AECOM
100 Corporate Pkwy.
Suite 341
Amherst, NY 14226
www.aecom.com

716 836 4506 tel
716 834 8785 fax

September 15, 2010

Ms. Linda Ross, CPG
New York State Department of Environmental Conservation.
Division of Environmental Remediation, Region 9
270 Michigan Avenue
Buffalo, New York 14203-2999

Subject: Revised Summary of Supplemental Investigation at MW-31 (Northeast of AVOX Plant 2)
Former Scott Aviation Facility
Lancaster, New York

Dear Ms. Ross:

On behalf of Tyco Safety Products (Tyco), AECOM Technical Services, Inc. (AECOM) performed a supplemental investigation (SI) to delineate a volatile organic compound (VOC) plume previously observed in groundwater in the vicinity of monitoring well MW-31 (Northeast of AVOX Plant 2), located at the Former Scott Aviation Facility (Site) in Lancaster, New York[1]. The investigation was performed in accordance with Attachment 2 - Scope of Work for Supplemental Investigation of the June 15, 2009 letter from Tyco to NYSDEC, Subject: Summary of MW-31 Analytical Data (Northeast of AVOX Plant 2). The narration below and associated figures, tables, and attachments summarize the results of the SI.

Summary of Work Performed

On August 6 and 7, 2009, AECOM and its subcontractor, Zebra Environmental Corporation (Zebra), performed a membrane interface probe (MIP) investigation in the area of MW-31. As presented in **Figure 1**, fourteen (14) MIP borings were advanced to refusal in the vicinity of MW-31 to further delineate the spatial distribution of chlorinated volatile organic compounds (CVOCs) previously observed in groundwater in this area. The MIP study was intended to be used as a tool to qualitatively determine the relative extent of the contamination identified at MW-31 so future steps could be more accurately determined. Photographs collected during the investigation are presented in **Attachment 1**. Refer to **Attachment 2** for logs plotting MIP data as a function of depth below ground surface and representative three dimensional cross-sections across the area of concern.

The detection limit for the MIP photo ionization detector (PID) probe is 1 parts per million (ppm) and the detection limit for the MIP electron capture detector (ECD) is 500 parts per billion (ppb). The ability to detect a contaminant is determined by the type of detectors being used. The detectors used included PID, ECD, and flame ionization detector (FID). Each detector is designed for sensitivity to a group or type of contaminant although some contaminants may display a response using multiple detection modes. The ECD is sensitive to chlorinated compounds, PID is sensitive to aromatic

[1] This letter report was originally provided to NYSDEC on September 30, 2009. This letter report has been revised pursuant to NYSDEC comments dated February 10, 2010, and AECOM correspondence dated September 15, 2010.

hydrocarbons, and the FID is sensitive to straight chained hydrocarbons. The detector information and the electrical conductivity of the soil are graphed by the field instrument. This allows the operator to determine location and relative concentration of the contaminant, and soil lithology at a given location. For the SI, the ECD log was used to determine the relative concentration of CVOCs as the ECD is most sensitive to detector for CVOCs.

Two groundwater grab samples were collected using a discrete sampler (Geoprobe "SP-15" screen point groundwater sampler) and analyzed for volatile organic compounds (VOCs) using USEPA SW846, Method 8260B. An abbreviated list of compounds was analyzed based on the constituents identified during previous analysis of MW-31 on July 20, 2005 and January 19, 2009. The SP-15 sample locations were selected following real-time interpretation of MIP data to correlate the qualitative MIP data with the quantitative analytical laboratory data. One SP-15 location (SP-01) was selected adjacent to an area of known CVOC presence (MW-31) and one location (SP-02) was chosen from an area where MIP data indicated the absence of CVOCs (northeast corner of Plant 2).

One groundwater sample was also collected from MW-31 and analyzed for natural attenuation parameters (NAP). The NAP sample was collected from MW-31 to ensure sufficient supply of non-turbid groundwater for the large volume of sample required. NAP data were obtained to support the development of potentially applicable future remedial alternatives, if required.

In addition to the collection of groundwater samples, one subsurface soil sample was collected in the area of the elevated CVOCs for geotechnical soil characterization parameters, using the real-time interpretation of MIP data. Geotechnical soil characterization parameters were obtained to support the development of potentially applicable future remedial alternatives, if required.

Table 1 provides a summary of the groundwater VOC and NAP analytical data, and geotechnical soil characterization parameters. A copy of the laboratory reports is included in **Attachment 3**.

Summary of Data Results

As presented in **Attachment 2,** MIP data results indicate that the lateral extent of the CVOC groundwater plume is qualitatively delineated on the apparent hydraulic upgradient (west) and side-gradient (north and south) directions and is localized to the area immediately adjacent and east of MW-31. Note delineation further east of MIP-02 and MIP-03 (hydraulically downgradient) was not completed due to the location of underground utilities and the proximity to Walter Winter Drive. The ECD synchronized logs show no, or relatively minor, response at MIP-04, MIP-05, MIP-7, MIP-8, MIP-11, MIP-12, MIP-13, and MIP-14. An ECD response above the groundwater table at approximately 4 feet below ground surface was observed at MIP-01. The largest ECD responses were observed at MIP-10 and MIP-03 extending from approximately 12 to 20 feet below ground surface (diving slightly with distance from MW-31).

Although the SI focused on the ECD data generated from the MIP, additional data was collected from the PID, FID, and conductivity probes. The largest response to the PID probe was observed at MIP-01 (92,796 uV) at approximately 4 feet below ground surface and MIP-10 (74,481 uV) at approximately 14 feet below ground surface. Multiple responses to the FID were observed at MIP locations including peaks at MIP-10 (approximately 20 feet below ground surface) and MIP-13 (approximately 4 feet below ground surface).

The NAP data collected from MW-31 is indicative of strongly reducing conditions at the sampling location (i.e., low dissolved oxygen, negative oxidation-reduction potential, and elevated methane). The presence of vinyl chloride and dissolved gases, ethane and ethene, also indicate that reductive dechlorination is actively breaking down the trichloroethene (TCE) in this area.

TCE, cis-1,2-dichloroethene (cis-1,2-DCE), trans-1,2-dichloroethene (trans-1,2-DCE), and 1,1-dichloroethene (1,1-DCE) were detected in the Geoprobe screen point groundwater sample SP-01, adjacent to MW-31. Cis-1,2-DCE, trans-1,2-DCE, and 1,1-DCE are degradation products of TCE and 1,1,1-trichloroethane (1,1,1-TCA) via reductive dechlorination and/or abiotic reactions; their presence is indicative of ongoing natural attenuation. 1,1,1-TCA, 1,1-dichloroethane (1,1-DCA), and chloroethane were also detected in this sample. Chloroethane and 1,1-DCA are degradation products of 1,1,1-TCA; the presence of chloroethane and 1,1-DCA are also indicative of ongoing natural attenuation. The sample collected from the SP-02 location revealed only low-level (estimated) concentrations of TCE and xylenes. The relative absence of VOCs serves to confirm the qualitative accuracy of the MIP data.

Soil characterization parameters were obtained to support the development of potentially applicable future remedial alternatives, if required.

Conclusions

Two groundwater samples were collected using a discrete sampler (Geoprobe SP-15 sampler) and analyzed for select VOCs (analogous to those observed historically at MW-31). One SP-15 location, (SP-01) was selected adjacent to an area of known VOC presence (MW-31) and one location (SP-02) was chosen from an area where MIP data indicated the absence of VOCs (northeast corner of Plant 2) (refer to **Table 1**). The quantitative analytical laboratory data from the groundwater samples were successfully correlated with the qualitative MIP data (refer to **Attachment 2** for VOC correlation logs).

SI data, along with past groundwater flow direction data (refer to **Figure 1**), indicate that CVOCs appear to affect a relatively small area in the vicinity of MW-31. Based on the MIP data, the contamination has been qualitatively delineated laterally to the north, south, and west. The MIP data also demonstrates that the concentrations of CVOCs are decreasing vertically, with the largest peaks observed between 12 and 18 feet below ground surface.

Based on the results for the NAP parameters collected from MW-31, and the presence of degradation products for TCE and 1,1,1-TCA in MW-31 and in SP-01, reductive dechlorination appears to be actively occurring in groundwater in this zone of contamination, although additional information is necessary to confirm the completeness of these reactions spatially.

Groundwater data collected adjacent to the northeast corner of the Plant 2 building were below the New York Code of Rules and Regulations, Title 6, Part 702.15 (a)(2) and 703.5 VOC criteria for drinking water standards (refer to **Table 1**), the MIP data from points adjacent to the Plant 2 building verified the absence of VOCs, and the current overburden groundwater flow direction is eastward (i.e. away from the Plant 2 building). In addition, manufacturing operations within the building, which is upgradient of the MW-31 contaminant area, include the use of VOCs. As a result of these manufacturing operations, high levels of VOCs may present in the indoor air quality. Therefore, Tyco believes that conducting a sub slab vapor intrusion study in the northeast section of AVOX Plant 2 would be inappropriate. Tyco, however, at the request of NYSDEC and NYS Department of Health, will collect soil vapor samples from three locations adjacent to MW-31 area along the east side of Walter Winter Drive. A letter work plan for this work will be submitted to NYSDEC by September 30, 2010.

If you have any questions regarding this submission, please do not hesitate to contact me at (716) 836-4506 or via e-mail at dino.zack@aecom.com.

Yours Sincerely,

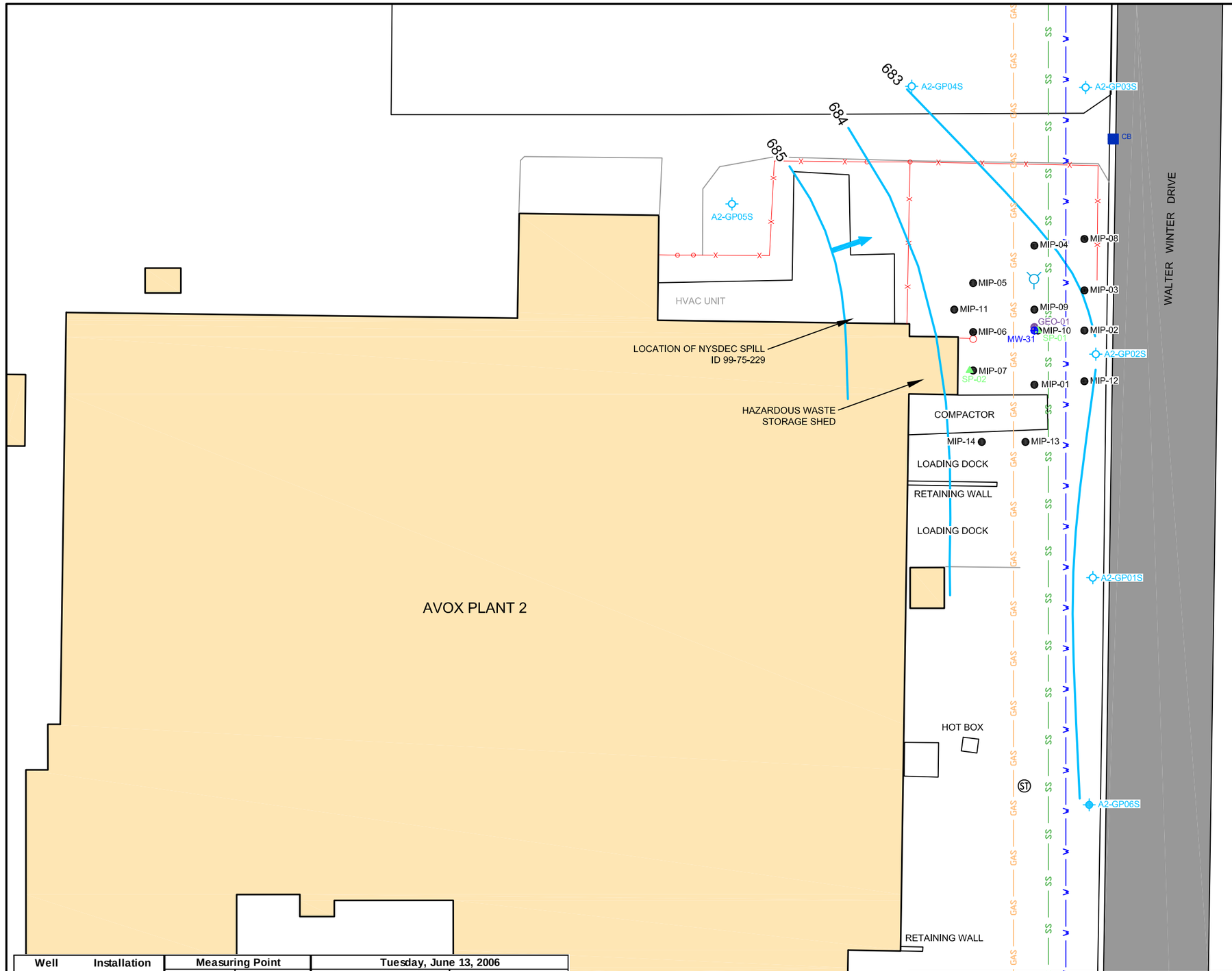
AECOM

Dino L. Zack, P.G.
Project Manager

\Enclosures

cc: Gregory Sutton, NYSDEC (Electronic Copy)
Denna Ripstein, NYSDOH (Electronic Copy)
William Saskowski, AVOX Systems Inc. (Electronic Copy)
John Perkins, Tyco Safety Products (Electronic Copy)
Eric Frauen, O&M, Inc. (Electronic Copy)
AECOM Project File (Electronic Copy)

