paint Booth
R.	New Washer
S.	Washer Tanks, Dept. 9227
T.	Cleaner Tanks, Dept. 9227
U.	Flush Washer System
V.	Manpro Degreaser
W.	Plate/Fin Evaporator Degreaser
X.	Parts Degreaser (Removed in 1982)
Y.	Plating Operation - Zinc Chromate
Z.	Swashplate Heat Treatment Machine
AA.	New Detrix Degreaser
BB.	Compressor Parts Degreaser (Removed in 1976)
CC.	Dip Tank (Removed in 1984)
DD.	Degreaser (Removed in 1981)
EE.	Detrex Degreaser (Removed in 1991)
FF.	Freon Degreaser
GG.	Xylol-based Paint Booth (Removed in 1981)
HH.	Vapor Degreaser

EPA Region 5 Records Ctr.
350026

EPA Approval of SA2 BERA for Purposes of Remedy Selection

Leah Evison to: Gary Uphoff, Steve Smith 09/24/2009 03:00 PM
Cc: "Sandra Bron", "Lisa Cundiff", Thomas Martin

U.S. EPA has reviewed the *Revised Baseline Ecological Risk Assessment (BERA) for Sauget Area 2 Sites (Sites O, P, Q, R, and S)* that was prepared by AMEC Earth and Environmental dated July 2008, comments from technical reviewers and responses to comments, which are also part of the Administrative Record for this site.

U.S.EPA approves the Sauget Area 2 BERA for purposes of alternatives evaluation and remedy selection at this site under its Superfund Program. This approval is not intended to approve the use of the document for any other purposes, including natural resource damage assessment.

Leah Evison, Ph.D.
U.S. EPA Region 5 (SR-6J)
77 W. Jackson Blvd.
Chicago, IL 60604-3507
tel. 312-886-2064

EPA Region 5 Records Ctr
350024

MEMORANDUM

To: Joe Whitlock, DaimlerChrysler Corporation
From: Ken Vogel, Leggette, Brashears & Graham, Inc. KOV
Subject: Dayton Thermal Products
Free-Phase Product Recovery and Collection
Date: July 23, 1999

On June 28, 1999 you met with Kristin Yahnke from our St. Paul, MN office and discussed the possibility of temporarily collecting recovered free-phase product from beneath Building 40B into a waste oil sump also located in Building 40B. Currently, product thickness averages 0.4 feet in thickness in four Bldg. 40B wells. As a result, we are in the process of evaluating the feasibility and design of a potential product recovery system.

In September 1998, samples were submitted for laboratory analysis of free-phase product in SVE-11D, oil/water in the Trade Waste Sump located in the southern drum storage area in Building 40B, and oil/water in the Waste Oil Sump located just west of the new presses in Building 40B (figure 1). Chromatographic analyses indicate that all three of these samples are consistent with a complex mixture of lubricating oil fractions with volatile and semi-volatile components typical of diesel #2 and heavier weight, residual fuel oil fractions.

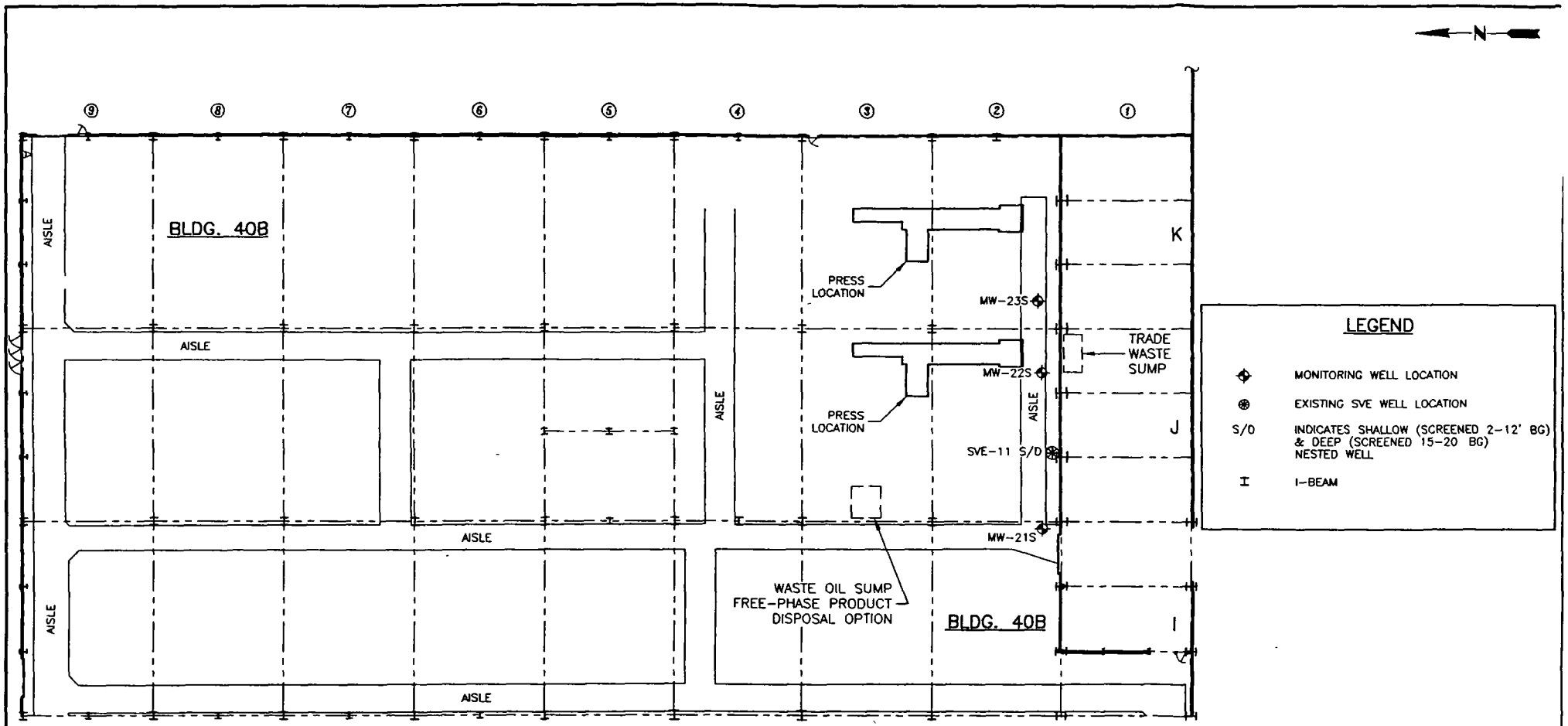
It is our understanding that the contents of the waste sumps are periodically collected for recycling by Waste Management. Since all three samples are similar in composition, we are interested in determining if DTPP and Waste Management will accept additional product recovered from the water table, and temporarily placed into existing infrastructure, for recycling also.

Attached are the analytical data along with a summary table for your evaluation regarding the option to collect the recovered free-phase product into the Waste Oil Sump The samples have been identified in the laboratory report as "SVE-11 Grab Product Sample" (SVE-11D), "West Sump Grab Water Sample" (Waste Oil Sump), and "South Sump Grab Water Sample" (Trade Waste Sump). A verbal interpretation of the contents of each of the samples has been provided by the laboratory and is included in the laboratory report.

Placing collected free-phase oil in the Waste Oil Sump will eliminate the need to purchase, install, and permit an above ground storage tank which will be required for containing the recovered product if disposal to the sump is not an option. Please review the enclosed information and advise us as to DaimlerChrysler's position on this issue. Feel free to call me at (651) 490-1405 ext. 202 with comments or questions.

cc: Gary Stanczuk, DaimlerChrysler

S\TECH\3CHRY\DAYTON\ENGINEER\MEMOS\071499JO WPD



0 30
SCALE IN FEET

DATE	REVISED

Prepared By
LEGGETTE, BRASHEARS & GRAHAM, INC
Professional Ground-Water and Environmental Services
Northpark Corporate Center
1210 W County Road E Suite 700
St Paul, MN 55112
(651) 490-1405

DAYTON THERMAL PRODUCTS PLANT
DAYTON, OHIO

FREE-PHASE PRODUCT DISPOSAL

FILE	3CHDA080 DWG	DATE	JULY 1999	FIGURE	1

DAYTON THERMAL PRODUCTS
DAYTON, OHIO

FREE-PHASE PRODUCT ANALYSIS
SVE-11D, WEST SUMP, AND SOUTH SUMP

UNITS ARE IN MICROGRAMS PER LITER (ug/L)

WELL	DATE	Total Hydrocarbons	PCB-1260	2-Methyl-naphthalene	Butylbenzyl-phthalate	bis(2-ethylhexyl)-phthalate	Phenol	2-methyl-phenol	3 & 4-methyl-phenol	2, 4-methyl-phenol	N-nitrosodi-phenylamine	Diesel #2 Fuel
OEPA VAP MCLs		—	0.5	—	—	6.0	9,400	—	—	—	—	—
SVE-11D	15-Sep-98	**2,300,000**	1080 J	23,000 J	97,000 J	21,000 J	< 100,000	---	---	---	---	---
WEST SUMP	15-Sep-98	< 2,000,000	< 1,000	< 5,000	< 5,000	25 J	54 J	22 J	**42,000**	33 J	38 J	**710,000**
SOUTH SUMP	15-Sep-98	< 2,000,000	< 1,000	< 1,000	< 1,000	< 1,000	---	---	---	---	< 1,000	**5,500,000**

NUMBERS IN BOLD WERE DETECTED ABOVE THE LABORATORY METHOD DETECTION LIMIT
J ESTIMATED VALUE
SHADED NUMBERS EXCEED OEPA VAP MCLs
OEPA VAP MCLs· OHIO ENVIRONMENTAL PROTECTION AGENCY VOLUNTARY ACTION PROGRAM MAXIMUM CONTAMINANT LEVELS FOR GENERIC UNRESTRICTED POTABLE USE STANDARDS, 1998 1st ADDITION
WEST SUMP WASTE OIL SUMP
SOUTH SUMP· TRADE WASTE SUMP
SVE-11D WELL CONTAINING FREE-PHASE PRODUCT

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. G5 3001161
Collected. 9/15/98 at 18:15 by DO

Submitted: 9/17/98 Reported: 10/21/98
Discard: 12/21/98

SVE-11 Grab Product Sample

Chrysler - Dayton Thermal Products
SVE11 SDG#: LBG01-01

Account No: 10108
Leggette,Brashears & Graham MN

1210 County Rd. E W. Ste. 700
St. Paul, MN 55112

P.O. 3CHRY4/DAYTON
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
0174	PCBs in Oil			See Page 2
0893	Semivolatile Library Search			See Page 11
	The results from the semivolatile library search are listed on the attached FORM 1F - SV-TIC. The qualifiers appearing in the "Q" column are defined on the back of this form. An "X" indicates an isomer of the listed compound.			
4615	App. IX Semivolatiles-Oil			See Page 3
4616	App. IX Semivolatiles con't			See Page 5
4617	App. IX Semivolatiles con't			See Page 6
4618	App. IX Semivolatiles con't			See Page 7
0445	Solvent Identification			See Page 8
0466	Solvent Identification (cont.)			See Page 10
2535	Quantitative GC Fingerprint			See Page 13
9188	Total Hydrocarbons as n-Hexane	2,300.	2,000.	ppm
	The reported value for total hydrocarbons as n-hexane represents total volatile organic material detected by the solvent screen conditions for the range of C5 (n-pentane) through C10 (n-decane) normal hydrocarbons.			

1 COPY TO Leggette,Brashears & Graham MN ATTN: Mr. Ken Vogel
1 COPY TO Data Package Group

Questions? Contact your Client Services Representative
Kathy Klinefelter at (717) 656-2300
19-30-22 D 0002 3 135779 632339
885 0 00 00085100 ASR000

Respectfully Submitted
Jenifer E. Hess, B.S.
Group Leader Pesticides/PCBs

MEMBER ACIL

Lancaster Laboratories
A division of Thermo Analytical Inc.

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CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
PCBs in Oil				
4815	PCB-1016	N D.	2,500.	ug/kg
4816	PCB-1221	N.D.	2,500.	ug/kg
4817	PCB-1232	N D.	2,500	ug/kg
4818	PCB-1242	N.D.	2,500.	ug/kg
4819	PCB-1248	N.D.	2,500.	ug/kg
4820	PCB-1254	N.D.	2,500.	ug/kg
4821	PCB-1260	1,080. J	2,500.	ug/kg

Aroclor 1260 was detected at 5700 ug/kg in the method blank associated with this sample. The LCS/LCSD recoveries are above the QC limits. The sample was reextracted along with a second method blank that did not contain contamination, and LCS/LCSD that was within the acceptance limits. Since the hold time had expired prior to the second extraction, the results from the original analysis are reported. The result for 1260 from the second trial is 923 ug/kg, which confirms the original result and indicates that no contamination of the sample occurred.

Questions? Contact your Client Services Representative
Kathy Klinefelter at (717) 656-2300

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Group Leader Pesticides/PCBs

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P O. 3CHRY4/DAYTON
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
App. IX Semivolatiles-Oil				
4668	pyridine	N.D.	100,000.	ug/kg
3752	N-nitrosodimethylamine	N.D.	100,000.	ug/kg
4666	2-picoline	N.D.	100,000.	ug/kg
4657	N-nitrosomethylethylamine	N D.	100,000.	ug/kg
4645	methylmethanesulfonate	N.D.	100,000.	ug/kg
4655	N-nitrosodiethylamine	N.D.	100,000.	ug/kg
4639	ethylmethanesulfonate	N D.	100,000.	ug/kg
1185	phenol	N.D.	100,000.	ug/kg
4622	aniline	N.D.	100,000.	ug/kg
3753	bis(2-chloroethyl)ether	N.D.	100,000.	ug/kg
1186	2-chlorophenol	N.D.	100,000.	ug/kg
3754	1,3-dichlorobenzene	N.D.	100,000.	ug/kg
1187	1,4-dichlorobenzene	N.D.	100,000.	ug/kg
4623	benzyl alcohol	N D.	250,000.	ug/kg
3755	1,2-dichlorobenzene	N.D.	100,000.	ug/kg
4690	2-methylphenol	N.D.	100,000.	ug/kg
3756	bis(2-chloroisopropyl)ether	N.D.	100,000.	ug/kg
4692	3- and 4-methylphenol	N.D.	100,000.	ug/kg
4660	N-nitrosopyrrolidine	N.D.	100,000.	ug/kg
4619	acetophenone	N.D.	100,000.	ug/kg
4658	N-nitrosomorpholine	N.D.	100,000.	ug/kg
1188	N-nitrosodi-n-propylamine	N D.	100,000.	ug/kg
4674	o-toluidine	N D.	100,000.	ug/kg
3757	hexachloroethane	N.D.	100,000.	ug/kg
3758	nitrobenzene	N.D.	100,000.	ug/kg
4659	N-nitrosopiperidine	N.D.	100,000.	ug/kg
3759	isophorone	N.D.	100,000.	ug/kg
3746	2-nitrophenol	N.D.	100,000.	ug/kg

Aramite is not reported due to unavailability of a suitable standard.

Questions? Contact your Client Services Representative
Kathy Klinefelter at (717) 656-2300

Respectfully Submitted
Charles J. Neslund, B.S.
Group Leader, GC/MS SVOA

MEMBER ACIL

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LLI Sample No. G5 3001161
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Discard: 12/21/98

SVE-11 Grab Product Sample

Chrysler - Dayton Thermal Products
SVE11 SDG#: LBG01-01

Account No: 10108
Leggette,Brashears & Graham MN

1210 County Rd. E W, Ste. 700
St. Paul, MN 55112

P.O. 3CHRY4/DAYTON
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS

App. IX Semivolatiles-Oil

The QC limits for the following compounds are advisory only until sufficient data points can be obtained to calculate statistical limits:
1,3,5-Trinitrobenzene
1,4-Naphthalene
1,4-Phenylenediamine
2-Acetylaminofluorene
Hexachlorophene
4-Nitroquinoline-1-oxide
5-Nitro-o-toluidine

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CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS		LIMIT OF QUANTITATION	UNITS
App. IX Semivolatiles con't					
3747	2,4-dimethylphenol	N.D.		100,000.	ug/kg
3760	bis(2-chloroethoxy)methane	N.D.		100,000.	ug/kg
4676	0,0,0-triethylphosphorothioate	N.D.		100,000.	ug/kg
3748	2,4-dichlorophenol	N.D.		100,000.	ug/kg
1189	1,2,4-trichlorobenzene	N.D.		100,000.	ug/kg
3761	naphthalene	N D		100,000.	ug/kg
4631	2,6-dichlorophenol	N.D.		100,000.	ug/kg
4693	4-chloroaniline	N.D.		100,000.	ug/kg
4640	hexachloropropene	N.D.		100,000.	ug/kg
3762	hexachlorobutadiene	N.D.		100,000.	ug/kg
4665	1,4-phenylenediamine	N.D.		2,000,000.	ug/kg
4654	N-nitrosodi-n-butylamine	N.D.		100,000.	ug/kg
1190	4-chloro-3-methylphenol	N.D.		100,000.	ug/kg
4669	safrole	N.D.		100,000.	ug/kg
4694	2-methylnaphthalene	23,000.	J	100,000.	ug/kg
4670	1,2,4,5-tetrachlorobenzene	N.D.		100,000.	ug/kg
3763	hexachlorocyclopentadiene	N.D.		200,000.	ug/kg
3749	2,4,6-trichlorophenol	N D.		100,000.	ug/kg
4695	2,4,5-trichlorophenol	N.D.		100,000.	ug/kg
4642	isosafrole	N.D.		100,000.	ug/kg
3764	2-chloronaphthalene	N.D.		100,000.	ug/kg
4696	2-nitroaniline	N.D.		100,000.	ug/kg
4647	1,4-naphthoquinone	N.D.		200,000.	ug/kg
3766	dimethylphthalate	N.D.		100,000.	ug/kg
4637	1,3-dinitrobenzene	N.D.		100,000.	ug/kg
3767	2,6-dinitrotoluene	N.D.		100,000.	ug/kg
3750	2,4-dinitrophenol	N.D.		250,000.	ug/kg

Questions? Contact your Client Services Representative
Kathy Klinefelter at (717) 656-2300

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Group Leader, GC/MS SVOA

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CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
App. IX Semivolatiles con't				
3765	acenaphthylene	N.D.	100,000.	ug/kg
4697	3-nitroaniline	N.D.	100,000.	ug/kg
1191	acenaphthene	N.D.	100,000.	ug/kg
1192	4-nitrophenol	N.D.	250,000.	ug/kg
4698	dibenzofuran	N.D	100,000.	ug/kg
4662	pentachlorobenzene	N.D.	100,000.	ug/kg
1193	2,4-dinitrotoluene	N.D.	100,000.	ug/kg
4648	1-naphthylamine	N.D.	100,000.	ug/kg
4649	2-naphthylamine	N.D.	250,000.	ug/kg
4671	2,3,4,6-tetrachlorophenol	N.D.	100,000.	ug/kg
3770	diethylphthalate	N.D.	100,000.	ug/kg
3769	4-chlorophenylphenylether	N.D.	100,000.	ug/kg
3768	fluorene	N.D.	100,000.	ug/kg
4661	5-nitro-o-toluidine	N.D.	250,000.	ug/kg
4700	4-nitroaniline	N.D.	100,000.	ug/kg
3751	4,6-dinitro-2-methylphenol	N.D.	250,000.	ug/kg
3772	N-nitrosodiphenylamine	N.D.	100,000.	ug/kg
4672	tetraethyldithiopyrophosphate	N.D.	100,000.	ug/kg
4677	1,3,5-trinitrobenzene	N.D.	200,000.	ug/kg
4664	phenacetin	N.D.	100,000.	ug/kg
3773	4-bromophenylphenylether	N.D.	100,000.	ug/kg
4629	diallate (trans/cis)	N.D.	100,000.	ug/kg
4632	dimethoate	N.D.	100,000.	ug/kg
3774	hexachlorobenzene	N.D.	100,000.	ug/kg

N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.

Questions? Contact your Client Services Representative
Kathy Klinefelter at (717) 656-2300

Respectfully Submitted
Charles J. Neslund, B.S.
Group Leader, GC/MS SVOA

MEMBER ACIL

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CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS		LIMIT OF QUANTITATION	UNITS
App. IX Semivolatiles con't					
4621	4-aminobiphenyl	N.D.		250,000.	ug/kg
1194	pentachlorophenol	N.D.		250,000.	ug/kg
4667	pronamide	N.D.		250,000.	ug/kg
4663	pentachloronitrobenzene	N.D.		100,000.	ug/kg
3775	phenanthrene	N.D.		100,000.	ug/kg
3776	anthracene	N.D.		100,000.	ug/kg
3777	di-n-butylphthalate	N.D.		100,000.	ug/kg
4653	4-nitroquinoline-1-oxide	N.D.		250,000.	ug/kg
4643	methapyrilene	N.D.		100,000.	ug/kg
4641	isodrin	N.D.		200,000.	ug/kg
3778	fluoranthene	N.D.		100,000.	ug/kg
1195	pyrene	N.D.		100,000.	ug/kg
4633	p-(dimethylamino)azobenzene	N.D.		100,000.	ug/kg
4626	chlorobenzilate	N.D.		100,000.	ug/kg
4635	3,3'-dimethylbenzidine	N.D.		250,000.	ug/kg
3780	butylbenzylphthalate	97,000.	J	100,000.	ug/kg
4620	2-acetylaminofluorene	N.D.		100,000.	ug/kg
3783	3,3'-dichlorobenzidine	N.D.		200,000.	ug/kg
3781	benzo(a)anthracene	N.D.		100,000.	ug/kg
3784	bis(2-ethylhexyl)phthalate	21,000.	J	100,000.	ug/kg
3782	chrysene	N.D.		100,000.	ug/kg
3785	di-n-octylphthalate	N.D.		100,000.	ug/kg
4634	7,12-dimethylbenz(a)anthracene	N.D.		100,000.	ug/kg
3786	benzo(b)fluoranthene	N.D.		100,000.	ug/kg
3787	benzo(k)fluoranthene	N.D.		100,000.	ug/kg
3788	benzo(a)pyrene	N.D.		100,000.	ug/kg
4644	3-methylcholanthrene	N.D.		100,000.	ug/kg
3789	indeno(1,2,3-cd)pyrene	N.D.		100,000.	ug/kg
3790	dibenz(a,h)anthracene	N.D.		100,000.	ug/kg
3791	benzo(ghi)perylene	N.D.		100,000.	ug/kg
4673	thionazin	N.D.		200,000.	ug/kg

Due to sample matrix, the GC/MS semivolatile surrogate recoveries were outside of QC limits.

