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May 8, 2007

Project No.: 013-6054

United States Environmental Protection Agency
290 Broadway, 19th Floor
New York, New York 10007-1866

Attn.: Ms. Renee Gelblat

RE: REVISED RI/FS WORK PLAN ADDENDUM #2
ADDITIONAL GROUNDWATER TRANSECTS
LIGHTMAN DRUM COMPANY SITE, WINSLOW TOWNSHIP, NJ

Dear Ms. Gelblat:

On behalf of the Lightman Yard PRP Group (Group), Golder Associates Inc. (Golder) has prepared this Revised Addendum #2 to the Remedial Investigation/Feasibility Study (RI/FS) Work Plan (Golder, 2002) for the Lightman Drum Company Site (Site) located in Winslow Township, New Jersey. The Addendum was originally submitted pursuant to the United States Environmental Protection Agency (USEPA) request in their letter dated March 6, 2007 and includes additional hydrogeologic investigations downgradient of the Site consisting of eleven aquifer profile borings. The revisions to this Addendum address USEPA comments contained in a letter received on April 30, 2007. The Site background, investigation objectives and scope of work for the additional investigation are described herein and the locations of the proposed work area shown in Figures 1 and 2.

Background

The Remedial Investigation field work began in August 2002 and was substantially concluded in May, 2006. The work was conducted in accordance with the RI/FS Work Plan (Golder, July 2002 and subsequent addendum). The results of the field work were presented in the Site Remedial Investigation Report (Golder, 2006), and are briefly summarized below.

Based on geoprobe profile borings[1] and two full rounds of monitoring well data (February 2005 and March 2006), groundwater has been impacted with chlorinated volatile organic compounds (cVOCs), principally TCE and PCE, and aromatic (BTEX) compounds. There are two main plumes present, one originating from the former Waste Storage Tanks (eastern plume), and one from the former Unlined Waste Disposal Pit Area in the western part of the Property (western plume). Both plumes are relatively narrow in width horizontally and in thickness, and both gradually plunge in depth from the source areas so that non-impacted groundwater overlies the plumes starting a short distance downgradient of the Property. The eastern PCE/TCE plume extends a distance of approximately 4,500 feet downgradient of the Property, at which point it is

[1] Forty-six groundwater profiles were undertaken that provided contaminant data at 10-foot vertical intervals. This extensive database enabled the plumes to be defined in three dimensions and formed the basis for selection of permanent monitoring well locations, in consultation with USEPA.

approximately 85 feet below ground surface (bgs). The western PCE/TCE plume extends approximately 1,500 feet downgradient, at which point it is about 55 feet bgs. BTEX compounds (mainly benzene and xylene) are co-located in source areas with the PCE/TCE; however, the eastern and western BTEX plumes do not extend as far downgradient as the corresponding chlorinated plumes. In the eastern plume, BTEX is detected a distance of approximately 1,500 feet downgradient, and in the western plume, BTEX is detected approximately 300 feet downgradient. The eastern and western plumes exhibit evidence of historical variations in the release rate (areas of higher concentration bounded by areas of lower concentration occurring throughout the overall plume), which is consistent with the operational history at the Property.

Groundwater concentrations from permanent monitoring wells sampled in 2005 sometimes differ from those observed in proximate aquifer profile borings completed in 2002 and 2003. For example, MW-15 and MW-16 showed lower concentrations of VOCs compared to aquifer profile borings GW2E-3 and GW2F-1, while MW-12 showed higher concentrations than aquifer profile boring GW-2B-2. These differences may reflect variations over time or distance or a combination of these factors. The March 2006 monitoring well data consistently showed reductions in concentrations of VOCs in many of the downgradient monitoring wells as compared to the February 2005 monitoring well data, including MW-12, 15 and 16 as shown in the table below.

