The Payne Firm, Inc.
Environmental Consultants

11231 Cornell Park Drive
Cincinnati, Ohio 45242
513-489-2255 Fax: 513-489-2533

VIA FEDERAL EXPRESS
AM Priority

April 14, 2006

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 (First Quarter 2006)
Administrative Order on Consent
Vernay Laboratories, Inc.
Yellow Springs, Ohio
Project No. 0292.11.26

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 First Quarter 2006, as agreed to in the Administrative Order on Consent (AOC) journalized by the United States Environmental Protection Agency (U.S. EPA) on September 27, 2002.

We understand that the U.S. EPA may provide this quarterly progress report on the U.S. 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 I.

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

Sincerely,

The Payne Firm, Inc.

David C. Contant, L.G.
Project Manager

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

cc: Mr. Doug Fisher – Vernay Laboratories, Inc.
Mr. Joseph Lonardo – Vorys, Sater, Seymour and Pease
Mr. Eric Swansen – Village of Yellow Springs
Ms. Connie Collett – Yellow Springs Community Library

FIRST QUARTER
2006 PROGRESS REPORT

VERNAY LABORATORIES, INC.
PLANT 2/3 FACILITY
Yellow Springs, Ohio

Project No. 0292.11.26

April 13, 2006

Prepared For

VERNAY LABORATORIES, INC.
875 Dayton Street
Yellow Springs, Ohio 45387

Prepared By

THE PAYNE FIRM, INC.
11231 Cornell Park Drive
Cincinnati, Ohio 45242
513-489-2255 Fax: 513-489-2533

PROGRESS REPORT – FIRST QUARTER 2006
Vernay Laboratories, Inc. RCRA Corrective Action
Yellow Springs, Ohio

A. IDENTIFICATION OF FACILITY AND ACTIVITY

Vernay Laboratories, Inc. (Vernay) agreed to an Administrative Order on Consent (AOC), journalized September 27, 2002, to complete a United States Environmental Protection Agency (U.S. 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. Technology Screening for Treatability/Pilot Study Evaluation

Vernay continued to evaluate potential pilot-scale treatability studies. The Payne Firm evaluated the rationale and prioritization of potential pilot-scale treatability studies in support of the corrective measures evaluation at the Vernay Laboratories, Inc. Plant 2/3 Facility (Facility) in Yellow Springs, Ohio. The need for potential pilot-scale treatability studies was previously evaluated for Vernay by the Payne Firm. Vernay is currently reviewing these evaluations for consideration of potential pilot-scale treatability studies in 2006.

2. Post-RFI First Quarter 2006 Monitoring Event

As presented in the approved RFI reports, post-RFI ground water monitoring data analyzed for volatile organic compounds (VOCs) are collected to further support the additional corrective action tasks until the final corrective measures are determined by the U.S. EPA. The main objective of this post-RFI monitoring program is to collect the sufficient data to verify plume stability for the Environmental Indicators, verify the effectiveness of the existing ground water interim measures, and to verify the calibration of the contaminant fate and transport ground water model and the risk assessment. Vernay is conducting semi-annual monitoring to achieve these objectives. The first 2006 semi-annual monitoring event will be performed in April.

Based on the U.S. EPA approval with comments to the revised RFI Phase II Report, the U.S. EPA included an enclosure with a list of monitoring wells to be sampled for VOCs quarterly in addition to the semi-annual monitoring plan. The U.S. EPA stated these wells were selected with time-dependency and area coverage in mind which include: MW01-02, MW01-04, MW01-04CD, MW01-10, MW01-13, RW01-05, MW02-03, MW02-03CD, MW02-03SE, MW02-06, MW02-06CD, MW02-08, MW02-08CD, MW02-08SE, MW02-09, MW02-10, MW02-11, MW02-11SE, and MW02-13. During the first quarter, Vernay sampled these 19 monitoring wells between February 13, 2006 and February 16, 2006. The U.S. EPA also requested that hydrogeologic cross-sections be prepared quarterly utilizing the analytical results from each quarterly monitoring event. The completed cross-sections are provided in Appendix III.

In order to evaluate certain remedial treatment options for the development of proposed corrective measures on- or off-Facility, a suite of ground water treatability parameters was collected during the quarter from 6 monitoring wells (MW02-08, MW02-08CD, MW02-06,

MW02-06CD, MW02-09, and MW02-10) shown on Figure 1. The results of the treatability parameters are being used to characterize ground water conditions beyond the capture zone caused by the two extraction wells in order to identify where oxidizing or reducing conditions predominate and their associated effects.