The usual quantitation limits could not be attained due to the matrix of the sample or interferences observed in the GC/MS semivolatile analysis.

Questions? Contact your Client Services Representative
Kathy Klinefelter at (717) 656-2300

Respectfully Submitted
Charles J. Neslund, B S.
Group Leader, GC/MS SVOA

MEMBER ACIL

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CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
Solvent Identification				
0854	n-hexane	N.D.	0.050	% by wt.
0855	n-heptane	N D.	0.050	% by wt.
0856	n-octane	N.D.	0.050	% by wt.
0857	isooctane	N.D.	0.050	% by wt.
0858	benzene	N D.	0.050	% by wt.
0859	toluene	N D.	0.050	% by wt.
0860	ethyl benzene	N.D	0.050	% by wt.
0861	xylenes	N.D.	0.050	% by wt.
0862	styrene	N.D.	0.050	% by wt.
1120	chlorobenzene	N.D.	0.050	% by wt.
0863	methanol	N.D.	0.050	% by wt.
1118	n-propanol	N.D.	0.050	% by wt.
0864	ethanol	N.D.	0.050	% by wt.
0865	isopropanol	N.D.	0.050	% by wt.
0866	n-butanol	N.D.	0.050	% by wt.
0867	isobutanol	N.D.	0.050	% by wt.
0868	acetone	N.D.	0.050	% by wt.
0869	methyl ethyl ketone	N.D.	0.050	% by wt.
0870	methyl isobutyl ketone	N.D.	0.050	% by wt.
1119	cyclohexanone	N.D.	0.050	% by wt.
0871	methyl cellosolve	N.D.	0.050	% by wt.
0872	ethyl cellosolve	N D.	0.050	% by wt.
0873	butyl cellosolve	N.D.	0.050	% by wt.
0874	cellosolve acetate	N.D.	0.050	% by wt.
0875	ethyl acetate	N.D.	0.050	% by wt.
0876	propyl acetate	N.D.	0.050	% by wt.
0877	isopropyl acetate	N.D.	0.050	% by wt.
0878	n-butyl acetate	N.D.	0.050	% by wt.
1116	ethyl ether	N.D.	0.050	% by wt.
0880	carbon tetrachloride	N.D.	0.050	% by wt.
0881	chloroform	N.D.	0.050	% by wt.
0882	methylene chloride	N.D.	0.050	% by wt.
0883	1,1-dichloroethane	N.D.	0.050	% by wt.
0884	1,2-dichloroethane	N.D.	0.050	% by wt.
0885	1,1,1-trichloroethane	N.D.	0.050	% by wt.
0886	1,1,2-trichloroethane	N.D.	0.050	% by wt.
0887	trichloroethylene	N.D.	0.050	% by wt.

Questions? Contact your Client Services Representative
Kathy Klinefelter at (717) 656-2300

Respectfully Submitted
Jenifer E. Hess, B.S.
Group Leader Pesticides/PCBs

MEMBER ACIL

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. G5 3001161
Collected: 9/15/98 at 18:15 by DO

Submitted: 9/17/98 Reported: 10/21/98
Discard: 12/21/98

SVE-11 Grab Product Sample

Chrysler - Dayton Thermal Products
SVE11 SDG#: LBG01-01

Account No: 10108
Leggette,Brashears & Graham MN

1210 County Rd. E W. Ste. 700
St. Paul, MN 55112

P.O. 3CHRY4/DAYTON
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
Solvent Identification				
0888	tetrachloroethylene	N.D.	0.050	% by wt.
0889	Freon 113	N.D.	0.050	% by wt.
1117	pyridine	N.D.	0.050	% by wt.

Questions? Contact your Client Services Representative
Kathy Klinefelter at (717) 656-2300

Respectfully Submitted
Jenifer E. Hess, B.S.
Group Leader Pesticides/PCBs

MEMBER ACIL
Lancaster Laboratories
2425 New Holland Pike
PO Box 2125
Lancaster PA 17605-2125
717-656-2300 Fax 717-656-2681

See reverse side for [illegible]

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. G5 3001161
Collected: 9/15/98 at 18:15 by DO

Submitted: 9/17/98 Reported: 10/21/98
Discard: 12/21/98

SVE-11 Grab Product Sample

Chrysler - Dayton Thermal Products
SVE11 SDG#: LBG01-01

Account No: 10108
Leggette,Brashears & Graham MN

1210 County Rd. E W, Ste. 700
St. Paul, MN 55112

P.O. 3CHRY4/DAYTON
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
Solvent Identification (cont.)				
0853	n-pentane	N.D.	0.050	% by wt.

Questions? Contact your Client Services Representative
Kathy Klinefelter at (717) 656-2300

Respectfully Submitted
Jenifer E. Hess, B S.
Group Leader Pesticides/PCBs

MEMBER ACIL

Lancaster Laboratories
A division of Thermo Analytical Inc.

 1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SVE11

Lab Name: LANCASTER LABS Contract: ____.
Lab Code: LANCAS Case No.: _____. SAS No.: ____. SDG No.: _____.
Matrix: (soil/water) SOIL Lab Sample ID: 3001161
Sample wt/vol: 0 (g/mL) ML Lab File ID: >LJ269
Level: (low/med) LOW Date Received: 09/17/98
% Moisture: not dec. _____. dec. _____. Date Extracted: 10/09/98
Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 10/12/98
GPC Cleanup: (Y/N) N pH: _____. Dilution Factor: 1.0

Number TICs found: 50

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown alkane	10.86	1500000.	J
2.	Unknown alkane	11.35	890000.	J
3.	Unknown alkane	11.65	910000.	J
4.	Unknown alkane	12.07	2400000.	J
5.	Unknown alkane	12.27	1100000.	J
6.	Unknown	12.38	610000.	J
7.	Unknown alkane	13.01	2300000.	J
8.	Unknown	13.54	620000.	J
9.	Unknown cycloalkane	13.87	800000.	J
10.	Unknown alkane	14.29	630000.	J
11.	Unknown alkane	14.42	600000.	J
12.	Unknown alkane	14.99	1200000.	J
13.	Unknown alkane	15.22	590000.	J
14.	Unknown alkane	16.30	980000.	J
15.	Unknown alkane	16.82	1400000.	J
16.	Unknown	17.88	2500000.	J
17.	Unknown	17.96	4600000.	J
18.	Unknown	18.31	2600000.	J
19.	Unknown	18.63	139000000.	J
20.	Unknown	19.28	610000.	J
21.	Unknown alkane	19.53	1700000.	J
22.	Unknown	19.82	880000.	J
23.	Unknown	19.95	2300000.	J
24.	Unknown	20.06	710000.	J
25.	Unknown	20.55	720000.	J
26.	Unknown	20.74	780000.	J
27.	Unknown alkane	21.14	910000.	J
28.	Unknown	21.23	1000000.	J
29.	Unknown	21.44	1800000.	J
30.	Unknown	21.59	1200000.	J

FORM I SV-TIC 1/87 Rev.

Respectfully Submitted
Charles J. Neslund, B.S.
Group Leader, GC/MS SVOA

MEMBER ACIL

Lancaster Laboratories
A division of Thermo Analytical Inc.

 1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SVE11

Lab Name: LANCASTER LABS Contract: ____.
Lab Code: LANCAS Case No.: _____. SAS No.: _____. SDG No.: _____.
Matrix: (soil/water) SOIL Lab Sample ID: 3001161
Sample wt/vol: 0 (g/mL) ML Lab File ID: >LJ269
Level: (low/med) LOW Date Received: 09/17/98
% Moisture: not dec. _____. dec. _____. Date Extracted: 10/09/98
Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 10/12/98
GPC Cleanup: (Y/N) N pH: _____. Dilution Factor: 1.0

CONCENTRATION UNITS:
Number TICs found: 50 (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
31.	Unknown alkane	21.69	2200000.	J
32.	Unknown	21.88	690000.	J
33.	Unknown	22.00	1300000.	J
34.	Unknown alkane	22.36	2800000.	J
35.	Unknown	22.86	1000000.	J
36.	Unknown alkane	23.14	6400000.	J
37.	Unknown alkane	23.71	1100000.	J
38.	Unknown alkane	23.81	1100000.	J
39.	Unknown	24.10	600000.	J
40.	Unknown	24.18	640000.	J
41.	Unknown alkane	24.50	2200000.	J
42.	Unknown alkane	24.59	2500000.	J
43.	Unknown alkane	25.05	660000.	J
44.	Unknown alkane	25.78	1500000.	J
45.	Unknown	26.26	770000.	J
46.	Unknown alkane	26.93	780000.	J
47.	Unknown alkane	27.34	1000000.	J
48.	Unknown	31.22	820000.	J
49.	Unknown	32.70	630000.	J
50.	Unknown	37.34	660000.	J

FORM I SV-TIC 1/87 Rev.

Respectfully Submitted
Charles J. Neslund, B.S.
Group Leader, GC/MS SVOA

Lancaster Laboratories
A division of Thermo Analytical Inc.

 LLI Sample No. G5 3001161

SVE-11 Grab Product Sample

Chrysler - Dayton Thermal Products

ANALYSIS: 2535

The GC Fingerprint for this sample indicates a complex mixture of petroleum based and nonpetroleum organic materials. The overall sample fingerprint elutes throughout the range C10 (n-decane) through C40 (n-tetracontane) normal hydrocarbons and consists primarily of two distinct unresolved regions. The early eluting (more volatile) region elutes in the C10 - C20 (n-eicosane) range. This region is primarily unresolved; however, the overall pattern is a fairly good match for our #2 fuel oil reference pattern. Additionally, a large single component peak, which is not present in the fuel reference pattern, elutes just prior to C14 (n-tetradecane). This component accounts for approximately 10%, by weight, of the total organic content of the sample. The later eluting (less volatile) region elutes in the C20 - C40 range and is also unresolved. Each unresolved region (including the component peak in the C10 - C20 range) accounts for approximately 50%, by weight, of the total organic content of the sample. The unresolved nature of the two regions is typical of lubricating oil fractions analyzed by this method. However, the presence of fuel components indicates a complex mixture of lubricating oil fractions with volatile and semi-volatile components that are typical of diesel/#2 and heavier weight, residual fuel oil fractions.

For the purpose of quantitation, we base total area response of the sample pattern(s) on our #2 fuel oil reference standard response. When we calculate total sample area eluting in the C8 (n-octane) through C40 normal hydrocarbon range as petroleum distillate/product (#2 fuel oil), it is present at 76% by weight.

The GC Fingerprint for this sample was used as a reference fingerprint for LL 3001162 and 3001163.

The quantitation is presented on an as received basis. Consider it an approximation due to the differences between the sample pattern(s) and the reference patterns.

Respectfully Submitted
Jenifer E. Hess, B.S.
Group Leader Pesticides/PCBs

&&&

ANALYSIS REPORT

LABORATORY CHRONICLE

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. G5 3001161
Collected: 09/15/98 at 18:15 by DO

Submitted: 09/17/98

SVE-11 Grab Product Sample

Chrysler - Dayton Thermal Products
SVE11 SDG#: LBG01-01

Account No: 10108
Leggette,Brashears & Graham MN

1210 County Rd. E W, Ste. 700
St. Paul, MN 55112

CAT NO	ANALYSIS NAME	METHOD	TRIAL	ANALYSIS ID	DATE AND TIME	ANALYST
0174	PCBs in Oil	SW-846 8082	1		09/29/98 1343	Rick Shober
0815	Oil Sample PCB's Cleanup Ext.	SW-846 3580A	1		09/26/98 0715	Deborah M. Zimmerman
0381	BNA Soil Extraction	SW-846 3550B	1		10/09/98 1900	Wanda F. Oswald
4615	App. IX Semivolatiles-Oil	SW-846 8270C	1		10/12/98 1815	David J. Evans
4616	App. IX Semivolatiles con't	SW-846 8270C	1		10/12/98 1815	David J. Evans
4617	App. IX Semivolatiles con't	SW-846 8270C	1		10/12/98 1815	David J. Evans
4618	App. IX Semivolatiles con't	SW-846 8270C	1		10/12/98 1815	David J. Evans
0445	Solvent Identification	SW-846 8015B modified	1		09/24/98 1320	Tracy A. McNickle
0466	Solvent Identification (cont.)	SW-846 8015B modified	1		09/24/98 1320	Tracy A. McNickle
2535	Quantitative GC Fingerprint	SW-846 8015B modified	1		09/21/98 2213	Robert G. Brown
9188	Total Hydrocarbons as n-Hexane	SW-846 8015B			09/24/98 1355	Tracy A. McNickle

Lancaster Laboratories
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LLI Sample No. 3001161
SVE-11 Grab Product Sample

Chrysler - Dayton Thermal Products

Group No. 632339
Leggette,Brashears & Graham MN

SAMPLE LOQ	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LIMITS LOW	LCS LIMITS HIGH
0174 PCBs in Oil		Batch: 982680010A									
4815 PCB-1016											
2,500.	ug/kg	N.D.					143	136	5	36	136
4816 PCB-1221											
2,500.	ug/kg	N.D.									
4817 PCB-1232											
2,500.	ug/kg	N.D.									
4818 PCB-1242											
2,500.	ug/kg	N D									
4819 PCB-1248											
2,500.	ug/kg	N.D.									
4820 PCB-1254											
2,500.	ug/kg	N.D.									
4821 PCB-1260											
2,500.	ug/kg	5,700. ug/kg					133	127	5	51	124
4615 App. IX Semivolatiles-Oil		Batch: 98282SDB026									
4668 pyridine											
100,000.	ug/kg	N.D.					21	21	1	34	92
3752 N-nitrosodimethylamine											
100,000.	ug/kg	N.D.					21	22	1	47	109
4666 2-picoline											
100,000.	ug/kg	N.D.					21	21	2	29	129
4657 N-nitrosomethylethylamine											
100,000.	ug/kg	N.D.					26	27	5	78	128
4645 methylmethanesulfonate											
100,000.	ug/kg	N.D.					42	41	1	66	122
4655 N-nitrosodiethylamine											
100,000.	ug/kg	N.D.					21	22	5	37	135
4639 ethylmethanesulfonate											
100,000.	ug/kg	N.D.					42	42	0	65	117
1185 phenol											
100,000.	ug/kg	N.D.					21	21	1	49	105
4622 aniline											
100,000.	ug/kg	N.D.					20	20	1	30	97
3753 bis(2-chloroethyl)ether											
100,000.	ug/kg	N.D.					24	24	0	53	109
1186 2-chlorophenol											
100,000.	ug/kg	N.D.					21	21	1	55	107
3754 1,3-dichlorobenzene											
100,000.	ug/kg	N.D.					21	21	1	53	103
1187 1,4-dichlorobenzene											
100,000.	ug/kg	N.D.					21	22	3	52	103
4623 benzyl alcohol											
250,000.	ug/kg	N.D.					22	22	2	62	115
3755 1,2-dichlorobenzene											
100,000.	ug/kg	N.D.					21	22	3	56	107

QUALITY CONTROL REPORT

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. 3001161
SVE-11 Grab Product Sample

Chrysler - Dayton Thermal Products

Group No. 632339
Leggette,Brashears & Graham MN

SAMPLE LOQ	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LIMITS LOW	LCS LIMITS HIGH
4690 2-methylphenol											
100,000.	ug/kg	N.D.					22	22	1	57	101
3756 bis(2-chloroisopropyl)ether											
100,000.	ug/kg	N.D.					24	24	0	38	117
4692 3- and 4-methylphenol											
100,000.	ug/kg	N.D.					22	22	1	48	116
4660 N-nitrosopyrrolidine											
100,000.	ug/kg	N.D.					20	20	2	77	113
4619 acetophenone											
100,000.	ug/kg	N.D.					44	44	1	59	134
4658 N-nitrosomorpholine											
100,000.	ug/kg	N.D.					22	22	2	78	109
1188 N-nitrosodi-n-propylamine											
100,000.	ug/kg	N.D.					22	22	1	50	124
4674 o-toluidine											
100,000.	ug/kg	N.D.					20	20	2	12	89
3757 hexachloroethane											
100,000.	ug/kg	N.D.					21	22	1	52	108
3758 nitrobenzene											
100,000.	ug/kg	N.D.					41	41	0	56	110
4659 N-nitrosopiperidine											
100,000.	ug/kg	N.D.					20	20	0	78	105
3759 isophorone											
100,000.	ug/kg	N.D.					39	39	2	57	114
3746 2-nitrophenol											
100,000.	ug/kg	N.D.					20	20	2	59	107
4616 App. IX Semivolatiles con't		Batch: 98282SDB026									
3747 2,4-dimethylphenol											
100,000.	ug/kg	N.D.					21	21	1	39	108
3760 bis(2-chloroethoxy)methane											
100,000.	ug/kg	N.D.					21	21	2	56	103
4676 0,0,0-triethylphosphorothioate											
100,000.	ug/kg	N.D.					19	19	0	67	103
3748 2,4-dichlorophenol											
100,000.	ug/kg	N.D.					20	20	1	59	100
1189 1,2,4-trichlorobenzene											
100,000.	ug/kg	N.D.					20	20	2	57	104
3761 naphthalene											
100,000.	ug/kg	N.D.					21	21	3	58	99
4631 2,6-dichlorophenol											
100,000.	ug/kg	N.D.					20	20	0	62	109
4693 4-chloroaniline											
100,000.	ug/kg	N.D.					21	21	3	1	102
4640 hexachloropropene											
100,000.	ug/kg	N.D.					20	21	2	70	130
3762 hexachlorobutadiene											
100,000.	ug/kg	N.D.					21	21	4	56	115

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LLI Sample No. 3001161
SVE-11 Grab Product Sample

Chrysler - Dayton Thermal Products

Group No. 632339
Leggette,Brashears & Graham MN

SAMPLE LOQ	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LIMITS LOW	LCS LIMITS HIGH
4665 1,4-phenylenediamine											
2,000,000.	ug/kg	N.D.					23	23	0	70	130
4654 N-nitrosodi-n-butylamine											
100,000.	ug/kg	N.D.					21	20	1	75	103
1190 4-chloro-3-methylphenol											
100,000	ug/kg	N.D.					20	21	1	56	108
4669 safrole											
100,000.	ug/kg	N.D.					38	39	2	30	109
4694 2-methylnaphthalene											
100,000.	ug/kg	N.D.					20	21	2	60	102
4670 1,2,4,5-tetrachlorobenzene											
100,000.	ug/kg	N.D.					21	22	3	61	113
3763 hexachlorocyclopentadiene											
200,000.	ug/kg	N.D.					13	9	30	27	113
3749 2,4,6-trichlorophenol											
100,000.	ug/kg	N.D.					20	20	1	62	106
4695 2,4,5-trichlorophenol											
100,000.	ug/kg	N.D.					20	20	1	63	107
4642 isosafrole											
100,000.	ug/kg	N.D.					28	28	0	14	72
3764 2-chloronaphthalene											
100,000.	ug/kg	N.D.					21	21	2	60	106
4696 2-nitroaniline											
100,000.	ug/kg	N.D.					22	21	1	54	111
4647 1,4-naphthoquinone											
200,000.	ug/kg	N.D.					19	20	1	70	130
3766 dimethylphthalate											
100,000.	ug/kg	N.D.					24	24	1	61	104
4637 1,3-dinitrobenzene											
100,000.	ug/kg	N.D.					37	38	1	61	109
3767 2,6-dinitrotoluene											
100,000.	ug/kg	N.D.					38	37	1	62	111
3750 2,4-dinitrophenol											
250,000.	ug/kg	N.D.					20	20	0	29	117
4617 App. IX Semivolatiles con't		Batch: 98282SDB026									
3765 acenaphthylene											
100,000.	ug/kg	N.D.					21	21	1	62	101
4697 3-nitroaniline											
100,000.	ug/kg	N.D.					18	18	0	9	110
1191 acenaphthene											
100,000.	ug/kg	N.D.					21	21	0	61	100
1192 4-nitrophenol											
250,000.	ug/kg	N.D.					24	24	1	44	110
4698 dibenzofuran											
100,000.	ug/kg	N.D.					21	21	1	62	102
4662 pentachlorobenzene											
100,000.	ug/kg	N.D.					21	21	0	69	100

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LLI Sample No. 3001161
SVE-11 Grab Product Sample

Chrysler - Dayton Thermal Products

Group No. 632339
Leggette,Brashears & Graham MN

SAMPLE LOQ	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LIMITS LOW	LCS LIMITS HIGH
1193 2,4-dinitrotoluene											
100,000.	ug/kg	N.D.					39	39	0	58	113
4648 1-naphthylamine											
100,000.	ug/kg	N.D.					15	15	1	1	99
4649 2-naphthylamine											
250,000.	ug/kg	N.D.					10	10	0	1	100
4671 2,3,4,6-tetrachlorophenol											
100,000.	ug/kg	N.D.					18	18	3	62	103
3770 diethylphthalate											
100,000.	ug/kg	N.D.					24	24	2	59	104
3769 4-chlorophenylphenylether											
100,000.	ug/kg	N.D.					24	24	1	52	110
3768 fluorene											
100,000.	ug/kg	N.D.					21	21	2	59	109
4661 5-nitro-o-toluidine											
250,000.	ug/kg	N.D.					13	13	3	70	130
4700 4-nitroaniline											
100,000.	ug/kg	N.D.					15	16	3	37	120
3751 4,6-dinitro-2-methylphenol											
250,000.	ug/kg	N.D.					18	18	2	42	107
3772 N-nitrosodiphenylamine											
100,000.	ug/kg	N.D.					20	20	1	60	106
4672 tetraethyldithiopyrophosphate											
100,000.	ug/kg	N.D.					19	19	3	62	111
4677 1,3,5-trinitrobenzene											
200,000.	ug/kg	N.D.					44	45	2	70	130
4664 phenacetin											
100,000.	ug/kg	N.D.					21	21	2	69	105
3773 4-bromophenylphenylether											
100,000.	ug/kg	N.D					24	24	1	61	110
4629 diallate (trans/cis)											
100,000.	ug/kg	N.D.					22	22	1	69	126
4632 dimethoate											
100,000.	ug/kg	N.D.					17	17	0	23	79
3774 hexachlorobenzene											
100,000.	ug/kg	N.D.					23	22	4	52	123
4618 App. IX Semivolatiles con't		Batch: 98282SDB026									
4621 4-aminobiphenyl											
250,000.	ug/kg	N.D.					6	5	6	1	46
1194 pentachlorophenol											
250,000.	ug/kg	N.D.					22	22	1	42	108
4667 pronamide											
250,000.	ug/kg	N.D.					11	11	0	1	132
4663 pentachloronitrobenzene											
100,000.	ug/kg	N.D.					32	41	24	68	115
3775 phenanthrene											
100,000.	ug/kg	N.D.					21	21	0	62	107