The Group collected additional samples from select wells in August 2006 and November 2006 subsequent to issuing the Remedial Investigation Report. USEPA agreed to the proposed additional sampling although Agency oversight was not provided during these sampling events. These data along with the RI data were presented to the USEPA in a meeting on January 17, 2007 and submitted to USEPA on February 16, 2007. The concentration trends between February 2005 and November 2006 were consistent among the wells sampled and indicated that concentrations in the downgradient wells were declining. In particular, substantial declines in concentrations of PCE and TCE were observed in monitoring wells MW-12, MW-15 and MW-16 within the main (eastern) plume.

Following the January 17 meeting, additional sampling of select wells for VOC and natural attenuation parameters was conducted in February 2007 with EPA oversight. The results of this sampling event confirm the trends apparent from the previous samples in August and November 2006. A summary of PCE and TCE concentrations in wells MW-12, 15 and 16 over the five monitoring events is provided in the table below.

	PCE (µg/L)				
Date	***2/05***	***3/06***	***8/06***	***11/06***	***2/07***
MW-12	7J	7.6	ND	0.22J	0.74J
MW-15	3J	0.96	ND	1.5	0.69
MW-16	43	1.7	ND	ND	1.2J

	TCE (µg/L)				
Date	***2/05***	***3/06***	***8/06***	***11/06***	***2/07***
MW-12	250E	130E	ND	2.4	6.1
MW-15	2J	ND	ND	0.17J	ND
MW-16	47	0.87	ND	ND	0.23J

Objectives

The overall objective of the additional hydrogeologic investigation is to confirm the current groundwater quality in select areas that were identified to be localized "hot spots" (VOC levels above 100 ppb) during the aquifer profile sampling conducted in 2002 and 2003, but have shown lower and declining concentrations based on monitoring well data collected since 2005. In particular, the hydrogeologic investigation will focus on determining whether VOC levels greater than 100 ppb still exist in the following areas as requested by USEPA:

1. Aquifer profile groundwater samples collected from GW2E-3 (November 2002) showed a TCE concentration of 200 µg/L and a PCE concentration of 150 µg/L at the depth interval of 52-54 feet bgs. MW-15, located downgradient and screened at 50-60 feet bgs, detected TCE at 2 µg/L and PCE at 3 µg/L in February 2005. Concentrations of PCE and TCE have declined below these levels in subsequent sampling events, as shown in the table above.

2. Aquifer profile groundwater samples collected from GW2F-1 (March, 2003) showed a TCE concentration of 310 µg/L and a PCE concentration of 190 µg/L at depths of 62-64 feet bgs. MW-16, located downgradient and screened at 55-65 feet bgs, detected TCE at 47 µg/L and PCE at 43 µg/L in February 2005. Concentrations of PCE and TCE have declined to very low levels in subsequently sampling events, as shown in the table above.

Proposed Scope of Work

The proposed scope of work follows that outlined in USEPA's letter dated March 6, 2006. In general, two additional aquifer profile transects (GW5 and GW6) will be sampled oriented perpendicular to groundwater flow (see Figure 2). Transect GW5 will be located approximately 50 feet downgradient of former profile boring GW2E-3 and upgradient of existing monitoring well MW-15. Transect GW6 will be located approximately 80 feet downgradient of former profile GW2F-1 and upgradient of existing monitoring well MW-16. Five profile borings will be conducted along transect GW5 and six borings will be conducted along GW6, at approximately 50 foot spacing. Boring locations shown on Figure 2 are approximate, and may be slightly modified based on field conditions. In particular, one or more boring locations may need to be adjusted to accommodate the recent development of a self-storage facility on the eastern portion of Block 4401, Lot 2 (see Figure 2).

The work will be carried out using procedures similar to previous aquifer profile borings as approved by USEPA in the Remedial Investigation/Feasibility Study Work Plan. A brief summary of these methods is presented below for convenience and clarity.

