SECOND QUARTER 2003 PROGRESS REPORT
VERNAY LABORATORIES, INC.
PLANT 2/3 FACILITY
YELLOW SPRINGS, OHIO

Project No. 0292.11.01

July 14, 2003

Prepared For

VERNAY LABORATORIES, INC.
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Prepared By

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VIA FEDERAL EXPRESS
AM Priority

July 14, 2003

United States Environmental Protection Agency
Region 5
Corrective Action Section, DW-8J
77 West Jackson
Chicago, Illinois 60604

Attention: Ms. Patricia J. Polston, Project Manager
Waste Management Branch

Reference: Quarterly Progress Report (Second Quarter 2003)
Administrative Order on Consent
Vernay Laboratories, Inc.
Yellow Springs, Ohio
Project No. 0292.11.01(c)

Dear Ms. Polston:

The Payne Firm, Inc. (Payne Firm) is pleased to submit, on behalf of Vernay Laboratories, Inc. (Vernay), the attached Progress Report for the Second Quarter 2003, as required by the Administrative Order on Consent (AOC) journalized by the United States Environmental Protection Agency (US EPA) on September 27, 2002.

We understand that the US EPA plans to provide this quarterly progress report on the US EPA's website at www.epa.gov/region5/sites/vernay. The electronic version of this quarterly progress report is also included on a CD-Rom in Appendix IV.

Should you have any questions regarding the enclosed document, please contact either of us at (513) 489-2255 or by e-mail at dcc@paynefirm.com or ddw@paynefirm.com.

Sincerely,

The Payne Firm, Inc.

David C. Contant, C.P.G.
Project Manager

Daniel D. Weed, C.P.G.
Principal

cc: Mr. Doug Fisher – Vernay Laboratories, Inc. (w/enclosures)
Mr. Scott Doran – Vorys, Sater, Seymour and Pease (w/enclosures)
Mr. Rob Hillard – Village of Yellow Springs (w/enclosures)
Ms. Connie Collett – Yellow Springs Community Library (w/enclosures)

PROGRESS REPORT – SECOND QUARTER 2003
Vernay Laboratories, Inc. RCRA Corrective Action
Yellow Springs, Ohio

A. IDENTIFICATION OF FACILITY AND ACTIVITY

Vernay Laboratories, Inc. (Vernay) is under a 3008(h) Administrative Order on Consent (AOC), journalized September 27, 2002, to complete a United States Environmental Protection Agency (US EPA) Resource Conservation and Recovery Act (RCRA) Corrective Action for the Vernay Facility located at 875 Dayton Street in Yellow Springs, Ohio.

B. STATUS OF WORK AT THE FACILITY AND PROGRESS DURING THE QUARTER

The status of the work at the Facility and a summary of the progress made during the quarter are presented below.

1. On April 11, 2003, Vernay submitted a request to the Ohio Department of Natural Resources (ODNR) Division of Natural Areas and Preserves for a Natural Heritage Data Search regarding endangered species information for an area within a one-mile radius of the Facility.

    - Results to the endangered species request were received from ODNR on April 16, 2003 and are included in Appendix I.

2. Vernay conducted water sampling east of the Facility at the 825 Dayton Street residence on April 17, 2003.

    - No well log exists for the well. According to the property owner, the well is located near the southeast corner of the house. The well head was buried (inaccessible) during the sampling event; therefore, no physical inspection of the well head or a water level was collected. See Figure 1 for the approximate location of this well.
    - Two water samples were collected directly from the faucet in the kitchen sink. One sample was immediately collected once the faucet was turned on, and a second sample was collected after approximately ten minutes of running the faucet. A third water sample was collected at a faucet located immediately after the pressure tank in the basement, which is the first location nearest to the well that a sample can be collected. During sampling at all locations, the flow rate was reduced to approximately 100 milliliters per minute.
    - All samples were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), copper, total chromium, and zinc. Analytical results indicate that no VOCs, SVOCs, and chromium were detected in the three samples. Very low concentrations of copper were detected in all three samples, and a very low concentration of zinc was detected in one sample. Laboratory analytical results are included in Appendix IV.
    - The data quality assessment and validation process for the sampling at 825 Dayton Street followed procedures presented in Section 10.0 of the project Quality Assurance Project Plan (QAPP). This process included the completion of a Data Validation Checklist (Appendix IV), which is summarized in the Payne Firm May 6, 2003 Data Validation Memorandum. The data associated with the monitoring event exhibited acceptable levels of precision and accuracy.
    - Following data validation of the results from 825 Dayton Street, the results were forwarded to the property owner's legal counsel.

3. As required by Section VI.11. of the AOC, Vernay completed an investigation of the potential for *in situ* treatment of the areas beneath the Facility with the highest concentration of soil contamination. A conference call between Vernay and the US EPA was held on May 1, 2003 to discuss the assessment. Based on US EPA comments, the Soil Interim Measure Assessment was finalized and sent to the US EPA on May 20, 2003 and is provided in Appendix II. The analysis consisted of the following:

   - Defining the area(s) of highest soil contamination at the Facility where the *in situ* treatment (i.e. interim measure) may be warranted;
   - Compiling a comprehensive listing of available *in situ* technologies that are potentially applicable for remediating the area(s) where interim measures are determined to be needed; and
   - Conducting a screening evaluation of the potentially applicable technologies to determine which remediation technologies are implementable at the Facility.

