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ARCADIS G&M

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Rebecca Mitchell
New York State Department of Heath
Bureau of Environmental Exposure Investigation
547 River Street, Room 300
Troy, NY 12180

ENVIRONMENTAL

Subject:
Off-Site Soil Vapor Survey
Former Unisys Inactive Hazardous Waste Site No. 1-30-00-0045
Great Neck, New York

ARCADIS Project No.:
NY001227.0013.00001

Melville
October 26, 2001

Contact:
Carlo San Giovanni

Extension:
(631) 391-5259

Dear Ms. Mitchell:

As per our discussions on October 12, 2001, ARCADIS G&M, Inc. (AGM) will perform a soil vapor survey at locations near the former Unisys Facility located in Great Neck, New York, on behalf of Lockheed Martin Corporation. The proposed soil vapor sampling locations, sampling methodology, and analytical methodology that will be used are described below.

Sampling Locations

The soil vapor survey will be conducted at the following four general locations near the former Unisys Facility: (1) the Lake Success Jewish Center (in the vicinity of well cluster GM-37); (2) near Monitoring Well GM-38; (3) near Monitoring Well Cluster 39; and (4) adjacent to the ball fields at the Great Neck public schools. In addition, a background sample will be collected in the vicinity of Monitoring Well MW-41 and Diffusion Well DW-10. The attached figure shows the proposed sampling locations. At each of these general sample locations, approximately 2 to 3 soil vapor samples will be collected. The sample locations will be chosen to ensure representative coverage of potential routes of vapor intrusion into basements of buildings.

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Sampling Methodology

The background samples will be collected prior to collecting the downgradient samples. At each of the proposed soil vapor sampling locations, Post-Run Tubing Soil Vapor Probes will be inserted 10 feet below grade using a Geoprobe rig. The soil vapor probe consists of a stainless steel rod with a removable tip at the bottom. Once the probe is driven to a depth of ten feet below grade, the probe is pulled back approximately 2 to 4 inches separating the tip from the probe and creating a clear pathway to the soil vapor. A Teflon tube is then inserted down the center of the stainless steel rod. The top of the stainless steel rod and the intersection of the stainless steel rod with the ground is then sealed with clay to create an airtight seal around the probe. Prior to the collection of the sample, the probe will be purged, by removing approximately 3 volumes of air with a centrifugal pump connected to the Teflon tubing. Once the purging is completed, the pump is removed and the tubing is connected to a laboratory-supplied Summa canister. The Summa canister, which is under a vacuum, will be opened and the vacuum will draw the soil vapor into the canister. Once the canister is full (i.e., the canister has reached 0 pressure as measured by a pressure gauge) the canister will be sealed and labeled with the ID of the soil vapor point. The on-site AGM representative will be present the whole time the sample is being collected, and will record the date, time sampling began, time sampling was completed, and the vacuum pressure reading at approximately 5 minute intervals during sampling, or other appropriate interval.

At one location, a duplicate sample will be collected. The duplicate will be collected by filling a second canister, labeled REP-1, after the first canister has been filled. In addition, a field blank will be collected by filling a canister with ambient air from the site.

After each sample is collected, the soil vapor probe will be removed from the ground and decontaminated by washing with soap and distilled/deionized water. A Chain of Custody Form will then be completed and samples will be shipped overnight by Federal Express to the lab for the analyses specified below. The background and downgradient samples will be shipped in separate coolers.

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Sample Analysis

Samples will be analyzed by Air Toxics Ltd., located in Folsom, California, via USEPA Method TO-14-S (GC/MS SIM), using the reporting limits specified below after each analyte. The samples will be analyzed for the following contaminants of potential concern (COPC) identified in the Baseline Human Health Risk Assessment: Chloroform (0.020 ppbv); 1,1-Dichloroethane (0.020 ppbv); 1,1-Dichloroethene (0.010 ppbv); Cis-1,2-Dichloroethene (0.020 ppbv); Trans-1,2-Dichloroethene (0.100 ppbv); Freon 113 (0.020 ppbv); Tetrachloroethene (0.020 ppbv); Toluene (0.020 ppbv); and Trichloroethene (0.020 ppbv).

Reporting

Upon receipt of the analytical data, the results will be validated and tabulated in a spreadsheet. A map of the sampling locations will be prepared and a report detailing the results will be prepared.

Sincerely,

ARCADIS G&M, Inc.

Carlo San Giovanni

Carlo Can Giovanni
Project Manager

Nicholas Valkenburg

Nicholas Valkenburg
Vice President/Project Director

Copies:
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LONG ISLAND EXPRESSWAY
LONG ISLAND EXPRESSWAY
STATE PARKWAY
NASSAU COUNTY
QUEENS COUNTY
GRAND CENTRAL PARKWAY
LITTLE NECK PARKWAY
UNION TURNPIKE
NEW HYDE PARK ROAD
MARCUS AVENUE
MARCUS AVENUE
TANNERS ROAD
OLIVE STREET
LAKE SUCCESS PARK GOLF COURSE
VILLAGE HALL OF LAKE SUCCESS
LAKE SUCCESS
SOUTH HIGH SCHOOL
GREAT NECK PUBLIC SCHOOLS
SOUTH MIDDLE SCHOOL
NORTH SHORE TOWERS
NORTH SHORE TOWERS GOLF COURSE
LONG ISLAND JEWISH HOSPITAL
GLENN OAKS POOL
MAIN BLDG.
FORMER UNISYS FACILITY

EXPLANATION:

- BODY OF WATER
- RETENTION BASIN
- LOCATION AND DESIGNATION OF SOIL VAPOR SAMPLE
- LOCATION AND DESIGNATION OF DIFFUSION WELL
- LOCATION AND DESIGNATION OF MONITORING WELL
- LOCATION AND DESIGNATION OF SITE EXTRACTION OR RECOVERY WELL
- LOCATION AND DESIGNATION OF MUNICIPAL SUPPLY WELL
- LOCATION AND DESIGNATION OF NON-MUNICIPAL SUPPLY WELL
- LOCATION AND DESIGNATION OF NON-MUNICIPAL DIFFUSION WELL
- LOCATION AND DESIGNATION OF DOMESTIC WELL
- LOCATION AND DESIGNATION OF WELL WHOSE USE IS UNKNOWN
- LOCATION AND DESIGNATION OF VERTICAL PROFILE BORING
- FORMER UNISYS FACILITY PROPERTY BOUNDARY

0 800
SCALE IN FEET

NO.	DATE	REVISION DESCRIPTION	BY

ARCADIS G&M

FORMER UNISYS FACILITY
GREAT NECK, NEW YORK

LOCKHEED MARTIN CORPORATION

SOIL VAPOR SAMPLING LOCATIONS

DRAWN	DATE	PROJECT MANAGER	DEPARTMENT MANAGER
A.C.	10/25/01	C. SAN GIOVANNI	N. VALKENBURG
		LEAD DESIGN PROF. N. BENOWITZ	CHECKED N.B.
		PROJECT NUMBER NY1227.012	DRAWING NUMBER 1