FIGURE 1



N

LEGEND

- MW-31 — MONITORING WELL LOCATION
- A2-GP01S — PHASE I GEOPROBE GROUNDWATER SAMPLE LOCATION
- A2-GP06S — PHASE II GEOPROBE GROUNDWATER SAMPLE LOCATION
- MIP-01 — MIP LOCATION
- SP-01 — GEOPROBE SCREEN POINT GROUNDWATER GRAB SAMPLE LOCATION
- GEO-01 — SOIL SAMPLE LOCATION
- CB — CATCH BASIN
- ST — STORM SEWER MANHOLE
- HYDRANT
- 685 — GROUNDWATER SURFACE CONTOUR WITH ELEVATION (FEET MSL) COLLECTED 6/13/2006
- GROUNDWATER FLOW DIRECTION
- W — WATER LINE
- GAS — GAS LINE
- SS — SEWER LINE
- X — FENCE

0 15 30 60

SCALE IN FEET

Well Number	Installation Date	Measuring Point		Tuesday, June 13, 2006	
		Description	Elevation (ft)	Depth to Water (ft)	Elevation of Water (ft)
A2-GP01-S	3/3/2006	Top of Casing	686.3	3.97	682.33
A2-GP02-S	3/3/2006	Top of Casing	686.45	3.40	683.05
A2-GP03-S	3/3/2006	Top of Casing	689.45	7.14	682.31
A2-GP04-S	3/3/2006	Top of Casing	690.56	7.64	682.92
A2-GP05-S	3/3/2006	Top of Casing	691.39	5.41	685.98
A2-GP06-S	5/15/2006	Top of Casing	690.7	7.74	682.96

AECOM

FIGURE 1
SUPPLEMENTAL INVESTIGATION BORING LOCATIONS

FORMER SCOTT AVIATION, INC.
LANCASTER, NEW YORK

\\USGRNS01\data\work\60147012\CADD\60147012_060 Supplement Investigation Boring Locations.dwg, 9/15/2010 10:10:57 AM, splawnm

TABLE 1

Table 1

Former Scott Aviation Site
Supplemental Investigation
Summary of Laboratory Analytical Data for Groundwater and Soil

Sample ID	Groundwater	SP-01	SP-02
Date Collected	NYCRR	08/07/09	08/07/09
Lab Sample ID	Criteria	RSH0207-01RE1	RSH0207-01RE2
CLP VOC by Method EPA 8260B (µg/L)			
1,1,1-Trichloroethane	5	**31**	< 1 U
1,1-Dichloroethane	5	**2500 D**	< 1 U
1,1-Dichloroethene	5	**7.6**	< 1 U
Chloroethane	5	**24**	< 1 U
cis-1,2-Dichloroethene	5	**290 D**	< 1 U
trans-1,2-Dichloroethene	5	**4.9**	< 1 U
Trichloroethene	5	**600 D**	**0.51 J**
Vinyl chloride	5	**21**	< 1 U
Xylenes, total	5	**3.9**	**1.0 J**

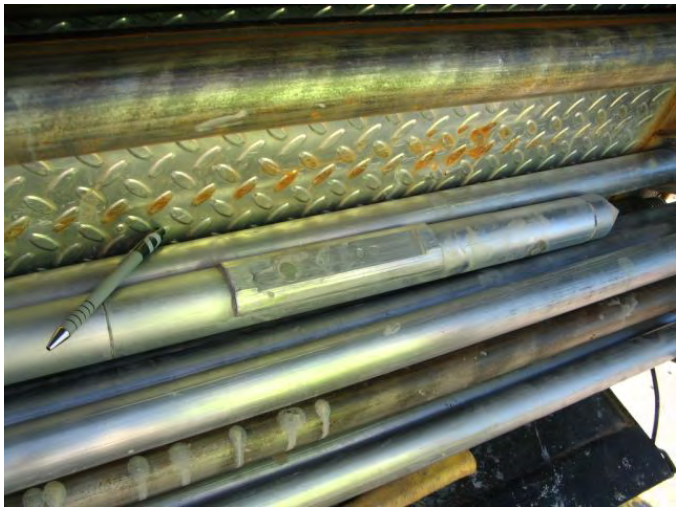
Sample ID		MW-31
Date Collected		08/05/09
Lab Sample ID		RSH0120-01RE1
MNA Parameters	**Units**	
Ferrous Iron	ug/L	1.0
Nitrogen-Nitrite	mg/L-N	< 0.05 U
Sulfate	mg/L	34.1
Total Alkalinity	mg/L	280
Sulfide	mg/L	< 0.100 U
Ammonia as N	mg/L	0.087
Total Organic Carbon	mg/L	2.8
Ethane	ug/L	21
Ethene	ug/L	12
Methane	ug/L	1500 D
ORP	mV	-113.5
Dissolved Oxygen	mg/L	0.43

Sample ID		GEO-01
Date Collected		08/07/09
Lab Sample ID		RSH0205-01
Soil Characteristics	**Units**	
Moisture Content	%	10.9
In-Place Density	g/cm3	2.11
Organic Soils	%	0.8
Specific Gravity		2.737

NYCRR - New York Code of Rules and Regulations, Title 6, Part 702.15 (a)(2) and 703.5.
U - Not detected at practical quantitation limit.
J - Indicates an estimated value.
D - Indicates sample dilution.
Bold font indicates the analyte was detected.
Bold outline indicates the screening criteria was exceeded.
Note SP-01 was collected at MIP-10 and SP-02 was collected at MIP-07.

ATTACHMENT 1

Former Scott Aviation Site
Supplemental Investigation
Photograph Report



Date: August 6, 2009
Site: Former Scott Aviation - Area 2 SI

View of membrane interface probe (MIP); note pen for scale.

Date: August 6, 2009
Site: Former Scott Aviation - Area 2 SI

View west of Zebra advancing the MIP at location 08. Note proximity of Walter Winter Road in foreground.

Date: August 6, 2009
Site: Former Scott Aviation - Area 2 SI

View northwest of Zebra collecting MIP data at location 09. Note MW-31 (flush mount well) to the south of the Geoprobe rig.

Date: August 6, 2009
Site: Former Scott Aviation - Area 2 SI

View southwest of Zebra advancing the MIP at location 09. Note proximity of water hydrant (one of three utilities in the area of this location).

AECOM

ATTACHMENT 2

ZEBRA

August 27, 2009

Dino Zack
AECOM
100 Corporate Parkway,
Suite 341
Amherst, New York 14226

Attention: Mr. Zack

RE: Summary Report for Direct Sensing Services
Former Scott Aviation Inc. Site
Lancaster, New York
ZEBRA RFP NO. DS16127

Dear Mr. Zack:

The following is a summary of site activities performed by ZEBRA Environmental at the AECOM Former Scott Aviation Inc. This report also includes a list of project personnel, a summary of the equipment used in the project and the capabilities of the equipment. A detailed description of the work performed follows this summary, and includes subsections on data acquisition and interpretation. The work was started on August 06, 2009.

SITE PROJECT PERSONNEL:

Mr. Dino Zack, AECOM
Mr. Jeffrey Rowley, AECOM
Mr. Brad Carlson, ZEBRA Environmental
Mr. Will McAllister, ZEBRA Environmental

SUMMARY OF EQUIPMENT USED IN THE PROJECT AND CAPABILITIES

The following list includes the equipment used for this project. More in-depth descriptions are included in other sections of this report.

1. Electrical Conductivity (EC) / Membrane Interface Probe (MIP) Unit
2. Probe Rods
3. Data Acquisition Vehicle
   - MIP controller unit
   - MIP6500 Series Probe (120v)
   - PEEK Trunklines
   - FC5000 Field Computer

- Laptop Computer/Printer
- Gas Chromatograph fitted with a Electron Capture Detector (ECD), Photo Ionization Detector (PID) and a Flame Ionization Detector (FID)
- Electrical generator
- Compressed Gas Cylinders

The following lists the capabilities of the Electrical Conductivity and Membrane Interface Probe Unit. More in-depth descriptions for this technology are included in other sections of this report.

Electrical Conductivity Probe Capabilities

The electrical conductivity (EC) probe measures the relative electrical conductivity of soil and ground water in contact with the probe, and provides a means to estimate the relative grain size distribution of the soil particles. Higher relative electrical conductivity measured by the probe should be interpreted as indicative of the presence of more colloidal sized soil particles compared with soil horizons exhibiting lower conductivity. The soil zones with lower relative electrical conductivity measured by the probe should be interpreted as indicative of less colloidal sized soil particles, and the presence of a greater percentage of silt and sand sized particles.

Since these measurements are relative, collection of soil cores adjacent to one or more of the EC probe locations for comparison to the EC data can be used to standardize the results. The physical inspection of grain size distribution in the different soil horizons can then be compared to the EC data to make inferences regarding the EC data at other locations where soil samples were not collected. Alternatively, the EC data can be compared to well logs collected adjacent to one of the probe locations for standardization.

The EC probe data will also be influenced by other electrolytes in the soil or aquifer. Salt water intrusion, brine spills, excessive fertilizer applications or other events that increase the loading of ions in the soil/aquifer matrix will influence EC results. It is not anticipated that any of these type events have occurred at this site.

Membrane Interface Probe Capabilities

The Membrane Interface Probe (MIP) measures the relative concentration of Volatile Organic Compounds (VOCs) in the soil and aquifer adjacent to a sampling window in the probe body. Heating of the soil and aquifer in direct contact with the probe increases the potential volatilization of the VOCs which can move through a membrane in the sampling window in response to the concentration gradient on either side of the membrane. Once the VOCs have diffused through the membrane, they are entrained in a carrier gas that delivers them to detectors in an above-ground gas chromatograph. The detectors produce a signal deflection in response to the VOCs, which is captured and stored for future interpretation.

The MIP can detect the presence of gross VOCs, but does not produce concentration data or specific compound speciation. The lower limit of detection is influenced by the in situ conditions, the contaminants, the detectors used and other on site conditions. In general,

halogenated compounds are detected at lower concentrations compared to non-halogenated organic compounds.

Since these data are relative to each other, collection of discrete soil or groundwater samples adjacent to one or more of the MIP probe locations for comparison to the response data can be used to standardize the results. Care must be taken to ensure that the samples are collected at the specific portions of the profile where the MIP data was collected. The inherent non-homogenous nature of soil and aquifer materials will result in some inconsistency between MIP data and quantitative analytical results, so the standardization process cannot be completely precise.

DETAILED DESCRIPTION OF SITE ACTIVITIES

ZEBRA mobilized a fully equipped Electrical Conductivity/Membrane Interface Probe System (EC/MIP) mounted on a Gator Unit to the site. The "data acquisition vehicle" carried the system 6500 Gas Controller unit, FC5000 Field Computer, printer, O.I. Analytical Model 4430 Photoionization Detector (PID) and Flame Ionization Detector (FID), O.I. Analytical Electron Capture Detector (ECD), generator and all required compressed gases, two (2) complete assemblies of MIP probes, probe rods and trunk lines, as well as all the tools and supplies needed for the EC/MIP logging. The ZEBRA field team utilized a track mounted Model 6600DT Geoprobe unit to advance the EC/MIP probes into the subsurface.

The project involved collecting EC/MIP logs at four (4) locations identified by the representatives of AECOM, and ZEBRA. Project Personnel recorded the location of the logging/sampling locations on a site plan.

At each location the EC/MIP probe was advanced to the target depth in 1 foot intervals. As the probe was being driven to depth, the electrical conductivity data and detector responses were being continuously recorded by the system's data acquisition hardware and software. Upon completion of the logging, the probe rod assembly was extracted from the ground and cleaned, and the borehole filled with Bentonite.

The Membrane Interface Probe (MIP) is a percussion tolerant VOC sensor that can continuously log volatile organics that diffuse through a semi-permeable membrane. Using a carrier gas, the VOC's are brought to the surface through tubing, which is connected to a laboratory grade Electron Capture Detector (ECD), Photoionization Detector (PID) and Flame Ionization Detector (FID) for immediate screening. All of these detectors are mounted in a Hewlett Packard 5890 Series II Gas Chromatograph cabinet. The following is a description of the ECD, PID and FID.

