## EXPERTISE YOU CAN COUNT ON



5 McCrea Hill Road Ballston Spa New York 12020 Phone: 518-885-5383 Fax: 518-885-5385 www.aztechtech.com

December 1, 2010

Mr. John J. Rashak, P.E. NYSDEC – Region 3 21 South Putt Corners Road New Paltz, NY 12561

Re: Dutchess County Airport Hanger Facility – Supplemental Subsurface Investigation Work Plan 32 Griffith Way, Wappingers Falls, NY Site #314078

Dear Mr. Rashak:

Aztech Technologies, Inc. (Aztech) has prepared this letter to present a supplementary subsurface investigation work plan for the above referenced site. The work plan is in response to a request by the New York State Department of Environmental Conservation (NYSDEC) and has been developed from tasks (B-1) outlined in the Standby Contractor Authorization ("call out") Form (ID 119161) and a site meeting with the NYSDEC on November 22, 2010. The scope of work will be performed by Aztech under our NYSDEC Standby Remedial Services Contract number C100904.

Background

The information presented below was obtained from a review of a report prepared by the IBM Corporation. Please refer to IBM's "Revised and Updated Petition to New York State Department of Environmental Conservation for Reclassification of IBM Leased Property IBM Hanger (Former Building 953) Dutchess County Airport, Site No. 314078", dated February 28, 1997, prepared by Groundwater Sciences Corporation of Harrisburg, Pennsylvania. Additional groundwater investigation reports pertaining to the site were not available for Aztech to review.

The site consists of aviation hanger B953 and associated property owned by Dutchess County and is currently leased by Associated Aircraft Group, Inc. (AAG). The leasehold property surrounding the hanger building is generally asphalt or grass covered. A private water well is located adjacent to the north side of the hanger. Septic systems are located north and south of the hanger.

Relatively low concentrations of chlorinated solvents were detected in the site's water well in 1981 and 1982. Initial groundwater investigations performed between 1983 and 1986 by the site leaseholder at that time, the IBM Corporation, showed chlorinated solvents present in the area of the northern septic system and in close proximity to the southeast corner of B953, at monitoring well A-20S. Monitoring well A-20S is located in close proximity to a former industrial waste tank.

A 6,000 gallon capacity concrete "septic-type" industrial waste underground storage tank (UST) was located toward the southeast corner of B953. The tank was tested in 1981 and found to leak. Use of the tank was discontinued in 1982 and the tank was reportedly removed in 1983. Details regarding the UST closure are not provided.

A 275 gallon capacity industrial waste UST was located on the south side of B953, in close proximity to the southeast corner. This UST was closed in 1985 by removal. Soil surrounding the tank reportedly showed no "soil discoloration or organic vapor readings were noted during the tank excavation".

Relatively low concentrations of volatile organic compounds (VOCs) were detected in three (3) shallow monitoring wells (A-26A, A-27S and A-28S) located near the southeast corner of B953.

These wells were installed to assess groundwater conditions at two (2) USTs located in this area and mentioned above. Well A-28S is located hydraulically upgradient of the USTs indicating a potential upgradient source of the VOCs.

Additional investigations at the southern border of the site, hydraulically upgradient, indicated that petroleum derived dissolved groundwater contaminants exist in the shallow aquifer. Petroleum derived VOCs were detected at soil borings A-31S through A-38S.

In 1993, an above ground industrial waste water holding tank located at the southeast corner of B953 overflowed as a result of an eyewash station within the building being allowed to run continuously. Approximately 927 gallons of waste water was reportedly released. The waste water reportedly contained relatively low concentrations of chlorinated solvents (TCA, 11DCA and PCE). Laboratory analyses of soil samples from the spill location indicated none of the compounds contained in the holding tank were detected. Laboratory analyses of groundwater at monitoring wells in close proximity to the holding tank location indicated "no observable impact to groundwater resulting from this release".

## Supplemental Subsurface Investigation

The purpose of the supplemental investigation is to aid in determining potential source area(s) of chlorinated solvents and BTEX (benzene, toluene, ethylbenzene and total xylenes) compounds previously documented in the shallow aguifer to the north and east of the hanger building B953.

