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Transmitted Via Electronic mail

September 13, 2006

Mr. Mark Stella
Project Manager
Chevron Environmental Management Company
4800 Fournace Place
E 530C
Bellaire, TX 77401

Re: Former Tappan Terminal Site
Hastings-on-Hudson, Westchester County, New York
BBL Project #: 431.96 #2.01

Dear Mark:

This letter provides a work plan for additional investigation activities to be completed at the Former Tappan Terminal Site located in Hastings-on-Hudson to facilitate a better understanding of current site conditions prior to initiating the development of the Remedial Design Work Plan which will be required in connection with the recently issued Record of Decision for this site. The field activities will include the collection of groundwater samples from 39 onsite monitoring wells located in the source area and both upgradient and downgradient of the source area and the collection of soil samples from the source area. The results from this investigation will be used in connection with the evaluation of potential remedial alternatives.

Groundwater samples will be collected from 39 onsite monitoring wells to provide current groundwater quality data to assess remedial options. As part of the groundwater monitoring event, a collect round of water level measurements will be collected from all accessible onsite monitoring wells. Prior to the collection of groundwater samples, each monitoring well will be purged using low-flow sampling procedures until the field parameters (pH, dissolved oxygen, conductivity, temperature, turbidity, salinity, and oxidation reduction potential) have stabilized. To assess the influence of the tidal cycles of the Hudson River on the groundwater quality, field parameter data will be collected from the monitoring wells along the river at both high and low tide. Groundwater samples will be collected in bottleware supplied by the lab and will be analyzed by Severn Trent Laboratories (STL), located in Edison, New Jersey.

All the monitoring wells will be sampled for target compound list (TCL) volatile organic compounds (VOCs) using method 8260B. 19 monitoring wells located within the source area and select upgradient and downgradient monitoring wells will be sampled for an expanded list of parameters:

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- Nitrate
- Total and dissolved iron
- Total and dissolved manganese
- Sulfate and sulfide
- Nitrogen
- Carbon Dioxide
- Methane
- Bicarbonate alkalinity
- Total Organic Carbon
- Total Dissolved Solids
- Biochemical Oxygen Demand
- Chemical Oxygen Demand

The monitoring wells and the analytical parameters are summarized in Table 1 and shown on Figure 1. Quality Assurance (QA) and Quality Control (QC) samples will consist of matrix spikes (MS) and matrix spike duplicate (MSD), field duplicates, and trip blanks. One set of QA/QC samples will be collected for every twenty field samples and one trip blank will be submitted with every cooler containing VOCs samples.

In provide current soil quality data for using in the review of remedial options, a series of soil borings will be installed along the sewer line. Approximately 15 soil borings will be drilled to depth of 20 feet or to the Marine Grey Silt confining unit. The soil borings will be drilled using a geoprobe and soil cores will be recovered continuously as the borings are advanced. The soil will be described and screened using a photo ionization detector (PID). Soil samples will be collected for laboratory analysis based on field observations and elevated PID readings. Soil samples will be submitted to STL for the following parameters:

- VOCs
- TAL metals
- Total Organic Carbon
- Bulk Density

The proposed soil boring locations are shown on Figure 1. QA/QC samples will consist of MS/MSD, field duplicates, rinse blanks, and trip blanks. One set of QA/QC samples will be collected for every twenty field samples and one trip blank will be submitted with every cooler containing VOCs samples.

Additional, Microbial Insights Bio-trap samplers will be installed to provide additional data on the microbial community. Bio-traps will be installed in a source area monitoring well (MW-T3), an upgradient monitoring well (LMS-7) and in a downgradient monitoring well (MW-7A) and analyzed for microbial community activity using phospholipid fatty acid analysis.

The results of this investigation will be summarized in a letter report, which will include data tables, sampling logs, and boring logs. This information can then be used to facilitate to development of an appropriate Remedial Design Work Plan.

If you have any questions, please do not hesitate to contact me at (315) 671- 9172.

Sincerely,

BLASLAND, BOUCK & LEE, INC.