The borings will be advanced using direct push methods (e.g.; Geoprobe™). Groundwater samples will be collected every 10 feet starting at 45 feet bgs in transect GW5 and starting at 55 ft bgs in transect GW6, and will continue until 85 feet bgs. In brief, groundwater samples will be collected in the following manner:

- A protected screen sampling device will be used so that the screen is only opened at the target depth;

- At the target depth interval, a water volume equivalent to three times the standing water in the water column in the drilling rods will be purged using a peristaltic pump;

- Groundwater samples will be collected using a mini check-valve sampler, mini-bailer, or a peristaltic pump. If a peristaltic pump is used, the sample will be lifted into the tubing and the pump reversed to discharge the sample into the container so that the sample never passes through the pump; and,

- Field parameters consisting of pH, specific conductance, temperature and turbidity will be collected prior to sampling by filling the cup of a flow-through cell and allowing the cell to equilibrate.

The samples will be sent to the approved fixed laboratory (CompuChem of Cary, NC) for analysis. The procedures for sample collection and handling and for quality control samples will follow the Sampling and Analysis Plan (SAP, Appendix A of the Work Plan). Samples will be analyzed under standard turnaround time (21 days) for PCE, TCE, cis-,1,2 DCE and vinyl chloride. Samples from one profile boring in each of the transects will also be analyzed for methane, ethene and ethane.

Analytical procedures will be in accordance with methods summarized in revised Sampling and Analysis Plan Tables A-3 and A-4 (Golder, May 2006). PCE, TCE, cis-1,2 DCE and vinyl chloride will be analyzed by CLP SOW OLC3.2; methane, ethane, and ethene will be analyzed by Microseeps method AM20GAX, which is equivalent to SW846 8015M. Each laboratory used will produce CLP–like data packages that will contain all information needed for formal validation of the data. Data validation will be performed in accordance with Region II Standard Operating Procedure (SOP) No. HW-13, Revision 3.2 – Organic Data Review for Low Concentration Water, (July 2001) as applicable, and in accordance with method-specific requirements for AM20GAX.

Quality control samples will be collected as follows:

- Trip Blanks – one per day
- Field Rinsate Blanks – one per day
- Field Duplicates – one per 20 primary samples
- MS/MSD Samples – one per 20 primary samples

All borings will be grouted in accordance with NJDEP standard procedures.

All work will be conducted in accordance with the Health and Safety Plan included as part of the Remedial Investigation/Feasibility Study Work Plan (July 2002).

All investigation derived waste will be segregated and containerized for staging on the Lightman property.

Schedule

Field work will commence approximately 2-3 weeks following USEPA approval of this Addendum. The start date will be dependent on driller availability and confirmation of access arrangements with the affected property owners. It is anticipated that field work will begin in

mid-June and will take two weeks to complete; laboratory analytical results will be available 3 weeks from the completion of field activities. A letter report summarizing the results will be issued to USEPA four weeks following receipt of the laboratory data.

Closing

The Group anticipates that additional monitoring of existing wells may be appropriate following evaluation of aquifer profile data described herein to facilitate further evaluation of natural attenuation processes. The additional monitoring program, which may include microbial characterization in source area wells, will be determined following evaluation of the results of the additional investigation.

If you have any questions, please contact me on (856) 793-2005 at your earliest convenience.

Very truly yours,

GOLDER ASSOCIATES INC.

P. Stephen Finn, C.Eng.
Principal

PSF/bjb
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cc: J. De Noble, NJDEP
Lightman Yard Technical Committee

