



STATE OF MISSISSIPPI
DAVID RONALD MUSGROVE, GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
CHARLES H. CHISOLM, EXECUTIVE DIRECTOR

FILE COPY

February 9, 2001

Mr. Jerry Youngblood
100 Lamar Street
Crystal Springs, MS 39059

RE: soil and wipe sampling

Dear Mr. Youngblood:

Please find attached the report for the soil and wipe sampling conducted at 100 Lamar Street, Crystal Springs, MS. The report includes the following:

1. a map showing the sampling locations,
2. a table containing the sample results for the analysis conducted by the mobile laboratory, Environmental Chemistry Consulting Services, and
3. data sheets containing the split sample results for the analysis conducted by the fixed laboratory, Paradigm Analytical Laboratories, Inc.

In addition, please find enclosed a letter from the MDEQ stating that, based on the information collected to date, no further investigative or remedial action is required on your property in regard to contamination from the Kuhlman facility.

Please contact Gretchen Zmitrovich at 601-961-5240 if you have any questions regarding this report.

Sincerely,

A handwritten signature in black ink, appearing to read "Tony Russell".

Tony Russell, Chief
Uncontrolled Sites Section

Enclosures

Kuhlman Electric-100 Lamar (Youngblood) report_2-9-01 (gzi)



STATE OF MISSISSIPPI
DAVID RONALD MUSGROVE, GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
CHARLES H. CHISOLM, EXECUTIVE DIRECTOR

February 9, 2001

CERTIFIED LETTER NO. Z 278 184 443 RETURN RECEIPT REQUESTED

Mr. Jerry Youngblood
100 Lamar Street
Crystal Springs, Mississippi 39059

RE: 100 Lamar Street
Crystal Springs, Copiah County, Mississippi

Dear Mr. Youngblood:

The Uncontrolled Sites Section of the Mississippi Department of Environmental Quality (MDEQ) has completed a review of the sampling report prepared by Ogden Environmental and Engineering for the above referenced property. The MDEQ requires no further action at this site at this time.

If cleanup standards change or additional data becomes available for the site, then MDEQ will notify the appropriate parties of the need for any additional investigation(s) or remedial action(s). These actions will be consistent with our need to protect human health, welfare, and/or the environment.

If you have any questions, concerning this matter, please contact Gretchen Zmitrovich at (601) 961-5240.

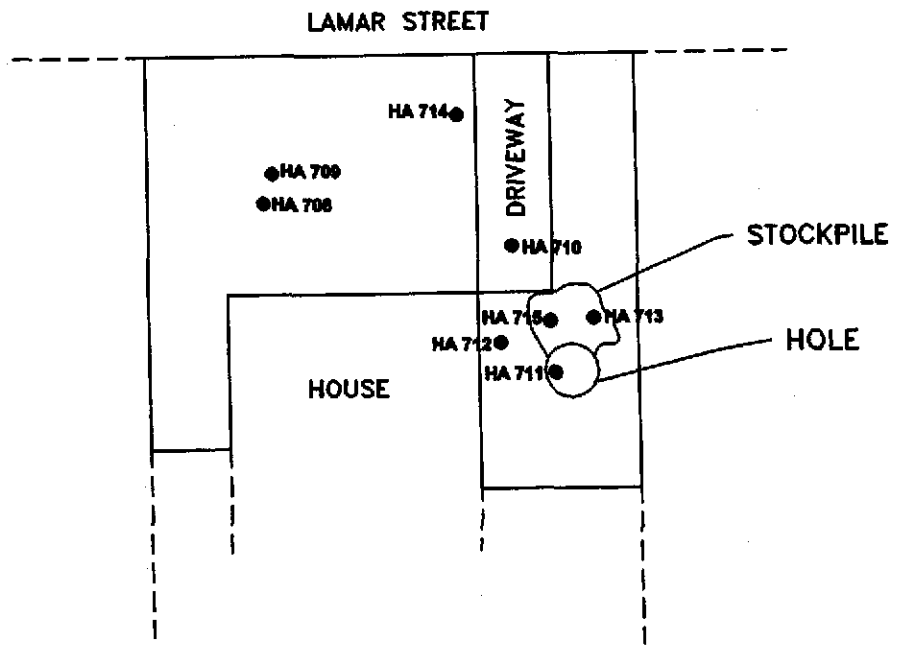
Sincerely,

A handwritten signature in black ink, appearing to read "Tony Russell".

Tony Russell, Chief
Uncontrolled Sites Section

Kuhlman Electric-100 Lamar (Youngblood) SNFA_2-9-01 (gz)

COPY



LEGEND
● SAMPLE POINT
HA 708 SAMPLE POINT NUMBER



- 1) ALL DISTANCES ARE ESTIMATED
- 2) THIS MAP WAS PREPARED FROM RECORD MAPS
- 3) THIS MAP HAS BEEN PREPARED FOR PRESENTATION PURPOSES ONLY

**SAMPLE LOCATIONS FOR
JERRY YOUNGBLOOD PROPERTY
100 LAMAR STREET**

SCALE: AS SHOWN	DR BPS	CHK TF	REV BPS
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PREPARED BY:
OGDEN ENVIRONMENTAL AND ENGINEERING SERVICES

200 SOUTH OLD STATEVILLE ROAD • HUNTERSVILLE, NC 28078 • 704-875-3570

PROJ: 073950000	DATE: 09/28/00	SHEET 1 OF 1
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Soil Sample Results
 Jerry Youngblood Property
 100 Lamar Street
 Crystal Springs, Mississippi

SOIL SAMPLES (MG/KG)		HA-708	HA-708	HA-709	HA-709	HA-710	HA-710	HA-710	HA-710	HA-710	HA-710	HA-711	HA-711	HA-711	HA-711
Target Analyte	Sample #	HA-708	HA-708	HA-709	HA-709	HA-710	HA-710	HA-710	HA-710	HA-710	HA-710	HA-711	HA-711	HA-711	HA-711
Depth (ft)	0.1	0.5	2	0.1	0.5	0.5	0.1	0.5	1177	1178	1179	0.1	0.5	1180	1182
Lab #	1171	1172	1173	1174	1175	1176	1177	1178	1179	1180	1181	1182	1183	1184	1185
PCB as 1260	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Collection Date	9/20/00	9/20/00	9/20/00	9/20/00	9/20/00	9/20/00	9/20/00	9/20/00	9/20/00	9/20/00	9/20/00	9/20/00	9/20/00	9/20/00	9/20/00
Collection Time	16:18	16:20	16:22	16:25	16:28	16:30	16:45	16:47	16:48	16:48	16:48	17:02	17:04	17:04	17:06
Injection Date	9/21/00	9/21/00	9/21/00	9/21/00	9/21/00	9/21/00	9/21/00	9/21/00	9/21/00	9/21/00	9/21/00	9/21/00	9/21/00	9/21/00	9/21/00