Electron Capture Detector (ECD)

Highly sensitive detector used to detect Hydrocarbons
Compounds of Interest: Chlorinated Compounds (Halogentated)
Detection Sensitivity: > 500 PPB
Detection Range: approximately 10^7

The radioactive Nickel 63 sealed inside the ECD detector emits electrons (beta particles) which collide with and ionize the make-up gas molecules (either nitrogen or P5). This reaction forms a stable cloud of free electrons in the ECD detector cell. The ECD electronics work to maintain a constant current equal to the standing current through the electron cloud by applying a periodic pulse to the anode and cathode. The standing current value is selected by the operator; the standing current value sets the pulse rate through the ECD cell, a standing current value of 300 means that the detector electronics will maintain a constant current of 0.3 nanoamperes through the ECD cell by periodically pulsing. If the current drops below the set standing current value, the number of pulses per second increases to maintain the standing current. When electronegative compounds enter the ECD cell from the column, they immediately combine with some of the free electrons, temporarily reducing the number remaining in the electron cloud. When the electron population is decreased, the pulse rate is increased to maintain a constant current equal to the standing current. The pulse rate is converted to an analog output, which is acquired by the HP data system. Unlike other detectors which measure an increase in signal response, the ECD detector electronics measure the pulse rate needed to maintain the standing current.

Photo Ionization Detector (PID)

Highly sensitive detector used to detect Hydrocarbons (ionization potential < 10.6 eV)
Compounds of Interest: Volatile Organic Hydrocarbons (Aromatic)
Detection Sensitivity: > 1.0 PPM
Detection Range: approximately 10^6

The Photo Ionization Detector (PID) responds to all molecules whose ionization potential is below 10.6eV, including aromatics and molecules with carbon double bonds. The PID is nondestructive, so the sample can be routed through the PID and passed on, in series, with the FID.

Flame Ionization Detector

Highly sensitive detector used to detect Hydrocarbons
Compounds of Interest: Volatile Organic Hydrocarbons
Detection Sensitivity: > 100 PPB
Detection Range: approximately 10^7

The Flame Ionization Detector (FID) is the most popular detector. Its popularity is due to its universal response and its ease of use. The FID responds to carbon and therefore produces a signal for all carbon containing compounds. The FID responds to any molecule with a carbon-hydrogen bond, such as aliphatic straight chained molecules, but its response is either poor or nonexistent to compounds such as CCl_4 or NH_3. Since the FID is mass sensitive, and not concentration sensitive, changes in the carrier gas flow rate have little effect on the detector response. It is preferred for general hydrocarbon analysis. The FID response is stable from day to day. It is generally robust and easy to operate. But because it uses a hydrogen diffusion flame to ionize compounds for analysis, it destroys the sample in the process.

Soil Conductivity System

An integral part of the MIP system is the direct sensing soil conductivity system. This system utilizes a specially designed probe that will withstand the rigors of percussion probing while taking continuous measurements of soil conductivity as it is being driven into the ground. The sensing probe is linked to a control box where the signal is received by a lap top computer. The signal from the probe is matched with precise depth measurements and logged on the screen. The consultant is able to read real time data showing changes in soil conductivity/resistivity. These changes can be used to identify lithology, contaminant mass, salt-water intrusion, or any other subsurface condition that displays a change in conductivity/resistivity.

Data Presentation

A summary of the logging point name and the terminal depth achieved is presented in the ***MIP field book*** (MIPFieldBook_AECOM.xls) in Microsoft Excel Format has been prepared and is available on the AECOMSharePoint Site.

A Log displaying the response from each of the three (3) detectors (ECD, PID, and FID) and Conductivity has been prepared and is available on the AECOMSharePoint Site. The logs showing the ECD, PID, and FID detector response reported in micro volts, and the conductivity in MilliSiemens per meter. The depth below grade is depicted on the X - axis with 0 feet (land surface) located at the bottom left of the page. The maximum depth logged below grade is at the bottom right of the page. Regarding electronic data transfer, all data collected on site has been compiled on Excel spread sheets and submitted to you on the AECOMSharePoint Site.

A Data Visualizations report containing site maps, site photographs, cross-sections, profiles, and solid models has been prepared and is available on the AECOMSharePoint Site.

ZEBRA appreciates the opportunity to provide these services and looks forward to working with AECOM in the future. Should there be any questions regarding this project or our other services, please do not hesitate to contact us.

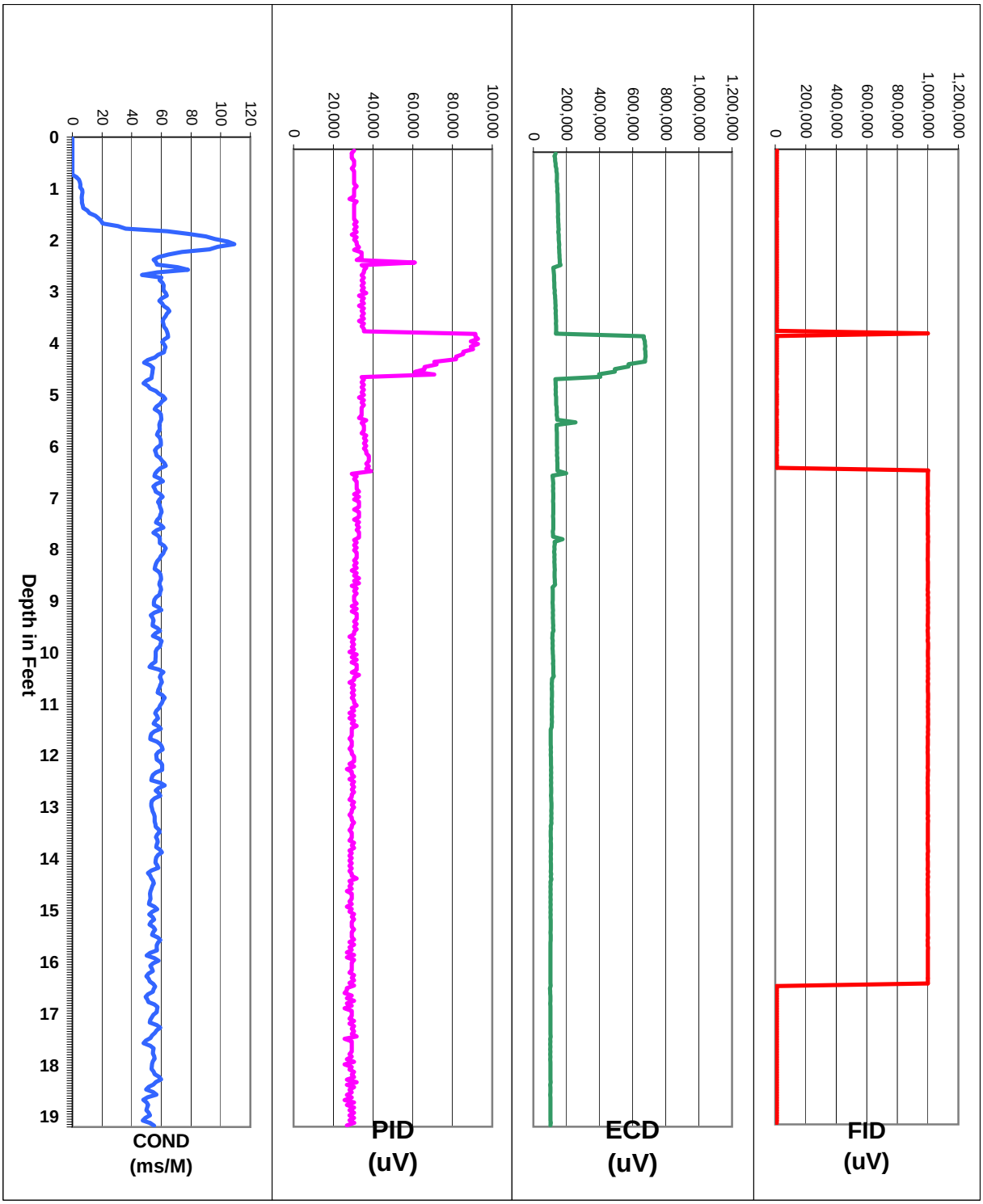
Sincerely yours,

William B. Carlson
ZEBRA Environmental Corp.

PLF: wbc

cc: David Vines, ZEBRA – Lynbrook, NY
cc: Shawn Tibbets, ZEBRA – Lynbrook, NY

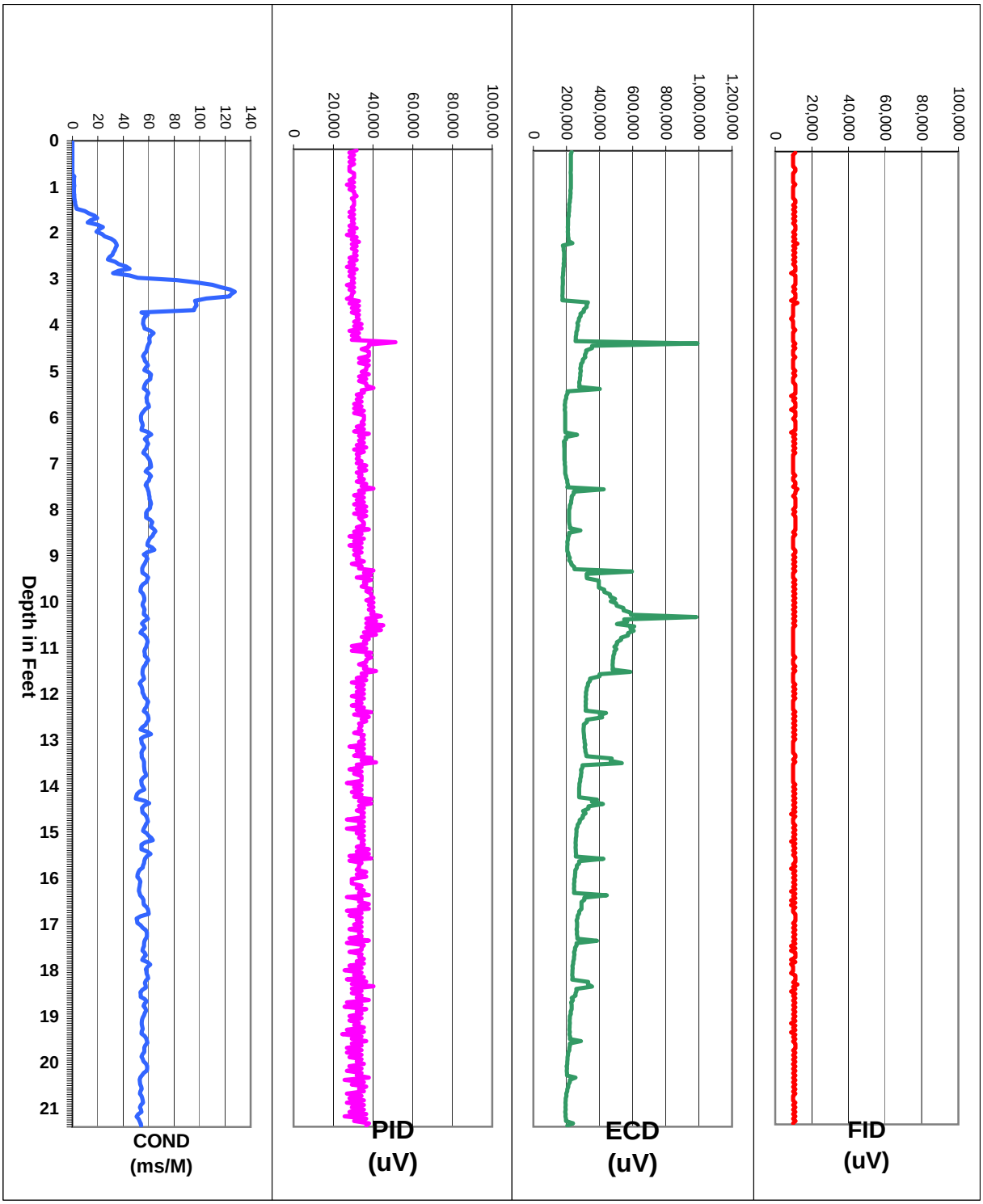
ZEBRA EC/MIP Summary Log, Point AMIP1
Area 2 (MW-31)



for: AECOM
by: Zebra Environmental
30 No. Prospect Avenue
Lynbrook, NY 11563
(516) 596-6300

Date: 8/6/2009
Proj. Name: Former Scott Aviation Facility
Proj. #: DS16127
Operators: Will M

ZEBRA EC/MIP Summary Log, Point AMIP2
Area 2 (MW-31)