William T. McCune
Associate

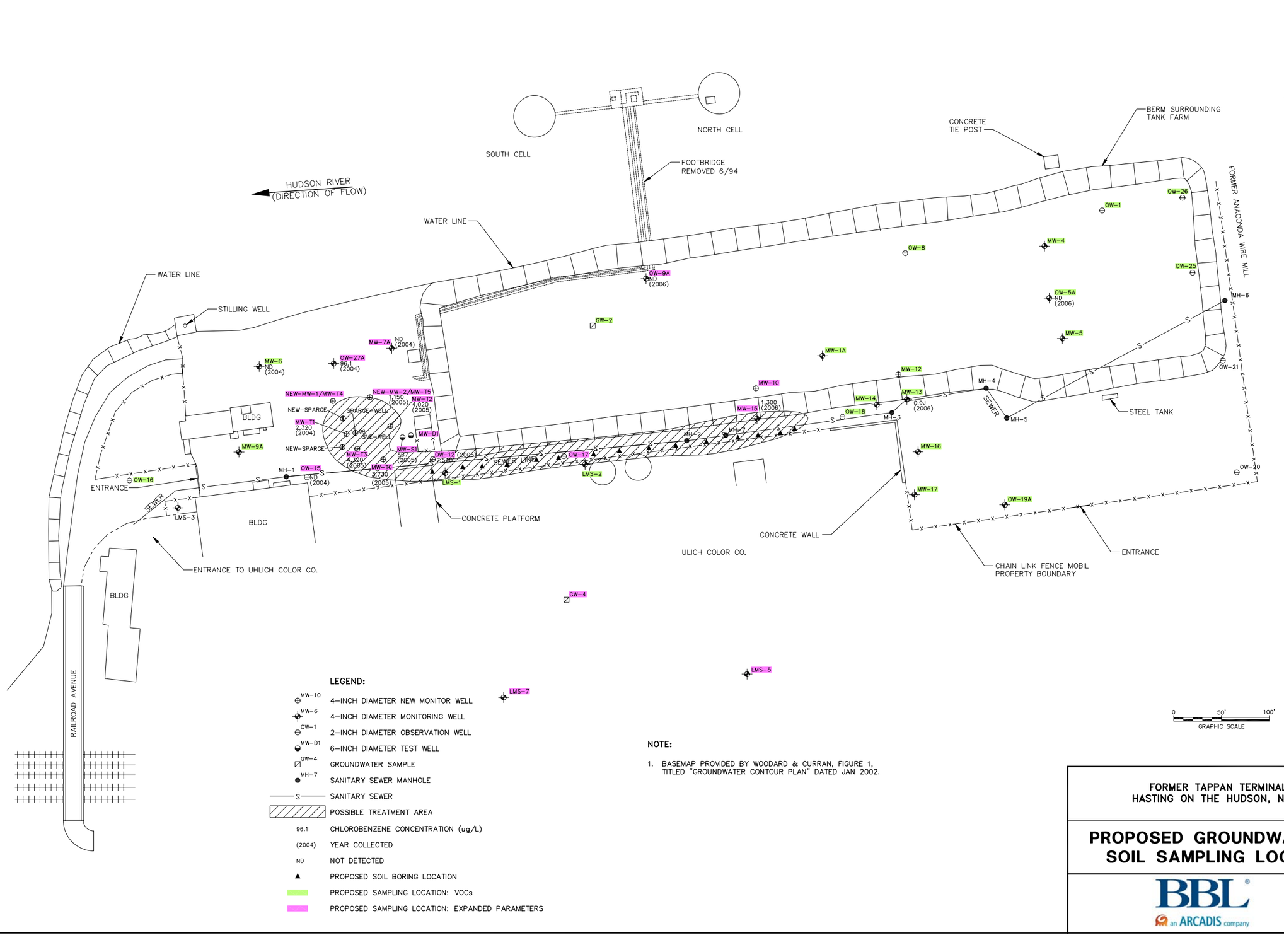
JAR
Attachments:
Table 1: Groundwater Sample Summary
Figure 1: Site Plan

cc: Richard T. Hughes, Esq., Chevron U.S.A. Inc.

Table 1
Remedial Investigation Groundwater Sample Summary Table
Former Tappan Terminal Site

Monitoring Well	VOCs	MNA parameters
GW-2	X	
GW-4	X	X
LMS-1	X	
LMS-2	X	
LMS-5	X	X
LMS-7	X	X
New MW-1/TWM-4	X	X
MW-10	X	X
MW-12	X	
MW-13	X	
MW-14	X	
MW-15	X	X
MW-16	X	
MW-17	X	
MW-1A	X	
New MW-2/MW-TS	X	X
MW-4	X	
MW-5	X	
MW-6	X	
MW-7A	X	X
MW-9A	X	
MW-D1	X	X
MW-S1	X	X
MW-T1	X	X
MW-T2	X	X
MW-T3	X	X
MW-T6	X	X
OW-1	X	
OW-12	X	X
OW-15	X	X
OW-17	X	X
OW-18	X	
OW-19A	X	
OW-25	X	
OW-26	X	
OW-27A	X	X
OW-5A	X	
OW-8	X	
OW-9A	X	X

MNA Parameters include:
Nitrate
Total and dissolved iron
Total and dissolved manganese
Sulfate and sulfide
Nitrogen
Carbon Dioxide
Methane
Bicarbonate alkalinity
Total Organic Carbon
Total Dissolved Solids



LEGEND:

MW-10	4-INCH DIAMETER NEW MONITOR WELL
MW-6	4-INCH DIAMETER MONITORING WELL
OW-1	2-INCH DIAMETER OBSERVATION WELL
MW-D1	6-INCH DIAMETER TEST WELL
GW-4	GROUNDWATER SAMPLE
MH-7	SANITARY SEWER MANHOLE
S	SANITARY SEWER
	POSSIBLE TREATMENT AREA
96.1	CHLOROBENZENE CONCENTRATION (ug/L)
(2004)	YEAR COLLECTED
ND	NOT DETECTED
▲	PROPOSED SOIL BORING LOCATION
	PROPOSED SAMPLING LOCATION: VOCs
	PROPOSED SAMPLING LOCATION: EXPANDED PARAMETERS

0 50' 100'
GRAPHIC SCALE

NOTE:

1. BASEMAP PROVIDED BY WOODARD & CURRAN, FIGURE 1, TITLED "GROUNDWATER CONTOUR PLAN" DATED JAN 2002.

FORMER TAPPAN TERMINAL SITE
HASTING ON THE HUDSON, NEW YORK

PROPOSED GROUNDWATER AND SOIL SAMPLING LOCATIONS

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FIGURE 1

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