



July 28, 2006

Mr. Tim Metcalf
Remediation Manager
Honeywell
101 Columbia Road
Morristown, NJ 07962

**RE: Lime Pile Investigation Summary
90 Hopkins Street, City of Buffalo, New York
CHA Project No. 13258**

Dear Tim:

Clough Harbour & Associates LLP (CHA) recently completed a limited investigation of the lime piles located at the 90 Hopkins Street property in the City of Buffalo, Erie County, New York. Honeywell retained CHA to perform these services to aid the City of Buffalo in the preparation of a more detailed bid package relative to the removal of the lime piles under their State Assistance Contract with the New York State Department of Environmental Conservation (NYSDEC). The information provided in this letter summarizes the results of our investigation will provide additional information regarding the lime piles to the City of Buffalo and prospective bidders.

I. Analysis of Lime Material

Mr. Dennis Sutton of the City of Buffalo collected a sample of the lime material and placed it into a sealed plastic bucket on July 13, 2006. CHA retained Severn Trent Laboratories, Inc. (STL) to pickup the lime sample from our Buffalo, New York office on July 18, 2006 and take it to their lab in Amherst, New York for analysis of the following parameters:

- Target Compound List (TCL) of Volatile Organic Compounds (VOCs) via EPA Method 8260
- TCL Semivolatile Organic Compounds (SVOCs) via EPA Method 8270
- Pesticides via EPA Method 8081
- Polychlorinated Biphenyls (PCBs) via EPA Method 8082
- Target Analyte List (TAL) of Metals via EPA Methods of 6010/7471 (will include 23 standard metals plus molybdenum)
- Total Cyanide via EPA Method 9012
- Wet Chemistry Parameters including pH, total alkalinity, hardness (calculation), percent solids, percent moisture, ammonia-nitrogen, total Kjeldahl nitrogen (TKN), nitrate-nitrogen, nitrite-nitrogen, total phosphorous, and the effective neutralizing value (ENV)

The analysis of the sample is being completed on a ten-day business day turnaround basis from the time the sample is received at the laboratory. Therefore, CHA does not anticipate receiving the results until

the end of the day on Tuesday, August 1, 2006. While the results were not available at the time of this letter, CHA will review the results, prepare a tabular summary of the results, and submit our summary to Honeywell with two days of receipt.

II. Horizontal and Vertical Limits of the Lime Piles

Test Pit Excavations

CHA retained Nature's Way to install a number of test pits along the perimeter of each of the lime piles to determine the horizontal limits of the piles. A variety of site restrictions (e.g. piles of debris, significant vegetation, property boundaries, etc.) limited CHA's investigation to the north and east sides of the lime pile and areas between the northern and southern lime piles. All test pits were excavated using a Komatsu PC 40R tracked excavator and the location of each is identified on Figure 1. A CHA scientist prepared a test pit log (Attachment A) for each excavation to document the length, width, and depth of the test pit, the materials encountered, depth to groundwater, etc. for each test pit. Digital photographs were taken of representative test pits to document the materials encountered at the site and have been included in Attachment B.

Initially, the approximate horizontal limits of the lime piles had been assumed to be where the steep slopes along the perimeter of each pile met the surrounding ground surface. However, as shown on Figure 1, the approximate limits of the lime material was found to extend several feet beyond these limits on the north and east sides of the northern lime pile. It also appears that the northern and southern piles are actually connected below the ground surface. While the United States Environmental Protection Agency (USEPA) had previously begun to remove the north end of the southern lime pile, it appears that the removal operation did not extend downward to the vertical limit of the lime material.

Borings

To determine the vertical extent of the lime piles, an ATV drilling rig was positioned at the top of the northern lime pile to advance a boring. CHA notes that access was not gained to the top of the southern lime pile due to the steep grades on the northern side of the pile and the presence of trees, debris, soil piles, etc. blocking access to the other sides of the pile. Nature's Way did attempt to advance the rig up one side of the pile, but the embankment was too steep and unstable to allow the rig to climb up the embankment. The location of each boring is shown on Figure 1.