SOIL SAMPLES (MG/KG)		HA-712	HA-712	HA-713	HA-713	HA-714	HA-714	HA-714	HA-714	HA-714	HA-714	HA-715	HA-715	HA-715	HA-715
Target Analyte	Sample #	HA-712	HA-712	HA-713	HA-713	HA-714	HA-714	HA-714	HA-714	HA-714	HA-714	HA-715	HA-715	HA-715	HA-715
Depth (ft)	0.1	0.5	2	0.1	0.5	2	0.1	0.5	1189	1190	1191	0.1	0.5	1192	1194
Lab #	1183	1184	1185	1186	1187	1188	1189	1190	1191	1192	1193	1194	1195	1196	1197
PCB as 1260	0.43*J	<0.10	<0.10	<0.10	0.10	<0.10	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Collection Date	9/20/00	9/20/00	9/20/00	9/20/00	9/20/00	9/20/00	9/20/00	9/20/00	9/20/00	9/20/00	9/20/00	9/20/00	9/20/00	9/20/00	9/20/00
Collection Time	16:55	16:57	16:59	17:25	17:27	17:29	18:40	16:41	16:43	17:35	17:37	17:37	17:37	17:37	17:39
Injection Date	9/21/00	9/21/00	9/21/00	9/21/00	9/21/00	9/21/00	9/21/00	9/21/00	9/21/00	9/21/00	9/21/00	9/21/00	9/21/00	9/21/00	9/21/00

Notes:

* J Estimated level

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for PCBs

by EPA 8082

Client Sample ID: HA-714-0.1

Client Project ID: Borg Warner Kuhlman Electric

Lab Sample ID: 95957

Lab Project ID: G185-83

Matrix: Soil

%SOLIDS: 81.8

Date Collected: 9/20/00

Date Received: 9/22/00

Date Analyzed: 10/2/00

Analyzed By: CLP

Dilution: 1

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
Arochlor-1016	220	BQL
Arochlor-1221	220	BQL
Arochlor-1232	220	BQL
Arochlor-1242	220	BQL
Arochlor-1248	220	BQL
Arochlor-1254	220	BQL
Arochlor-1260	220	BQL
Arochlor-1262	220	BQL

Surrogate Spike Recoveries	Spike Added	Spike Result	Percent Recovered
TCMX	100	85	85

Comments:

BQL = Below Quantitation Limit

NA = Not applicable, surrogate diluted out.

Reviewed By: 

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Semivolatiles
by GCMS 8270

Client Sample ID: HA-714-0.1

Client Project ID: Borg Warner Kuhlman Electric

Lab Sample ID: 95957

Lab Project ID: G185-83

Matrix: Soil

%Solids: 81.8

Date Collected: 9/20/00

Date Received: 9/22/00

Date Analyzed: 9/28/00

Analyzed By: MRC

Dilution: 1

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
Acenaphthene	360	BQL
Acenaphthylene	360	BQL
Anthracene	360	BQL
Benzo[a]anthracene	360	BQL
Benzo[a]pyrene	360	BQL
Benzo[b]fluoranthene	360	BQL
Benzo[g,h,i]perylene	360	BQL
Benzo[k]fluoranthene	360	BQL
Benzoic Acid	720	BQL
Bis(2-chloroethoxy)methane	360	BQL
Bis(2-chloroethyl)ether	360	BQL
Bis(2-chloroisopropyl)ether	360	BQL
Bis(2-ethylhexyl)phthalate	360	BQL
4-bromophenyl phenyl ether	360	BQL
Butylbenzylphthalate	360	BQL
4-Chloroaniline	360	BQL
4-Chloro-3-methylphenol	360	BQL
2-Chloronaphthalene	360	BQL
2-Chlorophenol	360	BQL
4-Chlorophenyl phenyl ether	360	BQL
Chrysene	360	BQL
Di-n-Butylphthalate	360	BQL
Di-n-octylphthalate	360	BQL
Dibenzo[a,h]anthracene	360	BQL
Dibenzofuran	360	BQL
1,2-Dichlorobenzene	360	BQL
1,3-Dichlorobenzene	360	BQL
1,4-Dichlorobenzene	360	BQL
3,3'-Dichlorobenzidine	720	BQL
2,4-Dichlorophenol	360	BQL
Diethylphthalate	360	BQL
2,4-Dimethylphenol	360	BQL
Dimethylphthalate	360	BQL
4,6-Dinitro-2-methylphenol	1800	BQL
2,4-Dinitrophenol	1800	BQL
2,4-Dinitrotoluene	360	BQL
2,6-Dinitrotoluene	360	BQL
Fluoranthene	360	BQL
Fluorene	360	BQL
Hexachlorobenzene	360	BQL
Hexachlorobutadiene	360	BQL
Hexachlorocyclopentadiene	720	BQL
Hexachloroethane	360	BQL
Indeno(1,2,3-c,d)pyrene	360	BQL
Isophorone	360	BQL

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Semivolatiles
by GCMS 8270

Client Sample ID: HA-714-0.1

Client Project ID: Borg Warner Kuhlman Electric

Lab Sample ID: 95957

Lab Project ID: G185-83

Matrix: Soil

%Solids: 81.8

Date Collected: 9/20/00

Date Received: 9/22/00

Date Analyzed: 9/28/00

Analyzed By: MRC

Dilution: 1

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
2-Methylnaphthalene	360	BQL
2-Methylphenol	360	BQL
3- & 4-Methylphenol	360	BQL
N-Nitrosodi-n-propylamine	360	BQL
N-Nitrosodiphenylamine	360	BQL
Naphthalene	360	BQL
2-Nitroaniline	360	BQL
3-Nitroaniline	360	BQL
4-Nitroaniline	360	BQL
Nitrobenzene	360	BQL
2-Nitrophenol	360	BQL
4-Nitrophenol	1800	BQL
Pentachlorobenzene	360	BQL
Pentachlorophenol	1800	BQL
Phenanthrene	360	BQL
Phenol	360	BQL
Pyrene	360	BQL
1,2,3,4-Tetrachlorobenzene	360	BQL
1,2,3,5- & 1,2,4,5-Tetrachlorobenzene	360	BQL
1,2,3-Trichlorobenzene	360	BQL
1,2,4-Trichlorobenzene	360	BQL
1,3,5-Trichlorobenzene	360	BQL
2,4,5-Trichlorophenol	360	BQL
2,4,6-Trichlorophenol	360	BQL


Surrogate Spike Recoveries	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	8.7	87
2-Fluorophenol	10	4.7	47
Nitrobenzene-d5	10	8.5	85
Phenol-d6	10	6.2	62
2,4,6-Tribromophenol	10	2.1	21
4-Terphenyl-d14	10	9.6	96

Comments:

Results are corrected for %solids and dilution where applicable.