   All of the applicable technologies are potentially viable technologies for the corrective measures evaluation and will be retained for that process. However, it was concluded that they are not viable as an *in situ* soil interim measure, based on the recovery rate limitations, and given that are no current exposures to contaminants in soil that warrant interim measures.

4. As required by Section VI.18.a. of the AOC, Vernay has completed the development of risk screening criteria under current use scenarios and is providing the basis and justification for the use of these criteria.

   - A conceptual site model defining potential pathways for human and ecological exposures was developed.
   - Conservative risk-based screening criteria were developed for each environmental medium and receptor identified for the Facility. This information was assembled for use in the identification of potential needs for additional sampling that may be required to support a reliable estimate of exposure concentrations at the Facility, and to complete the Ground Water and Human Health Environmental Indicators consistent with Section VI.24.f. of the AOC.

5. As required by AOC Section VI.13., Vernay completed a monitoring event during the second quarter of 2003. The monitoring event was conducted between May 6 and 8, 2003. The objective of the quarterly monitoring program is to collect sufficient data to make the appropriate determinations required by the RCRA Ground Water and Human Health Environmental Indicators, to support the baseline risk assessment, and to evaluate corrective measures including the existing ground water extraction interim measure.

   - The monitoring network consists of 20 monitoring wells on the Facility and seven monitoring wells located off of the Facility, all of which are screened in the upper, middle, or lower portions of the Cedarville Aquifer or the sewer backfill. During this quarterly monitoring event, water samples were collected from ten wells on the Facility property, and from two wells off of the Facility property. Monitoring wells sampled during this event are shown on Figure 1. These monitoring wells were selected to be sampled during this quarterly monitoring for the following reasons:
     - To continue to gather upgradient ground water data;
     - To monitor the chemical concentrations in ground water of the monitoring wells located near the ground water pumping wells; and
     - To re-sample monitoring wells where concentrations of bis (2-Ethylhexyl) Phthalate was detected during the first quarter 2003 sampling event.
   - During this sampling event, water samples were analyzed primarily for VOCs; six samples were also analyzed for SVOCs since these wells detected concentrations of bis (2-Ethylhexyl)

Phthalate during the first quarter monitoring event. Water samples were not analyzed for copper, chromium, and zinc during this monitoring event since these metals were not detected above the laboratory reporting limits during the first quarterly monitoring event.

- In addition, a surface water sample (ST02-05) was collected from the storm sewer outfall to the unnamed creek located northeast of the Facility. The surface water sample location is shown on Figure 1, and the sample was analyzed for VOCs.
- The field activities associated with the monitoring event followed the project QAPP and the Payne Firm Standard Operating Procedures (SOPs), which are consistent with the May 2002 US EPA guidance document entitled *Ground Water Sampling Guidelines for Superfund and RCRA Project Managers*.
- The ground water samples were analyzed for VOCs by US EPA Method SW846-8260B and SVOCs by US EPA Method SW846-8270C.
- Detected concentrations of VOCs from monitoring wells are summarized on Table 1. Detected concentrations of SVOCs from monitoring wells are summarized on Table 2. Detected concentrations of VOCs in surface water at the storm sewer outfall to the unnamed creek are summarized on Table 3. An electronic version of the laboratory analytical report is included in Appendix IV.
- The data quality assessment and validation process for the second quarter 2003 monitoring event followed procedures presented in Section 10.0 of the project QAPP. This process included the completion of a Data Validation Checklist (Appendix IV), which is summarized in the Payne Firm June 19, 2003 Data Validation Memorandum. The data associated with the monitoring event exhibited acceptable levels of precision and accuracy.

6. Vernay planned for additional Cedarville Aquifer and storm sewer backfill monitoring wells. These additional monitoring wells are required to be installed on or before September 30, 2003, per Section VI.13. of the AOC.

7. Vernay and its technical representatives participated in a meeting with the US EPA representatives on June 18 and 19, 2003.

8. On June 30, 2003, Vernay prepared a Technical Memorandum (No. 1) presenting the sampling list of chemicals for the facility investigation. The purpose of the technical memorandum is to document the methodology and rational in developing the site-specific sampling list of chemicals. The Technical Memorandum is included in Appendix III.

9. Data associated with the existing ground water interim measure were collected. These data include water level measurements from the Facility monitoring well network and collecting water samples analyzed for VOCs from the ground water treatment systems of the capture zone and the utility tunnel sump. Water level elevations are summarized in Table 4.

    - Water samples collected from the capture zone treatment system included: 1) a sample at each wellhead (CW01-01 and CW01-02); 2) a sample after the first carbon vessel; and 3) a system effluent sample after treatment. Likewise, samples collected from the utility tunnel sump treatment system included: 1) a pre-treatment sample; 2) a sample after the first carbon drum; and 3) a post-sump sample after treatment. The VOC data collected from the treatment systems are summarized on Tables 5 and 6, respectively. Electronic versions of the laboratory analytical reports are included in Appendix IV.

C. PROBLEMS ENCOUNTERED DURING THE QUARTER

No difficulties were encountered during this quarter.

D. ACTIONS TAKEN TO RECTIFY PROBLEMS

No actions to rectify problems were required this quarter.

E. PROJECT SCHEDULE

The following activities are planned for next quarter (Q3-2003).

- Conduct the third quarterly monitoring event at the Facility.
- Continue monthly monitoring of existing interim measures.
- Complete the planning and installation of additional Cedarville Aquifer and storm sewer backfill wells.
- Initiate a private well survey in the vicinity of the Vernay facility.

A project schedule showing the percent project completed is included in Table 7.

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