Two borings were advanced through the top of the northern lime pile (borings B-1 and B-4 as shown on Figure 1). No samples were collected during the first ten feet of boring B-1 or the first fifteen feet of boring B-4 because the primary purpose of the borings was to find the vertical extent of the lime piles. Upon reaching a depth of ten feet, the borings were sampled continuously using a two-inch outside diameter (O.D.) split-spoon sampler. The split spoon sampler was advanced by dropping a 140-pound hammer on the sampler from a height of thirty inches. During the sampling, the number of blows required to drive the split spoon sampler in six-inch increments was recorded on boring logs (included in Attachment C). The borings were terminated after native soils were encountered. The lime material extended to a depth of 21 feet below the ground surface in boring B-1 and to a depth of 20 feet below the ground surface in boring B-4.

In addition to the boring on top of the northern lime pile, CHA advanced two borings (borings B-2 and B-3) between the northern and southern lime piles in an attempt to determine the vertical extent of the lime material in this area. In effort to conserve time, no samples were collected in boring B-2 until a depth of six feet below the ground surface. While not initially anticipated, the vertical extent of the lime had already been reached. Therefore, CHA directed Nature's Way to install an offset boring (boring B-3)



approximately 15 feet south boring B-2. The lime was found to extend to a depth of 8 feet below the ground surface in this boring.

Each boring was backfilled with soil cuttings upon completion.

III. Limited Groundwater Quality Evaluation

CHA retained Nature's Way Environmental Consultants and Contractors, Inc. (Nature's Way) to install three piezometers between the northern-most lime pile and the northern property line of the 90 Hopkins Street parcel. The locations of three piezometers have been identified at piezometers PZ-1, PZ-2, and PZ-3 on the attached Figure 1. Nature's Way used a Central Mine Equipment (CME) Model 45 hollow-stem auger drill rig mounted on tracked all-terrain vehicle (ATV) to install the test borings and facilitate the installation of the piezometers. Auger refusal was encountered in each boring at an approximate depth of 9.5 feet below the ground surface and was attributed to encountering bedrock.

One-inch PVC piezometers were installed in each of the boreholes. After completing the installation of the piezometers, polyethylene tubing was inserted into the piezometers and connected to a peristaltic pump to collect groundwater from the piezometers. As groundwater was purged from the piezometers, CHA used a Horiba U-22 water quality meter to measure the following groundwater quality parameters:

- pH
- Oxidation-Reduction Potential (ORP)
- Conductivity
- Temperature
- Turbidity
- Dissolved Oxygen
- Salinity

All instrument readings were recorded on the Piezometer Sampling Logs included in Attachment D. As indicated on the sampling logs, the pH of the groundwater was found to be an average of approximately 12.8. However, based upon the test pit investigation (see Section III), the piezometers were installed, at least partially, in the lime material. Installing the piezometers further down-gradient of the lime piles was not possible without entering an off-site property.

Static water levels were not measured in the piezometers, but the depot to water was approximately 4 to 5 feet below the ground surface. All of the piezometers were removed at the end of the day. The piezometer locations were marked with wire flags and all piezometer materials were disposed of off-site.

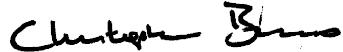
IV. Closing

While a more detailed investigation of the 90 Hopkins Street property would be necessary to fully delineate the vertical and horizontal extents of the lime pile, the results of this investigation indicate that both the vertical and horizontal extents of the piles are greater than initially anticipated.

If you have any questions or comments, please do not hesitate to call me at (315) 3471-3920. We will be submitting the analytical results for the lime material prior to the end of the day on August 3, 2006.