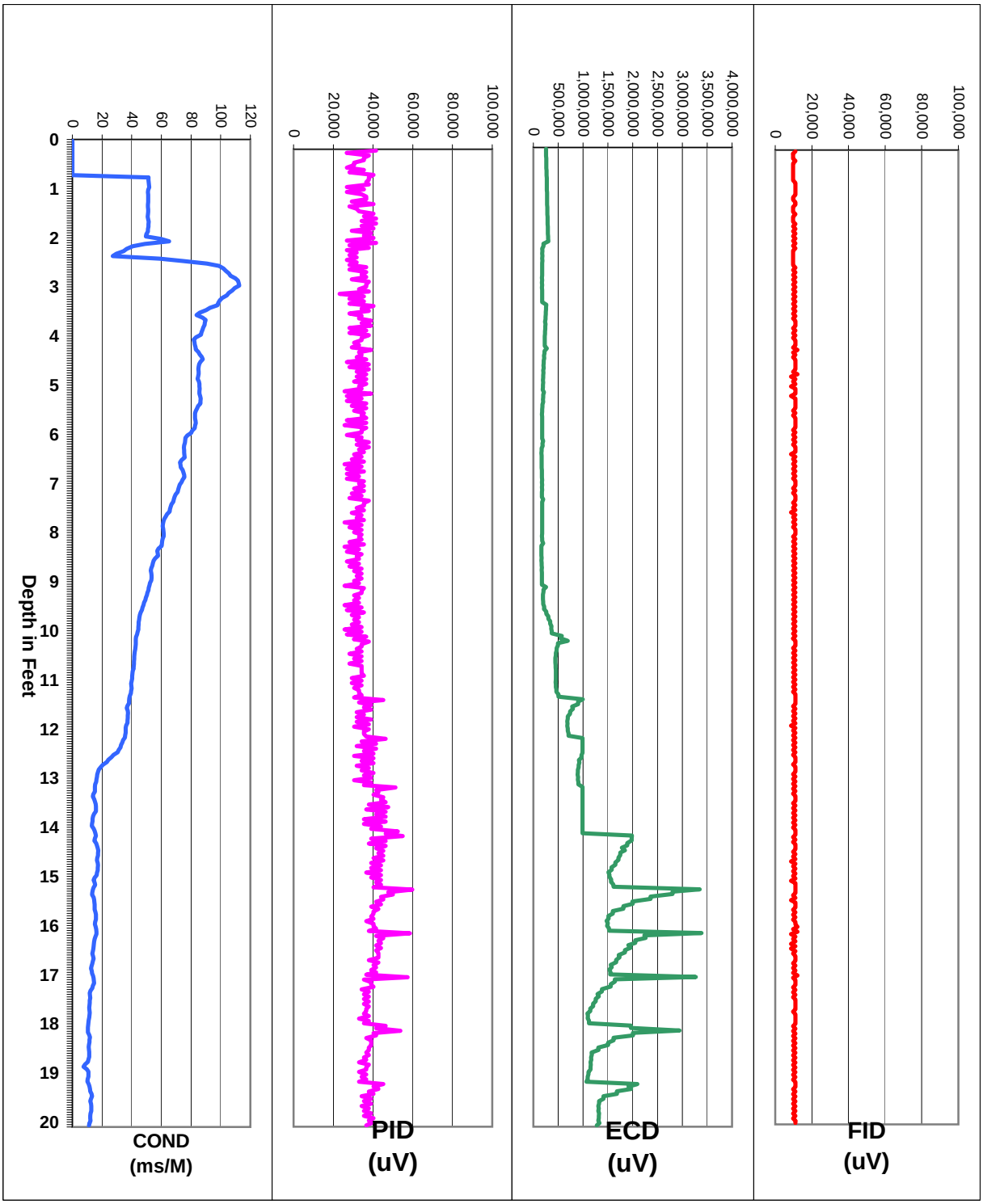


ZEBRA

for: AECOM
by: Zebra Environmental
30 No. Prospect Avenue
Lynbrook, NY 11563
(516) 596-6300

Date: 8/6/2009
Proj. Name: Former Scott Aviation Facility
Proj. #: DS16127
Operators: Will M

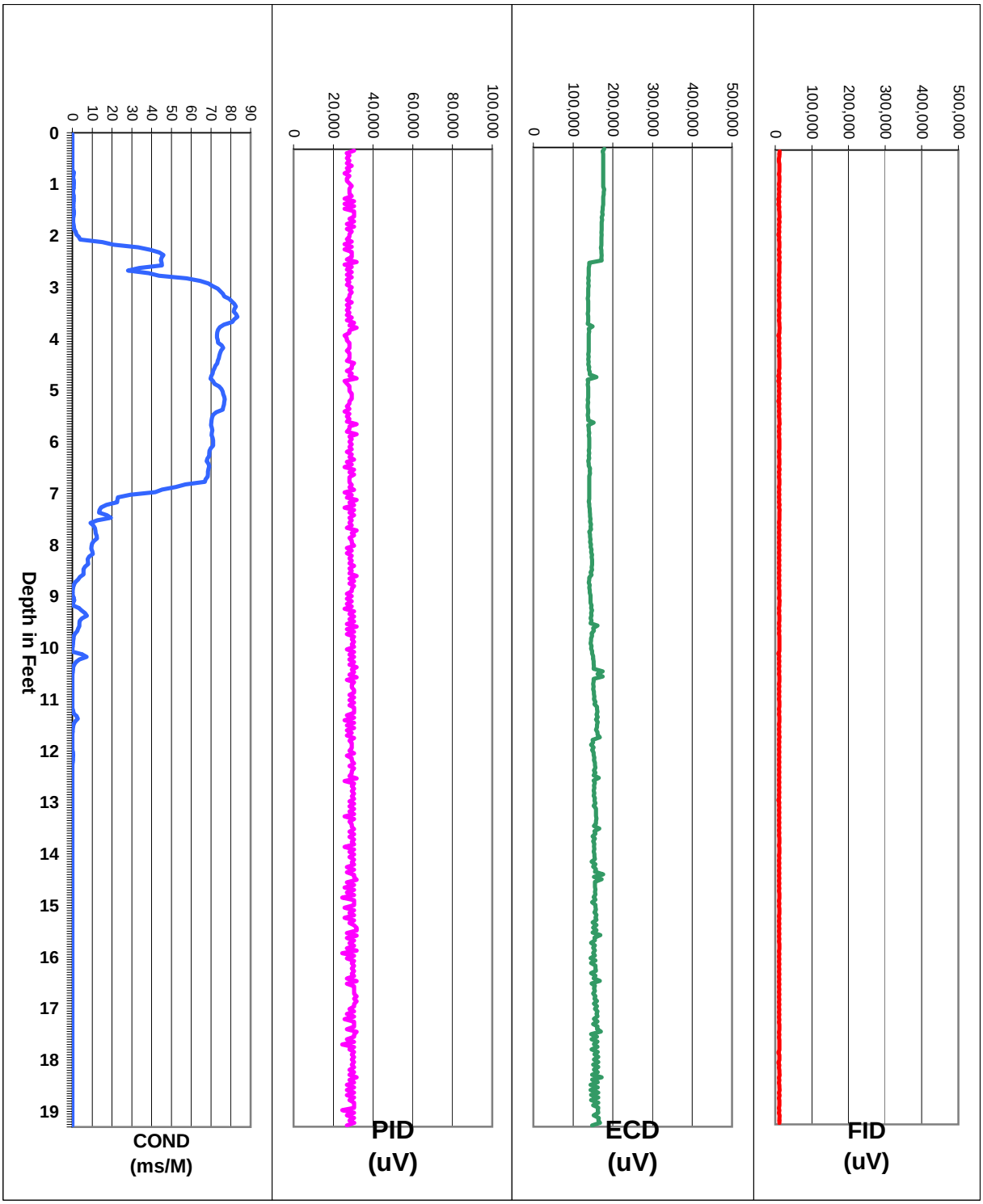
ZEBRA EC/MIP Summary Log, Point AMIP3
Area 2 (MW-31)



for: AECOM
by: Zebra Environmental
30 No. Prospect Avenue
Lynbrook, NY 11563
(516) 596-6300

Date: 8/6/2009
Proj. Name: Former Scott Aviation Facility
Proj. #: DS16127
Operators: Will M

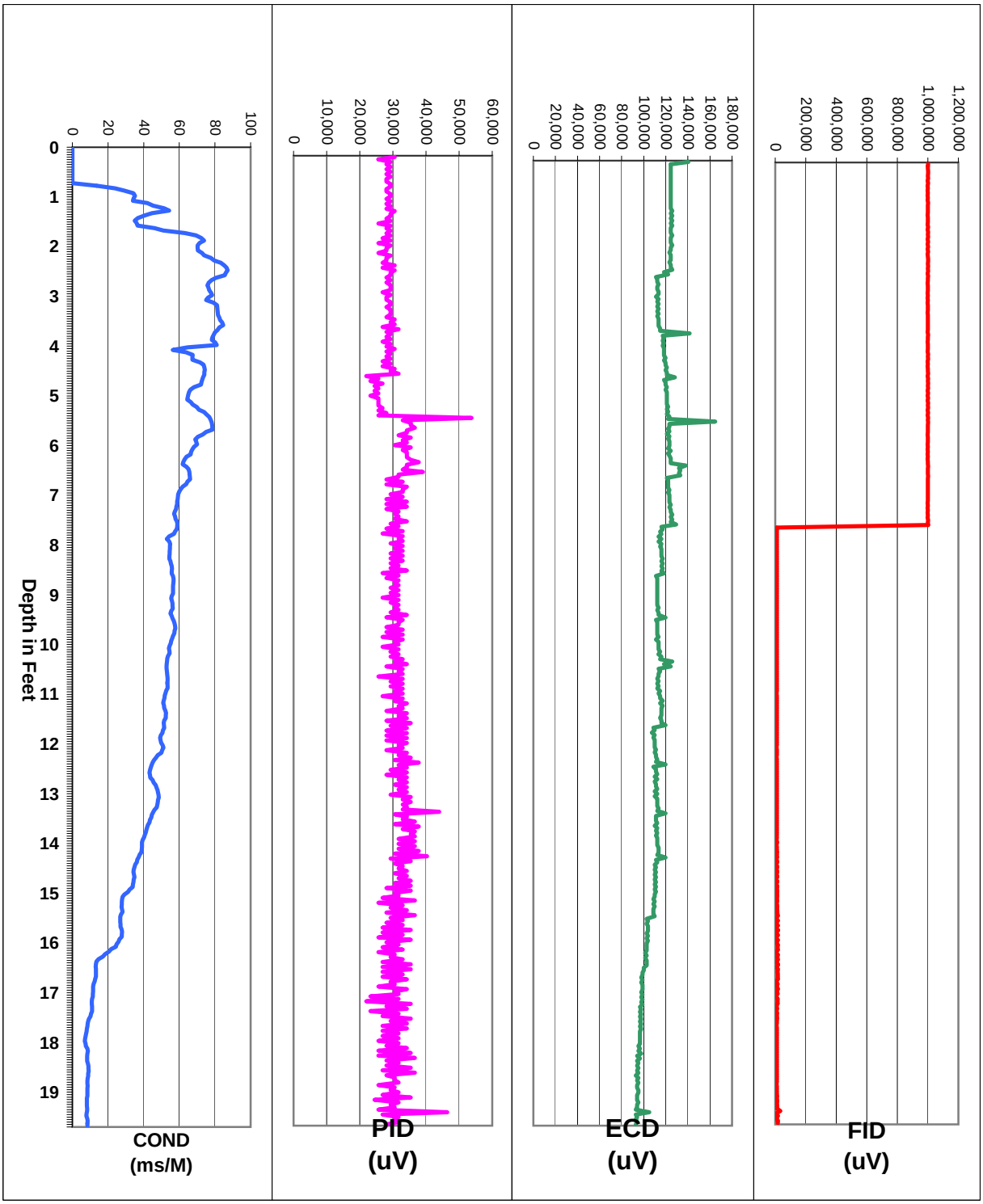
ZEBRA EC/MIP Summary Log, Point AMIP4
Area 2 (MW-31)



for: AECOM
by: Zebra Environmental
30 No. Prospect Avenue
Lynbrook, NY 11563
(516) 596-6300

Date: 8/6/2009
Proj. Name: Former Scott Aviation Facility
Proj. #: DS16127
Operators: Will M