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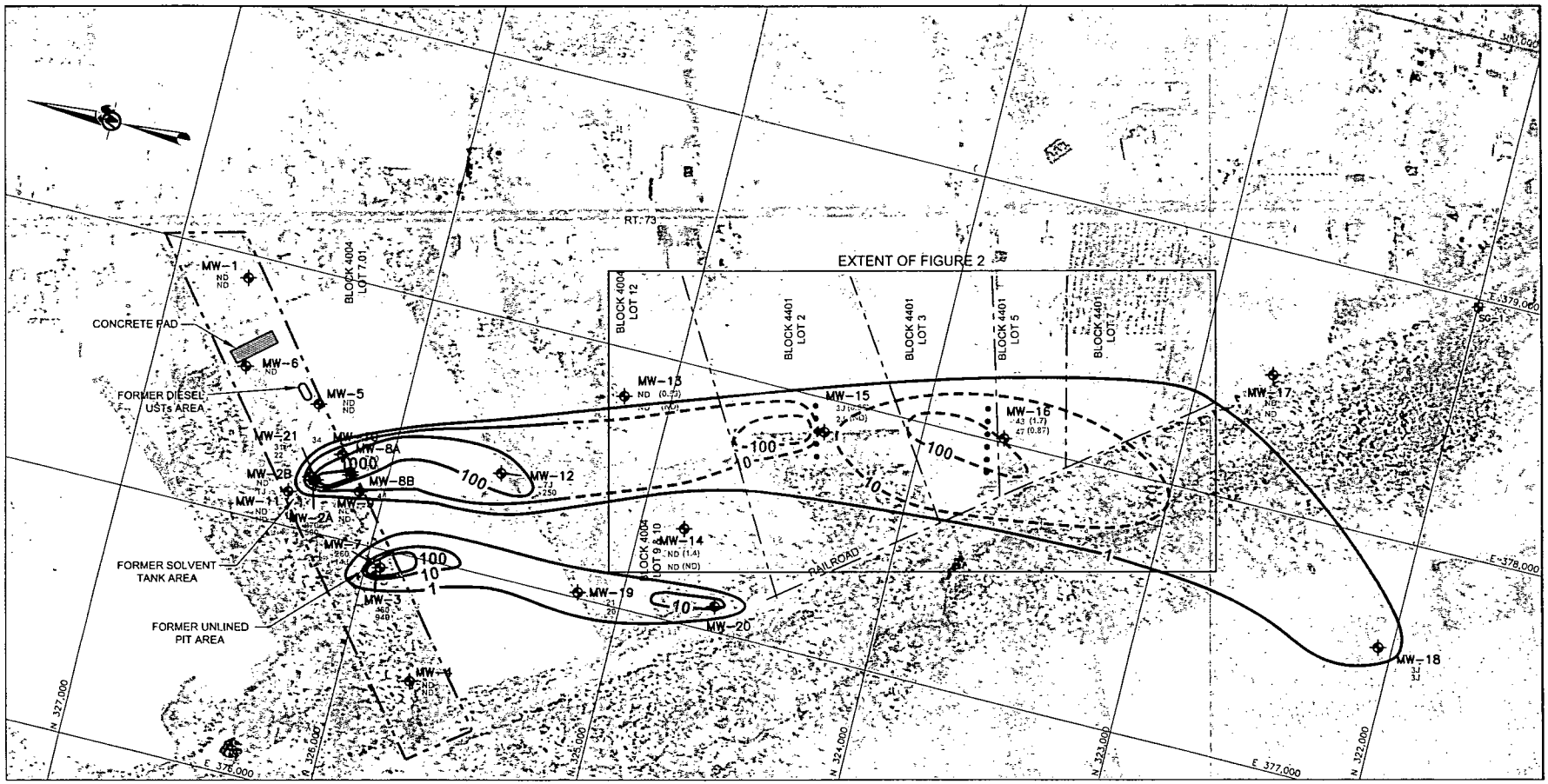