Very truly yours,

CLOUGH HARBOUR & ASSOCIATES LLP



Christopher Burns, Ph.D., P.G.
Principal

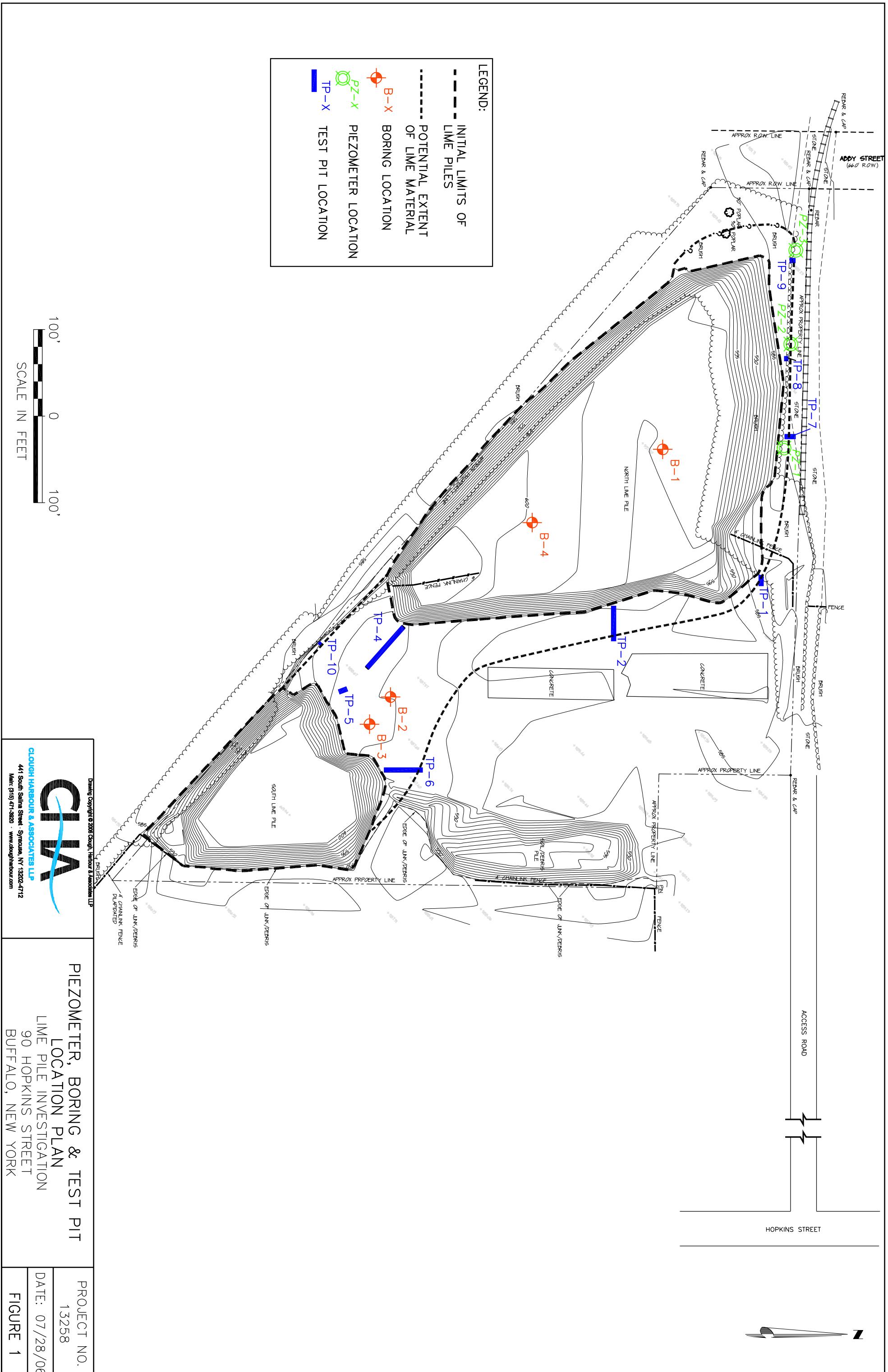
SS/mw

Cc: Dennis Sutton, City of Buffalo
David Flynn, Phillips Lytle
Dan Cantor, Arnold & Porter

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Figure



Attachment A

Test Pit Logs

Attachment B
Photographic Log



Attachment C

Subsurface Boring Logs



Attachment D
Piezometer Sampling Log