QUALITY CONTROL REPORT

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. 3001161
SVE-11 Grab Product Sample

Chrysler - Dayton Thermal Products

Group No. 632339
Leggette,Brashears & Graham MN

SAMPLE LOQ	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LIMITS LOW	LCS LIMITS HIGH
3776 anthracene											
100,000.	ug/kg	N.D.					21	21	1	62	105
3777 di-n-butylphthalate											
100,000.	ug/kg	N.D.					24	24	1	59	114
4653 4-nitroquinoline-1-oxide											
250,000.	ug/kg	N.D.					21	25	17	70	130
4643 methapyrilene											
100,000.	ug/kg	N.D.					20	19	3	35	138
4641 isodrin											
200,000.	ug/kg	N.D.					19	19	1	66	117
3778 fluoranthene											
100,000.	ug/kg	N.D.					20	20	0	58	110
1195 pyrene											
100,000.	ug/kg	N.D.					21	21	1	52	115
4633 p-(dimethylamino)azobenzene											
100,000.	ug/kg	N.D.					23	24	3	1	186
4626 chlorobenzilate											
100,000.	ug/kg	N.D.					23	24	5	9	223
4635 3,3'-dimethylbenzidine											
250,000.	ug/kg	N.D.					8	9	2	1	137
3780 butylbenzylphthalate											
100,000.	ug/kg	N.D.					26	27	3	58	119
4620 2-acetylaminofluorene											
100,000.	ug/kg	N.D.					21	20	1	70	130
3783 3,3'-dichlorobenzidine											
200,000.	ug/kg	N.D.					17	17	1	15	94
3781 benzo(a)anthracene											
100,000.	ug/kg	N.D.					21	21	2	63	106
3784 bis(2-ethylhexyl)phthalate											
100,000.	ug/kg	N.D.					25	26	2	8	158
3782 chrysene											
100,000.	ug/kg	N.D.					22	22	1	60	107
3785 di-n-octylphthalate											
100,000.	ug/kg	N.D.					23	24	3	54	127
4634 7,12-dimethylbenz(a)anthracene											
100,000.	ug/kg	N.D.					36	36	1	99	213
3786 benzo(b)fluoranthene											
100,000.	ug/kg	N.D.					20	21	3	59	105
3787 benzo(k)fluoranthene											
100,000.	ug/kg	N.D.					20	21	2	63	108
3788 benzo(a)pyrene											
100,000.	ug/kg	N.D.					21	21	0	61	107
4644 3-methylcholanthrene											
100,000.	ug/kg	N.D.					38	39	3	58	169
3789 indeno(1,2,3-cd)pyrene											
100,000.	ug/kg	N.D.					23	23	0	55	111
3790 dibenz(a,h)anthracene											
100,000.	ug/kg	N.D.					23	24	5	60	117
3791 benzo(ghi)perylene											
100,000.	ug/kg	N.D.					23	23	1	52	113

QUALITY CONTROL REPORT

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. 3001161
SVE-11 Grab Product Sample

Chrysler - Dayton Thermal Products

Group No. 632339
Leggette,Brashears & Graham MN

SAMPLE LOQ	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LIMITS LOW	LCS LIMITS HIGH
4673 thionazin											
200,000.	ug/kg	N.D.					20	20	0	63	110

0445 Solvent Identification — Batch: 982670002A

0854 n-hexane
0.050 % by wt.
0855 n-heptane
0.050 % by wt.
0856 n-octane
0.050 % by wt.
0857 isooctane
0.050 % by wt.
0858 benzene
0.050 % by wt.
0859 toluene
0 050 % by wt.
0860 ethyl benzene
0 050 % by wt.
0861 xylenes
0.050 % by wt.
0862 styrene
0.050 % by wt.
1120 chlorobenzene
0.050 % by wt.
0863 methanol
0 050 % by wt.
1118 n-propanol
0.050 % by wt.
0864 ethanol
0.050 % by wt.
0865 isopropanol
0.050 % by wt.
0866 n-butanol
0.050 % by wt.
0867 isobutanol
0 050 % by wt.
0868 acetone
0.050 % by wt.
0869 methyl ethyl ketone
0 050 % by wt.
0870 methyl isobutyl ketone
0.050 % by wt.
1119 cyclohexanone
0.050 % by wt.
0871 methyl cellosolve
0.050 % by wt.
0872 ethyl cellosolve
0.050 % by wt

LLI Sample No. 3001161
SVE-11 Grab Product Sample

Chrysler - Dayton Thermal Products

Group No. 632339
Leggette,Brashears & Graham MN

	SAMPLE LOQ	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LIMITS LOW	LCS LIMITS HIGH
0873 butyl cellosolve	0.050	% by wt.										
0874 cellosolve acetate	0.050	% by wt.										
0875 ethyl acetate	0.050	% by wt.										
0876 propyl acetate	0.050	% by wt.										
0877 isopropyl acetate	0.050	% by wt.										
0878 n-butyl acetate	0.050	% by wt.										
1116 ethyl ether	0.050	% by wt.										
0880 carbon tetrachloride	0.050	% by wt.										
0881 chloroform	0.050	% by wt.										
0882 methylene chloride	0.050	% by wt.										
0883 1,1-dichloroethane	0.050	% by wt.										
0884 1,2-dichloroethane	0.050	% by wt.										
0885 1,1,1-trichloroethane	0.050	% by wt.										
0886 1,1,2-trichloroethane	0.050	% by wt.										
0887 trichloroethylene	0.050	% by wt.										
0888 tetrachloroethylene	0.050	% by wt.										
0889 Freon 113	0.050	% by wt.										
1117 pyridine	0.050	% by wt.										

0466 Solvent Identification (cont.) Batch: 982670002A

0853 n-pentane	0.050	% by wt.	
2535 Quantitative GC Fingerprint attached			Batch: 982620000A J264

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QUALITY CONTROL REPORT

LLI Sample No. 3001161
SVE-11 Grab Product Sample

Chrysler - Dayton Thermal Products

Group No. 632339
Leggette,Brashears & Graham MN

SURROGATE SUMMARY

TRIAL ID	SURROGATE	RECOVERY %	SURROGATE LIMITS LOW	HIGH
0174 PCBs in Oil	TCX	97	32	139
	DCB	80	42	133
2535 Quantitative GC Fingerprint	Chlorobenz	96	71	135
	o-terpheny	91	75	125
4615 App. IX Semivolatiles-Oil	Phenol-d6	101	39	108
	2-Flphenol	108	35	108
	2,4,6-TBP	131	23	125
4616 App. IX Semivolatiles con't	Nitrobz-d5	112	31	126
	2-Fbiphnyl	111	45	113
	Tphenyld14	117	37	130

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LLI Sample No. WW 3001162
Collected: 9/15/98 at 18:00 by DO

Submitted: 9/17/98 Reported: 10/21/98
Discard: 12/21/98

West Sump Grab Water Sample

Chrysler - Dayton Thermal Products
WESTS SDG#: LBG01-02

Account No: 10108
Leggette,Brashears & Graham MN

1210 County Rd. E W, Ste. 700
St. Paul, MN 55112

P.O. 3CHRY4/DAYTON
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS	
0173	PCBs in Water			See Page	2
0893	Semivolatile Library Search			See Page	13
	The results from the semivolatile library search are listed on the attached FORM 1F - SV-TIC. The qualifiers appearing in the "Q" column are defined on the back of this form. An "X" indicates an isomer of the listed compound.				
1309	App. IX Semivolatiles-Water			See Page	3
1310	App. IX Semi-volatiles con't			See Page	5
1311	App. IX Semi-volatiles con't			See Page	6
1312	App. IX Semi-volatiles con't			See Page	7
0445	Solvent Identification			See Page	9
0466	Solvent Identification (cont.)			See Page	11
4828	TPH by GC-FID in Water			See Page	15
9188	Total Hydrocarbons as n-Hexane	N.D.	2,000.	ppm	
	The reported value for total hydrocarbons as n-hexane represents total volatile organic material detected by the solvent screen conditions for the range of C5 (n-pentane) through C10 (n-decane) normal hydrocarbons.				

1 COPY TO Leggette,Brashears & Graham MN ATTN: Mr. Ken Vogel
1 COPY TO Data Package Group

Questions? Contact your Client Services Representative
Kathy Klinefelter at (717) 656-2300
19:33:21 D 0002 3 135779 632339
885 0 00 00085400 ASR000

Respectfully Submitted
Jenifer E. Hess, B.S
Group Leader Pesticides/PCBs

MEMBER

Lancaster Laboratories
A division of Thermo Analytical Inc.

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CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
PCBs in Water				
0639	PCB-1016	N.D.	1,000.	ug/l
0640	PCB-1221	N.D.	1,000.	ug/l
0641	PCB-1232	N.D.	1,000.	ug/l
0642	PCB-1242	N.D.	1,000.	ug/l
0643	PCB-1248	N.D.	1,000.	ug/l
0644	PCB-1254	N.D.	1,000.	ug/l
0645	PCB-1260	N.D.	1,000.	ug/l

Due to interfering peaks on the chromatogram, the values reported represent the lowest quantitation limits obtainable.
Despite numerous cleanup methods, we were unable to reach our usual quantitation limits.

Questions? Contact your Client Services Representative
Kathy Klinefelter at (717) 656-2300

Respectfully Submitted
Jenifer E. Hess, B S.
Group Leader Pesticides/PCBs

MEMBER ACIL

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App. IX Semivolatiles-Water

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS		LIMIT OF QUANTITATION	UNITS
3920	pyridine	N.D.		5,000.	ug/l
3913	N-nitrosodimethylamine	N.D.		5,000.	ug/l
1301	2-picoline	N.D.		5,000.	ug/l
1292	N-nitrosomethylethylamine	N.D.		5,000.	ug/l
1285	methylmethanesulfonate	N.D.		5,000.	ug/l
1291	N-nitrosodiethylamine	N.D.		5,000	ug/l
1279	ethylmethanesulfonate	N.D.		5,000.	ug/l
3918	phenol	54.	J	100.	ug/l
0925	aniline	N.D.		5,000.	ug/l
3867	bis(2-chloroethyl)ether	N.D.		5,000.	ug/l
3874	2-chlorophenol	N.D.		5,000	ug/l
3883	1,3-dichlorobenzene	N.D.		5,000.	ug/l
3884	1,4-dichlorobenzene	N.D.		5,000.	ug/l
3865	benzylalcohol	N.D.		10,000.	ug/l
3882	1,2-dichlorobenzene	N.D.		5,000.	ug/l
3877	2-methylphenol	22.	J	100.	ug/l
1271	bis(2-chloroisopropyl)ether	N.D.		5,000.	ug/l
3878	3- and 4-methylphenol	42,000.		5,000.	ug/l
1295	N-nitrosopyrrolidine	N.D.		5,000.	ug/l
1267	acetophenone	N.D.		5,000.	ug/l
1293	N-nitrosomorpholine	N.D.		5,000.	ug/l
3915	N-nitrosodi-n-propylamine	N.D.		5,000.	ug/l
1306	o-toluidine	N.D.		5,000.	ug/l
3902	hexachloroethane	N.D.		5,000.	ug/l
3910	nitrobenzene	N.D.		5,000.	ug/l
1294	N-nitrosopiperidine	N.D.		5,000.	ug/l
3904	isophorone	N.D.		5,000.	ug/l
3911	2-nitrophenol	N.D.		5,000.	ug/l

Aramite is not reported due to unavailability of a suitable standard.

Questions? Contact your Client Services Representative
Kathy Klinefelter at (717) 656-2300

Respectfully Submitted
Charles J Neslund, B S.
Group Leader, GC/MS SVOA

MEMBER ACIL

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West Sump Grab Water Sample

Chrysler - Dayton Thermal Products
WESTS SDG#: LBG01-02

Account No: 10108
Leggette,Brashears & Graham MN

1210 County Rd. E W, Ste. 700
St. Paul, MN 55112

P.O. 3CHRY4/DAYTON
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS

App. IX Semivolatiles-Water

The QC limits for the following compounds are advisory only until sufficient data points can be obtained to calculate statistical limits:
1,3,5-Trinitrobenzene
1,4-Naphthalene
1,4-Phenylenediamine
2-Acetylaminofluorene
Hexachlorophene
4-Nitroquinoline-1-oxide
5-Nitro-o-toluidine

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CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
App. IX Semi-volatiles con't				
3890	2,4-dimethylphenol	33. J	100.	ug/l
3866	bis(2-chloroethoxy)methane	N.D.	5,000.	ug/l
1307	0,0,0-triethylphosphorothioate	N.D.	5,000.	ug/l
3886	2,4-dichlorophenol	N.D.	5,000.	ug/l
3921	1,2,4-trichlorobenzene	N.D.	5,000.	ug/l
3906	naphthalene	N.D.	5,000.	ug/l
1273	2,6-dichlorophenol	N.D.	5,000.	ug/l
3871	4-chloroaniline	N.D.	5,000.	ug/l
1281	hexachloropropene	N.D.	5,000.	ug/l
3900	hexachlorobutadiene	N.D.	5,000.	ug/l
1300	1,4-phenylenediamine	N.D.	100,000.	ug/l
1290	N-nitrosodi-n-butylamine	N.D.	5,000.	ug/l
3872	4-chloro-3-methylphenol	N.D.	5,000.	ug/l
1303	safrole	N.D.	5,000.	ug/l
3905	2-methylnaphthalene	N.D.	5,000.	ug/l
1304	1,2,4,5-tetrachlorobenzene	N.D.	5,000.	ug/l
3901	hexachlorocyclopentadiene	N.D.	13,000.	ug/l
3923	2,4,6-trichlorophenol	N.D.	5,000.	ug/l
3922	2,4,5-trichlorophenol	N.D.	5,000.	ug/l
1283	isosafrole	N.D.	5,000.	ug/l
3873	2-chloronaphthalene	N.D.	5,000.	ug/l
3907	2-nitroaniline	N.D.	5,000.	ug/l
1286	1,4-naphthoquinone	N.D.	50,000.	ug/l
3891	dimethylphthalate	N.D.	5,000	ug/l
1278	1,3-dinitrobenzene	N.D.	5,000.	ug/l
3895	2,6-dinitrotoluene	N.D.	5,000.	ug/l

Questions? Contact your Client Services Representative
Kathy Klinefelter at (717) 656-2300

Respectfully Submitted
Charles J. Neslund, B.S.
Group Leader, GC/MS SVOA

MEMBER

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CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS		LIMIT OF QUANTITATION	UNITS
App. IX Semi-volatiles con't					
3858	acenaphthylene	N.D.		5,000.	ug/l
3908	3-nitroaniline	N.D.		5,000.	ug/l
3857	acenaphthene	N.D.		5,000.	ug/l
3893	2,4-dinitrophenol	N.D.		25,000.	ug/l
3912	4-nitrophenol	N.D.		25,000.	ug/l
3879	dibenzofuran	N.D.		5,000.	ug/l
1297	pentachlorobenzene	N.D.		5,000.	ug/l
3894	2,4-dinitrotoluene	N.D.		5,000.	ug/l
1287	1-naphthylamine	N.D.		5,000	ug/l
1288	2-naphthylamine	N.D.		5,000.	ug/l
0438	2,3,4,6-Tetrachlorophenol	N.D.		5,000.	ug/l
3887	diethylphthalate	N.D.		5,000.	ug/l
3875	4-chlorophenylphenylether	N.D.		5,000.	ug/l
3898	fluorene	N.D.		5,000.	ug/l
1296	5-nitro-o-toluidine	N.D.		5,000.	ug/l
3909	4-nitroaniline	N.D.		5,000.	ug/l
3892	4,6-dinitro-2-methylphenol	N.D.		13,000.	ug/l
3914	N-nitrosodiphenylamine	38.	J	100.	ug/l
1305	tetraethyldithiopyrophosphate	N.D.		5,000.	ug/l
1308	1,3,5-trinitrobenzene	N.D.		10,000.	ug/l
1299	phenacetin	N.D.		5,000.	ug/l
3869	4-bromophenylphenylether	N.D.		5,000.	ug/l
1313	diallate (trans/cis)	N.D.		5,000.	ug/l
1274	dimethoate	N.D.		10,000.	ug/l
3899	hexachlorobenzene	N.D.		5,000.	ug/l

N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.

Questions? Contact your Client Services Representative
Kathy Klinefelter at (717) 656-2300

Respectfully Submitted
Charles J. Neslund, B.S.
Group Leader, GC/MS SVOA

MEMBER ACIL

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CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
App. IX Semi-volatiles con't				
1269	4-aminobiphenyl	N.D.	5,000.	ug/l
3916	pentachlorophenol	N.D.	13,000.	ug/l
1302	pronamide	N.D.	5,000.	ug/l
1298	pentachloronitrobenzene	N.D.	5,000.	ug/l
3917	phenanthrene	N.D.	5,000.	ug/l
3859	anthracene	N.D.	5,000.	ug/l
3880	di-n-butylphthalate	N D.	5,000.	ug/l
1289	4-nitroquinoline-1-oxide	N.D.	50,000	ug/l
3368	methapyrilene	N.D.	5,000.	ug/l
1282	isodrin	N.D.	13,000.	ug/l
3897	fluoranthene	N.D.	5,000.	ug/l
3919	pyrene	N.D.	5,000.	ug/l
1275	p-(dimethylamino)azobenzene	N.D.	5,000.	ug/l
1272	chlorobenzilate	N.D.	10,000.	ug/l
1277	3,3'-dimethylbenzidine	N.D.	13,000.	ug/l
3870	butylbenzylphthalate	N.D.	5,000.	ug/l
1268	2-acetylaminofluorene	N D.	5,000.	ug/l
3885	3,3'-dichlorobenzidine	N.D.	5,000.	ug/l
3860	benzo(a)anthracene	N.D.	5,000.	ug/l
3868	bis(2-ethylhexyl)phthalate	25. J	100.	ug/l
3876	chrysene	N.D.	5,000.	ug/l
3896	di-n-octylphthalate	N.D.	5,000.	ug/l
1276	7,12-dimethylbenz(a)anthracene	N.D.	5,000.	ug/l
3861	benzo(b)fluoranthene	N.D.	5,000.	ug/l
3862	benzo(k)fluoranthene	N.D.	5,000.	ug/l
3864	benzo(a)pyrene	N.D.	5,000.	ug/l
1284	3-methylcholanthrene	N.D.	5,000.	ug/l
3903	indeno(1,2,3-cd)pyrene	N.D.	5,000.	ug/l
3881	dibenz(a,h)anthracene	N.D.	5,000.	ug/l
3863	benzo(ghi)perylene	N.D.	5,000.	ug/l
3370	thionazin	N.D.	5,000.	ug/l

Questions? Contact your Client Services Representative
Kathy Klinefelter at (717) 656-2300

Respectfully Submitted
Charles J. Neslund, B.S.
Group Leader, GC/MS SVOA

MEMBER

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Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS

App. IX Semi-volatiles con't

Due to insufficient sample, the quantitation limits for the GC/MS semivolatile compounds were raised.

The usual quantitation limits could not be attained due to the matrix of the sample or interferences observed in the GC/MS semivolatile analysis.

Batch QC was not extracted with this sample.

Questions? Contact your Client Services Representative
Kathy Klinefelter at (717) 656-2300

Respectfully Submitted
Charles J. Neslund, B.S.
Group Leader, GC/MS SVOA

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CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
Solvent Identification				
0854	n-hexane	N.D.	0.050	% by wt.
0855	n-heptane	N.D.	0.050	% by wt.
0856	n-octane	N.D.	0.050	% by wt.
0857	isooctane	N D.	0.050	% by wt.
0858	benzene	N.D.	0 050	% by wt.
0859	toluene	N D.	0.050	% by wt.
0860	ethyl benzene	N.D.	0.050	% by wt.
0861	xylenes	N.D.	0.050	% by wt.
0862	styrene	N.D.	0.050	% by wt.
1120	chlorobenzene	N.D.	0.050	% by wt.
0863	methanol	N.D.	0.050	% by wt.
1118	n-propanol	N.D.	0.050	% by wt.
0864	ethanol	N.D.	0.050	% by wt.
0865	isopropanol	N.D.	0.050	% by wt.
0866	n-butanol	N.D.	0.050	% by wt.
0867	isobutanol	N.D.	0.050	% by wt.
0868	acetone	N.D.	0.050	% by wt.
0869	methyl ethyl ketone	N.D.	0.050	% by wt.
0870	methyl isobutyl ketone	N.D.	0 050	% by wt.
1119	cyclohexanone	N.D.	0.050	% by wt.
0871	methyl cellosolve	N.D.	0.050	% by wt.
0872	ethyl cellosolve	N.D.	0.050	% by wt.
0873	butyl cellosolve	N.D.	0.050	% by wt.
0874	cellosolve acetate	N.D.	0 050	% by wt.
0875	ethyl acetate	N.D.	0.050	% by wt.
0876	propyl acetate	N.D.	0.050	% by wt.
0877	isopropyl acetate	N.D.	0.050	% by wt.
0878	n-butyl acetate	N.D.	0.050	% by wt.
1116	ethyl ether	N.D.	0.050	% by wt.
0880	carbon tetrachloride	N.D.	0 050	% by wt.
0881	chloroform	N.D.	0.050	% by wt.
0882	methylene chloride	N.D.	0.050	% by wt.
0883	1,1-dichloroethane	N.D.	0.050	% by wt.
0884	1,2-dichloroethane	N.D.	0.050	% by wt.
0885	1,1,1-trichloroethane	N.D.	0 050	% by wt.
0886	1,1,2-trichloroethane	N.D.	0.050	% by wt.
0887	trichloroethylene	N.D.	0.050	% by wt.

Questions? Contact your Client Services Representative
Kathy Klinefelter at (717) 656-2300

Respectfully Submitted
Jenifer E. Hess, B S.
Group Leader Pesticides/PCBs

MEMBER ACIL

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. WW 3001162
Collected: 9/15/98 at 18:00 by DO

Submitted: 9/17/98 Reported: 10/21/98
Discard: 12/21/98

West Sump Grab Water Sample

Chrysler - Dayton Thermal Products
WESTS SDG#: LBG01-02

Account No: 10108
Leggette,Brashears & Graham MN

1210 County Rd. E W, Ste. 700
St. Paul, MN 55112

P.O. 3CHRY4/DAYTON
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
Solvent Identification				
0888	tetrachloroethylene	N.D.	0.050	% by wt.
0889	Freon 113	N.D.	0.050	% by wt.
1117	pyridine	N.D.	0.050	% by wt.