Flags:

BQL = Below Quantitation Limit.

Reviewed By: 

PARADIGM ANALYTICAL LABORATORIES, INC.

**Results of Library Search for Semivolatile Compounds
by GCMS**

Client Sample ID: HA-714-0.1	Date Collected: 9/20/00
Client Project ID: Borg Warner Kuhlman Electric	Date Received: 9/22/00
Lab Sample ID: 95957	Date Analyzed: 9/28/00
Lab Project ID: G185-83	Analyzed By: MRC
Matrix: Soil %SOLIDS: 81.8	Dilution: 1

Num.	Compound	CAS#	Match Probability	Result (ug/KG)
1	Alkane, Unknown			1500
2	Alkane, Unknown			1100
3	Dimethylfuran, Isomer of			1100
4	Alkane, Unknown			1000
5	Alkane, Unknown			1000
6	Alkane, Unknown			980
7	Unknown			840
8	Carboxylic Acid, Unknown			820
9	Unknown			770
10	Vanillin	000121-33-5	97	660

Comment:

Tentatively Identified Compound (TIC) refers to substances which are not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist.

Quantitation is accomplished by relative peak height of the compound compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak height is equal to or greater than 10% of that of the nearest internal standard. Quantitation provided is an estimate.

Reviewed by: 

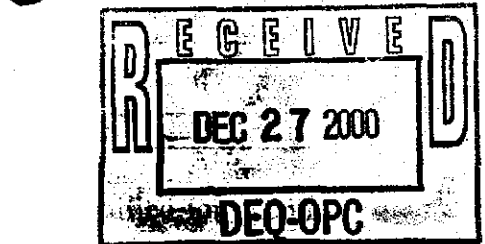
AH-00-1638

VIA UPS NEXT DAY AIR

December 20, 2000

Ms. Gretchen Zmitrovich
Mississippi Department of Environmental Quality
Office of Pollution Control
101 West Capitol Street
Jackson, Mississippi 39201

Re: **Progress Report of Assessment and Remediation Activities
Kuhlman Electric Corporation and Residential Properties
Crystal Springs, Mississippi**



BorgWarner

Anastasia Hamel
Director, Environmental Programs
BorgWarner Inc.
11955 East Nine Mile Road
Warren, Michigan 48089

FILE COPY

Dear Ms. Zmitrovich:

This is a progress report to summarize the assessment and remediation activities related to PCB contamination at Crystal Springs, Mississippi. BorgWarner's last update was October 31, 2000. As you are aware, pursuant to the indemnity agreement between Kuhlman Electric Corporation (KEC) and BorgWarner Inc., BorgWarner has continued the assessment at the KEC plant and began the assessment of residential properties along a drainage channel downgradient of the plant. BorgWarner has also been actively remediating those properties adjacent to the KEC plant for which access was previously granted and sampling was complete.

BorgWarner, as it stated in its October 31, 2000 letter to the Mississippi Department of Environmental Quality (MDEQ), remains committed to working closely with MDEQ, USEPA, local government and KEC in a cooperative manner to accomplish the tasks necessary for the protection of human health and the environment, to the extent that the circumstances are covered by its contractual indemnity to KEC. BorgWarner will continue to seek MDEQ's guidance and direction in its current and future intended activities and to promptly share information.

ACTIONS TAKEN AND PLANNED

1. Delineation of Residential Properties along Jackson and Lee Avenues

BorgWarner promptly and voluntarily began sampling and delineation activities at the residential and commercial properties, adjoining the KEC plant that appeared to or reportedly have been affected by runoff or by the removal of soil from the KEC plant prior to October 6, 1999.

Under MDEQ's supervision, BorgWarner conducted delineation activities of these properties during the month of August, 2000. A total of eighteen (18) properties were investigated, which were:

1. Perry Smith, 219 North Jackson Street
2. Stringer Funeral Home, 301 North Jackson Street
3. Stringer Rental Property, 303 North Jackson Street
4. Harold and Suzanne Warren, 403 North Jackson Street
5. Elnor Wright, 401 North Jackson Street
6. Sonny Reeves, 405 North Jackson Street
7. Brent Property, 403 Lee Avenue
8. Louie Lang/David Vinson, 407 North Jackson Street
9. Jerry Youngblood, 100 Lamar St.
10. Medical Clinic, Lee Avenue
11. Edwards Property, 406 Lee Avenue
12. Garment Shop, 414 Lee Avenue
13. Frazier Property, 405 Lee Avenue
14. Duplex Property, 408/410 Lee Avenue
15. Kellum Property, 412 Lee Avenue
16. Dabney/Smith Property, 215 North Jackson
17. Cooper Property, 409 North Jackson
18. Larry and Carol Wright, 305 North Jackson

BorgWarner acted under the continuous guidance and direction of the MDEQ with respect to delineation activities at the residential and commercial properties adjoining the KEC plant. Split samples were analyzed and QA/QC procedures were implemented by two laboratories experienced with polychlorinated biphenyl analysis. Samples were frequently split with on-site MDEQ representatives for MDEQ's independent analysis, which to our knowledge consistently correlated with BorgWarner's on-site and off-site laboratory analytical results.

The delineation activities were conducted utilizing the "US EPA, Region IV Environmental Investigations Standard Operating Procedures and Quality Assurance Manual," May 1996 (EISOPQAM), sampling and analytical protocols. A copy of the work plan with procedures used in the field and applicable sections of the EISOPQAM are attached to this report for reference purposes.