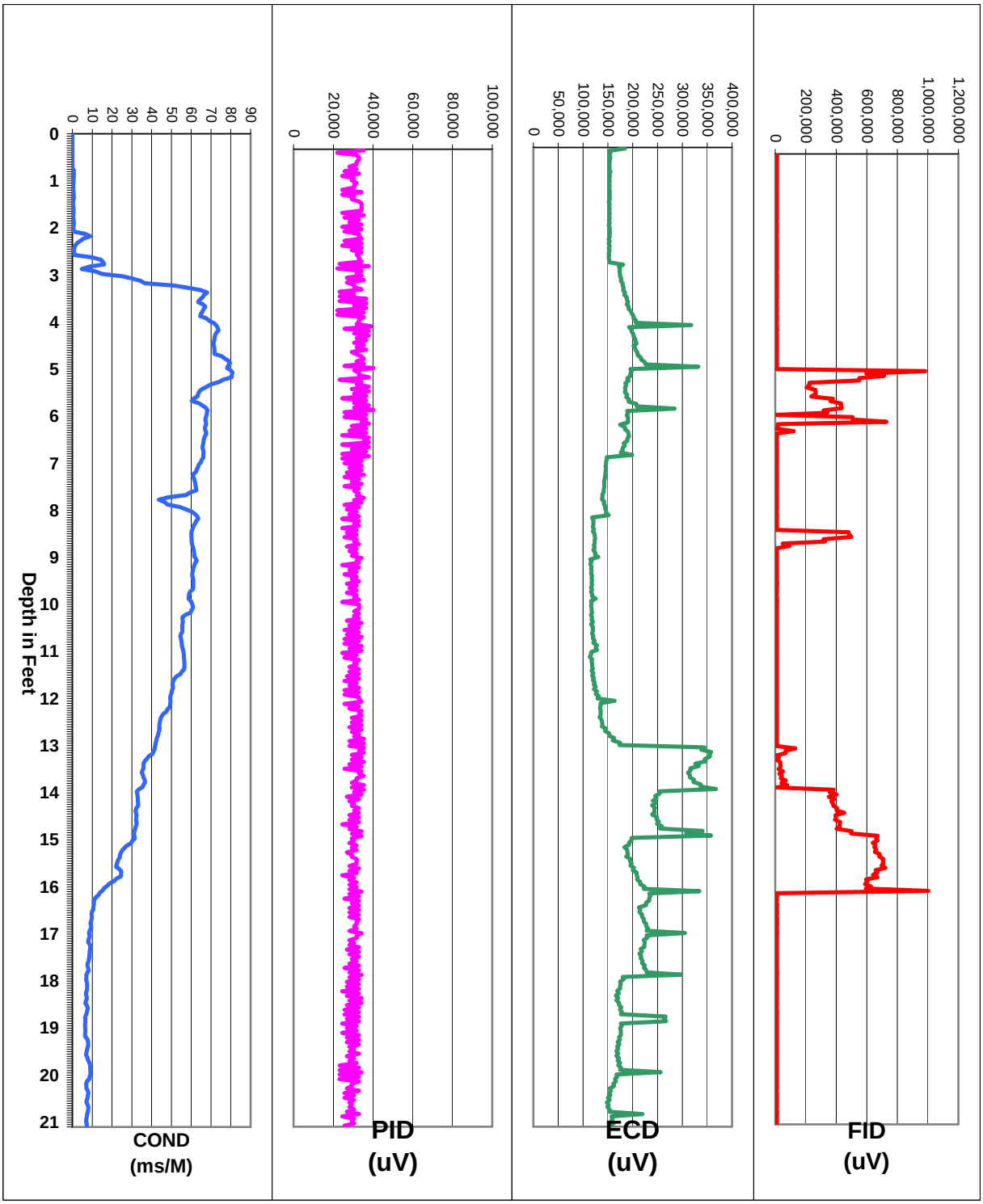
ZEBRA EC/MIP Summary Log, Point AMIP5
Area 2 (MW-31)



for: AECOM
by: Zebra Environmental
30 No. Prospect Avenue
Lynbrook, NY 11563
(516) 596-6300

Date: 8/6/2009
Proj. Name: Former Scott Aviation Facility
Proj. #: DS16127
Operators: Will M

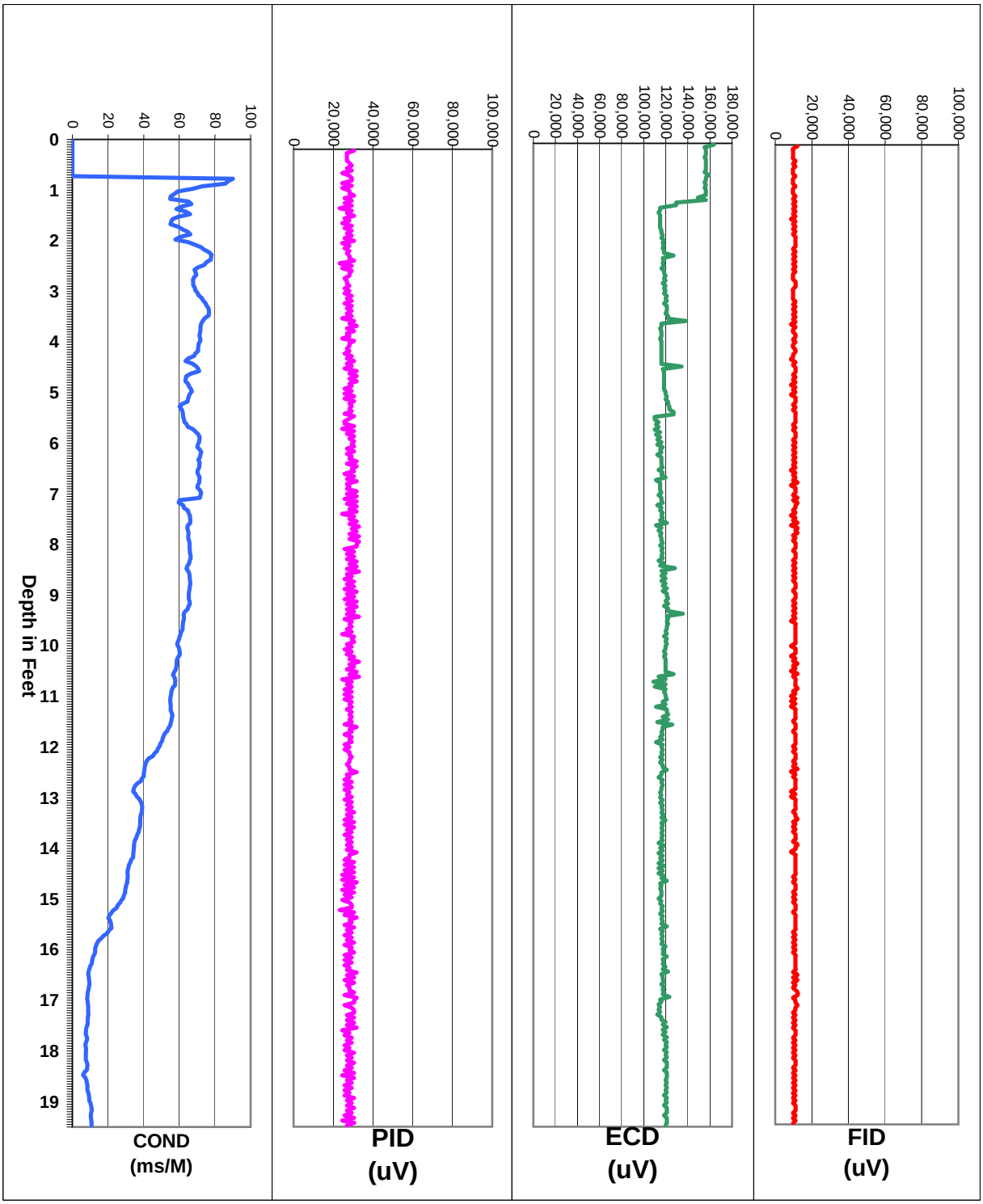
ZEBRA EC/MIP Summary Log, Point AMIP6
Area 2 (MW-31)



for: AECOM
by: Zebra Environmental
30 No. Prospect Avenue
Lynbrook, NY 11563
(516) 596-6300

Date: 8/6/2009
Proj. Name: Former Scott Aviation Facility
Proj. #: DS16127
Operators: Will M

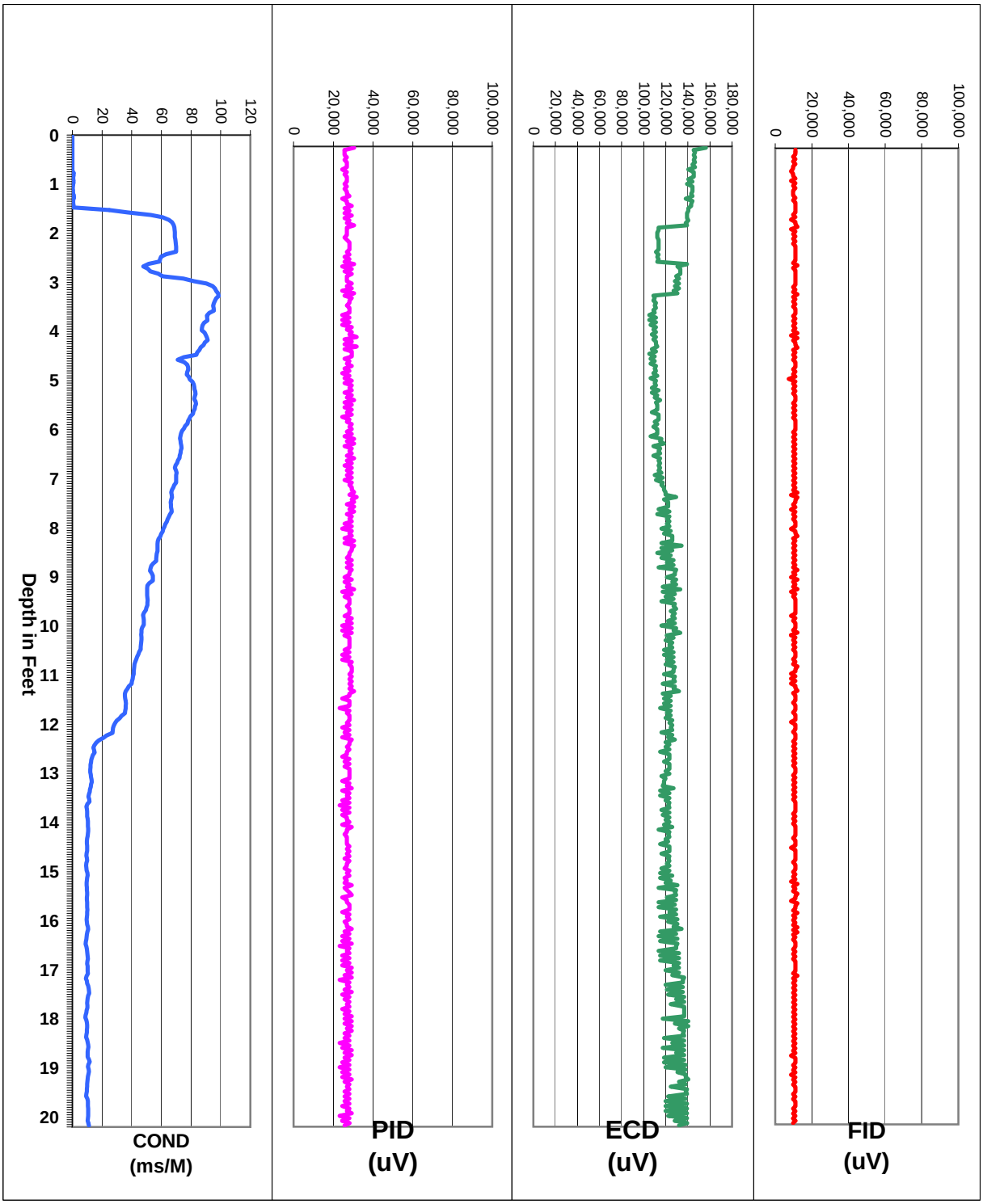
ZEBRA EC/MIP Summary Log, Point AMIP7
Area 2 (MW-31)



for: AECOM
by: Zebra Environmental
30 No. Prospect Avenue
Lynbrook, NY 11563
(516) 596-6300

Date: 8/6/2009
Proj. Name: Former Scott Aviation Facility
Proj. #: DS16127
Operators: Will M