As per the NYSDEC call out scope of work, five (5) borings will be advanced using hollow stem auger drilling techniques. Proposed boring locations (MW-1, MW-2, MW-3, S-4 & S-5) are depicted on the enclosed site map (Figure 1). Actual locations will depend upon site conditions (access, utilities, etc.). Numerous underground utilities were noted during the site meeting on November 22, 2010. To prevent damage to underground utilities, the first four (4) feet of each boring will be removed using a pneumatic lance and vacuum to check for buried utilities prior to auger advancement.

The borings will be completed to total depths of approximately five (5) feet below the initial water bearing zone, to estimated total depths of 13 to 20 feet below grade. During advancement of the soil borings, continuous soil samples will be collected and logged by a geologist. The soil samples will be field analyzed for volatile organic compounds (VOCs) using photoionization detector (PID) headspace methods.

One (1) soil sample from each borehole indicating the highest VOC concentration by PID analysis will be submitted for laboratory analysis by EPA Methods 8260 and 8270 with Category B data deliverables. At boreholes not indicating the presence of VOCs by PID analysis, the soil sample from the elevation of the initial water table will be submitted for laboratory analysis. Aztech proposes to utilize Adirondack Environmental Services, Inc. of Albany, New York, a NYSDEC contracted laboratory with NYSDOH ELAP (#10709) accreditation. A minimum laboratory reporting limit of 1.0 ug/kg will be requested from the laboratory.

At the completion of the borings located on the north side of hanger B953 (MW-1, MW-2 and MW-3), a two (2)-inch diameter schedule 40 PVC monitoring well consisting of ten (10) feet of 0.010-inch slot well screen will be installed in each boring to aid in the collection of groundwater samples. The annular space surrounding the well screen will be packed with appropriate sized filter sand to a level approximately one (1) foot above the screen. A bentonite seal will be placed immediately above the sand pack. The monitoring wells will be completed at the surface using flush mounted manhole covers. The newly installed monitoring wells will be developed by surging and bailing to remove fines and increase communication with the surrounding aquifer.

Soil borings located on the east side of hanger B953 (S-4 & S-5) will be backfilled with drill cuttings from the borings and a bentonite seal placed will be placed near the surface. The borings will be covered at the surface with a cold asphalt patch. Excess drill cuttings from all the soil borings will be placed in steel drums, labeled and arrangements will be made for proper disposal.

Monitoring wells MW-1, MW-2, MW-3 as well as existing monitoring wells A-26S and A-44S will be purged of a minimum of three (3) casing volumes and groundwater samples will be collected for EPA Method 8260 and 8270 full analysis with Category B data deliverables. A minimum laboratory reporting limit of 1.0 ug/L will be requested from the laboratory. The sampling protocol will include the use of trip blanks. Since only five (5) total samples (soil and groundwater each) will be collected, duplicate and/or correlation samples will not be collected.

Approximately one (1) week after installation, the depth to groundwater in monitoring wells MW-1, MW-2, MW-3, A-26S and A-44S will be determined using an electronic water level meter in order to determine groundwater flow direction and gradient. A limited site survey will be performed in order to construct a base map and determine the relative elevations of the monitoring well tops of casing.

Collected data will be presented in a report for submittal to the NYSDEC. The report will include supporting maps, drilling logs, laboratory analysis reports, methodologies employed, and recommendations. As per discussions with the NYSDEC, the report will not include a Data Usability Summary Report (DUSR) of the Category B laboratory data deliverables. A DUSR can be performed on the laboratory deliverables at a later data if required.

The drilling portion of the scope of work is expected to require approximately two (2) to three (3) days to complete. Monitoring well sampling and site surveying is anticipated to require approximately one (1) day to complete. A draft report of this scope of work may be available approximately six (6) to eight (8) weeks after the completion of field activities.

Please inform Aztech if the proposed work plan is acceptable or requires modification. If you have any questions or comments please call us at (518)885-5383.

Sincerely,

AZTECH TECHNOLOGIES, INC.

William Toran

Environmental Geologist/Project Manager

Attachments:

Figure 1 – Proposed Soil Boring/Monitoring Well Location Map