Upon completing the delineation activities, BorgWarner compiled and submitted the analytical results on October 2, 2000 to MDEQ and US EPA, Region IV. Subsequently, BorgWarner began to schedule the remediation of residential and commercial properties adjacent to the KEC plant and along Jackson and Lee Avenues for which access was granted with the assistance of MDEQ and City of Crystal Springs Mayor Webb and where an attorney and/or an independent consultant were not involved in performing conflicting sampling activities.

2. Remediation of Residential Properties

On October 16, 2000 BorgWarner initiated remediation activities at the **Medical Center** and the **Dabney/Smith** properties, which are adjacent to the KEC plant. **Remediation of the Newman Duplex**, on Lee Avenue, began on November 30, 2000. Remediation of these properties involved excavation and disposal of all soil containing 1.0 part per million (ppm) or greater of PCBs in accordance with MDEQ's established clean-up criteria for residential properties. All soils containing greater than 1 ppm PCBs but less than 50 ppm PCBs were **profiled** and disposed of at the BFI's "Little Dixie" Subtitle D Landfill in Madison County, Mississippi after MDEQ and US EPA, Region IV approvals were obtained.

Following excavation, all excavated areas were sampled to confirm that **impacted soil** had been removed. In correspondence regarding disposal requirements, Craig Brown of US EPA, Region IV, stated that the excavated soils did not meet the definition of "PCB remediation waste." Under this definition, the remediation activities fell under the **management criteria** and guidelines set by MDEQ. As a result, the remediation and confirmation of **clean-up standards** established by MDEQ guidance were adopted and implemented in all of BorgWarner's residential remediation activities. A grid with ten-foot (10) sampling point centers was used to confirm that impacted soils had been removed at each site.

The remediation of the Dabney/Smith, the Medical Center and the Newman duplex property resulted in the removal of 1400 tons of soil, which was disposed of at the BFI "Little Dixie" Subtitle D Landfill and replaced with 1500 tons of certified clean soil. During the remediation activities, the on-site laboratory analyzed 324 soil samples in the month of November and the fixed-base laboratory analyzed 32 quality control samples.

Vegetation, such as live oak trees, was treated with specialty equipment for maximum protection and to minimize damage to the root systems. Soil surrounding the live oak tree roots was removed using an "Air Shovel"[™], a unique technology adopted specifically for this purpose. The Air Shovel[™] uses a pressure spray to dislodge soil from around the roots while a vacuum system removes the soil and water by vacuuming into a tank. This method of soil removal has performed effectively with minimal damage to the tree's root system as was confirmed by the landscaping contractor and arborist. However, this process, regardless of its effectiveness, is very tedious and as a result only the tree on the Dabney/Smith property was completed during the second half of November. One other live oak tree, located on the Medical Center property, remains to be treated in a similar fashion and is scheduled for January 2001.

Landscaping and replacement of structures (sheds, car ports, etc.) on both the Medical Center and the Dabney/Smith properties are continuing and will most likely be completed by the end of December 2000. Both properties have been surveyed and the fence between the Dabney/Smith and Medical Center properties is currently being re-installed. Landscaping has been completed on the Newman duplex property.

Third party independent sampling activities commissioned by the Nutt & Associates Law Firm have interfered with planned remediation activities along Lee Avenue, specifically at the Frazier's, Edward's, and Kellum's properties. The Garment Shop is a more complicated matter for two reasons. First, the impacted soil at the Garment Shop is located at the property line between it and the Kellum residence and second, the Kellum elm tree roots extend to the Garment Shop property itself. BorgWarner has filed a Freedom of Information Act request to MDEQ in an effort to obtain a copy of the recently submitted report generated by these independent parties.

BorgWarner, after its evaluation of the sampling results and data contained within the third party report, will begin discussions with the attorney(s) representing each resident (mentioned above) along Lee Avenue in an attempt to resolve the matter, including confirmation that all sampling results have been disclosed, and whether further sampling is necessary, and confirm access to then remediate those properties. BorgWarner also plans to keep MDEQ apprised of any developments and any progress or if no progress is being made with the attorney(s) involved.

BorgWarner will schedule delineation activities for the Gas Station, which is at the corner of Lee Avenue next to the Garment Shop, Mayor Webb's residence and the drainage pathway to the south. BorgWarner will inform MDEQ of the timing for those activities.

3. Drainage Channel Properties

Beginning on October 30th through the end of November, BorgWarner collected and analyzed soil samples from nine properties situated along the drainage channel leading from the north side of KEC's plant site to Lake Chautauqua. The properties were:

1. Sojourner Property, 111 McPherson Street
2. Weathersby Property, 101 Forest Street
3. Robert Williams Property (Lonnie Williams' residence), 103 Forest Street
4. Flossie McMurray Property (Ralph Williams residence), 104 Forest Street
5. Ralph Williams Rental Property, 107 Forest Street
6. Richard Williams Property, 102 Forest Street
7. Roberta Fitzgerald Estate Property, (R.P Edwards point of contact) 108 Tucker Street
Property currently is being rented to the Kendrick family.
8. Welch Property, 501 Camp Street
9. Orister Harris Property, 311 West Railroad Avenue

A total of 650 soil samples was collected from these properties and analyzed by the on-site laboratory. The fixed-base laboratory analyzed an additional 65 samples for confirmation and quality control purposes. These preliminary assessment activities were conducted in the same manner as the Kuhlman plant preliminary site assessment and the KEC plant adjacent residential properties; and utilizing the "EPA, Region IV Environmental Investigations Standard Operating

Procedures and Quality Assurance Manual", May 1996 (EISOPQAM), **sampling and analytical protocols.**

Preliminary results available at this time indicate that six of the nine **properties** that were sampled will require certain remediation. Four properties, including the **Sojourner, Williams' rental, Harris and Welch** properties, will require remediation under the **MDEQ guidelines** since the highest concentrations detected are less than 50 ppm. Two properties, including the **M^cMurray and R. P. Edwards** properties, have soil with PCB concentrations **greater than 50 ppm** and therefore will require remediation under the TSCA rules. **The following is a list of properties where concentrations greater than 1.0 ppm PCB were detected as well as the highest detected concentration on each property:**

<u>Property</u>	<u>Highest Detected Concentration</u>
Sojourner	2.6 ppm
Williams rental	30.0 ppm
Harris	1.2 ppm
Welch	8.4 ppm
M ^c Murray	70.0 ppm
R. P. Edwards	51.0 ppm

Data from this sampling event are being evaluated and once quality control **measures** are completed the data will be tabulated. **Site-specific reports containing collected data, maps of sampling locations, and work plans for remediation, if required, for each individual site are also being prepared and will be submitted to MDEQ and US EPA, Region IV by January 12, 2001.**

It is anticipated that additional sampling will be required along the drainage channel. Several undeveloped properties, either abutting the drainage channel or through which the drainage channel runs, will be sampled to delineate the extent of possibly impacted soil and determine the potential for future runoff to Lake Chautauqua. The Department will be kept apprised as to the timing for this additional investigation and sampling activity.