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Chrysler - Dayton Thermal Products
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1210 County Rd. E W. Ste. 700
St. Paul, MN 55112

P.O. 3CHRY4/DAYTON
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
Solvent Identification (cont.)				
0853	n-pentane	N.D.	0.050	% by wt.

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LLI Sample No. WW 3001162
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1210 County Rd. E W, Ste. 700
St. Paul, MN 55112

P.O. 3CHRY4/DAYTON
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
TPH by GC-FID in Water				
4829	Gasoline	N.D.	40.	mg/l
4830	Kerosene	N.D.	40.	mg/l
4831	Diesel/#2 Fuel	710.	40.	mg/l

The quantitation limits were raised because sample dilution was necessary to bring target compounds into the calibration range of the system.
See attached fingerprint comment.

Questions? Contact your Client Services Representative
Kathy Klinefelter at (717) 656-2300

Respectfully Submitted
Jenifer E. Hess, B S.
Group Leader Pesticides/PCBs

MEMBER ACIL

Lancaster Laboratories
A division of Thermo Analytical Inc.

 1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

WESTS

Lab Name: LANCASTER LABS Contract: _____.
Lab Code: LANCAS Case No.: _____. SAS No.: _____. SDG No.: _____.
Matrix: (soil/water) WATER Lab Sample ID: 3001162
Sample wt/vol: 500 (g/mL) ML Lab File ID: >LJ270
Level: (low/med) LOW Date Received: 09/17/98
% Moisture: not dec. _____. dec. _____. Date Extracted: 10/09/98
Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/12/98
GPC Cleanup: (Y/N) N pH: _____. Dilution Factor: 5.0
CONCENTRATION UNITS:
Number TICs found: 48 (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown	4.54	4000.	J
2.	Unknown carboxylic acid	5.45	340.	J
3.	Unknown	7.39	1200.	J
4.	Unknown carboxylic acid	10.48	260.	J
5.	Unknown alkane	11.61	550.	J
6.	Unknown	13.26	210.	J
7.	Unknown carboxylic acid	14.35	310.	J
8.	Unknown alkane	15.60	300.	J
9.	Unknown	15.96	5700.	J
10.	Unknown	16.28	270.	J
11.	Unknown	17.28	260.	J
12.	Unknown	17.62	780.	J
13.	Unknown cycloalkane	17.87	1000.	J
14.	Unknown cycloalkane	17.95	1000.	J
15.	Unknown	18.31	1800.	J
16.	Unknown cycloalkane	18.56	46000.	J
17.	Unknown	19.29	4500.	J
18.	Unknown alkane	19.51	330.	J
19.	Unknown	19.69	3600.	J
20.	Unknown	19.95	280.	J
21.	Unknown	21.15	250.	J
22.	Unknown	21.56	240.	J
23.	Unknown alkane	22.35	280.	J
24.	Unknown alkane	23.15	460.	J
25.	Unknown	23.36	230.	J
26.	Unknown	23.47	200.	J
27.	Unknown alkane	24.57	260.	J
28.	Unknown	26.99	420.	J

FORM I SV-TIC 1/87 Rev.

Respectfully Submitted
Charles J. Neslund, B.S.
Group Leader, GC/MS SVOA

MEMBER ACIL

Lancaster Laboratories
A division of Thermo Analytical Inc.

 1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

WESTS

Lab Name: LANCASTER LABS Contract: _____.
Lab Code: LANCAS Case No.: _____. SAS No.: _____. SDG No.: _____.
Matrix: (soil/water) WATER Lab Sample ID: 3001162
Sample wt/vol: 500 (g/mL) ML Lab File ID: >LJ270
Level: (low/med) LOW Date Received: 09/17/98
% Moisture: not dec. _____. dec. _____. Date Extracted: 10/09/98
Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/12/98
GPC Cleanup: (Y/N) N pH: _____. Dilution Factor: 5.0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 48

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
29.	Unknown	27.35	240.	J
30.	Unknown alkane	27.68	260.	J
31.	Unknown alkane	27.96	360.	J
32.	Unknown alkane	29.15	260.	J
33.	Unknown alkane	30.00	260.	J
34.	Unknown	30.50	220.	J
35.	Unknown	31.21	530.	J
36.	Unknown	31.93	240.	J
37.	Unknown	32.16	410.	J
38.	Unknown	32.72	470.	J
39.	Unknown	32.94	390.	J
40.	Unknown	33.22	670.	J
41.	Unknown	34.61	290.	J
42.	Unknown	34.98	270.	J
43.	Unknown	35.71	210.	J
44.	Unknown	36.67	250.	J
45.	Unknown	37.39	530.	J
46.	Unknown	38.69	250.	J
47.	Unknown	39.31	220.	J
48.	Unknown	40.47	220.	J

FORM I SV-TIC 1/87 Rev.

Respectfully Submitted
Charles J. Neslund, B.S.
Group Leader, GC/MS SVOA

MEMBER ACIE

Lancaster Laboratories
A division of Thermo Analytical Inc.

West Sump Grab Water Sample

Chrysler - Dayton Thermal Products

ANALYSIS: 4828

The GC Fingerprint for this sample indicates a complex mixture of petroleum based and nonpetroleum organic materials. The overall sample fingerprint elutes throughout the range C10 (n-decane) through C40 (n-tetracontane) normal hydrocarbons and consists primarily of two distinct unresolved regions. The early eluting (more volatile) region elutes in the C10 - C20 (n-eicosane) range. This region is primarily unresolved; however, the overall pattern is a fairly good match for our #2 fuel oil reference pattern. Additionally, two large single component peaks, which are not present in the fuel reference pattern, elute just prior to C12 (n-dodecane) and C14 (n-tetradecane), respectively. This region, including the two component peaks, accounts for approximately 30%, by weight of the total organic content of the sample. The later eluting (less volatile) region elutes in the C20 - C40 range and is also unresolved. This region accounts for approximately 70%, by weight, of the total organic content of the sample. The unresolved nature of the two regions is typical of lubricating oil fractions analyzed by this method. However, the presence of fuel components indicates a complex mixture of lubricating oil fractions with volatile and semi-volatile components that are typical of diesel/#2 and heavier weight, residual fuel oil fractions.

For the purpose of quantitation, we base total area response of the sample pattern(s) on our #2 fuel oil reference standard response. When we calculate total sample area eluting in the C8 (n-octane) through C40 normal hydrocarbon range as petroleum distillate/product (#2 fuel oil), it is present at 710 mg/l in the sample.

The GC Fingerprint for this sample was compared to the fingerprint for LL 3001161, a client submitted reference material. The overall sample fingerprint is a good match for LL 3001161. The relative ratios of the distinct regions are significantly different from the reference fingerprint. The single peak eluting just before C14 is a retention time match for the single component in LL 3001161.

Consider the quantitation an approximation due to the differences between the sample pattern(s) and the reference patterns.

Respectfully Submitted
Jenifer E. Hess, B.S.
Group Leader Pesticides/PCBs

&&&

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. WW 3001162
Collected: 09/15/98 at 18:00 by DO

Submitted: 09/17/98

West Sump Grab Water Sample

Chrysler - Dayton Thermal Products
WESTS SDG#: LBG01-02

Account No: 10108
Leggette,Brashears & Graham MN

1210 County Rd. E W, Ste. 700
St. Paul, MN 55112

CAT NO	ANALYSIS NAME	METHOD	TRIAL	ANALYSIS ID	DATE AND TIME	ANALYST
0173	PCBs in Water	SW-846 8082	1		09/24/98 2229	Michael Kielb
0817	Water Sample Pest. Extraction	SW-846 3510C	1		09/22/98 1515	Lee L. Munro
0813	BNA Water Extraction	SW-846 3510C	1		09/18/98 0830	Maria A. Davenport
1309	App. IX Semivolatiles-Water	SW-846 8270C	1		10/12/98 2247	Mark A. Ratcliff
1310	App. IX Semi-volatiles con't	SW-846 8270C	1		10/12/98 2247	Mark A. Ratcliff
1311	App. IX Semi-volatiles con't	SW-846 8270C	1		10/12/98 2247	Mark A. Ratcliff
1312	App. IX Semi-volatiles con't	SW-846 8270C	1		10/12/98 2247	Mark A. Ratcliff
0445	Solvent Identification	SW-846 8015B modified	1		09/24/98 1355	Tracy A. McNickle
0466	Solvent Identification (cont.)	SW-846 8015B modified	1		09/24/98 1355	Tracy A. McNickle
2376	Extraction - Fuel/TPH (Waters)	SW-846 3510C	1		09/18/98 0930	Maria A. Davenport
4828	TPH by GC-FID in Water	SW-846 8015B, modified	1		09/22/98 0935	Robert G. Brown
9188	Total Hydrocarbons as n-Hexane	SW-846 8015B			09/24/98 1431	Tracy A. McNickle

Lancaster Laboratories
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LLI Sample No. 3001162
West Sump Grab Water Sample

Chrysler - Dayton Thermal Products

Group No. 632339
Leggette,Brashears & Graham MN

SAMPLE LOQ	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LIMITS LOW	LCS LIMITS HIGH
0173 PCBs in Water		Batch: 982650008A									
0639 PCB-1016											
1,000.	ug/l	N.D.		89	88	1	85	87		43	126
0640 PCB-1221											
1,000.	ug/l	N.D.									
0641 PCB-1232											
1,000.	ug/l	N.D.									
0642 PCB-1242											
1,000.	ug/l	N.D.									
0643 PCB-1248											
1,000.	ug/l	N.D.									
0644 PCB-1254											
1,000.	ug/l	N.D.									
0645 PCB-1260											
1,000.	ug/l	N.D.		95	94	1	90	92		51	126
1309 App. IX Semivolatiles-Water		Batch: 98282WAG026									
3920 pyridine											
5,000.	ug/l	N.D.									
3913 N-nitrosodimethylamine											
5,000.	ug/l	N.D.									
1301 2-picoline											
5,000.	ug/l	N.D.									
1292 N-nitrosomethylethylamine											
5,000.	ug/l	N.D.									
1285 methylmethanesulfonate											
5,000.	ug/l	N.D.									
1291 N-nitrosodiethylamine											
5,000.	ug/l	N.D.									
1279 ethylmethanesulfonate											
5,000.	ug/l	N.D.									
3918 phenol											
100.	ug/l	N.D.									
0925 aniline											
5,000.	ug/l	N.D.									
3867 bis(2-chloroethyl)ether											
5,000.	ug/l	N.D.									
3874 2-chlorophenol											
5,000.	ug/l	N.D.									
3883 1,3-dichlorobenzene											
5,000.	ug/l	N.D.									
3884 1,4-dichlorobenzene											
5,000.	ug/l	N.D.									
3865 benzylalcohol											
10,000.	ug/l	N.D.									
3882 1,2-dichlorobenzene											
5,000	ug/l	N.D.									

LLI Sample No. 3001162
West Sump Grab Water Sample

Chrysler - Dayton Thermal Products

Group No. 632339
Leggette,Brashears & Graham MN

SAMPLE LOQ	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LIMITS LOW	LCS LIMITS HIGH
3877 2-methylphenol											
100.	ug/l	N.D.									
1271 bis(2-chloroisopropyl)ether											
5,000.	ug/l	N.D.									
3878 3- and 4-methylphenol											
5,000.	ug/l	N.D.									
1295 N-nitrosopyrrolidine											
5,000.	ug/l	N.D.									
1267 acetophenone											
5,000.	ug/l	N.D.									
1293 N-nitrosomorpholine											
5,000.	ug/l	N.D.									
3915 N-nitrosodi-n-propylamine											
5,000.	ug/l	N.D.									
1306 o-toluidine											
5,000.	ug/l	N.D.									
3902 hexachloroethane											
5,000.	ug/l	N D.									
3910 nitrobenzene											
5,000.	ug/l	N.D.									
1294 N-nitrosopiperidine											
5,000.	ug/l	N.D.									
3904 isophorone											
5,000.	ug/l	N.D									
3911 2-nitrophenol											
5,000.	ug/l	N.D.									

1310 App. IX Semi-volatiles con't Batch: 98282WAG026

3890 2,4-dimethylphenol											
100.	ug/l	N.D.									
3866 bis(2-chloroethoxy)methane											
5,000.	ug/l	N.D.									
1307 0,0,0-triethylphosphorothioate											
5,000.	ug/l	N.D.									
3886 2,4-dichlorophenol											
5,000.	ug/l	N.D.									
3921 1,2,4-trichlorobenzene											
5,000.	ug/l	N.D.									
3906 naphthalene											
5,000.	ug/l	N.D.									
1273 2,6-dichlorophenol											
5,000.	ug/l	N.D.									
3871 4-chloroaniline											
5,000.	ug/l	N.D.									
1281 hexachloropropene											
5,000.	ug/l	N.D.									
3900 hexachlorobutadiene											
5,000.	ug/l	N D.									

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LLI Sample No. 3001162
West Sump Grab Water Sample

Chrysler - Dayton Thermal Products

Group No. 632339
Leggette,Brashears & Graham MN

SAMPLE LOQ	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LIMITS LOW	LCS LIMITS HIGH
1300 1,4-phenylenediamine											
100,000.	ug/l	N.D.									
1290 N-nitrosodi-n-butylamine											
5,000.	ug/l	N.D.									
3872 4-chloro-3-methylphenol											
5,000.	ug/l	N.D.									
1303 safrole											
5,000	ug/l	N.D.									
3905 2-methylnaphthalene											
5,000.	ug/l	N.D.									
1304 1,2,4,5-tetrachlorobenzene											
5,000.	ug/l	N D.									
3901 hexachlorocyclopentadiene											
13,000.	ug/l	N.D.									
3923 2,4,6-trichlorophenol											
5,000.	ug/l	N.D.									
3922 2,4,5-trichlorophenol											
5,000.	ug/l	N.D									
1283 isosafrole											
5,000.	ug/l	N.D.									
3873 2-chloronaphthalene											
5,000.	ug/l	N.D.									
3907 2-nitroaniline											
5,000.	ug/l	N.D.									
1286 1,4-naphthoquinone											
50,000.	ug/l	N.D.									
3891 dimethylphthalate											
5,000.	ug/l	N.D.									
1278 1,3-dinitrobenzene											
5,000.	ug/l	N.D.									
3895 2,6-dinitrotoluene											
5,000.	ug/l	N.D.									

1311 App. IX Semi-volatiles con't Batch: 98282WAG026

3858 acenaphthylene											
5,000.	ug/l	N.D.									
3908 3-nitroaniline											
5,000.	ug/l	N.D.									
3857 acenaphthene											
5,000.	ug/l	N.D.									
3893 2,4-dinitrophenol											
25,000.	ug/l	N.D.									
3912 4-nitrophenol											
25,000.	ug/l	N.D.									
3879 dibenzofuran											
5,000.	ug/l	N.D.									
1297 pentachlorobenzene											
5,000.	ug/l	N.D.									

LLI Sample No. 3001162
West Sump Grab Water Sample

Chrysler - Dayton Thermal Products

Group No. 632339
Leggette,Brashears & Graham MN

SAMPLE LOQ	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LIMITS LOW	LCS LIMITS HIGH
3894 2,4-dinitrotoluene											
5.000.	ug/l	N.D.									
1287 1-naphthylamine											
5.000.	ug/l	N.D.									
1288 2-naphthylamine											
5.000.	ug/l	N.D.									
0438 2,3,4,6-Tetrachlorophenol											
5.000.	ug/l	N.D.									
3887 diethylphthalate											
5.000.	ug/l	N.D.									
3875 4-chlorophenylphenylether											
5.000.	ug/l	N.D.									
3898 fluorene											
5.000.	ug/l	N.D.									
1296 5-nitro-o-toluidine											
5.000.	ug/l	N.D.									
3909 4-nitroaniline											
5.000.	ug/l	N.D.									
3892 4,6-dinitro-2-methylphenol											
13.000.	ug/l	N.D.									
3914 N-nitrosodiphenylamine											
100	ug/l	N.D.									
1305 tetraethyldithiopyrophosphate											
5.000.	ug/l	N.D.									
1308 1,3,5-trinitrobenzene											
10.000.	ug/l	N.D.									
1299 phenacetin											
5.000.	ug/l	N.D.									
3869 4-bromophenylphenylether											
5.000.	ug/l	N.D.									
1313 diallate (trans/cis)											
5.000.	ug/l	N.D.									
1274 dimethoate											
10.000.	ug/l	N.D.									
3899 hexachlorobenzene											
5.000.	ug/l	N.D.									
1312 App. IX Semi-volatiles con't		Batch: 98282WAG026									
1269 4-aminobiphenyl											
5.000.	ug/l	N.D.									
3916 pentachlorophenol											
13.000.	ug/l	N D.									
1302 pronamide											
5.000.	ug/l	N.D.									
1298 pentachloronitrobenzene											
5.000.	ug/l	N.D.									
3917 phenanthrene											
5.000.	ug/l	N D.									

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QUALITY CONTROL REPORT

LLI Sample No. 3001162
West Sump Grab Water Sample

Chrysler - Dayton Thermal Products

Group No. 632339
Leggette,Brashears & Graham MN

SAMPLE LOQ	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LIMITS LOW	LCS LIMITS HIGH
3859 anthracene											
5,000.	ug/l	N.D.									
3880 di-n-butylphthalate											
5,000.	ug/l	N.D.									
1289 4-nitroquinoline-1-oxide											
50,000.	ug/l	N.D.									
3368 methapyrilene											
5,000	ug/l	N.D.									
1282 isodrin											
13,000.	ug/l	N.D.									
3897 fluoranthene											
5,000.	ug/l	N.D.									
3919 pyrene											
5,000.	ug/l	N.D.									
1275 p-(dimethylamino)azobenzene											
5,000.	ug/l	N.D.									
1272 chlorobenzilate											
10,000.	ug/l	N.D.									
1277 3,3'-dimethylbenzidine											
13,000.	ug/l	N.D.									
3870 butylbenzylphthalate											
5,000.	ug/l	N.D.									
1268 2-acetylaminofluorene											
5,000.	ug/l	N.D.									
3885 3,3'-dichlorobenzidine											
5,000.	ug/l	N.D.									
3860 benzo(a)anthracene											
5,000.	ug/l	N.D.									
3868 bis(2-ethylhexyl)phthalate											
100.	ug/l	N.D.									
3876 chrysene											
5,000.	ug/l	N.D.									
3896 di-n-octylphthalate											
5,000.	ug/l	N.D.									
1276 7,12-dimethylbenz(a)anthracene											
5,000.	ug/l	N.D.									
3861 benzo(b)fluoranthene											
5,000.	ug/l	N.D.									
3862 benzo(k)fluoranthene											
5,000.	ug/l	N.D.									
3864 benzo(a)pyrene											
5,000.	ug/l	N.D.									
1284 3-methylcholanthrene											
5,000.	ug/l	N.D.									
3903 indeno(1,2,3-cd)pyrene											
5,000.	ug/l	N.D.									
3881 dibenz(a,h)anthracene											
5,000	ug/l	N.D.									
3863 benzo(ghi)perylene											
5,000.	ug/l	N.D.									

QUALITY CONTROL REPORT

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. 3001162
West Sump Grab Water Sample

Chrysler - Dayton Thermal Products

Group No. 632339
Leggette,Brashears & Graham MN

SAMPLE LOQ	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LIMITS LOW	LCS LIMITS HIGH
3370 thionazin											
5,000.	ug/l	N.D.									

0445 Solvent Identification — Batch: 982670002A

0854	n-hexane	0.050 % by wt.
0855	n-heptane	0 050 % by wt.
0856	n-octane	0.050 % by wt
0857	isooctane	0.050 % by wt.
0858	benzene	0.050 % by wt.
0859	toluene	0.050 % by wt.
0860	ethyl benzene	0 050 % by wt.
0861	xylenes	0.050 % by wt.
0862	styrene	0.050 % by wt.
1120	chlorobenzene	0.050 % by wt.
0863	methanol	0.050 % by wt
1118	n-propanol	0.050 % by wt.
0864	ethanol	0.050 % by wt.
0865	isopropanol	0 050 % by wt.
0866	n-butanol	0.050 % by wt.
0867	isobutanol	0.050 % by wt.
0868	acetone	0.050 % by wt.
0869	methyl ethyl ketone	0.050 % by wt.
0870	methyl isobutyl ketone	0 050 % by wt.
1119	cyclohexanone	0.050 % by wt.
0871	methyl cellosolve	0.050 % by wt
0872	ethyl cellosolve	0.050 % by wt

QUALITY CONTROL REPORT

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LLI Sample No. 3001162
West Sump Grab Water Sample

Chrysler - Dayton Thermal Products

Group No. 632339
Leggette,Brashears & Graham MN

	SAMPLE LOQ	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LIMITS LOW	LCS LIMITS HIGH
0873 butyl cellosolve	0.050	% by wt.										
0874 cellosolve acetate	0.050	% by wt.										
0875 ethyl acetate	0.050	% by wt.										
0876 propyl acetate	0 050	% by wt.										
0877 isopropyl acetate	0.050	% by wt.										
0878 n-butyl acetate	0.050	% by wt.										
1116 ethyl ether	0.050	% by wt										
0880 carbon tetrachloride	0.050	% by wt.										
0881 chloroform	0.050	% by wt.										
0882 methylene chloride	0.050	% by wt.										
0883 1,1-dichloroethane	0.050	% by wt.										
0884 1,2-dichloroethane	0.050	% by wt.										
0885 1,1,1-trichloroethane	0 050	% by wt.										
0886 1,1,2-trichloroethane	0.050	% by wt.										
0887 trichloroethylene	0.050	% by wt.										
0888 tetrachloroethylene	0.050	% by wt.										
0889 Freon 113	0.050	% by wt.										
1117 pyridine	0.050	% by wt.										
0466 Solvent Identification (cont.)			**Batch: 982670002A**									
0853 n-pentane	0.050	% by wt.										
4828 TPH by GC-FID in Water			**Batch: 9825800088 J264**									
4829 Gasoline	40	mg/l	N.D.									
4830 Kerosene	40.	mg/l	N.D.									
4831 Diesel/#2 Fuel	40	mg/l	N D.		95	95	1	91	95	4	75	125

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LLI Sample No. 3001162
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Chrysler - Dayton Thermal Products

Group No. 632339
Leggette,Brashears & Graham MN

SURROGATE SUMMARY

	TRIAL ID	SURROGATE	RECOVERY %	SURROGATE LIMITS LOW	HIGH
0173 PCBs in Water		TCX	346	39	117
		DCB	192	22	142
1309 App. IX Semivolatiles-Water		Phenol-d6	0	7	74
		2-Flphenol	0	25	88
1310 App. IX Semi-volatiles con't		Nitrobz-d5	2	47	114
		2-Fbiphnyl	0	51	106
		Tphenyld14	1	37	119
4828 TPH by GC-FID in Water		Chlorobenz	(5)	50	120
		o-Terpheny	(5)	75	135

(5) Accurate surrogate recoveries could not be determined due to interferences or dilution necessary for this sample.