LEGEND

- APPROXIMATE PROPERTY LINE
- TCE ISOCONCENTRATION CONTOUR
- TCE ISOCONCENTRATION CONTOUR BASED ON 2002–2003 GEOPROBE TRANSECTS
- MW-11 MONITORING WELL
- 30 PCE CONCENTRATIONS (ug/L) FOR FEBRUARY 2005
- 47 TCE CONCENTRATIONS (ug/L) FOR FEBRUARY 2005
- (0.54) PCE CONCENTRATIONS (ug/L) FOR MARCH 2006
- (0.87) TCE CONCENTRATIONS (ug/L) FOR MARCH 2006
- • PROPOSED AQUIFER PROFILE BORING

NOTES

1.) ND = NOT DETECTED

2.) SOLID CONTOURS BASED ON MARCH 2006 GROUNDWATER DATA. DASHED CONTOURS REFLECT HISTORICAL DATA COLLECTED FROM GEOPROBE PROFILES.

REFERENCES

1.) AERIAL PHOTOGRAPH TAKEN FROM TERRAIN NAVIGATOR PRO BY MAPTECH, OF WILLIAMSTOWN NJ, DATED MARCH 25, 1995.

2.) MONITORING WELLS, STAFF GAUGE AND PIEZOMETERS SHOWN WERE BASED ON SURVEY INFORMATION SUPPLIED BY JAMES M. STEWART, INC.

3.) GEOPROBE PROFILE BORINGS AND SURFACE WATER/SEDIMENT SAMPLING LOCATIONS WERE LOCATED IN THE FIELD BY GOLDER ASSOCIATES, INC. PERSONNEL USING A HANDHELD GPS UNIT AND ARE APPROXIMATE ONLY.

400 0 400
SCALE FEET

REV	DATE	DES	REVISION DESCRIPTION	CADD	CHK	RVW

PROJECT

LIGHTMAN DRUM SITE
WINSLOW TOWNSHIP, NEW JERSEY

TITLE

PLUME CONFIGURATION

Golder Associates Philadelphia USA

PROJECT No.	013-6054	FILE No.	013605 4R002	
DESIGN	JPR	03/23/07	SCALE AS SHOWN	REV. 0
CADD	RG	03/28/07		
CHECK	HAL	04/02/07		
REVIEW	PSF	04/02/07		