4. KEC Plant

After an initial phase of sampling in the areas identified by KEC's construction activities and the related equipment decontamination zone, BorgWarner conducted further, substantial sampling activities in the south and north parking lot areas as well as the former above ground storage tank area. These delineation activities, other than any possible data gaps, have been completed. The results are currently being tabulated and compared for correlation purposes between the on-site and off-site laboratories, prior to being issued to MDEQ. Should any data gaps exist, BorgWarner will conduct further sampling activities.

This additional data will be incorporated as an addendum to the *Preliminary Site Assessment Report*, submitted to MDEQ in July 2000. Comments to the *Preliminary Site Assessment Report* made by MDEQ will also be addressed and included in the addendum submittal. It is anticipated that the addendum report will be submitted to MDEQ by February 12, 2001.

5. Lake Chautauqua

BorgWarner intends to consider delineation of the sediments at Lake Chautauqua, ecological assessment, and surface water sampling, to the extent appropriate after receipt of the pending "Task Force" report. These activities will not begin on any great scale until the Task Force report is evaluated.

6. Groundwater Delineation

BorgWarner intends to delineate the nature and extent of any groundwater contamination relative to the KEC plant. Groundwater delineation will take place at the time that remediation at the KEC plant commences. It is critical that the protective cover at the KEC plant site is not disturbed for the time being and that the groundwater investigation is addressed when BorgWarner is actively remediating on the KEC plant property. This approach will ensure that sediments from the KEC Plant do not travel to the drainage channel and Lake Chautauqua.

BorgWarner remains dedicated to continuing its open communication with MDEQ and US EPA, Region IV and looks forward to the meeting with MDEQ and City of Crystal Springs Mayor Webb and other Crystal Springs representatives on January 17, 2001 (at 8:30 a.m.) to further discuss any of the above and share its plans for future activities.

Should you have any questions or comments, please contact me directly at (810) 497-4503 at your earliest convenience.

Very truly yours,



Anastasia Hamel
Director, Environmental Programs
BorgWarner Inc.

Ms. Gretchen Zmitrovich - MDEQ
December 20, 2000
Page 7 of 7

Attachments:

1. Work Plan – Preliminary Assessment and Remediation
2. Craig Brown, US EPA, Region IV letter to BFI

cc: J. Banks, MDEQ
T. Russell, MDEQ
K. Dowell, Esq., MDEQ
C. Brown, US EPA Region IV
H. Webb, Mayor Crystal Springs
Laurene H. Horiszny, Esq.
Robert Martin, MSGA
Thomas D. Lupo, Esq.
Scott E. Schang, Esq.
Mickey Crockett, KEC
Al Thomas, KEC

**WORKPLAN FOR THE PRELIMINARY
ASSESSMENT AND REMEDIATION OF PCB CONTAMINATION IN SOIL
KUHLMAN ELECTRIC CORPORATION FACILITY
AND RESIDENTIAL COMMERCIAL PROPERTIES
IN CRYSTAL SPRINGS, MISSISSIPPI**

As established by the Mississippi Department of Environmental Quality (MDEQ) guidelines in connection with this project, all work related to the preliminary assessment of the extent of contamination at the Kuhlman Electric Corporation (KEC) facility and work related to the preliminary assessment and confirmation of remedial actions at KEC adjacent residential/commercial properties and residential properties along the drainage channel (leading from the north side of KEC's facility to Lake Chautauqua) has been performed in accordance with the *Environmental Protection Agency (EPA), Region IV "Environmental Investigations, Standard Operating Procedures and Quality Assurance Manual", May 1996 (EISOPQAM)*.

Copies of relevant and applicable portions of the EISOPQAM are maintained on site during all field activities and all field personnel are trained in its implementation. Remedial action confirmation sampling grids were established using *MDEQ Guidance Document, Verification of Soil Remediation, Environmental Response Division, Waste Management Division, April 1994, Revision 1*. Specifically, sampling grids were based on Part 2-Medium and Large Site Soil Cleanup Verification, "Establishing Grid Interval."

Field operations were performed under the site-specific Health and Safety Plan guidelines. Modified Level "D" Personal Protective Equipment (PPE) was utilized by all personnel working within the investigative area.

Sampling Objectives

The soil-sampling objective is to establish the vertical and horizontal extent of contamination resulting from historical facility operations. In the KEC facility case, the soil-sampling objective included historical use of polychlorinated biphenyl (PCB). All sampling procedures were conducted in accordance with the US EPA, Region IV EISOPQAM. Sampling procedures included the collection of soil samples on a twenty foot triangular grid, where possible, at discrete depth intervals. Surface and subsurface soil samples were collected using GeoProbe® MacroProbe™ direct push sampling equipment. The GeoProbe® system uses a hydraulically driven hammer to advance a hollow, split-barrel sampler to the desired depth. The sampler contains an acetate liner in which a sample of the cored soil is retained. The MacroProbe™ corer retains a 1.25-inch diameter continuous 4 feet in length core sample. Once sampling is completed, the direct-push boring holes are backfilled with bentonite chips in unpaved areas, and with grout in parking lots and other paved areas.

Throughout the delineation activities each direct-push boring was sampled at 0.5-3.0 feet below ground surface (bgs) and at 3.0-6.0 feet bgs. Selected borings were completed to depths varying from 8-12 feet bgs and sampled in these deeper intervals to evaluate the vertical distribution of contaminants.

Additional sampling of dust, stream and drainage ditch sediments, surface water and ground water were collected, as warranted, in accordance with applicable EISOPQAM guidelines.