MEMBER ACIL

Lancaster Laboratories
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LLI Sample No. WW 3001163
Collected: 9/15/98 at 18 25 by DO

Submitted: 9/17/98 Reported: 10/21/98
Discard: 12/21/98

South Sump Grab Water Sample

Chrysler - Dayton Thermal Products
SOUTS SDG#: LBG01-03*

Account No: 10108
Leggette,Brashears & Graham MN

1210 County Rd. E W, Ste. 700
St. Paul, MN 55112

P O. 3CHRY4/DAYTON
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS	
0173	PCBs in Water			See Page	2
0893	Semivolatile Library Search			See Page	13
	The results from the semivolatile library search are listed on the attached FORM 1F - SV-TIC. The qualifiers appearing in the "Q" column are defined on the back of this form. An "X" indicates an isomer of the listed compound.				
1309	App. IX Semivolatiles-Water			See Page	3
1310	App. IX Semi-volatiles con't			See Page	5
1311	App. IX Semi-volatiles con't			See Page	6
1312	App. IX Semi-volatiles con't			See Page	7
0445	Solvent Identification			See Page	9
0466	Solvent Identification (cont.)			See Page	11
4828	TPH by GC-FID in Water			See Page	15
9188	Total Hydrocarbons as n-Hexane	N.D.	2,000.	ppm	
	The reported value for total hydrocarbons as n-hexane represents total volatile organic material detected by the solvent screen conditions for the range of C5 (n-pentane) through C10 (n-decane) normal hydrocarbons.				

1 COPY TO Leggette,Brashears & Graham MN ATTN: Mr. Ken Vogel
1 COPY TO Data Package Group

Questions? Contact your Client Services Representative
Kathy Klinefelter at (717) 656-2300
19 36·43 D 0002 3 135779 632339
885 0.00 00085400 ASR000

Respectfully Submitted
Jenifer E. Hess, B.S.
Group Leader Pesticides/PCBs

MEMBER ASTM

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. WW 3001163
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P.O. 3CHRY4/DAYTON
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
PCBs in Water				
0639	PCB-1016	N.D.	1,000.	ug/l
0640	PCB-1221	N.D.	1,000.	ug/l
0641	PCB-1232	N.D.	1,000.	ug/l
0642	PCB-1242	N.D.	1,000.	ug/l
0643	PCB-1248	N.D.	1,000.	ug/l
0644	PCB-1254	N.D.	1,000.	ug/l
0645	PCB-1260	N.D.	1,000.	ug/l

Due to interfering peaks on the chromatogram, the values reported represent the lowest quantitation limits obtainable.
Despite numerous cleanup methods, we were unable to reach our usual quantitation limits.

Questions? Contact your Client Services Representative
Kathy Klinefelter at (717) 656-2300

Respectfully Submitted
Jenifer E. Hess, B.S
Group Leader Pesticides/PCBs

MEMBER ACIL

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CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
App. IX Semivolatiles-Water				
3920	pyridine	N.D.	1,000.	ug/l
3913	N-nitrosodimethylamine	N.D.	1,000.	ug/l
1301	2-picoline	N.D.	1,000.	ug/l
1292	N-nitrosomethylethylamine	N.D.	1,000.	ug/l
1285	methylmethanesulfonate	N D.	1,000.	ug/l
1291	N-nitrosodiethylamine	N.D.	1,000.	ug/l
1279	ethylmethanesulfonate	N.D.	1,000.	ug/l
3918	phenol	N.D.	1,000.	ug/l
0925	aniline	N.D.	1,000.	ug/l
3867	bis(2-chloroethyl)ether	N.D.	1,000.	ug/l
3874	2-chlorophenol	N.D.	1,000.	ug/l
3883	1,3-dichlorobenzene	N.D.	1,000.	ug/l
3884	1,4-dichlorobenzene	N.D.	1,000.	ug/l
3865	benzylalcohol	N.D.	2,000.	ug/l
3882	1,2-dichlorobenzene	N.D.	1,000.	ug/l
3877	2-methylphenol	N.D.	1,000.	ug/l
1271	bis(2-chloroisopropyl)ether	N.D.	1,000.	ug/l
3878	3- and 4-methylphenol	N.D.	1,000.	ug/l
1295	N-nitrosopyrrolidine	N.D.	1,000.	ug/l
1267	acetophenone	N.D.	1,000.	ug/l
1293	N-nitrosomorpholine	N.D.	1,000.	ug/l
3915	N-nitrosodi-n-propylamine	N.D.	1,000.	ug/l
1306	o-toluidine	N.D.	1,000	ug/l
3902	hexachloroethane	N.D.	1,000.	ug/l
3910	nitrobenzene	N.D.	1,000.	ug/l
1294	N-nitrosopiperidine	N.D.	1,000.	ug/l
3904	isophorone	N.D.	1,000.	ug/l
3911	2-nitrophenol	N.D.	1,000.	ug/l

Aramite is not reported due to unavailability of a suitable standard.

Questions? Contact your Client Services Representative
Kathy Klinefelter at (717) 656-2300

Respectfully Submitted
Charles J. Neslund, B S.
Group Leader, GC/MS SVOA

Lancaster Laboratories
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LLI Sample No. WW 3001163
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South Sump Grab Water Sample

Chrysler - Dayton Thermal Products
SOUTS SDG#: LBG01-03*

Account No: 10108
Leggette,Brashears & Graham MN

1210 County Rd. E W, Ste. 700
St. Paul, MN 55112

P.O. 3CHRY4/DAYTON
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS

App. IX Semivolatiles-Water

The QC limits for the following compounds are advisory only until sufficient data points can be obtained to calculate statistical limits:
1,3,5-Trinitrobenzene
1,4-Naphthalene
1,4-Phenylenediamine
2-Acetylaminofluorene
Hexachlorophene
4-Nitroquinoline-1-oxide
5-Nitro-o-toluidine

Questions? Contact your Client Services Representative
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CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
App. IX Semi-volatiles con't				
3890	2,4-dimethylphenol	N.D.	1,000.	ug/l
3866	bis(2-chloroethoxy)methane	N.D.	1,000.	ug/l
1307	O,O,O-triethylphosphorothioate	N.D.	1,000.	ug/l
3886	2,4-dichlorophenol	N D.	1,000.	ug/l
3921	1,2,4-trichlorobenzene	N D.	1,000.	ug/l
3906	naphthalene	N.D.	1,000.	ug/l
1273	2,6-dichlorophenol	N.D.	1,000.	ug/l
3871	4-chloroaniline	N.D.	1,000.	ug/l
1281	hexachloropropene	N.D.	1,000.	ug/l
3900	hexachlorobutadiene	N.D.	1,000.	ug/l
1300	1,4-phenylenediamine	N.D.	20,000.	ug/l
1290	N-nitrosodi-n-butylamine	N.D.	1,000.	ug/l
3872	4-chloro-3-methylphenol	N.D.	1,000.	ug/l
1303	safrole	N.D.	1,000.	ug/l
3905	2-methylnaphthalene	N D.	1,000.	ug/l
1304	1,2,4,5-tetrachlorobenzene	N.D.	1,000.	ug/l
3901	hexachlorocyclopentadiene	N.D.	2,500.	ug/l
3923	2,4,6-trichlorophenol	N.D.	1,000.	ug/l
3922	2,4,5-trichlorophenol	N D.	1,000.	ug/l
1283	isosafrole	N D.	1,000.	ug/l
3873	2-chloronaphthalene	N.D.	1,000.	ug/l
3907	2-nitroaniline	N.D.	1,000.	ug/l
1286	1,4-naphthoquinone	N.D.	10,000.	ug/l
3891	dimethylphthalate	N.D.	1,000.	ug/l
1278	1,3-dinitrobenzene	N.D.	1,000.	ug/l
3895	2,6-dinitrotoluene	N.D.	1,000.	ug/l

Questions? Contact your Client Services Representative
Kathy Klinefelter at (717) 656-2300

Respectfully Submitted
Charles J. Neslund, B.S.
Group Leader, GC/MS SVOA

MEMBER ACIL

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App. IX Semi-volatiles con't

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
3858	acenaphthylene	N.D.	1,000.	ug/l
3908	3-nitroaniline	N.D.	1,000.	ug/l
3857	acenaphthene	N.D.	1,000.	ug/l
3893	2,4-dinitrophenol	N.D.	5,000.	ug/l
3912	4-nitrophenol	N.D.	5,000.	ug/l
3879	dibenzofuran	N D	1,000.	ug/l
1297	pentachlorobenzene	N.D.	1,000.	ug/l
3894	2,4-dinitrotoluene	N.D.	1,000.	ug/l
1287	1-naphthylamine	N.D.	1,000.	ug/l
1288	2-naphthylamine	N.D.	1,000.	ug/l
0438	2,3,4,6-Tetrachlorophenol	N.D.	1,000.	ug/l
3887	diethylphthalate	N.D.	1,000.	ug/l
3875	4-chlorophenylphenylether	N.D.	1,000.	ug/l
3898	fluorene	N.D.	1,000.	ug/l
1296	5-nitro-o-toluidine	N.D.	1,000.	ug/l
3909	4-nitroaniline	N.D.	1,000.	ug/l
3892	4,6-dinitro-2-methylphenol	N.D.	2,500.	ug/l
3914	N-nitrosodiphenylamine	N.D.	1,000.	ug/l
1305	tetraethyldithiopyrophosphate	N.D.	1,000.	ug/l
1308	1,3,5-trinitrobenzene	N.D.	2,000.	ug/l
1299	phenacetin	N.D.	1,000.	ug/l
3869	4-bromophenylphenylether	N D.	1,000.	ug/l
1313	diallate (trans/cis)	N.D.	1,000.	ug/l
1274	dimethoate	N.D.	2,000.	ug/l
3899	hexachlorobenzene	N.D.	1,000.	ug/l

N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.

Questions? Contact your Client Services Representative
Kathy Klinefelter at (717) 656-2300

Respectfully Submitted
Charles J. Neslund, B.S.
Group Leader, GC/MS SVOA

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CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
App. IX Semi-volatiles con't				
1269	4-aminobiphenyl	N.D.	1,000.	ug/l
3916	pentachlorophenol	N.D.	2,500.	ug/l
1302	pronamide	N.D.	1,000.	ug/l
1298	pentachloronitrobenzene	N.D.	1,000.	ug/l
3917	phenanthrene	N D.	1,000.	ug/l
3859	anthracene	N.D.	1,000.	ug/l
3880	di-n-butylphthalate	N.D.	1,000.	ug/l
1289	4-nitroquinoline-1-oxide	N.D.	10,000.	ug/l
3368	methapyrilene	N.D.	1,000.	ug/l
1282	isodrin	N.D.	2,500.	ug/l
3897	fluoranthene	N.D.	1,000.	ug/l
3919	pyrene	N.D.	1,000.	ug/l
1275	p-(dimethylamino)azobenzene	N.D.	1,000.	ug/l
1272	chlorobenzilate	N.D.	2,000.	ug/l
1277	3,3'-dimethylbenzidine	N.D.	2,500.	ug/l
3870	butylbenzylphthalate	N.D.	1,000.	ug/l
1268	2-acetylaminofluorene	N.D.	1,000.	ug/l
3885	3,3'-dichlorobenzidine	N.D.	1,000.	ug/l
3860	benzo(a)anthracene	N.D.	1,000.	ug/l
3868	bis(2-ethylhexyl)phthalate	N.D.	1,000.	ug/l
3876	chrysene	N.D.	1,000.	ug/l
3896	di-n-octylphthalate	N.D.	1,000.	ug/l
1276	7,12-dimethylbenz(a)anthracene	N.D.	1,000.	ug/l
3861	benzo(b)fluoranthene	N.D.	1,000.	ug/l
3862	benzo(k)fluoranthene	N.D.	1,000.	ug/l
3864	benzo(a)pyrene	N.D.	1,000.	ug/l
1284	3-methylcholanthrene	N.D.	1,000.	ug/l
3903	indeno(1,2,3-cd)pyrene	N.D.	1,000.	ug/l
3881	dibenz(a,h)anthracene	N.D.	1,000.	ug/l
3863	benzo(ghi)perylene	N.D.	1,000.	ug/l
3370	thionazin	N.D.	1,000.	ug/l

Questions? Contact your Client Services Representative
Kathy Klinefelter at (717) 656-2300

Respectfully Submitted
Charles J. Neslund, B.S.
Group Leader, GC/MS SVOA

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Discard: 12/21/98

South Sump Grab Water Sample

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Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS

App. IX Semi-volatiles con't

The quantitation limits for the GC/MS semivolatile compounds were raised due to the high concentration of non-target compounds.

Due to insufficient sample, the quantitation limits for the GC/MS semivolatile compounds were raised.

The usual quantitation limits could not be attained due to the matrix of the sample or interferences observed in the GC/MS semivolatile analysis.

Batch QC was not extracted with this sample.

Questions? Contact your Client Services Representative
Kathy Klinefelter at (717) 656-2300

Respectfully Submitted
Charles J. Neslund, B.S.
Group Leader, GC/MS SVOA

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CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
Solvent Identification				
0854	n-hexane	N.D.	0.050	% by wt.
0855	n-heptane	N.D.	0.050	% by wt.
0856	n-octane	N.D.	0.050	% by wt.
0857	isooctane	N.D.	0 050	% by wt.
0858	benzene	N D.	0.050	% by wt.
0859	toluene	N.D.	0.050	% by wt.
0860	ethyl benzene	N.D.	0.050	% by wt.
0861	xylenes	N.D.	0.050	% by wt.
0862	styrene	N.D.	0.050	% by wt.
1120	chlorobenzene	N.D.	0.050	% by wt.
0863	methanol	N.D.	0.050	% by wt.
1118	n-propanol	N.D.	0.050	% by wt.
0864	ethanol	N.D.	0.050	% by wt.
0865	isopropanol	N.D.	0.050	% by wt.
0866	n-butanol	N.D.	0.050	% by wt.
0867	isobutanol	N.D.	0.050	% by wt.
0868	acetone	N.D.	0.050	% by wt.
0869	methyl ethyl ketone	N.D.	0.050	% by wt.
0870	methyl isobutyl ketone	N.D.	0.050	% by wt.
1119	cyclohexanone	N.D.	0.050	% by wt.
0871	methyl cellosolve	N.D.	0.050	% by wt.
0872	ethyl cellosolve	N.D.	0.050	% by wt.
0873	butyl cellosolve	N.D.	0.050	% by wt
0874	cellosolve acetate	N.D.	0.050	% by wt.
0875	ethyl acetate	N.D.	0.050	% by wt.
0876	propyl acetate	N.D.	0.050	% by wt.
0877	isopropyl acetate	N.D.	0.050	% by wt.
0878	n-butyl acetate	N.D.	0.050	% by wt.
1116	ethyl ether	N.D.	0.050	% by wt.
0880	carbon tetrachloride	N.D.	0.050	% by wt.
0881	chloroform	N.D.	0.050	% by wt.
0882	methylene chloride	N.D.	0.050	% by wt.
0883	1,1-dichloroethane	N.D.	0.050	% by wt.
0884	1,2-dichloroethane	N.D.	0.050	% by wt.
0885	1,1,1-trichloroethane	N.D.	0.050	% by wt.
0886	1,1,2-trichloroethane	N.D.	0.050	% by wt.
0887	trichloroethylene	N.D.	0.050	% by wt.

Questions? Contact your Client Services Representative
Kathy Klinefelter at (717) 656-2300

Respectfully Submitted
Jenifer E. Hess, B.S.
Group Leader Pesticides/PCBs

MEMBER

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. WW 3001163
Collected: 9/15/98 at 18:25 by DO

Submitted: 9/17/98 Reported: 10/21/98
Discard: 12/21/98

South Sump Grab Water Sample

Chrysler - Dayton Thermal Products
SOUTS SDG#: LBG01-03*

Account No: 10108
Leggette,Brashears & Graham MN

1210 County Rd. E W, Ste. 700
St. Paul, MN 55112

P.O. 3CHRY4/DAYTON
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
Solvent Identification				
0888	tetrachloroethylene	N.D.	0.050	% by wt.
0889	Freon 113	N.D.	0.050	% by wt.
1117	pyridine	N.D.	0.050	% by wt.

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St. Paul, MN 55112

P.O. 3CHRY4/DAYTON
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
Solvent Identification (cont.)				
0853	n-pentane	N D.	0.050	% by wt.

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1210 County Rd. E W, Ste. 700
St. Paul, MN 55112

P O. 3CHRY4/DAYTON
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
TPH by GC-FID in Water				
4829	Gasoline	N.D.	2,000.	mg/l
4830	Kerosene	N.D.	2,000.	mg/l
4831	Diesel/#2 Fuel	5,500.	2,000.	mg/l

The quantitation limits were raised because sample dilution was necessary to bring target compounds into the calibration range of the system.
See attached fingerprint comment.

Questions? Contact your Client Services Representative
Kathy Klinefelter at (717) 656-2300

Respectfully Submitted
Jenifer E Hess, B.S.
Group Leader Pesticides/PCBs

MEMBER ACIL

Lancaster Laboratories
A division of Thermo Analytical Inc.

1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SOUTS

Lab Name: LANCASTER LABS Contract: ____.
Lab Code: LANCAS Case No.: ____. SAS No.: ____. SDG No.: ____.
Matrix: (soil/water) WATER Lab Sample ID: 3001163
Sample wt/vol: 500 (g/mL) ML Lab File ID: >LJ267
Level: (low/med) LOW Date Received: 09/17/98
% Moisture: not dec. ____. dec. ____. Date Extracted: 10/09/98
Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/12/98
GPC Cleanup: (Y/N) N pH: ____. Dilution Factor: 250.0

Number TICs found: 50

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown	14.83	5300.	J
2.	Unknown alkane	16.31	4200.	J
3.	Unknown	16.56	3300.	J
4.	Unknown	16.83	13000.	J
5.	Unknown alkane	17.02	3600.	J
6.	Unknown	17.28	9800.	J
7.	Unknown	17.54	9600.	J
8.	Unknown	17.65	9900.	J
9.	Unknown	17.90	99000.	J
10.	Unknown	17.98	300000.	J
11.	Unknown	18.14	3000.	J
12. 19780348	Tridecane, 3-methylene-	18.33	91000.	J
13.	Unknown	18.73	6900000.	J
14.	Unknown	18.88	27000.	J
15.	Unknown	19.04	17000.	J
16.	Unknown	19.32	12000.	J
17.	Unknown alkane	19.54	83000.	J
18.	Unknown	19.85	20000.	J
19.	Unknown	19.98	68000.	J
20.	Unknown	20.09	22000.	J
21.	Unknown	20.37	30000.	J
22.	Unknown	20.61	9300.	J
23.	Unknown	20.76	25000.	J
24.	Unknown	20.87	12000.	J
25.	Unknown	20.98	26000.	J
26.	Unknown alkane	21.17	31000.	J
27.	Unknown	21.37	11000.	J
28.	Unknown	21.47	72000.	J
29.	Unknown	21.61	70000.	J
30.	Unknown	21.89	18000.	J

FORM I SV-TIC 1/87 Rev.

Respectfully Submitted
Charles J. Neslund, B.S.
Group Leader, GC/MS SVOA

MEMBER ACIL

Lancaster Laboratories
A division of Thermo Analytical Inc.

 1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SOUTS

Lab Name: LANCASTER LABS Contract: _____.
Lab Code: LANCAS Case No.: _____. SAS No.: _____. SDG No.: _____.
Matrix: (soil/water) WATER Lab Sample ID: 3001163
Sample wt/vol: 500 (g/mL) ML Lab File ID: >LJ267
Level: (low/med) LOW Date Received: 09/17/98
% Moisture: not dec. _____. dec. _____. Date Extracted: 10/09/98
Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/12/98
GPC Cleanup: (Y/N) N pH: _____. Dilution Factor: 250.0

Number TICs found: 50

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
31.	Unknown alkane	22.39	49000.	J
32.	Unknown	22.52	28000.	J
33.	Unknown	22.70	21000.	J
34.	Unknown	22.81	13000.	J
35.	Unknown alkane	23.21	66000.	J
36.	Unknown	23.53	14000.	J
37.	Unknown	24.11	8800.	J
38.	Unknown	24.20	21000.	J
39.	Unknown alkane	24.49	16000.	J
40.	Unknown alkane	24.58	24000.	J
41.	Unknown	25.48	8500.	J
42.	Unknown alkane	25.64	5400.	J
43.	Unknown alkane	25.77	3200.	J
44.	Unknown	26.24	6200.	J
45.	Unknown	27.29	3800.	J
46.	Unknown	30.34	4000.	J
47.	Unknown	31.19	3500.	J
48.	Unknown	31.31	3300.	J
49.	Unknown	32.66	4000.	J
50.	Unknown	33.98	3900.	J

Respectfully Submitted
Charles J. Neslund, B.S.
Group Leader, GC/MS SVOA

MEMBER ACIL

South Sump Grab Water Sample

Chrysler - Dayton Thermal Products

ANALYSIS: 4828

The GC Fingerprint for this sample indicates a complex mixture of petroleum based and nonpetroleum organic materials. The overall sample fingerprint elutes throughout the range C10 (n-decane) through C40 (n-tetracontane) normal hydrocarbons and consists primarily of two distinct unresolved regions. The early eluting (more volatile) region elutes in the C10 - C20 (n-eicosane) range. This region is primarily unresolved; however, the overall pattern is a fairly good match for our #2 fuel oil reference pattern. Additionally, a large single component peak, which is not present in the fuel reference pattern, elutes just prior to C14 (n-tetradecane). This region, including the component peak, accounts for approximately 90%, by weight, of the total organic content of the sample. The later eluting (less volatile) region elutes in the C20 - C40 range and is also unresolved. This region accounts for approximately 10%, by weight, of the total organic content of the sample. The unresolved nature of the two regions is typical of lubricating oil fractions analyzed by this method. However, the presence of fuel components indicates a complex mixture of lubricating oil fractions with volatile and semi-volatile components that are typical of diesel/#2 and heavier weight, residual fuel oil fractions.