FIGURE 1

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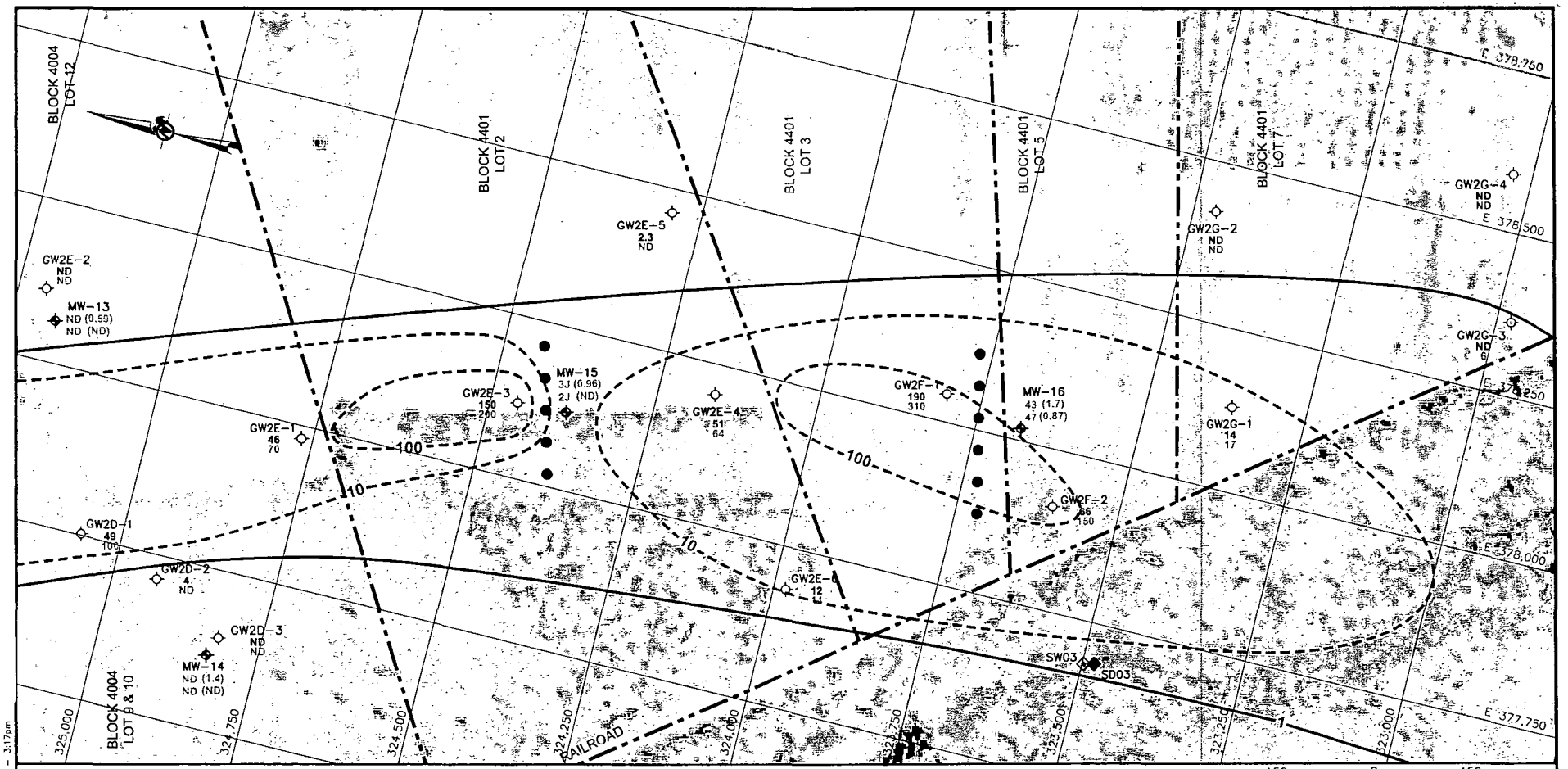

LEGEND

APPROXIMATE PROPERTY LINE	
TCE ISOCONCENTRATION CONTOUR	
TCE ISOCONCENTRATION CONTOUR BASED ON 2002–2003 GEOPROBE TRANSECTS	
MW-11	MONITORING WELL
GW3B-1	GEOPROBE AQUIFER PROFILE BORINGS (LOCATION APPROXIMATE)
SW01	SURFACE WATER SAMPLE (LOCATION APPROXIMATE)
SD01	SEDIMENT SAMPLE (LOCATION APPROXIMATE)
ND	GEOPROBE PCE CONCENTRATIONS (ug/L) 2002–2004
18	GEOPROBE TCE CONCENTRATIONS (ug/L) 2002–2004
30	PCE CONCENTRATIONS (ug/L) FOR FEBRUARY 2005
47	TCE CONCENTRATIONS (ug/L) FOR FEBRUARY 2005
(0.54)	PCE CONCENTRATIONS (ug/L) FOR MARCH 2006
(0.87)	TCE CONCENTRATIONS (ug/L) FOR MARCH 2006
●	PROPOSED AQUIFER PROFILE BORING

NOTES

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SCALE FEET

REV	DATE	DES	REVISION DESCRIPTION	CADD	CHK	RVW

PROJECT
LIGHTMAN DRUM SITE
WINSLOW TOWNSHIP, NEW JERSEY

TITLE
PROPOSED AQUIFER PROFILE LOCATIONS

Golder Associates Philadelphia USA

PROJECT No.	013-6054		FILE No.	0136054R001	
DESIGN	JPR	03/23/07	SCALE	AS SHOWN	REV. 0
CADD	RG	03/28/07			
CHECK	HAL	04/02/07			
REVIEW	PSF	04/02/07			

FIGURE 2

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