Analytical Methods

Samples that were collected were analyzed for PCBs by the on-site mobile laboratory, Environmental Chemistry Consulting Services (ECCS) of Madison, Wisconsin. Initially soil samples were also analyzed for chlorinated benzenes until data confirmed that chlorinated benzene contamination is not at issue in samples with low concentrations of PCBs (generally <20 ppm). At least 10% of all samples were split and sent to a fixed-base laboratory, Paradigm Analytical Laboratories, Inc. (PAL) of Wilmington, North Carolina for analysis of the same parameters as for the on-site mobile laboratory to corroborate the results of laboratory analyses for quality control and quality assurance measures. Both the on-site and fixed-base laboratories used the same standard EPA approved analytical methods. PCBs were analyzed by Modified Environmental Protection Agency (EPA) Method 8080/81 and chlorinated benzene compounds were analyzed by EPA Method 8270. Volatile organic compounds (VOCs) were analyzed by EPA Method 8260 for samples suspected of being impacted by other industrial processes solvents unrelated to PCBs. Select soil samples were also analyzed for silver, by EPA Method 6010B, and cyanide, by EPA Method 9012A.

Surface water samples were analyzed by PAL for PCBs using EPA Method 8080/81. Semivolatile organic compounds (SVOCs) were analyzed by EPA Method 8270, Volatile Organic Compounds (VOCs) were analyzed by EPA Method 8260, silver by EPA Method 6010B, and cyanide using Standard Method 4500 Cn-E. Perched ground water was analyzed for PCBs, SVOCs, and VOCs by the same methods as indicated above for surface water.

Quality Control

The following is the list of key personnel dedicated to this project:

Project Manager:

Mr. Robert Martin, Martin & Slagle GeoEnvironmental Associates, LLC

Duties: Responsible for management of project **including** all field coordination efforts.

Field Sample Custodian:

Mr. Robert Martin, Christine Slagle, Martin & Slagle GeoEnvironmental Associates, LLC

Duties: Maintaining custody of samples, completing **sample** labels, Chain-of-Custody record.

Field Team Leader:

Mr. Robert Martin, Martin & Slagle GeoEnvironmental Associates, LLC

Duties: Responsible for all activities related to the collection of samples.

Samplers:

Tim Fitzpatrick, Christine Slagle, Robert Martin

Duties: Individuals responsible for the actual collection of samples.

Laboratory Sample

Custodian:

Mr. Michael Linskens, ECCS

Mr. Nicolas Schertz, ECCS

Ms. Erin Staagard, PAL

Duties: Individuals responsible for accepting custody of samples from the field sample custodian.

Quality Assurance Objectives for Data

Data for this project is being generated by two separate entities. The on-site data is generated by ECCS in their mobile laboratory. The fixed-base laboratory, PAL in Wilmington, North Carolina, generates the analytical results for the split samples.

The data quality objectives are pre-defined for the ECCS data in that Mississippi considers all mobile lab data screening level data. ECCS uses the same equipment and methodology as the fixed-base laboratories with the exception of the mini-extraction modification. Mobile laboratory data is validated by comparison of a minimum of 10% split samples with PAL. Following this procedure, the data qualifies as screening data with definitive confirmation under US EPA, Region IV EISOPQAM guidelines.

All samples sent to PAL were collected as follows: The sample was transferred from the GeoProbe® clean, unused, acetate sample liner into the labeled 4 ounce (oz) amber glass soil jar. The sample jar was then transferred to the mobile lab where ECCS personnel homogenized the sample prior to taking an aliquot for analysis. Due to the limited sample volume required by the ECCS mini-extraction and the low volatility of the chemicals of concern, the initial sampling jar was resealed (after ECCS personnel removed the amount of sample needed for their analysis), refrigerated and then sent to PAL; meaning PAL analyzed the sample from the exact same sample jar as ECCS.

Equipment rinsate samples were collected for evaluation of cross-contamination potential from ineffective decontamination procedures. These were prepared by pouring distilled water over the sampling equipment after decontamination and collecting and preserving the rinsate that was generated. Equipment rinseate samples were collected in accordance with the EPA, Region IV EISOPQAM guidelines.

Field blank samples were collected by filling sampling containers that were kept in the transition zone with distilled water. Field blanks determine the presence of ambient contaminants that may not be directly related to concentrations of contaminants in the sample media.

Blind duplicate soil samples were collected for analysis and sent to both laboratories. Blind duplicates were collected by homogenizing an aliquot of sample in a disposable plastic container and splitting the homogenized sample into two containers. After ECCS took their aliquot of these samples, the remainder of the sample was sent to PAL for analysis.

SAMPLE CONTROL AND FIELD RECORDS

Sample Identification

All samples sent to PAL for analysis conform to the labeling requirements under section 3.2.1 of the EISOPQAM.

8.3.1 Chain of Custody Procedures

Samples were logged as they were collected from the geoprobe liners. Date, time and sample lithology were recorded on each log. Samples were then transferred to 4 oz amber glass jars and the jars transferred to a small sample cooler, which was taken to the mobile lab by field personnel in charge of sample handling. Sample identification (ID), date and time sampling occurred were recorded in the field logbook before transferring the samples to the mobile lab. Upon arrival at the mobile lab, the samples were transferred to the ECCS sample custodian who logged each sample on ECCS chain of custody forms. Each sample was assigned a unique ECCS internal ID number for tracking purposes. After analysis, the samples were transferred to either a sample refrigerator in the mobile lab or stored in coolers with ice until they were either shipped to PAL for confirmation analysis or readied for disposal. For samples sent to PAL, a new chain of custody form was completed by field personnel in charge of sample handling.

8.3.2 Field Records

Field records were kept in accordance with procedures and guidelines specified in section 3.5 of EISOPQAM.

8.4 Analytical Procedures

For analysis of samples in the field, ECCS used EPA Method 8082m, modified for quantitation of chlorinated benzenes and the mini extraction procedure.

PAL used EPA Method 8082 for quantitation of PCBs. For chlorinated benzenes, it used EPA Method 8270. While Method 8270 does not cover all the chlorinated benzenes, it provides confirmation of the ones it does detect and has the added benefit of supplying an analysis of a broad range of other semivolatile organic compounds.

For the analysis of cyanide EPA Method 9012A was employed and for silver EPA Method 6010B.

Selected samples were analyzed by EPA Method 8260, primarily to confirm that volatile organic compounds were not present in the samples or part of the site contaminants.

8.5 Laboratory Quality Assurance/Quality Control (QA/QC)

QA/QC procedures for both labs were found to be virtually identical. Summaries of each laboratory procedures follow.

ECCS:

- ◆ Continuous calibration standards analyzed every ten samples or less and at the end of a run.
- ◆ Blank samples and laboratory control samples (LCS) analyzed every twenty samples or less with a minimum of one per day.
- ◆ Matrix Spike/Matrix Spike Duplicate (MS/MSD) samples analyzed every twenty samples or less with a minimum of one per day.