The RFI monitoring well network and first quarter sampling locations are shown on Figure 1 along with detections of VOCs which may have been detected above a drinking water criteria off-Facility (tetrachloroethene, trichloroethene, and vinyl chloride). Concentrations of all VOCs from on- and off-Facility monitoring wells screened in the Cedarville Aquifer and sewer backfill are summarized on Table 1. Detected concentrations of VOCs from aqueous QA/QC samples are also summarized on Table 2. Electronic copies of the laboratory analytical reports, data validation memoranda and ground water sampling forms are included on a CD-Rom in Appendix I. A list of data validation qualifiers assigned by the laboratory and/or the Payne Firm is included on Table 3.

3. Monthly Operation and Maintenance Activities

Data associated with the existing ground water interim measure were collected monthly during the first quarter. These data include water samples analyzed for VOCs from the ground water treatment systems of the capture zone and the utility tunnel sump operating on the Facility. Water level measurements from the entire RFI monitoring well network are collected on a quarterly basis during the post-RFI. Quarterly water level elevations are summarized in Table 4. Potentiometric contour maps generated for the Cedarville Aquifer during the first quarter are presented in Appendix II.

Water samples collected from the Ground Water Capture Treatment System (GWCTS) 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 (UTSTS) included: 1) a pre-treatment sample; 2) a sample after the first carbon drum; and 3) a sample after the second carbon drum. The VOC data collected from the two treatment systems are summarized on Tables 5 and 6, respectively. Data collected from March will be reported next quarter since final results have not been reported by the laboratory. Electronic copies of the laboratory analytical reports are included on a CD-Rom in Appendix I.

4. Evaluation of Corrective Measures Objectives and Preliminary Remediation Goals

Vernay continued the process of determining corrective measures objectives (CMOs) consisting of goals for protecting human health and the environment.

5. Draft Environmental Indicators Report for Ground Water (CA750)

To fulfill the requirements agreed to under Paragraph 16 of the Corrective Action Order, Vernay began preparing a draft report for the migration of contaminated ground water (CA750) under control Environmental Indicator (EI). Approval of the Phase II RFI report (Revision 1) was provided by the U.S. EPA on December 13, 2005. As a result, according to the provisions of the Corrective Action Order, submittal of the final CA750 EI Report for ground water is required 180 days following the approval of the Phase II RFI report, no later than June 11, 2006.

C. PROBLEMS ENCOUNTERED DURING THE QUARTER

During the monthly routine maintenance performed on the ground water capture treatment system of the two extraction wells, an apparent decrease in pump efficiency to less than 3 gallons per minute was observed at CW01-02. The normal measured flow rate is between 5 and 8 gallons per minute.

D. ACTIONS TAKEN TO RECTIFY PROBLEMS

On February 24, 2006, Vernay had the pump replaced in CW01-02. The measured flow rates following the new pump installation have been within the normal flow range of 5 to 8 gallons per minute. In addition, the top of the well casing was cut down in order to accommodate the replacement pump tubing in the well. Therefore, a new top of casing elevation is scheduled to be surveyed this month.

E. PROJECT SCHEDULE

The following activities are planned for next quarter (Q2-2006).

- Continue monthly monitoring of existing interim measures and quarterly water level measurements.
- Perform the 2006 First Semi-Annual/Second Quarter sampling event.
- Continue the determination of preliminary remediation goals and corrective measures objectives for the Facility.
- Continue corrective measures evaluation and, if needed, commencement of potential treatability studies.
- Submit the Environmental Indicator Report for ground water (CA750) by June 11, 2006.

Future SOWs will be based on the project schedule presented on Table 7 and on potential U.S. EPA comments to the draft CA750.

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3: List of Data Qualifiers
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5: Ground Water Capture Treatment System (GWCTS) Sampling Results – Detected VOCs
6: Utility Tunnel Sump Water Treatment System (UTSWTS) Sampling Results – Detected VOCs
7: RCRA Corrective Action Project Schedule

List of Appendices

I: CD-Rom Containing Adobe Acrobat® Documents:
A. First Quarter 2006 Progress Report (excluding laboratory analytical reports)
B. First Quarter 2006 Laboratory Analytical Reports
C. First Quarter 2006 Data Validation Memoranda
D. First Quarter 2006 Ground Water Sampling Forms

II: First Quarter 2006 Potentiometric Contour Maps for the Cedarville Aquifer

IIII: First Quarter 2006 Hydrogeologic Cross-Sections with Contaminant-Concentration Contours