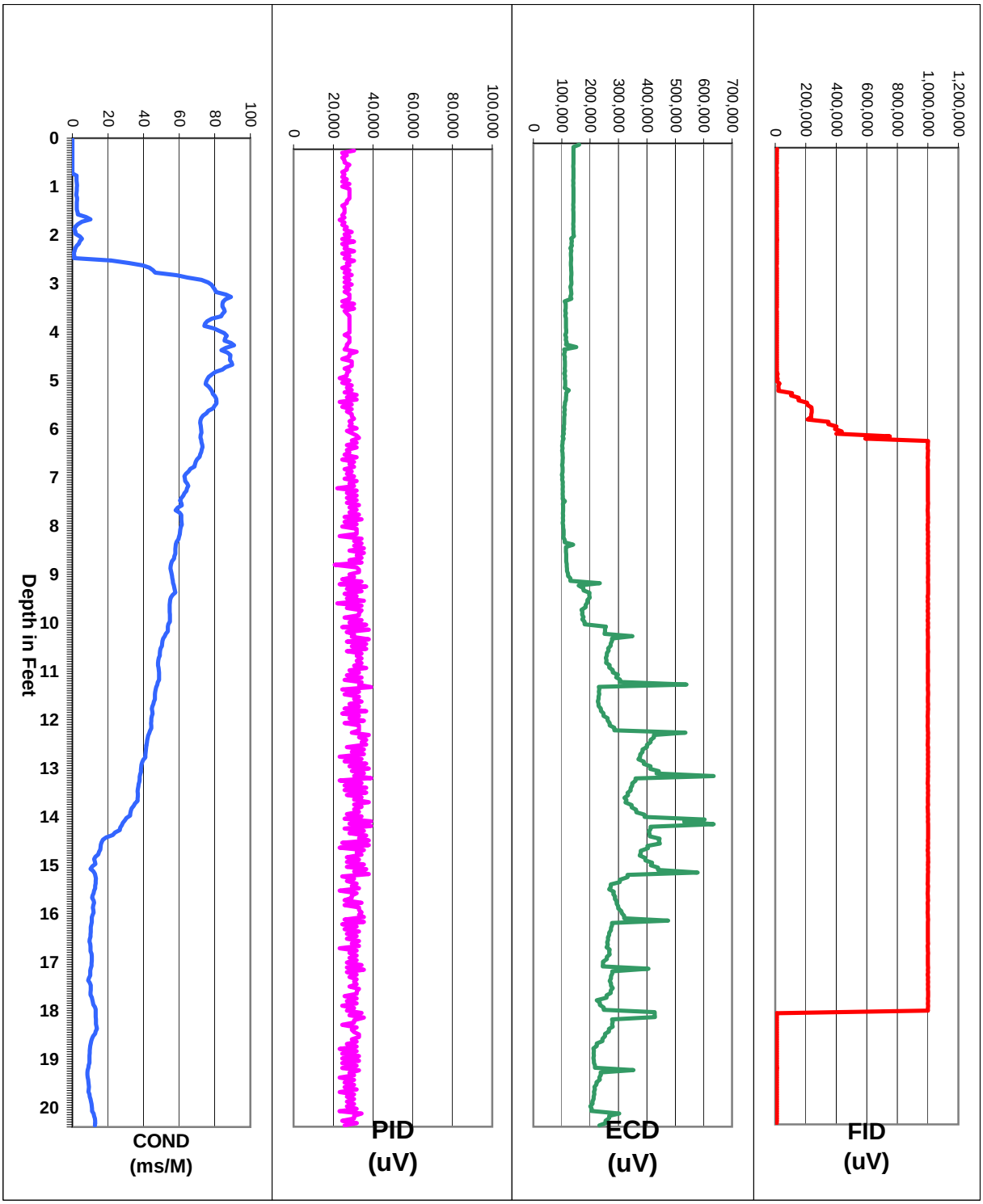
ZEBRA EC/MIP Summary Log, Point AMIP8
Area 2 (MW-31)



for: AECOM
by: Zebra Environmental
30 No. Prospect Avenue
Lynbrook, NY 11563
(516) 596-6300

Date: 8/6/2009
Proj. Name: Former Scott Aviation Facility
Proj. #: DS16127
Operators: Will M

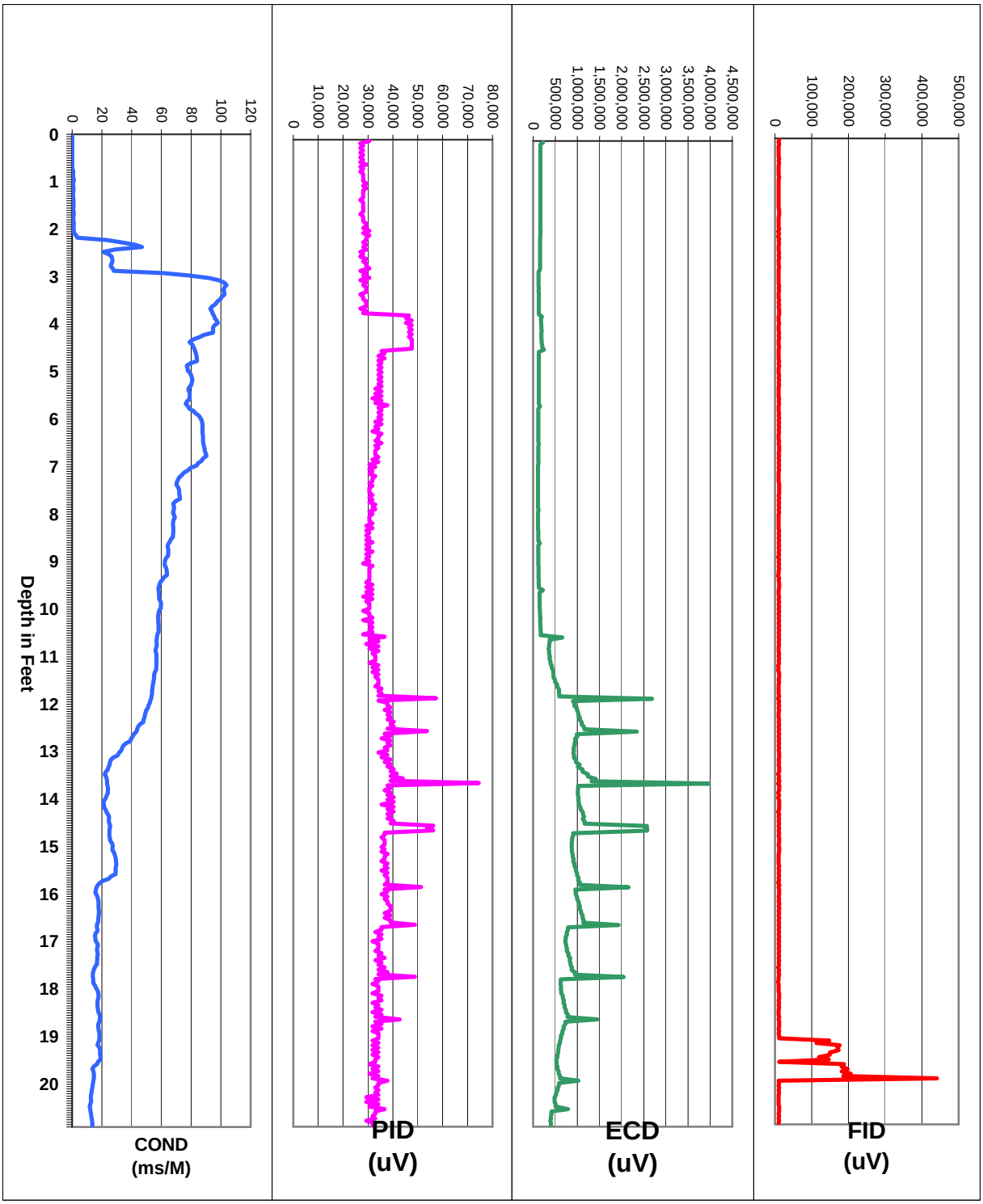
ZEBRA EC/MIP Summary Log, Point AMIP9
Area 2 (MW-31)



for: AECOM
by: Zebra Environmental
30 No. Prospect Avenue
Lynbrook, NY 11563
(516) 596-6300

Date: 8/6/2009
Proj. Name: Former Scott Aviation Facility
Proj. #: DS16127
Operators: Will M

ZEBRA EC/MIP Summary Log, Point AMIP10
Area 2 (MW-31)

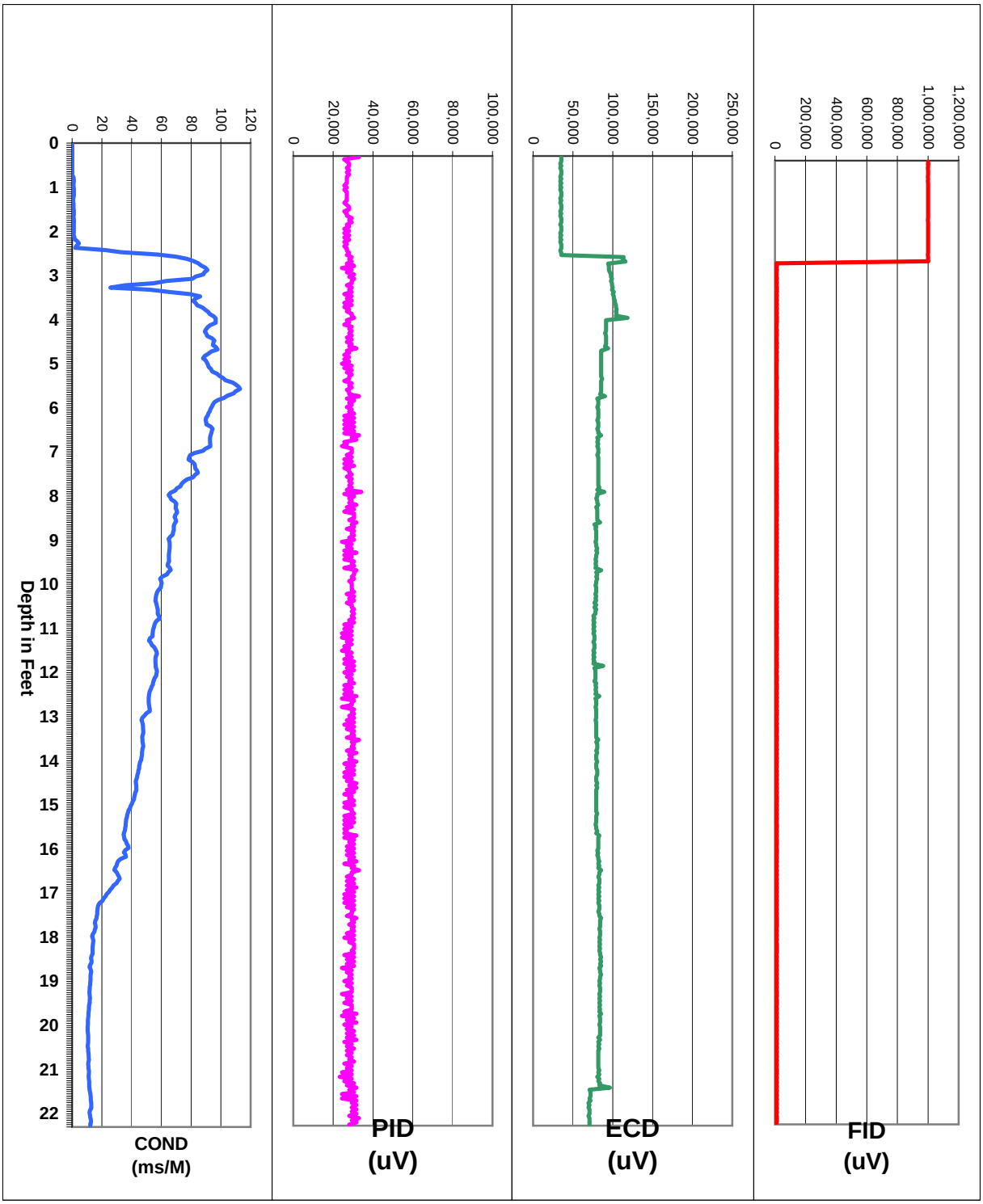


ZEBRA

for: AECOM
by: Zebra Environmental
30 No. Prospect Avenue
Lynbrook, NY 11563
(516) 596-6300

Date: 8/72009
Proj. Name: Former Scott Aviation Facility
Proj. #: DS16127
Operators: Will M

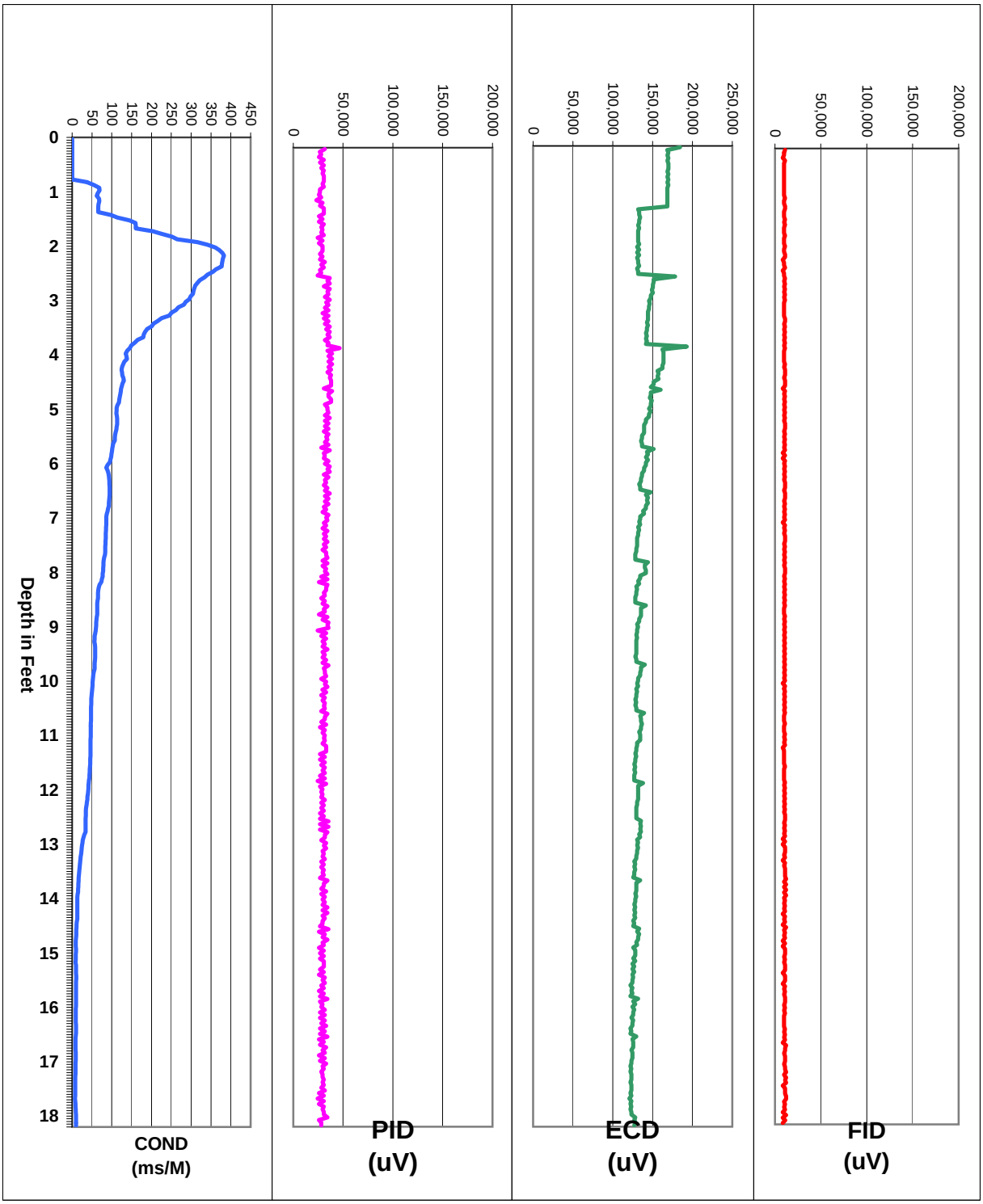
ZEBRA EC/MIP Summary Log, Point AMIP11
Area 2 (MW-31)



for: AECOM
by: Zebra Environmental
30 No. Prospect Avenue
Lynbrook, NY 11563
(516) 596-6300