For the purpose of quantitation, we base total area response of the sample pattern(s) on our #2 fuel oil reference standard response. When we calculate total sample area eluting in the C8 (n-octane) through C40 normal hydrocarbon range as petroleum distillate/product (#2 fuel oil), it is present at 5,500 mg/l in the sample.

The GC Fingerprint for this sample was compared to the fingerprint for LL 3001161, a client submitted reference material. The overall sample fingerprint is a good match for LL 3001161. The relative ratios of the distinct regions are significantly different from the reference fingerprint. The single peak eluting just before C14 is a retention time match for the single component in LL 3001161.

Consider the quantitation an approximation due to the differences between the sample pattern(s) and the reference patterns.

Respectfully Submitted
Jenifer E. Hess, B.S.
Group Leader Pesticides/PCBs

&&&

LABORATORY CHRONICLE

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. WW 3001163
Collected: 09/15/98 at 18:25 by DO

Submitted: 09/17/98

South Sump Grab Water Sample

Chrysler - Dayton Thermal Products
SOUTS SDG#: LBG01-03*

Account No: 10108
Leggette,Brashears & Graham MN

1210 County Rd. E W, Ste. 700
St. Paul, MN 55112

CAT NO	ANALYSIS NAME	METHOD	TRIAL	ANALYSIS ID	DATE AND TIME	ANALYST
0173	PCBs in Water	SW-846 8082	1		09/24/98 2249	Michael Kielb
0817	Water Sample Pest. Extraction	SW-846 3510C	1		09/22/98 1515	Lee L. Munro
0813	BNA Water Extraction	SW-846 3510C	1		09/18/98 0830	Maria A. Davenport
1309	App. IX Semivolatiles-Water	SW-846 8270C	1		10/12/98 1532	Mark A. Ratcliff
1310	App. IX Semi-volatiles con't	SW-846 8270C	1		10/12/98 1532	Mark A. Ratcliff
1311	App. IX Semi-volatiles con't	SW-846 8270C	1		10/12/98 1532	Mark A. Ratcliff
1312	App. IX Semi-volatiles con't	SW-846 8270C	1		10/12/98 1532	Mark A. Ratcliff
0445	Solvent Identification	SW-846 8015B modified	1		09/24/98 1431	Tracy A. McNickle
0466	Solvent Identification (cont.)	SW-846 8015B modified	1		09/24/98 1431	Tracy A. McNickle
2376	Extraction - Fuel/TPH (Waters)	SW-846 3510C	1		09/18/98 0930	Maria A. Davenport
4828	TPH by GC-FID in Water	SW-846 8015B, modified	1		09/22/98 1211	Robert G. Brown
9188	Total Hydrocarbons as n-Hexane	SW-846 8015B			09/24/98 1507	Tracy A. McNickle

MEMBER

QUALITY CONTROL REPORT

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. 3001163
South Sump Grab Water Sample

Chrysler - Dayton Thermal Products

Group No. 632339
Leggette,Brashears & Graham MN

SAMPLE LOQ	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LIMITS LOW	LCS LIMITS HIGH
0173 PCBs in Water		Batch: 982650008A									
0639 PCB-1016											
1,000.	ug/l	N.D.		89	88	1	85	87		43	126
0640 PCB-1221											
1,000.	ug/l	N.D.									
0641 PCB-1232											
1,000.	ug/l	N.D.									
0642 PCB-1242											
1,000.	ug/l	N.D.									
0643 PCB-1248											
1,000.	ug/l	N.D.									
0644 PCB-1254											
1,000.	ug/l	N.D.									
0645 PCB-1260											
1,000.	ug/l	N.D.		95	94	1	90	92		51	126
1309 App. IX Semivolatiles-Water		Batch: 98282WAG026									
3920 pyridine											
1,000.	ug/l	N.D.									
3913 N-nitrosodimethylamine											
1,000.	ug/l	N.D.									
1301 2-picoline											
1,000.	ug/l	N.D.									
1292 N-nitrosomethylethylamine											
1,000.	ug/l	N.D.									
1285 methylmethanesulfonate											
1,000.	ug/l	N.D.									
1291 N-nitrosodiethylamine											
1,000.	ug/l	N.D.									
1279 ethylmethanesulfonate											
1,000.	ug/l	N.D.									
3918 phenol											
1,000.	ug/l	N.D.									
0925 aniline											
1,000.	ug/l	N.D.									
3867 bis(2-chloroethyl)ether											
1,000.	ug/l	N.D.									
3874 2-chlorophenol											
1,000.	ug/l	N.D.									
3883 1,3-dichlorobenzene											
1,000.	ug/l	N.D.									
3884 1,4-dichlorobenzene											
1,000.	ug/l	N.D.									
3865 benzylalcohol											
2,000.	ug/l	N.D.									
3882 1,2-dichlorobenzene											
1,000.	ug/l	N.D.									

LLI Sample No. 3001163
South Sump Grab Water Sample

Chrysler - Dayton Thermal Products

Group No. 632339
Leggette,Brashears & Graham MN

SAMPLE LOQ	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LIMITS LOW	LCS LIMITS HIGH
3877 2-methylphenol											
1,000.	ug/l	N.D.									
1271 bis(2-chloroisopropyl)ether											
1,000.	ug/l	N.D.									
3878 3- and 4-methylphenol											
1,000.	ug/l	N.D.									
1295 N-nitrosopyrrolidine											
1,000.	ug/l	N.D.									
1267 acetophenone											
1,000.	ug/l	N D.									
1293 N-nitrosomorpholine											
1,000.	ug/l	N.D.									
3915 N-nitrosodi-n-propylamine											
1,000.	ug/l	N.D.									
1306 o-toluidine											
1,000.	ug/l	N.D.									
3902 hexachloroethane											
1,000.	ug/l	N.D.									
3910 nitrobenzene											
1,000.	ug/l	N.D.									
1294 N-nitrosopiperidine											
1,000.	ug/l	N.D									
3904 isophorone											
1,000.	ug/l	N.D.									
3911 2-nitrophenol											
1,000.	ug/l	N.D.									
1310 App. IX Semi-volatiles con't		Batch: 98282WAG026									
3890 2,4-dimethylphenol											
1,000.	ug/l	N.D.									
3866 bis(2-chloroethoxy)methane											
1,000	ug/l	N.D.									
1307 0,0,0-triethylphosphorothioate											
1,000.	ug/l	N.D.									
3886 2,4-dichlorophenol											
1,000.	ug/l	N.D.									
3921 1,2,4-trichlorobenzene											
1,000.	ug/l	N D.									
3906 naphthalene											
1,000.	ug/l	N.D.									
1273 2,6-dichlorophenol											
1,000.	ug/l	N.D.									
3871 4-chloroaniline											
1,000.	ug/l	N.D.									
1281 hexachloropropene											
1,000.	ug/l	N.D.									
3900 hexachlorobutadiene											
1,000.	ug/l	N.D.									

LLI Sample No. 3001163
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SAMPLE LOQ	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LIMITS LOW	LCS LIMITS HIGH
1300 1,4-phenylenediamine											
20,000.	ug/l	N.D.									
1290 N-nitrosodi-n-butylamine											
1,000.	ug/l	N.D.									
3872 4-chloro-3-methylphenol											
1,000	ug/l	N.D.									
1303 safrole											
1,000.	ug/l	N.D.									
3905 2-methylnaphthalene											
1,000.	ug/l	N.D.									
1304 1,2,4,5-tetrachlorobenzene											
1,000.	ug/l	N.D.									
3901 hexachlorocyclopentadiene											
2,500	ug/l	N.D.									
3923 2,4,6-trichlorophenol											
1,000.	ug/l	N.D.									
3922 2,4,5-trichlorophenol											
1,000	ug/l	N.D.									
1283 isosafrole											
1,000.	ug/l	N.D.									
3873 2-chloronaphthalene											
1,000.	ug/l	N.D.									
3907 2-nitroaniline											
1,000	ug/l	N D.									
1286 1,4-naphthoquinone											
10,000	ug/l	N.D.									
3891 dimethylphthalate											
1,000.	ug/l	N.D.									
1278 1,3-dinitrobenzene											
1,000.	ug/l	N.D.									
3895 2,6-dinitrotoluene											
1,000.	ug/l	N.D.									
1311 App. IX Semi-volatiles con't		Batch: 98282WAG026									
3858 acenaphthylene											
1,000.	ug/l	N D.									
3908 3-nitroaniline											
1,000.	ug/l	N.D.									
3857 acenaphthene											
1,000.	ug/l	N D									
3893 2,4-dinitrophenol											
5,000	ug/l	N.D									
3912 4-nitrophenol											
5,000	ug/l	N D.									
3879 dibenzofuran											
1,000.	ug/l	N D.									
1297 pentachlorobenzene											
1,000	ug/l	N.D.									

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LLI Sample No. 3001163
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Chrysler - Dayton Thermal Products

Group No 632339
Leggette,Brashears & Graham MN

SAMPLE LOQ	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LIMITS LOW	LCS LIMITS HIGH
3894 2,4-dinitrotoluene											
1.000.	ug/l	N.D.									
1287 1-naphthylamine											
1,000.	ug/l	N.D.									
1288 2-naphthylamine											
1.000.	ug/l	N.D.									
0438 2,3,4,6-Tetrachlorophenol											
1,000.	ug/l	N.D.									
3887 diethylphthalate											
1,000.	ug/l	N.D.									
3875 4-chlorophenylphenylether											
1,000	ug/l	N D									
3898 fluorene											
1,000	ug/l	N.D.									
1296 5-nitro-o-toluidine											
1,000.	ug/l	N.D.									
3909 4-nitroaniline											
1,000.	ug/l	N.D.									
3892 4,6-dinitro-2-methylphenol											
2,500.	ug/l	N.D.									
3914 N-nitrosodiphenylamine											
1,000.	ug/l	N.D.									
1305 tetraethyldithiopyrophosphate											
1,000.	ug/l	N.D.									
1308 1,3,5-trinitrobenzene											
2,000.	ug/l	N.D.									
1299 phenacetin											
1,000.	ug/l	N.D.									
3869 4-bromophenylphenylether											
1,000.	ug/l	N.D.									
1313 diallate (trans/cis)											
1,000.	ug/l	N.D.									
1274 dimethoate											
2,000.	ug/l	N.D.									
3899 hexachlorobenzene											
1,000.	ug/l	N.D.									
1312 App. IX Semi-volatiles con't		Batch: 98282WAG026									
1269 4-aminobiphenyl											
1,000.	ug/l	N.D.									
3916 pentachlorophenol											
2,500.	ug/l	N.D.									
1302 pronamide											
1,000.	ug/l	N.D.									
1298 pentachloronitrobenzene											
1,000	ug/l	N.D.									
3917 phenanthrene											
1,000	ug/l	N D.									

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LLI Sample No. 3001163
South Sump Grab Water Sample

Chrysler - Dayton Thermal Products

Group No. 632339
Leggette,Brashears & Graham MN

SAMPLE LOQ	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LIMITS LOW	LCS LIMITS HIGH
3859 anthracene											
1,000.	ug/l	N.D.									
3880 di-n-butylphthalate											
1,000.	ug/l	N.D.									
1289 4-nitroquinoline-1-oxide											
10,000.	ug/l	N.D.									
3368 methapyrilene											
1,000.	ug/l	N.D.									
1282 isodrin											
2,500.	ug/l	N.D.									
3897 fluoranthene											
1,000	ug/l	N.D.									
3919 pyrene											
1,000.	ug/l	N.D.									
1275 p-(dimethylamino)azobenzene											
1,000.	ug/l	N.D.									
1272 chlorobenzilate											
2,000.	ug/l	N.D.									
1277 3,3'-dimethylbenzidine											
2,500.	ug/l	N D.									
3870 butylbenzylphthalate											
1,000.	ug/l	N.D.									
1268 2-acetylaminofluorene											
1,000.	ug/l	N.D.									
3885 3,3'-dichlorobenzidine											
1,000.	ug/l	N D.									
3860 benzo(a)anthracene											
1,000.	ug/l	N.D.									
3868 bis(2-ethylhexyl)phthalate											
1,000.	ug/l	N.D.									
3876 chrysene											
1,000.	ug/l	N.D.									
3896 di-n-octylphthalate											
1,000.	ug/l	N.D.									
1276 7,12-dimethylbenz(a)anthracene											
1,000.	ug/l	N.D.									
3861 benzo(b)fluoranthene											
1,000.	ug/l	N.D.									
3862 benzo(k)fluoranthene											
1,000.	ug/l	N.D.									
3864 benzo(a)pyrene											
1,000	ug/l	N D.									
1284 3-methylcholanthrene											
1,000	ug/l	N.D.									
3903 indeno(1,2,3-cd)pyrene											
1,000.	ug/l	N.D.									
3881 dibenz(a,h)anthracene											
1,000.	ug/l	N.D.									
3863 benzo(ghi)perylene											
1,000	ug/l	N.D.									

LLI Sample No. 3001163
South Sump Grab Water Sample

Chrysler - Dayton Thermal Products

Group No. 632339
Leggette,Brashears & Graham MN

SAMPLE LOQ	SAMPLE UNITS		BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LIMITS LOW	LCS LIMITS HIGH
3370 thionazin												
1,000.	ug/l		N.D.									
0445 Solvent Identification			Batch: 982670002A									
0854 n-hexane												
0.050	% by wt.											
0855 n-heptane												
0.050	% by wt.											
0856 n-octane												
0.050	% by wt.											
0857 isooctane												
0.050	% by wt.											
0858 benzene												
0.050	% by wt.											
0859 toluene												
0.050	% by wt.											
0860 ethyl benzene												
0.050	% by wt.											
0861 xylenes												
0.050	% by wt.											
0862 styrene												
0.050	% by wt.											
1120 chlorobenzene												
0.050	% by wt.											
0863 methanol												
0.050	% by wt.											
1118 n-propanol												
0 050	% by wt.											
0864 ethanol												
0.050	% by wt.											
0865 isopropanol												
0.050	% by wt.											
0866 n-butanol												
0.050	% by wt.											
0867 isobutanol												
0.050	% by wt.											
0868 acetone												
0.050	% by wt.											
0869 methyl ethyl ketone												
0.050	% by wt.											
0870 methyl isobutyl ketone												
0 050	% by wt.											
1119 cyclohexanone												
0.050	% by wt.											
0871 methyl cellosolve												
0.050	% by wt.											
0872 ethyl cellosolve												
0.050	% by wt											

LLI Sample No. 3001163
South Sump Grab Water Sample

Chrysler - Dayton Thermal Products

Group No. 632339
Leggette,Brashears & Graham MN

SAMPLE LOQ	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LIMITS LOW	LCS LIMITS HIGH
0873 butyl cellosolve											
0.050	% by wt.										
0874 cellosolve acetate											
0.050	% by wt.										
0875 ethyl acetate											
0.050	% by wt.										
0876 propyl acetate											
0.050	% by wt.										
0877 isopropyl acetate											
0.050	% by wt.										
0878 n-butyl acetate											
0.050	% by wt.										
1116 ethyl ether											
0.050	% by wt.										
0880 carbon tetrachloride											
0.050	% by wt.										
0881 chloroform											
0.050	% by wt.										
0882 methylene chloride											
0.050	% by wt										
0883 1,1-dichloroethane											
0 050	% by wt.										
0884 1,2-dichloroethane											
0.050	% by wt.										
0885 1,1,1-trichloroethane											
0.050	% by wt.										
0886 1,1,2-trichloroethane											
0.050	% by wt.										
0887 trichloroethylene											
0 050	% by wt.										
0888 tetrachloroethylene											
0.050	% by wt.										
0889 Freon 113											
0.050	% by wt.										
1117 pyridine											
0.050	% by wt.										
0466 Solvent Identification (cont.)		Batch: 982670002A									
0853 n-pentane											
0.050	% by wt.										
4828 TPH by GC-FID in Water		Batch: 982580008B J264									
4829 Gasoline											
2,000	mg/l	N.D.									
4830 Kerosene											
2,000.	mg/l	N.D.									
4831 Diesel/#2 Fuel											
2,000.	mg/l	N.D.		95	95	1	91	95	4	75	125

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. 3001163
South Sump Grab Water Sample

Chrysler - Dayton Thermal Products

Group No. 632339
Leggette,Brashears & Graham MN

SURROGATE SUMMARY

	TRIAL ID	SURROGATE	RECOVERY %	SURROGATE LIMITS LOW	HIGH
0173 PCBs in Water		TCX	353	39	117
		DCB	219	22	142
1309 App. IX Semivolatiles-Water		Phenol-d6	(5)	7	74
		2-Flphenol	(5)	25	88
		2,4,6-TBP	(5)	34	125
1310 App. IX Semi-volatiles con't		Nitrobz-d5	(5)	47	114
		2-Fbiphnyl	(5)	51	106
		Tphenyld14	(5)	37	119
4828 TPH by GC-FID in Water		Chlorobenz	(5)	50	120
		o-Terpheny	(5)	75	135

(5) Accurate surrogate recoveries could not be determined due to interferences or dilution necessary for this sample.

Analysis Request/ Environmental Services Chain of Custody

Lancaster Laboratories
A division of Thermo Analytical Inc

Air bill # 808219674954

For Lancaster Laboratories use only
Acct. # 10103 Sample # 3001161-63

Please print. Instructions on reverse side correspond with circled numbers.

(1)
Client: Dayton Thermal Products Acct #: 6326
Project Name/#: 3CHRY4 / DAYTON PWSID #:
Project Manager: Ken Vogel PO #:
Sampler: [signature] / [signature] Quote #:
Name of state where samples were collected: OHIO

For lab use only
FSC:
SCR #: 11160.38

(2)

Sample Identification	Date Collected	Time Collected	(3) Grab	Composite	Matrix (4) Soil	Water (☐ Potable ☐ NPDES)	Other	Total # of Containers	(5) Analyses Requested: 4828 TPH/GC	173 PCB	445 SolScr	174 PCB	2535 GCFP				Remarks	(6) Temperature of samples upon receipt (if requested)
SVE-11	9/15/98	18:15	X				X	2			X	X	X				Product	
West Sump	9/15/98	18:00	X			X		5	X	X	X						Trace Product	
South Sump	9/15/98	18:25	X			X		6	X	X	X						Trace Product	
																	Leggette, Brashears & Graham	
																	1210 W. Co Rd. E	
																	St. Paul, MN. 55112	

(7) **Turnaround Time Requested** (TAT) (please circle) Normal Rush
(Rush TAT is subject to Lancaster Laboratories approval and surcharge.)
Date results are needed
Rush results requested by (please circle) Phone Fax
Phone # 651-490-1405 Fax # 651-490-1006

(8) **Data Package Options** (please circle if requested)
QC Summary Type VI (Raw Data)
Type I (Tier I) GLP
Type II (Tier II) Other
Type III (NJ Red Del.)
Type IV (CLP)

SDG Complete? Yes No

Site-specific QC required? Yes No
(If yes, indicate QC sample and submit triplicate volume.)

Internal Chain of Custody required? Yes No

Relinquished by	Date	Time	Received by	Date	Time
MHufford	8-25-98	13:55			
[signature]	9/16/98	10:00			
			[signature]	9/16/98	0900

EPA Region 5 Records Ctr.
350025

MEMORANDUM

TO: Ken Vogel

FROM: Rebecca Carlson

DATE: 24 April, 1998

RE: The Big Picture: Summary of Regional Data Compiled for Dayton Thermal Products Plant

POTENTIAL SOURCES PROXIMAL TO DAYTON THERMAL PRODUCTS PLANT:

Leggette Brashears and Graham Contracted Eriis to provide information from the various state and federal databases within 1.5 mile s of Dayton Thermal Products Plant located at 1600 Webster Street. Information regarding spills reported within ½ mile radius of the site are listed below:

Company, Address	Location Relative to DTPP	Contaminant Spilled	Date (s)
Gem City Chemicals,	.33 miles northeast	hydrochloric acid, ammonium nitrate, cooling water, diesel fuel, and waste water	April 1994 and January 1995
Frito Lay, 1951 Stanley Ave	237 miles Northwest	diesel fuel, jet a fuel, mineral oil, and waste water	January 1996
Omega Gas, 1951 Stanley Ave	237 miles Northwest	gasoline	August 1993
Omega Oil, Stanley Ave. At I75	275 miles northwest	diesel fuel (small)	May 1990
Rumpke Kuntz RD, 2324 Stanley Ave	329miles northeast	hydraulic oil, sewage	May 1994
Industrial Waste Disposal	359 miles southeast	crude oil, hydraulic oil and phosphates	April 1996
RL Carriers, 570 Leo St	32 miles southwest	corrosive liquid, diesel fuel, equipment down	December 1996
Overland Transport, 1751 Stanley Ave	408 miles northwest	motor oil, raw sewage, tetrachloride	October 1994
Rumpke Inc., 1464 Kuntz RD	.444 miles northeast	diesel fuel, green material, and waste water	January 1995
P & J Auto Service, 1224 N Keowee St.	47 miles southwest	waste oil	September 1990

Gem City Chemicals.
Analysis of ground water samples collected at monitoring wells located between Gem City Chemicals and DTPP indicates that contamination from Gem City Chemicals has not migrated onto DTPP property. Similarly, impacted groundwater does not appear to have migrated from DTPP onto Gem City Chemicals' property.

In an effort to determine potential sources of contamination that might impact the Miami Well Field, The Miami Conservancy District installed 146 new monitoring wells north of Dayton, Ohio during the summer of 1997. Three of these monitoring wells are located north and east of DTPP. Jim Schumacher of the Ohio DNR Division of Waters indicated that these wells were installed specifically to delineate the extent of off site contamination from Gem City Chemicals, and that analysis of ground water collected at these wells indicated that impacted groundwater from Gem City Chemicals had migrated off site to the northwest due to insufficient gradient control on site. Mr. Schumacher further indicated that the primary contaminants identified in groundwater at these wells were: TCE, 1,1-TCA, and 1,1-DCA, likely from newer releases on Gem City Chemicals property.

Engineering reports from remedial investigations, and environmental monitoring at Gem City Chemicals indicate that pumping tests were performed at Gem City Chemicals on Feb 21, 1990. Recovery well, RW-1 was pumped at 340 gpm and the water level at a piezometer installed 3.5 feet away from the pumping well was monitored. Drawdown was .57ft after 450 minutes of pumping. Transmissivity determined from this test was 52,900 ft^2/day or 395 gpd/ft , and hydraulic conductivity was reported to be 226 cm/s (755 ft/day) Storage coefficient was reported to be .001.