PAL:

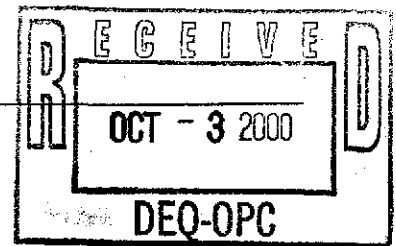
- ◆ Continuous calibration standards analyzed at least once every 12 hour ~~shift~~ **plus a minimum** of every 20 samples gas chromatography/mass spectroscopy (GC/MS) **criteria** follows method specific tuning requirements per EPA Method 8270.
- ◆ Blank and LCS samples analyzed every 20 samples or less with a **minimum of one per day**.
- ◆ MS/MSD samples analyzed every 20 samples or less with a **minimum of one per day**.

8.6 Data Validation and Reporting

As discussed in section 8.2, the primary validation of the ECCS data was accomplished through comparison with the data from PAL.

Since Hexachlorobenzene and 1,2,4-Trichlorobenzene are the only chlorinated benzenes on the standard Method 8270 list, these two compounds and total PCBs were the **parameters tracked** for the data validation procedure.

Overall, the correlation to this point of the investigation and remediation activities has been excellent with the majority of sample splits showing Relative Percent Differences (RPDs) of less than 100. Considering the inherent variability of soil as a matrix, achieving 93% acceptable split data spanning several orders of magnitude of concentration serves to justify the use of the on-site data as definitive quality.



October 2, 2000

Ms. Gretchen Zmitrovich
Office of Pollution Control
Mississippi Department of
Environmental Quality
P.O. Box 10385
Jackson, Mississippi 39289-0385

FILE COPY

**SUBJECT: Transmittal of Analytical Data for Residences
Kuhlman Electric Corporation
Crystal Springs, Mississippi**

Dear Ms. Zmitrovich:

Attached are site plans and spreadsheets showing sampling locations and analytical results from sampling of soils by Ogden Environmental and Energy Services. The soil samples were collected from residential properties surrounding Kuhlman Electric Corporation. Samples were collected from various depths ranging from ground surface to 4 feet below grade and analyzed by an on-site laboratory. Split samples were sent to Paradigm Analytical Laboratories for confirmation of on-site lab results.

The following properties have concentrations of PCB 1260 less than 1 mg/kg.

1. Perry Smith Property at 219 North Jackson Street
2. Stringer Funeral Home at 301 North Jackson Street
3. Stringer Rental Property at 303 North Jackson Street
4. Harold and Suzanne Warren Property at 403 North Jackson Street
5. Elnor Wright Property at 401 North Jackson Street
6. Sonny Reeves Property at 405 North Jackson Street

October 2, 2000

Page 2

7. Brent Property at 403 Lee Avenue
8. Louie Lang / David Vinson at 407 North Jackson
9. Jerry Youngblood at 100 Lamar Street

Please contact me at 828-669-3929 if you have any questions or comments concerning these results.

Sincerely,

Martin and Slagle GeoEnvironmental Associates, LLC

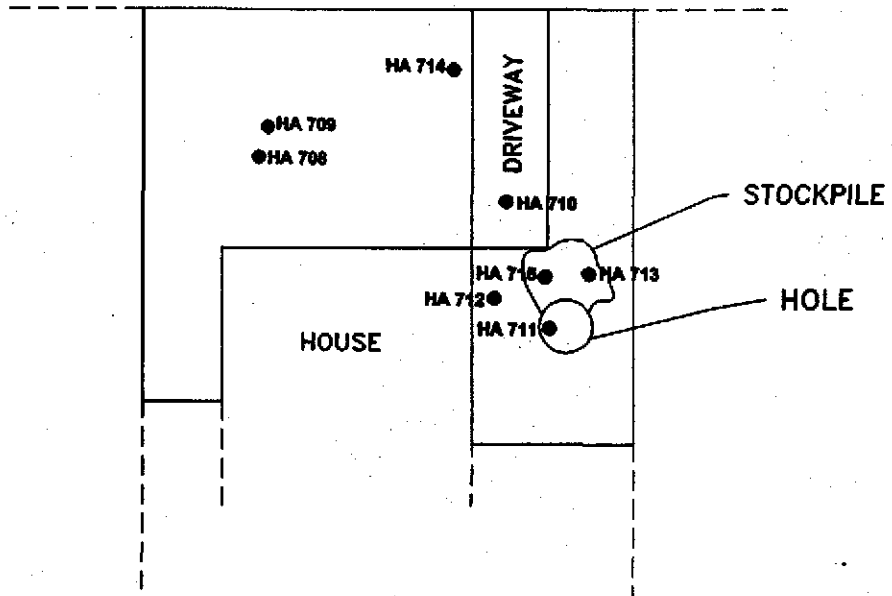


Robert L. Martin, P.G.
Project Manager

Cc: Anastasia Hamel, Borg Warner Inc.



LAMAR STREET



LEGEND

- SAMPLE POINT
- HA 708 SAMPLE POINT NUMBER



**SAMPLE LOCATIONS FOR
JERRY YOUNGBLOOD PROPERTY
100 LAMAR STREET**

SCALE: AS SHOWN

DR	BPS	CHK	TF	REV	BPS
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PREPARED BY:

OGDEN ENVIRONMENTAL AND ENGINEERING SERVICES

200 SOUTH OLD STATEVILLE ROAD • HUNTERSVILLE, NC 28078 • 704-875-3570

PROJ: 073350000	DATE: 09/28/00	SHEET 1 OF 1
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- 1) ALL DISTANCES ARE ESTIMATED
- 2) THIS MAP WAS PREPARED FROM RECORD MAPS
- 3) THIS MAP HAS BEEN PREPARED FOR PRESENTATION PURPOSES ONLY

Soil Sample Results
 Jerry Youngblood Property
 100 Lamar Street
 Crystal Springs, Mississippi