Date: 8/72009
Proj. Name: Former Scott Aviation Facility
Proj. #: DS16127
Operators: Will M

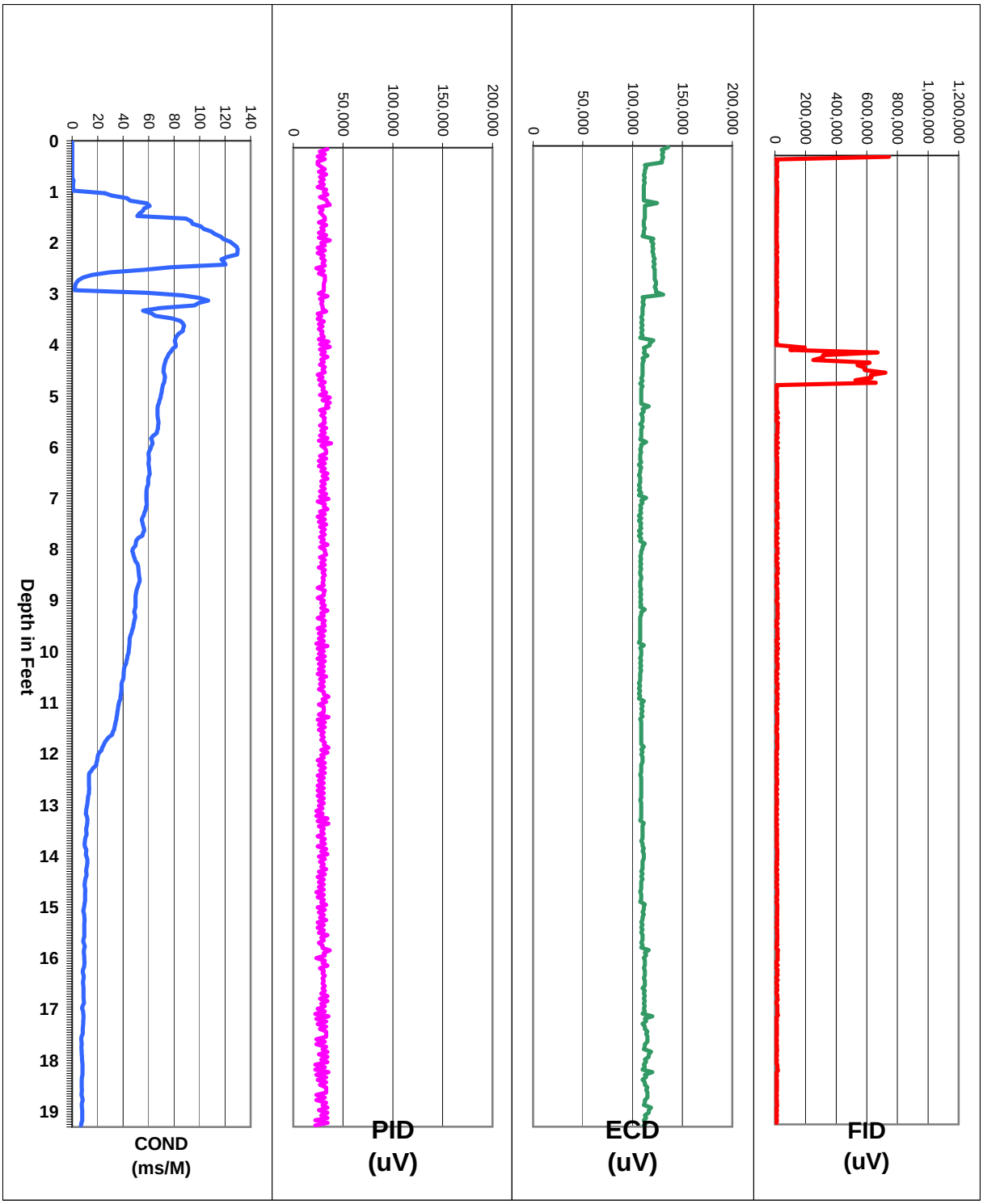
ZEBRA EC/MIP Summary Log, Point AMIP12
Area 2 (MW-31)



for: AECOM
by: Zebra Environmental
30 No. Prospect Avenue
Lynbrook, NY 11563
(516) 596-6300

Date: 8/72009
Proj. Name: Former Scott Aviation Facility
Proj. #: DS16127
Operators: Will M

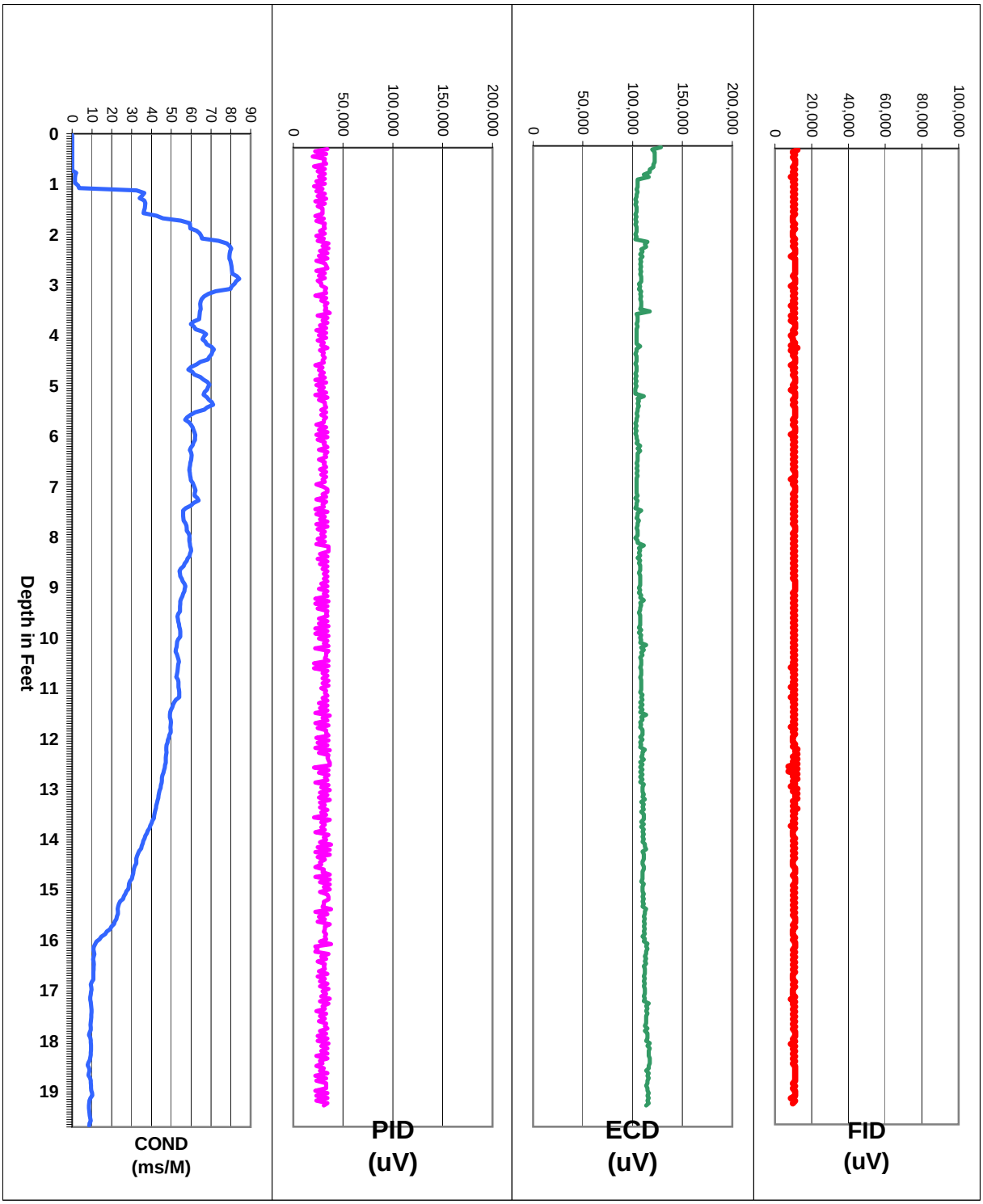
ZEBRA EC/MIP Summary Log, Point AMIP13
Area 2 (MW-31)



for: AECOM
by: Zebra Environmental
30 No. Prospect Avenue
Lynbrook, NY 11563
(516) 596-6300

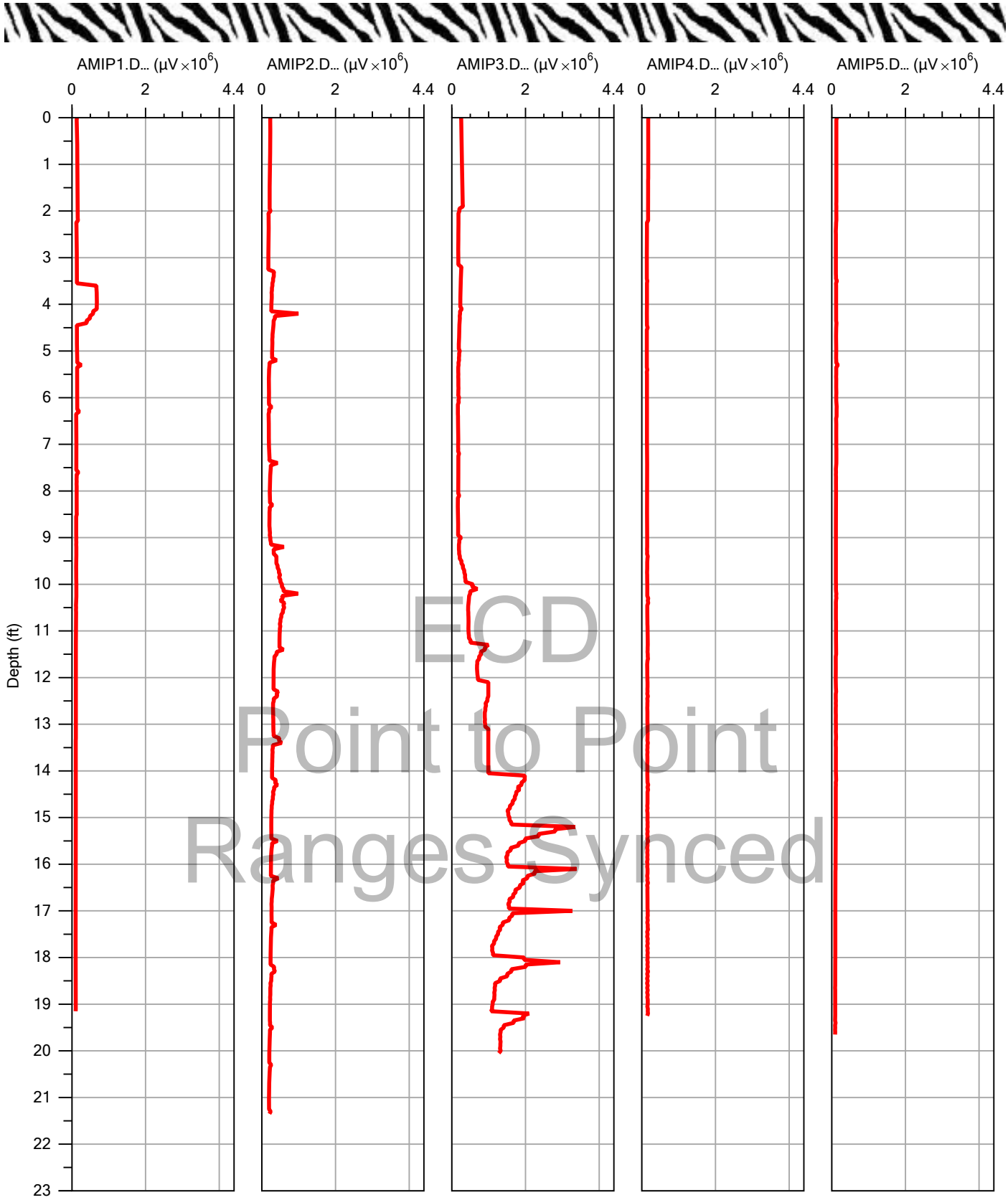
Date: 8/72009
Proj. Name: Former Scott Aviation Facility
Proj. #: DS16127
Operators: Will M