Gem City Chemical Pumping Rates for RW-1 are as follows: The pumping system operated without interruption during April, May, and June 1997. The pumping rate, which is recorded daily by Gem City Chemicals, Inc personnel was 300 gpm As of June 30, 1997, the totally volume of water pumped from the recovery well is 1,177 2 million gallons.

The remaining spills indicated in the above table do not appear to have impacted DTPP groundwater. Locations of industries surrounding DTPP, including those listed above are shown in Figure 1.

POTENTIAL RECEPTORS PROXIMAL TO DTPP:

Miami Well Field·
The glacial till directly underlying DTPP is a sole source aquifer The Miami Well field is located accross the Miami River, northwest of DTPP and extracts water from this aquifer. Given the low concentrations of VOCs in ground water collected at monitoring wells on the northwest edge of DTPP, it is unlikely that they are a potential receptor for impacted ground water on site As indicated earlier, the Miami Conservancy District has installed 146 new monitoring wells to assess the potential risks in the area and in no conversation was it indicated to me that Dayton Thermal Products Plant was under investigation as a potential source

Private Water Supply Wells:
No private water supply wells were identified in a well search performed by the Ohio Department of Natural Resources. Seven supply wells are located proximal to the site· five are industrial wells, one is located at a hospital, another at a real estate company.

Miami and Mud Rivers:
These are losing rivers, they are the primary source of recharge to the aquifer. It is possible that impacted groundwater from our site has migrated south towards the Mud River. There is no indication that impacted groundwater from DTPP has migrated north or west to impact the Miami River

REGIONAL AQUIFER INFORMATION:

indicate that hydraulic conductivity of the shallow aquifer is approximately 200 ft/day with a transmissivity reported to be approximately 15,000 to 40,000 ft^2/day.

Miami Well Field/ Miami Conservancy District

CH2M Hill, Inc Conducted several studies of the Miami Well Field and Surrounding Areas in (1972, 1984, 1986 and 1988).

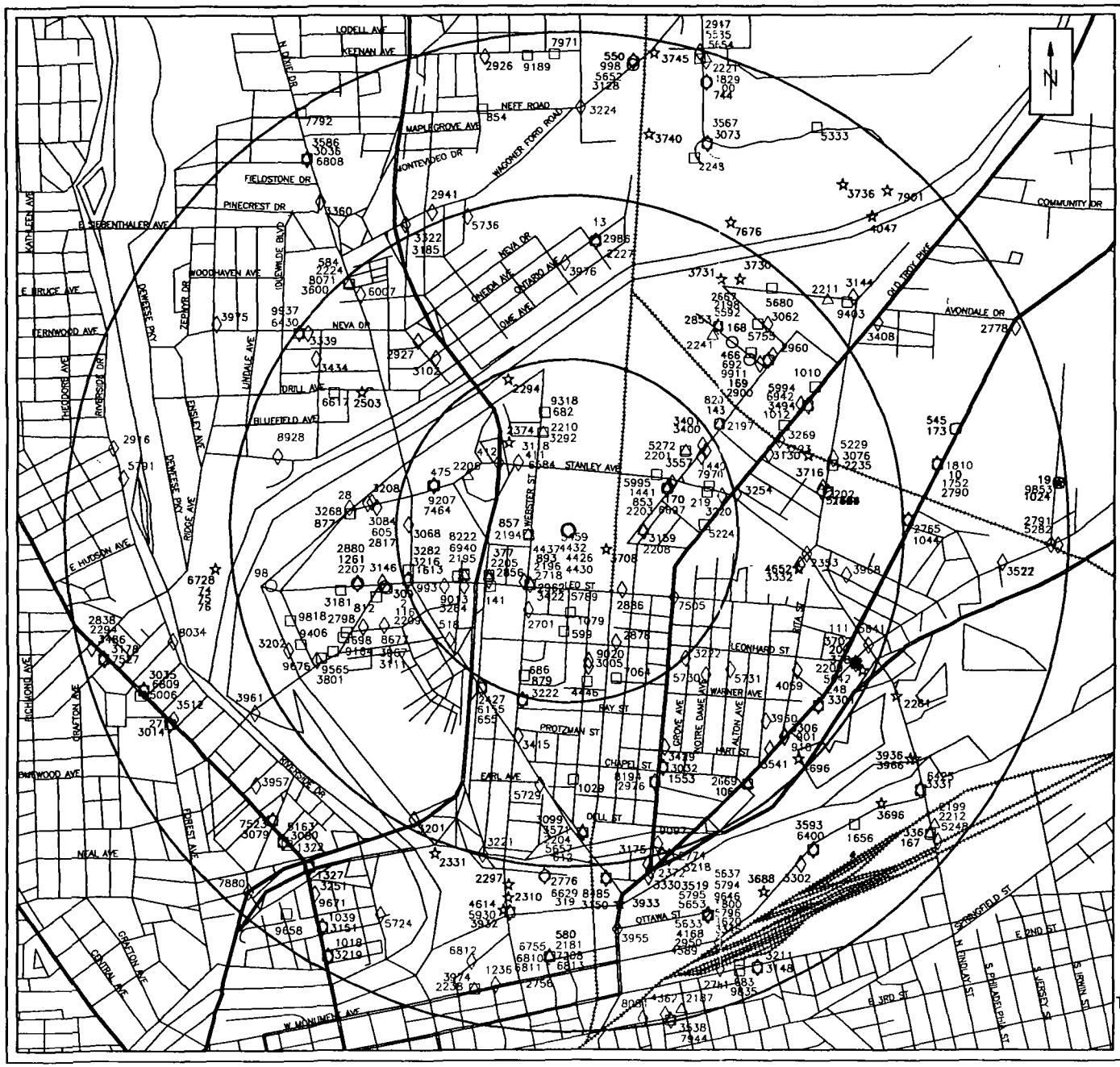
CH_2M Hill determined aquifer parameters for the development of the Miami South Well Field. The analysis assumed a 50 foot thick saturated zone in the upper aquifer and variable thickness for till and lower aquifer.

Upper Aquifer	
Hydraulic Conductivity	003 ft/sec (260 ft/day, 2021 GPD/ft^2)
Storativity	.2 ft/ft
Till Layers	
Hydraulic Conductivity	.44 x 10^{-6} ft/sec (04 ft/day, 3 GPD/ft^2)
Storativity	0 ft/ft
Lower Aquifer	
Hydraulic Conductivity	.001 ft/sec (87 ft/day, 710 GPD/ft^2)
Storativity	. 00001 ft/ft

Miami South Source Investigation also by CH2M Hill (1988), identified 7 VOC plumes in vicinity of Miami South Well Field. As mentioned above, 165 additional monitoring wells were installed by the ODOR, Division of Waters to delineate other plumes and establish their points of origin and potential impact on the Miami South Well Field. A formal report will be issued during Summer 1999 listing their findings.

Brainerd Industries 1723 Webster Street EPA ID OHD068953645	RCRIS-LG, TRI 1
Hohman Plating and Mfg. 814 Hillrose Ave. EPA ID OHD004278362	RCRIS-LG, TRI 2
Sheffield Machine and Tool Co. 1506 Milburn Ave. EPA ID OHD012193539	RCRIS-SG, FINDS 3
MAB Paints and Coatings 720 Leo St. EPA ID OH0000107680	RCRIS-SG 4
W&W Molded Plastics, Inc. 1441 Milburn Ave. EPA ID OHD004245098	RCRIS-SG 5
Price Brothers 1950 Webster St. EPA ID OHD099019259	RCRIS-SG, TRI, LRST 6
Globe Motor Div of LCS, Inc. 2275 Stanley Ave. EPA ID OHD986979144	RCRIS-SG 7
Gem City Chemicals, Inc. 1287 Air City Ave. EPA ID OHD004472940 Spill ID 95010107	RCRIS-SG, SPILLS, TRI, HWS 8
Nickelparts, Inc. 836 Hall Ave. EPA ID OHD987037900	RCRIS-SG 9
Chromeparts,Iinc. 828 Hall Ave. EPA ID OHD987007713	RCRIS-SG, TRI 10
Specialty Sheet Metal 821 Hall Ave. EPA ID OHD097918395	RCRIS-SG 11
Dayton Machine Tool Co 1314 Webster St	RCRIS-SG 12

EPA ID OHD004277802 City of Dayton 520 Kiser Street EPA ID OHD981796964	RCRIS-SG 13
US Aeromotive 1 Edmund ST EPA ID OHD987011046	RCRIS-SG 14
Barg Bottling Co. 1607 Webster Street LRST Incident No. 571201200	LRST 15
Heidelberg Dist Co 1279 Deeds Ave. LRST Incident No. 570091300	LRST 16
Paint America 1501 Webster Street LRST Incident No. 570261400	LRST 17
Rumpke Kuntz Rd 2324 Stanley Ave Spill ID 94052318	SPILLS 18
Industrial Waste Disposal Leo St at Troy St Spill ID 96044530	SPILLS 19



ERIS

505 Huntmar Park Dr, Suite 200
Herndon, VA 20170
(703)834-0600 (800)989-0402
FAX: (703)834-0606

SITE INFORMATION

1600 Webster Street
Dayton, OH
Montgomery County
Job Number: 232465A
Map Plotted: Mar 18, 1998

MAP LEGEND

- Target Area
- Radii .5, 1, 1.5 Mi
- Hydrography
- Railroads
- Roads
- Highways
- ★ NPL 1 Site
- □ RCRIS_TS 1 Site
- □ RCRIS_CA 1 Site
- ● CERCLIS 1 Site
- ○ NFRAP 6 Sites
- □ RCRIS_LG 20 Sites
- □ RCRIS_SG 82 Sites
- △ TRI 26 Sites
- ☆ WATER 30 Sites
- ☆ ERNS 1 Site
- ○ HWS 9 Sites
- △ SWF 0 Sites
- ◇ RST 93 Sites
- ◇ SPILLS 94 Sites
- △ NUCLEAR 2 Sites

Miles

0 0.25 0.5

The Information on this map is subject to the ERIIS Disclaimer

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CHRYSLER CORPORATION
DAYTON THERMAL PRODUCTS PLANT
DAYTON, OHIO

SOIL ANALYTICAL SUMMARY FOR CROSS-SECTIONS
RESULTS ARE IN MICROGRAMS PER KILOGRAM (ug/KG)

	11/14/1994	10/28/1994	11/11/1994	10/24/1994	11/15/1994	10/25/1994	11/15/1994
COMPOUND	MWA-1-24	MWA-2-19	MWA-3-24	MWA-4-24	MWA-5-24	MWA-6-24	MWA-7-24*
TETRACHLOROETHYLENE	5300	1800	260	150	300	<10	2600
TRICHLOROETHENE	91	200	52	1300	64	90	38
CIS-1,2,-DICHLOROETHYLENE	<10	<10	<10	140	<10	<10	<10
TRANS-1,2-DICHLOROETHYLENE	<10	<10	<10	<10	<10	<10	<10
1,1,1-TRICHLOROETHANE	25	640	160	<10	39	<10	21
1,1,2-TRICHLOROETHANE	<10	<10	<10	<10	<10	<10	<10
1,1-DICHLOROETHANE	<10	<10	<10	<10	<10	<10	<10
1,2-DICHLOROETHANE	<10	<10	<10	<10	<10	<10	<10
1,1-DICHLOROETHENE	<10	<10	<10	<10	<10	<10	<10
VINYL CHLORIDE	<10	<10	<10	<10	<10	<10	<10

* DUPLICATE OF MWB-2-24

	11/16/1994	11/03/1994	11/01/1994	11/07/1994	11/09/1994	10/31/1994
COMPOUND	MWB-2-24	MWB-3-24	MWB-4-19	MWB-5-24	MWB-6-24	MWB-7-19**
TETRACHLOROETHYLENE	4000	<10	<10	<10	<10	<10
TRICHLOROETHENE	<10	1200	<10	470	400	<10
CIS-1,2,-DICHLOROETHYLENE	<10	81	<10	<10	53	<10
TRANS-1,2-DICHLOROETHYLENE	<10	<10	<10	<10	<10	<10
1,1,1-TRICHLOROETHANE	<10	<10	<10	14	420	<10
1,1,2-TRICHLOROETHANE	<10	<10	<10	<10	<10	<10
1,1-DICHLOROETHANE	<10	<10	<10	<10	17	<10
1,2-DICHLOROETHANE	<10	<10	<10	<10	<10	<10
1,1-DICHLOROETHENE	<10	<10	<10	<10	<10	<10
VINYL CHLORIDE	<10	<10	<10	<10	<10	<10

** DUPLICATE OF MWB-4-19

CHRYSLER CORPORATION
DAYTON THERMAL PRODUCTS PLANT
DAYTON, OHIO

SOIL ANALYTICAL SUMMARY FOR CROSS-SECTIONS
RESULTS ARE IN MICROGRAMS PER KILOGRAM (ug/KG)

	10/17/1994	10/18/1994	10/19/1994	10/31/1994	10/19/1994	10/20/1994	10/20/1994	10/19/1994	10/21/1994	10/21/1994
COMPOUND	SB-1-9	SB-2-19	SB-3-14	SB-4-14	SB-5-29	SB-6-24	SB-7-24	SB-8-24	SB-9-19	SB-10-29
TETRACHLOROETHYLENE	45	<10	490	14	860	38	280	480	390	<10
TRICHLOROETHENE	16	<10	75	<10	47	54	20	<10	2600	3100
CIS-1,2,-DICHLOROETHYLENE	<10	<10	<10	<10	<10	<10	<10	<10	15	110
TRANS-1,2-DICHLOROETHYLENE	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,1,1-TRICHLOROETHANE	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,1,2-TRICHLOROETHANE	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,1-DICHLOROETHANE	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,2-DICHLOROETHANE	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,1-DICHLOROETHENE	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
VINYL CHLORIDE	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
	61	0	565	14	907	92	300	480	3005	3210

SAMPLE LOCATION FOLLOWED BY DEPTH SAMPLE WAS COLLECTED (MWA-1-24 = 24 FOOT DEEP SOIL SAMPLE COLLECTED AT MWA-1)

TABLE 1

DAYTON THERMAL PRODUCTS

BUILDINGS 40A, 40B, 50 AND 59
SOIL-QUALITY DATA
VOLATILE AND SEMI-VOLATILE ORGANIC COMPOUNDS (ug/L)

BORING LOCATION	SAMPLE DEPTH (FEET)	DATE COLLECTED	CIS-1,2-DICHLORO-ETHENE	TETRA-CHLORO-ETHENE	TRI-CHLORO-ETHENE	1,1,1-TRICHLORO-ETHANE	UNKNOWNS	Other VOCs	Total SVOCs	TOTAL VOCS	PID
VAP MCLs RESIDENTIAL			450,000	94,000	77,000	1,200,000					
VAP MCLs COMMERCIAL			1,200,000	520,000	330,000	1,400,000					
VAP MCLs INDUSTRIAL			1,200,000	370,000	330,000	1,400,000					
BUILDING 40A											
DP-104	3-4'	17-Jul-00	ND	14	ND	ND	2078	ND	12936	2092	1
DP-104	7-8'	17-Jul-00	ND	43	11	ND	209	ND	ND	263	0
DP-105	3-4'	17-Jul-00	5 8	270	42	ND	195	ND	ND	512 8	24
DP-105	7-8'	17-Jul-00	ND	160	20	ND	233	242	6	655	8
DP-106	2-3'	17-Jul-00	ND	100	17	ND	15	215	ND	347	6
DP-106	6-7'	17-Jul-00	11	590	80	ND	8	ND	ND	689	13
DP-107	2-3'	17-Jul-00	64	290	450	ND	397	7	718	1208	14
DP-108	3-4'	17-Jul-00	ND	19	47	ND	ND	232	ND	298	14
DP-108	7-8'	17-Jul-00	ND	ND	ND	ND	ND	237	ND	237	4
BUILDING 40B											
TB-1	7-9	11-Dec-97	ND	ND	ND	ND	NT	ND	NT	0	1 3
TB-3	13-15	11-Dec-97	ND	ND	ND	ND	NT	ND	NT	0	1 85
TB-4	14-16	12-Dec-97	ND	95	21	ND	NT	ND	NT	116	6 5
TB-4	3-5	12-Dec-97	34	124	44	ND	NT	ND	NT	202	6 5
TB-6	3-5	12-Dec-97	360	7,800	10,000	690	NT	ND	NT	18,850	2
TB-9	3-5	13-Dec-97	20,000	180,000	380,000	25,000	NT	ND	NT	605,000	27 5
TB-10	1-3	13-Dec-97	65,000	43,000	420,000	15,000	NT	ND	NT	543,000	21 7
TB-12	5-7	13-Dec-97	5	ND	ND	ND	NT	ND	NT	5	2 1
TB-13	5-7	06-Apr-98	81	92	51	ND	NT	5	NT	229	31 1
TB-14	3-5	06-Apr-98	ND	7	ND	ND	NT	ND	NT	7	1 6
TB-15	3-5	07-Apr-98	ND	ND	ND	ND	NT	ND	NT	0	1 4
TB-16	5-7	07-Apr-98	ND	27	64	ND	NT	ND	NT	91	4 5
TB-17	5-7	07-Apr-98	120	370	2,000	66	NT	10	NT	2,566	16 1
TB-18	3-5	07-Apr-98	7	27	51	ND	NT	ND	NT	85	11 25
TB-19	1-3	07-Apr-98	130	130	1,400	55	NT	ND	NT	1,715	6 8
TB-19	3-5	07-Apr-98	61	70	500	17	NT	ND	NT	648	2 7
MW-21S	18-20'	10-Mar-99	<10	3 J	10	ND	NT	ND	NT	10	0
MW-21S	8-10'	10-Mar-99	<11	<11	8 J	ND	NT	ND	NT	0	0
MW-21S	2-4'	10-Mar-99	<11	<11	<11	ND	NT	ND	NT	0	0
MW-22S	10-12'	11-Mar-99	<10	<10	<10	ND	NT	ND	NT	0	0
MW-22S	19-21'	11-Mar-99	<21	<21	2 J	ND	NT	ND	NT	0	0
MW-22S	5-7'	11-Mar-99	<11	<11	19	ND	NT	ND	NT	19	0
MW-23S	20-22'	12-Mar-99	13	<11	12	ND	NT	ND	NT	25	5

TABLE 1

DAYTON THERMAL PRODUCTS

BUILDINGS 40A, 40B, 50 AND 59
SOIL-QUALITY DATA
VOLATILE AND SEMI-VOLATILE ORGANIC COMPOUNDS (ug/L)

BORING LOCATION	SAMPLE DEPTH (FEET)	DATE COLLECTED	CIS-1,2-DICHLORO-ETHENE	TETRA-CHLORO-ETHENE	TRI-CHLORO-ETHENE	1,1,1-TRICHLORO-ETHANE	UNKNOWNS	Other VOCs	Total SVOCs	TOTAL VOCS	PID
VAP MCLs RESIDENTIAL			450,000	94,000	77,000	1,200,000					
VAP MCLs COMMERCIAL			1,200,000	520,000	330,000	1,400,000					
VAP MCLs INDUSTRIAL			1,200,000	370,000	330,000	1,400,000					
TB-21	3 0-5 0	13-Mar-99	<12	9 J	1 J	<12	NT	ND	NT	0	1
TB-21	9 0-11 0	13-Mar-99	<10	63	4 J	<10	NT	ND	NT	63	6
TB-21	15 0-17 0	13-Mar-99	<35	650	30 J	<35	NT	ND	NT	650	7
DP-1	0 5-4 5	14-Mar-99	<12	4 J	9 J	<12	NT	ND	NT	13	10
DP-2	0 5-4 5	14-Mar-99	6 J	23	66	<11	NT	ND	NT	95	56
DP-3	0 5-4 5	14-Mar-99	47	8 J	480	<38	NT	ND	NT	535	55
DP-4	0 5-4 5	14-Mar-99	8 J	36	89	<11	NT	ND	NT	133	4
DP-5	1 0-5 0	14-Mar-99	15	56	210	2 J	NT	ND	NT	283	0
DP-6	1 0-6 0	14-Mar-99	360 J	7,800	5,300	690	NT	ND	NT	14,150	18
DP-7	0 5-4 5	14-Mar-99	170	690	660	21 J	NT	ND	NT	1,541	32
DP-8	0 5-4 5	14-Mar-99	5 J	<11	4 J	<11	NT	ND	NT	9	13
DP-9	0 5-4 5	14-Mar-99	2 J	2 J	2 J	<11	NT	ND	NT	6	0
DP-10	0 5-4 5	14-Mar-99	2,900 J	1,700 J	66,000	3,300 J	NT	ND	NT	73,900	25
DP-11	0 5-4 5	14-Mar-99	<11	<11	4 J	<11	NT	ND	NT	4	2
DP-12	0 5-4 5	14-Mar-99	<11	<11	11	<11	NT	ND	NT	11	2
BUILDING 50											
DP-97	1-2'	12-Jul-00	ND	110	18	8	1613	186	558	1935	3
DP-98	3-4'	12-Jul-00	ND	7 8	ND	ND	20	202	ND	229 8	6
DP-98	7-8'	12-Jul-00	ND	13	ND	ND	ND	191	ND	204	0
DP-99	3-4'	12-Jul-00	ND	58	15	ND	ND	ND	ND	73	5
DP-99	7-8'	12-Jul-00	12	65	17	ND	271	215	ND	580	4
DP-100	2-3'	12-Jul-00	ND	ND	ND	ND	ND	206	ND	206	1
DP-100	6-7'	12-Jul-00	ND	ND	ND	ND	546	524	190	1070	1
DP-101	3-4'	12-Jul-00	ND	ND	ND	ND	2871	379	ND	3250	4
DP-101	7-8'	12-Jul-00	ND	ND	ND	ND	2891	216	ND	3107	4
DP-102	2-3'	12-Jul-00	9 5	191	9 9	ND	445	235	395	890 4	4
DP-102	6-7'	12-Jul-00	10	26	10	ND	2850	165	ND	3061	0
DP-103	3-4'	12-Jul-00	ND	140	ND	ND	9	237	ND	386	130
DP-103	7-8'	12-Jul-00	ND	420	ND	ND	ND	489	6	909	0
BUILDING 59											
DP-091	2-3'	11-Jul-00	ND	6 3	10	ND	ND	146	ND	162 3	3
DP-091	5-6'	11-Jul-00	ND	25	20	7 9	ND	199	ND	251 9	3
DP-092	3-4'	12-Jul-00	ND	12	13	ND	ND	176	ND	201	1
DP-092	5-6'	12-Jul-00	ND	37	19	19	ND	ND	ND	75	2
DP-093	2-3'	12-Jul-00	ND	ND	36	ND	ND	ND	ND	36	13
DP-093	6-7'	12-Jul-00	ND	15	200	36	181	207	6 8	639	28
DP-094	4-5'	12-Jul-00	ND	ND	79	ND	ND	268	ND	347	0