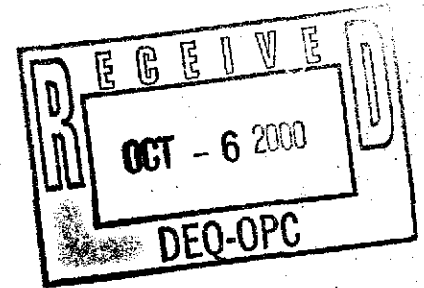
Target Analyte	Sample #	HA-708	HA-708	HA-709	HA-709	HA-710	HA-710	HA-710	HA-710	HA-711	HA-711	HA-711	HA-711
Depth		0.1	0.5	2	0.1	0.5	2	0.1	0.5	2	0.1	0.5	2
Lab #		1171	1172	1173	1174	1175	1176	1177	1178	1179	1180	1181	1182
PCB as 1260		<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Collection Date		9/20/00	9/20/00	9/20/00	9/20/00	9/20/00	9/20/00	9/20/00	9/20/00	9/20/00	9/20/00	9/20/00	9/20/00
Collection Time		16:18	16:20	16:22	16:25	16:28	16:30	16:45	16:47	16:48	17:02	17:04	17:06
Injection Date		9/21/00	9/21/00	9/21/00	9/21/00	9/21/00	9/21/00	9/21/00	9/21/00	9/21/00	9/21/00	9/21/00	9/21/00

Target Analyte	Sample #	HA-712	HA-712	HA-713	HA-713	HA-714	HA-714	HA-714	HA-714	HA-715	HA-715	HA-715	HA-715
Depth		0.1	0.5	2	0.1	0.5	2	0.1	0.5	2	0.1	0.5	2
Lab #		1183	1184	1185	1186	1187	1188	1189	1190	1191	1192	1193	1194
PCB as 1260		0.43*J	<0.10	<0.10	<0.10	0.10	<0.10	0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Collection Date		9/20/00	9/20/00	9/20/00	9/20/00	9/20/00	9/20/00	9/20/00	9/20/00	9/20/00	9/20/00	9/20/00	9/20/00
Collection Time		16:55	16:57	16:59	17:25	17:27	17:29	16:40	16:41	16:43	17:35	17:37	17:39
Injection Date		9/21/00	9/21/00	9/21/00	9/21/00	9/21/00	9/21/00	9/21/00	9/21/00	9/21/00	9/21/00	9/21/00	9/21/00

Notes:

* J Estimated level

October 5, 2000



Ms. Gretchen Zmitrovich
Office of Pollution Control
Mississippi Department of
Environmental Quality
Office of Pollution Control
P.O. Box 10385
Jackson, Mississippi 39289-0385

**SUBJECT: Transmittal of Revised Analytical Data Tables for Residences
Kuhlman Electric Corporation
Crystal Springs, Mississippi**

Dear Ms. Zmitrovich:

Attached is one complete set of revised spreadsheets showing analytical results from sampling of soils by Ogden Environmental and Energy Services. The tables were revised based on your review and comments. Results for split samples are being prepared into tables and will be forwarded to you by Monday at the latest.

Please contact me at 828-669-3929 if you have any questions or comments concerning these results.

Sincerely,

Martin and Slagle GeoEnvironmental Associates, LLC

A handwritten signature in cursive script that reads "Robert L. Martin".

Robert L. Martin, P.G.
Project Manager

Cc: Anastasia Hamel, BorgWarner Inc.

Soil Sample Results
 Jerry Youngblood Property
 100 Lamar Street
 Crystal Springs, Mississippi

SOIL SAMPLES (MG/KG)		HA-708	HA-708	HA-708	HA-709	HA-709	HA-709	HA-710	HA-710	HA-710	HA-710	HA-710	HA-711	HA-711	HA-711	HA-711
Target Analyte	Sample #															
	Depth (ft)	0.1	0.5	2	0.1	0.5	2	0.1	0.5	2	0.1	0.5	0.1	0.5	2	
	Lab #	1171	1172	1173	1174	1175	1176	1177	1178	1179	1180	1181	1180	1181	1182	
PCB as 1260		<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Collection Date		9/20/00	9/20/00	9/20/00	9/20/00	9/20/00	9/20/00	9/20/00	9/20/00	9/20/00	9/20/00	9/20/00	9/20/00	9/20/00	9/20/00	9/20/00
Collection Time		16:18	16:20	16:22	16:25	16:28	16:30	16:45	16:47	16:48	17:02	17:04	17:02	17:04	17:06	17:06
Injection Date		9/21/00	9/21/00	9/21/00	9/21/00	9/21/00	9/21/00	9/21/00	9/21/00	9/21/00	9/21/00	9/21/00	9/21/00	9/21/00	9/21/00	9/21/00

SOIL SAMPLES (MG/KG)		HA-712	HA-712	HA-712	HA-713	HA-713	HA-713	HA-714	HA-714	HA-714	HA-714	HA-714	HA-715	HA-715	HA-715	HA-715
Target Analyte	Sample #															
	Depth (ft)	0.1	0.5	2	0.1	0.5	2	0.1	0.5	2	0.1	0.5	0.1	0.5	2	
	Lab #	1183	1184	1185	1186	1187	1188	1189	1190	1191	1192	1193	1192	1193	1194	
PCB as 1260		0.43*J	<0.10	<0.10	<0.10	0.10	<0.10	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Collection Date		9/20/00	9/20/00	9/20/00	9/20/00	9/20/00	9/20/00	9/20/00	9/20/00	9/20/00	9/20/00	9/20/00	9/20/00	9/20/00	9/20/00	9/20/00
Collection Time		16:55	16:57	16:59	17:25	17:27	17:29	16:40	16:41	16:43	17:35	17:37	17:35	17:37	17:39	17:39
Injection Date		9/21/00	9/21/00	9/21/00	9/21/00	9/21/00	9/21/00	9/21/00	9/21/00	9/21/00	9/21/00	9/21/00	9/21/00	9/21/00	9/21/00	9/21/00

Notes:

* J Estimated level

Z 278 184 443

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MR JERRY YOUNGBLOOD
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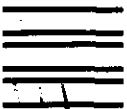
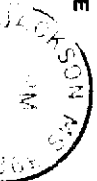
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PO BOX 10385
JACKSON MS 39289-0385
ATTENTION: GRETCHEN ZMITROVICH

3289+0385



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- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

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3. Article Addressed to:

MR JERRY YOUNGBLOOD
 100 LAMAR STREET
 CRYSTAL SPRINGS MS 39059

4a. Article Number

2-278 184 443

4b. Service Type

- Registered Certified
- Express Mail Insured
- Return Receipt for Merchandise COD

7. Date of Delivery

2/10/01

8. Addressee's Address (Only if requested and fee is paid)

5. Received By: (Print Name)

Jeffrey Youngblood

6. Signature: (Addressee or Agent)
 X Jeffrey A Youngblood