TABLE 1

DAYTON THERMAL PRODUCTS

BUILDINGS 40A, 40B, 50 AND 59
SOIL-QUALITY DATA
VOLATILE AND SEMI-VOLATILE ORGANIC COMPOUNDS (ug/L)

BORING LOCATION	SAMPLE DEPTH (FEET)	DATE COLLECTED	CIS-1,2-DICHLORO-ETHENE	TETRA-CHLORO-ETHENE	TRI-CHLORO-ETHENE	1,1,1-TRICHLORO-ETHANE	UNKNOWNS	Other VOCs	Total SVOCs	TOTAL VOCS	PID
VAP MCLs RESIDENTIAL			450,000	94,000	77,000	1,200,000					
VAP MCLs COMMERCIAL			1,200,000	520,000	330,000	1,400,000					
VAP MCLs INDUSTRIAL			1,200,000	370,000	330,000	1,400,000					
DP-095	3-4'	12-Jul-00	ND	ND	15	ND	ND	163	ND	178	0
DP-095	7-8'	12-Jul-00	ND	ND	15	ND	ND	205	ND	220	1
DP-096	3-4"	12-Jul-00	ND	ND	64	9	ND	ND	198	73	4
HAZWASTE STORAGE AREA											
DP-075	6-8'	02-Feb-00		8 1	ND	ND	NT	ND	NT	8 1	5
DP-075	14-16'	02-Feb-00		22	ND	ND	NT	ND	NT	22	11
DP-075	18-20'	02-Feb-00		190	8 1	ND	NT	ND	NT	198 1	9
DP-076	2-4'	02-Feb-00		7 8	ND	ND	NT	ND	NT	7 8	3
DP-076	6-8'	02-Feb-00		71	ND	ND	NT	ND	NT	71	0
DP-077	10-12'	02-Feb-00		76	ND	ND	NT	ND	NT	76	7
DP-077	14-16'	02-Feb-00		200	ND	ND	NT	ND	NT	200	0
DP-078	6-8'	02-Feb-00		13	ND	ND	NT	ND	NT	13	4
DP-078	16-18'	02-Feb-00		48	ND	ND	NT	ND	NT	48	2
DP-079	14-16'	03-Feb-00		56	ND	ND	NT	ND	NT	56	2
DP-079	18-20'	03-Feb-00		20	ND	ND	NT	ND	NT	20	0
DP-079	2-4'	03-Feb-00		6 5	ND	ND	NT	ND	NT	6 5	1
DP-081	2-4'	03-Feb-00		11	ND	ND	NT	ND	NT	11	3
DP-081	8-12'	03-Feb-00		49	ND	ND	NT	ND	NT	49	3
DP-082	6-8'	03-Feb-00		50	ND	ND	NT	ND	NT	50	5
DP-084	6-8'	03-Feb-00		17	ND	ND	NT	ND	NT	17	3
DP-085	2-4'	03-Feb-00		18	ND	ND	NT	ND	NT	18	7
DP-085	10-12'	03-Feb-00		ND	16	ND	NT	ND	NT	16	0
DP-087	14-16'	03-Feb-00		55	ND	ND	NT	ND	NT	55	7
DP-087	18-20'	03-Feb-00		150	ND	ND	NT	ND	NT	150	0
DP-087	2-4'	03-Feb-00		16	ND	ND	NT	ND	NT	16	4
DP-087	5-8'	03-Feb-00		57	ND	ND	NT	ND	NT	57	3
DP-087 DUP	5-8'	03-Feb-00		17	ND	ND	NT	ND	NT	17	0
DP-088	6-8'	03-Feb-00		14	ND	ND	NT	ND	NT	14	0

ND = non-detect
NT = not tested

Facility	***Database Source***
Brainerd Industries 1723 Webster Street Dayton, OH Montgomery County EPA ID OHD068953645	RCRIS-LG, TRI
Hohman Plating and Mfg. 814 Hillrose Ave. Dayton, OH Montgomery County EPA ID OHD004278362	RCRIS-LG, TRI
Sheffield Machine and Tool Co. 1506 Milburn Ave. Dayton, OH Montgomery County EPA ID OHD012193539	RCRIS-SG, FINDS
MAB Paints and Coatings 720 Leo St. Dayton, OH Montgomery County EPA ID OH0000107680	RCRIS-SG
W&W Molded Plastics, Inc. 1441 Milburn Ave. Dayton, OH Montgomery County EPA ID OHD004245098	RCRIS-SG
Price Brothers 1950 Webster St Dayton, OH Montgomery County EPA ID OHD099019259	RCRIS-SG, TRI, LRST
Globe Motor Div of LCS, Inc 2275 Stanley Ave. Dayton, OH Montgomery County EPA ID OHD986979144	RCRIS-SG

Facility	***Database Source***
Gem City Chemicals, Inc. 1287 Air City Ave. Dayton, OH Montgomery County EPA ID OHD004472940 Spill ID: 95010107	RCRIS-SG, SPILLS, TRI, HWS
Nickelparts, Inc. 836 Hall Ave. Dayton, OH Montgomery County EPA ID OHD987037900	RCRIS-SG
Chromeparts,Inc. 828 Hall Ave. Dayton, OH Montgomery County EPA ID OHD987007713	RCRIS-SG, TRI
Specialty Sheet Metal 821 Hall Ave. Dayton, OH Montgomery County EPA ID OHD097918395	RCRIS-SG
Dayton Machine Tool Co 1314 Webster St Dayton, OH Montgomery County EPA ID OHD004277802	RCRIS-SG
City of Dayton 520 Kiser Street Dayton, OH Montgomery County EPA ID OHD981796964	RCRIS-SG
US Aeromotive 1 Edmund ST Dayton, OH Montgomery County EPA ID OHD987011046	RCRIS-SG

Facility	***Database Source***
Barg Bottling Co. 1607 Webster Street Dayton, OH Montgomery County LRST Incident No. 571201200	LRST
Heidelberg Dist Co 1279 Deeds Ave. Dayton, OH Montgomery County LRST Incident No. 570091300	LRST
Paint America 1501 Webster Street Dayton, OH Montgomery County LRST Incident No. 570261400	LRST
Rumpke Kuntz Rd 2324 Stanley Ave Dayton, OH Montgomery County Spill ID: 94052318	SPILLS
Industrial Waste Disposal Leo St at Troy St Dayton, OH Montgomery County Spill ID: 96044530	SPILLS
Chrysler Dayton Thermal Products aka Acustar Inc.; Airtemp Division 1600 Webster Street Dayton, OH Montgomery County EPA ID OHD074703547 Spill ID: 91125244, 96051873, 96051873, 91030806, 9741585, 90052283, 96114613, 9720527, 90020959	RCRIS-LG, LRST, SPILLS, FINDS, TRI
Dayton Electroplate, Inc. 1030 Valley Street Dayton, OH Montgomery County EPA ID OHD004278628 Spill ID: 9730963, 9730800, 9741498, 92093970	RCRIS-LG, SPILLS, CERCLIS, TRI

Database Sources

- Comprehensive Environmental Response, Compensation, and Liability Information System - **CERCLIS** (including archived sites - NFRAP)
- Emergency Response Notification System- **ERNS**
- National Priorities List - **NPL**
- US EPA Toxic Release Inventory System - **TRI**
- US EPA Civil Enforcement Docket - **DOCKET**
- US EPA Open Dumps Report - **OPENDUMP**
- Facility Index System - **FINDS**
- Resource Conservation and Recovery Information System - **RCRIS CA, LG, SG, and TS**
- US Nuclear Regulatory Commission - Nuclear Power Facilities - **NUCLEAR**
- US EPA STORET Water Well Sites - **WATER**
- Ohio Emergency Response Database - **SPILLS**
- Ohio Master Sites List - **HWS**
- Ohio Solid Waste Facility List - **SWF**
- Ohio Underground Storage Tank Report - **RST**
- Ohio Leaking Underground Storage Tank Report - **LRST**

S \TECH\3CHRY\DAYTON\PROJMGMT\SEARCH.SUM

MEMORANDUM

TO: Ken Vogel, LBG

FROM: (modified by KDV on 4/8/98) Mike Bratrud, LBG

DATE: March 26, 1998 (see above)

RE: 3CHRY4/DAYTON
ERIIS Report

ERIIS was contracted to provide information from the various federal and state databases within 1½ miles of the center of the Dayton Thermal Products Plant. As part of their file search, ERIIS reviewed the following regulatory files:

- Comprehensive Environmental Response, Compensation, and Liability Information System - CERCLIS (including archived sites - NFRAP)
- Emergency Response Notification System- ERNS
- National Priorities List - NPL
- US EPA Toxic Release Inventory System - TRI
- US EPA Civil Enforcement Docket - DOCKET
- US EPA Open Dumps Report - OPENDUMP
- Facility Index System - FINDS
- Resource Conservation and Recovery Information System - RCRIS CA, LG, SG, and TS
- US Nuclear Regulatory Commission - Nuclear Power Facilities - NUCLEAR
- US EPA STORET Water Well Sites - WATER
- Ohio Emergency Response Database - SPILLS
- Ohio Master Sites List - HWS
- Ohio Solid Waste Facility List - SWF
- Ohio Underground Storage Tank Report - RST
- Ohio Leaking Underground Storage Tank Report - LRST

The subject property appeared in the SPILLS, FINDS, RST, LRST, TRI, and RCRIS-LG regulatory files. For purposes of this summary, only sites within ½ mile are deemed to be important. Within this search parameter, 4 RCRIS-LG sites, 21 RCRIS-SG sites, 9 TRI sites, 7 FINDS sites, 3 WATER wells, 18 SPILLS sites, 1 HWS site, 22 LRST sites, and 16 RST sites were identified. Sites that warrant more data collection based on their data file and proximity to the subject property include:

DHWM DEAD FILES

UP TO 1990

BOX #1

Ace Liquid Haulers, Cincinnati
Admark Printing, 310 Sycamore St , Brookville 45309
Advanced Composite Technology, 31 E. Charlotte, Cincinnati 45215
Airmatic Allied, Inc., 185 Park Dr., Wilmington 45177
Airstream Industries, 419 W. Pike St , Jackson Center 45334
Albright & Wilson, Cincinnati
Allied Aftermarket Div , Greenville 45331
Allis Chalmers, 1150 Tennessee Ave , Cincinnati 45229
Amcast Ind. Corp., Dayton
American Carco Corp ,
American Fan Co., 2933 Symmes Rd., Fairfield 45014
American Freight Systems, 11040 N Dixie Dr , Vandalia 45377
American Metal Cleaning, 475 Northland Blvd , Cincinnati 45240

BOX #2

American Metallics, 4955 Creek Rd , Blue Ash 45242
Apex-Division of Cooper Industries, 726 W. Stewart St., Dayton 45408
A.R. Industries, Beech St & Railroad Ave., Cincinnati 45217
Arkay Industries, Inc , 240 American Way, Monroe 45050
Armor Metal Fabrication, 3408 Beekman St , Cincinnati 45223
Armco, Crawford St , Middletown
Ashland Chemical, Losantaville Plant

BOX #3

Ashland Chemical - Evendale Plant
Ashland Chemical - Dayton Plant

BOX #4

Ashland Chemical - Dayton Plant
- Part B Review
- Permit Correspondence

BOX #5

Ashley Ward, 2530 Spring Grove Ave., Cincinnati 45232
Automotive Enterprises Inc., 2983 P.G. Graves Lane, Evendale 45241
Avon Products, 175 Progress Pl., Cincinnati 45246
Baker Concrete Constructions, 5355 Hamilton-Middletown Rd., Hamilton 45011
Bali Realty (Tri-State Rigging), 1 Decamp Ave., Cincinnati
Barrel & Drum Service, 1728 Power St , Cincinnti 45223
BASF Corp., Moraine Satellite Plant, 3400 Encrete Lane, Dayton 45439
BASF Corp., Inmont Division, 125 Jay Gee Dr , Franklin 45005
Baxter Healthcare, 5500 Muddy Creek, Cincinnati 45238
207 Bellbrook Ave., Bellbrook
Bendix Automation & Measurement Div., 721 Springfield St., Dayton 45401
Bowshier (Jack) Buick, 4815 Urbana Rd., Springfield 45502
Borden Chemical Printing Ink, 630 Glendale-Milford Rd , Cincinnati 45215
Borden Metal Products, P O Box 367, Carlisle 45505
Brighton Crop., 11861 Mosteller Rd., Cincinnati 45241
Burton Oil, 2720 Canal Rd , Hamilton 45011
C&D Batteries, 498 Northland Rd , Cincinnati 45240
Campbell Ind , 804 Heaton Ave , Hamilton 45011
Cambridge Tile Mfg Co , 145 Caldwell Dr , Cincinnati 45216
Captor Corporation, 5040 S. Co Rd. 25A, Tipp City 45371
Carboline Co , 125 Fairground Rd , Xenia 45385
Carmichael Machine Crop , 5573 W National Rd , Springfield 45501
Cascade Corp , 2501 Sheridan Ave , Springfield 45505
Catlow Inc , 2750 US Rt 40 Tipp City 45371

BOX #6

Champion Papers, 601 N B St , Hamilton 45013
Chemical Leaman Tank Lines, 54283 Wade Mill Rd , Ross 45061
Chemical Waste Management, 4301 Infirmary Rd , West Carrollton 45449
CWM-Resource Recovery, 3105 Snyder-Domer Rd , Springfield

BOX #7

Chemical Waste Management, 4301 Infirmany Rd , West Carrollton
- Part B Review
- Permit
- Remedial Action
- Correspondence

BOX #8

Chemical Waste Management, 4301 Infirmany Rd., West Carrollton
- Reports
- Correspondence

BOX #9

CECOS, Aber Rd., Williamsburg
- Water Discharge
- Monthly Operating Reports
- Reports

BOX #10

CECOS, Aber Rd., Williamsburg
- Reports

BOX #11

Chevron, SR 128 & US 50, North Bend 45042
Chrome Deposits, 341 Lawton Ave., Monroe 45050
Cincinnati Municipal Garage, Central Parkway & Bates Ave , Cincinnati 45225
Cincinnati Electronics, 2630 Glendale-Milford Rd , Cincinnati 45241
Cincinnati Gas & Electric, Beckjord & Miami Fort Stations, New Richmond/N. Bend
Cincinnati Metal Hose, 4676 Paddock Rd., Cincinnati 45229
Cincinnati Marketplace, 3690 Werk Rd , Cincinnati
Cincinnati Milacron, Rt 32, Mt Orab 45154
Cincinnati Milacron, St. Rt. 28, Blanchester 45107
Cincinnati Milacron, 537 Grandin Rd., Maineville
Cincinnati Milacron, 894 Praire Ave , Wilmington 45177
Colorpac, Inc , 708 S Street, Franklin 45005
Connector Industries, 639 M/ Wayne Ave., Cincinnati 45215
Continental Can/Continental Beverage Packaging, 11550 Mosteller Rd , Cincinnati
Copeland Corp , Bellefontaine 43311

BOX #11A

Clean Harbors, 4879 Spring Grove Avenue, Cincinnati 45232

BOX #12

Creative Products, Inc , 4901 Foley Rd., Cincinnati 45238
Crysteco Inc., 180 E. Main st., Wilmington 45052
Custom Coated Products, 1280 Glendale-Milford Rd , Cincinnati 45215
CTS of West Liberty, 6800 County Rd. 189, West Liberty 43357
DAB Industries, Greenwood & Spruce Sts , Bellefontaine 43311
Da-Lite Screen, 11500 Williamson Rd , Cincinnati 45241
Dan's Waste Oil Service, 3157 Balsamridge Dr., Cincinnati 45239
Danis, B.G Co , 1518 E. First St , Dayton 45401
Day Pak Inc (Tipp Mfg Co.), Huber Heights
Dayton, City of, 101 W. Third St , Dayton
Dayton Flexible Products, Rt. 35 West, Eaton, OH 45320
Dayton Malleable (also see GHR Foundry), 400 Detrick St., Dayton
Dayton Press, 2219 McCall St , Dayton
Dayton Reliable Tool & Mfg. Co., 618 Greenmont Blvd, Dayton
Dayton Rogers of Ohio, 10837 Millington Ct , Cincinnati 45253
Dayton Trailer Mfg., 31 S. Beckel St , Dayton 45403
Dayton Walther, 1366 Miami Chapel Rd , Dayton 45408

BOX #13

Deltech Polymer/Goodson Chemical Co , 1250 S Union St , Troy 45373
Digitron, 8641 Washington Church Rd , Dayton 45401
Dinagraphics, Beech & Robertson Sts , Cincinnati 45212
Diversified Products, 1130 Jefferson Ave , Cincinnati 45241
Drackett, Inc , 5020 Spring Grove Ave , Cincinnati 45232
Drackett, Inc , 801 Rt. 55, Urbana 43078
Eastern Hills Dry Cleaners, 4020 Plainville Rd., Cincinnati 45227
Echo Inc., 2755 Columbia Ave., Springfield 45503
Ellis & Watts, 4400 Glen Willow Lake Lane, Cincinnati 45244
Emerson Electric-Fusite Div., 6000 Fernview Ave , Cincinnati 45212
EM Science, 2909 Highland Ave , Cincinnati 45212
Enlo-Acme Screw Products, 530 S Orchard Lane, Alpha 45385
Environmental Processing, 300 S West End Ave , Dayton

BOX #14

Duriron

BOX #15

Duriron

BOX #16

EEI Permit Review

BOX #17

Ernie Green Industries, 650 Albert Rd , Brookville 45309
Ernst Aggregates, 135 E Main St., Tipp City 45371
Eurand America, 845 Center Dr , Vandalia 45377
Feicke Sign Co., 110 Monitor, Cincinnati
Fiat Products, 300 Lawton Ave., Monroe 45050
F M. Tait Power Plant, E. River & Dryden Rds., Dayton 45439
Formica, 10155 Reading Rd., Cincinnati 45241
Fox Cleaners, 4333 N. Main St , Dayton 45405
Fox Paper, Lock Street, Lockland 45214
Fox Plastics, 8300 Dayton Rd., Fairborn 45324
Fram Corp , Martz & Jackson Sts , Greenville 45331
Freund Precision, 401 E Fifth St., Dayton 45402
Gayston Corp , 200 Pioneer Blvd , Springboro 45066
General Polymers, 9461 Lesaint Dr , Fairfield 45014
General Mills, 2950 Robertson Ave., Cincinnati 45209
Ghent Mfg. Co , Sount St at Cherry, Lebanon 45036
GHR Foundry (Also see Dayton Malleable), Dayton
Gibson Greeting Cards, 2100 Section Rd , Cincinnati 45237
Globe (TRW), Motors, 174 Stanley Ave , Dayton 45404
Glasgo Plastics, National Rd , Springfield
Gould Inc , 145 Dellinger Rd , Urbana 43078

BOX #18

GMC Delco South, North, and Kettering Plants
Permit Review & Correspondence

BOX #19

GMC Truck & Bus - Moraine
GMC Moraine Assembly Plant

BOX #20

GMC Delco - Dayton Plant
GMC-CPC Norwood Assemply Plant
GMC-Delco Vandalia Plant
GMC-Fisher Body Plant - Hamilton

BOX #21

GMC Harrison Radiator - Moraine

BOX #22

GE Aviation
- Seymour Aven.
- Symmes Road
- Neuman Way

BOX #22A

GE Aviation - Neuman Way
- Corrective Actions

BOX #23

GE Aviation
- Neuman Way
- Circle Freeway
- Tennessee Avenue

GE Distribution Warehouse

BOX #24

Goodrich, B.F , Waco St., Troy 45373
Graphic Packaging, 708 South Ave., Franklin 45005
Grace, W R. & Co , 4775 Paddock Rd., Cincinnati 45229
Great Lakes Power Products, 4740 Devitt Dr , Cincinnati 45246
Green Industries, 3603 E Kemper Rd., Cincinnati 45241
Gulf Oil Products, Rt. 128 at Hooven, Cleves

BOX #25

Hilton Davis

BOX #26

Hamilton, City of, Municpal Garage, 2010 S Erie Highway, Hamilton
Hamilton Co. Bomb Squad, 11021 Hamilton Ave., Cincinnati 45231
Hampshire Co., 9225 N. St. Rt. 66, Piqua 45356
Harris, JW Co, 10930 Deerfield Rd., Cincinnati 45242
Hartland, John Co , 10151 Carver Rd , Cincinnati 45242
Hartzell Propeller, Inc., 350 Washington Ave , Piqua 45356
Hatten, Keith Drums, Galbraith at Daily, Cincinnati
Hazardous Material Transport, 11101 Mosteller Rd., Cincinnati 45241
Heekin Can, 8200 Broadwell Rd., Cincinnati 45244
Henkel Corp (formerly Emery), 4300 Carew Tower, Cincinnati 45202
Hickman Brothers Waste Oil, Dayton
Hi-Tek Mfg 779 Reading Rd., Mason 45040
High Voltage Maintenance, 2559 Needmore Rd , Dayton 45414
Hobart Brothers Co., 101 Trade Square & 600 W. Main St., Troy 45373
HS Crocker Co , Cincinnati
Hyatt Regency Hotel, 151 W Fifth St , Cincinnati
Hydroelectric Lift Truck, 370 Davids Rd , Wilmington 45177
I K Y.A , 7318 Maple Ave., Cincinnati
Industrial Chemical Management Inc , 1183 Market St , Troy 45373
Industrial Platers of Ohio, 1525 W River Rd , Dayton 45418
Inmont Corp , Paddock Rd , Cincinnati
Inmont Waste Site, 7551 Harrison Pike, Cincinnati 45242
Instuform, 11827 Mosteller Rd., Sharonville 45241
Intercontinental Chemical Co , 4660 Spring Grove Ave , Cincinnati 45323
International Paper Co , 100 Progress Place, Cincinnati 45246
Irwin Auger Bit #3, 160 Park Dr , Wilmington 45177
Isotec Inc , 3858 Benner Rd , Miamisburg 45342