ZEBRA EC/MIP Summary Log, Point AMIP14
Area 2 (MW-31)



for: AECOM
by: Zebra Environmental
30 No. Prospect Avenue
Lynbrook, NY 11563
(516) 596-6300

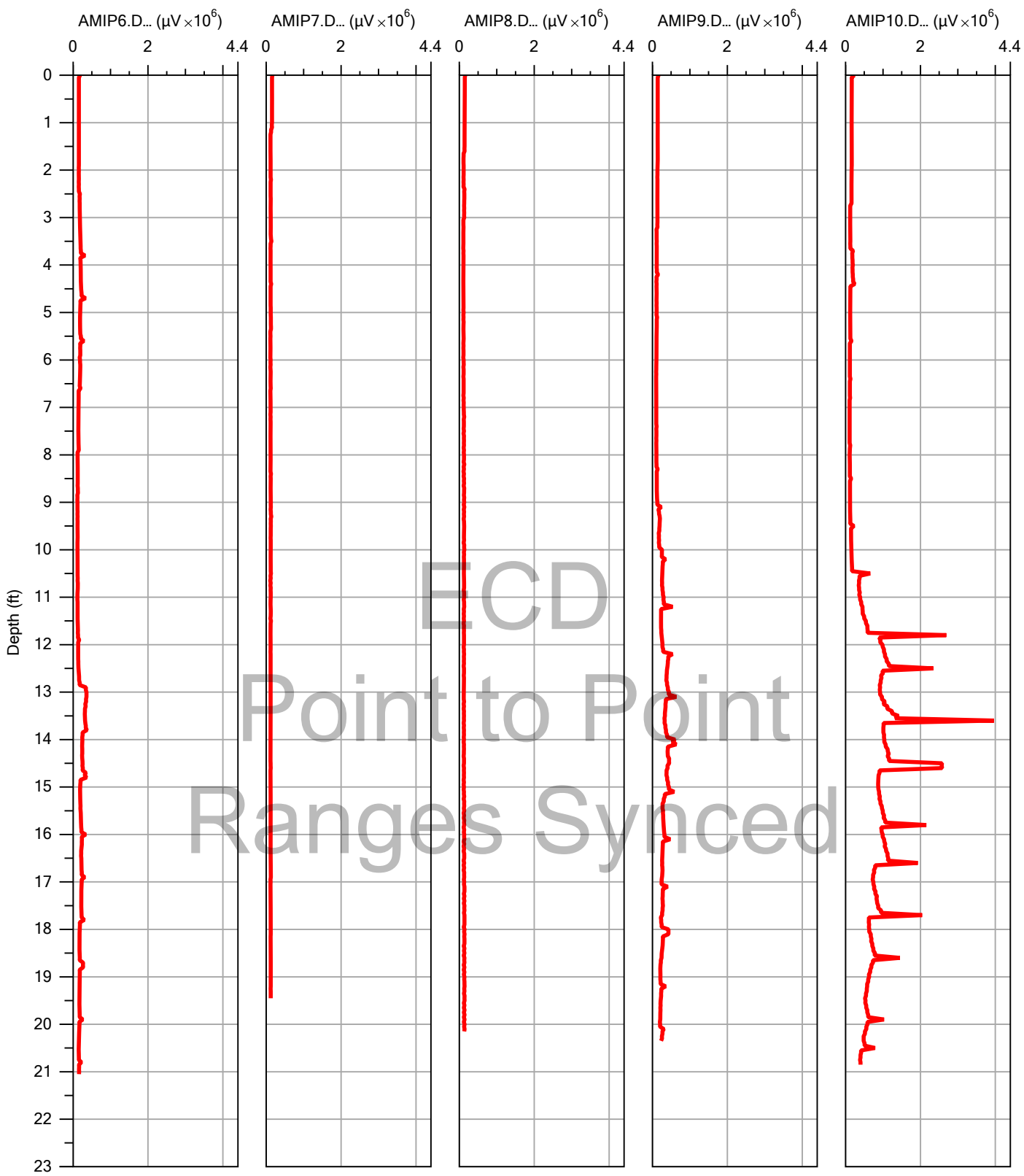
Date: 8/72009
Proj. Name: Former Scott Aviation Facility
Proj. #: DS16127
Operators: Will M



AECOM

ECD Max

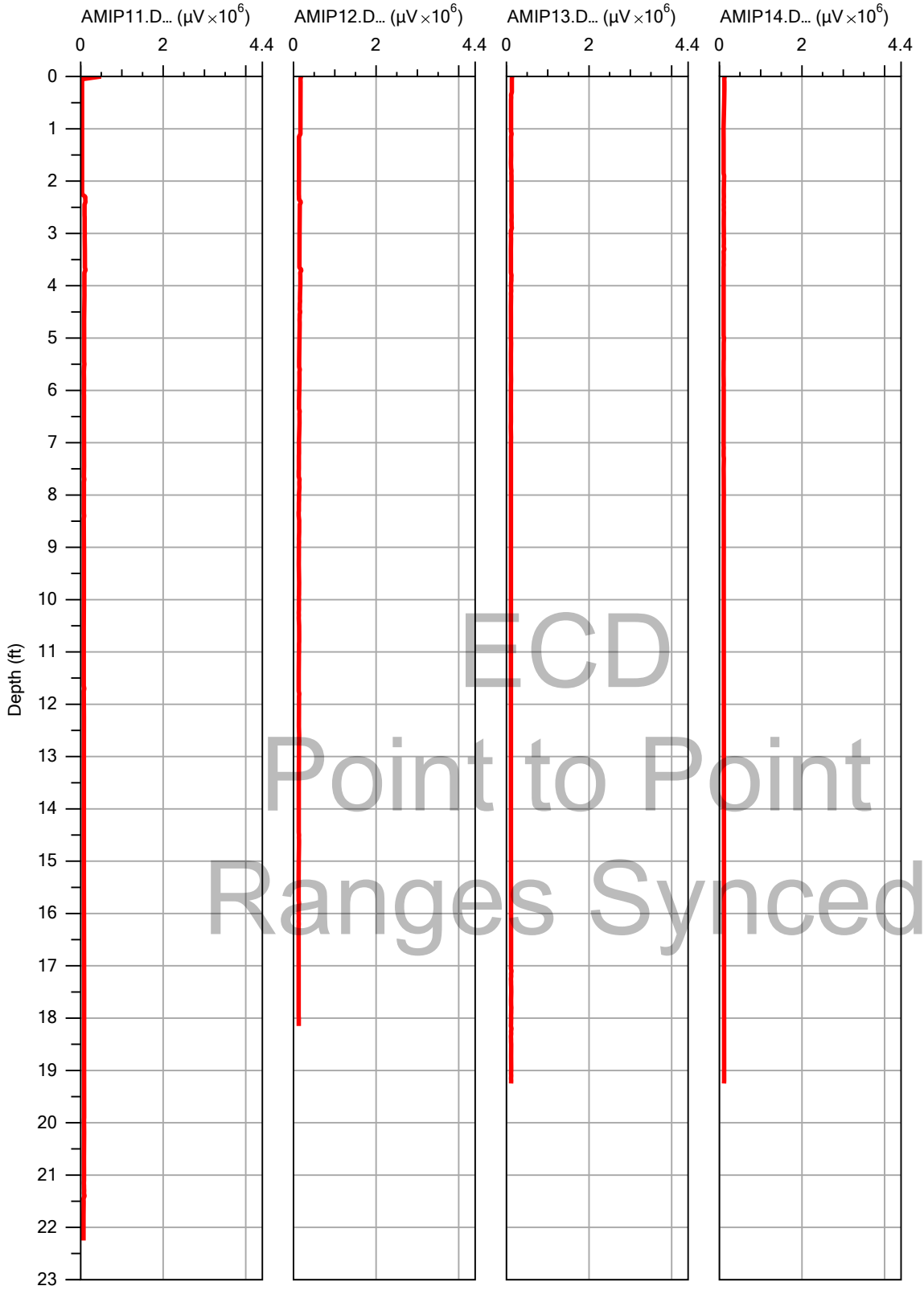
Company: AECOM	Operator: Will M
Project ID: ID:Area 2 (MW-31)	Client: Former Scott Aviation Facility



AECOM

ECD Max

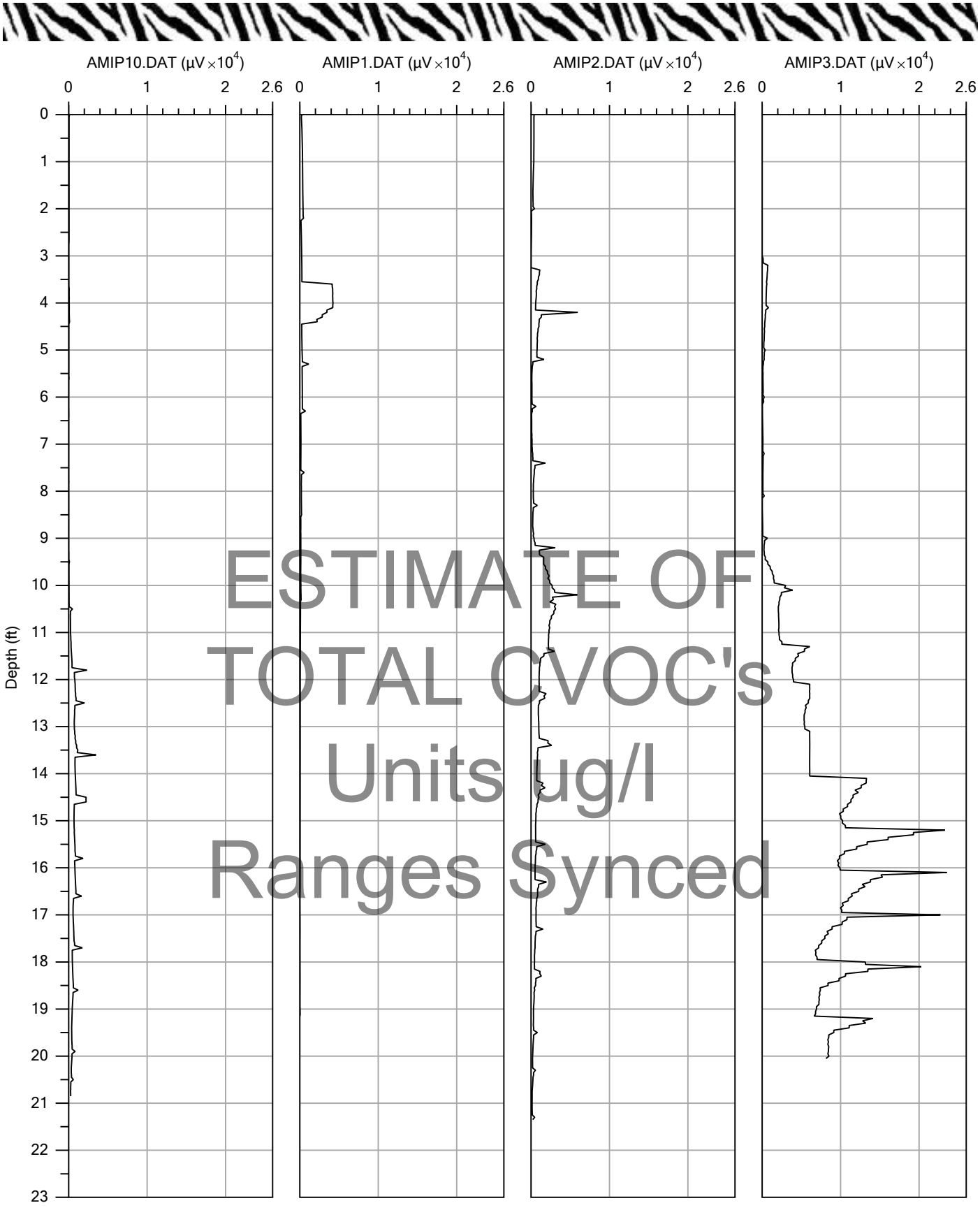
Company: AECOM	Operator: Will M
Project ID: ID:Area 2 (MW-31)	Client: Former Scott Aviation Facility



AECOM

ECD Max

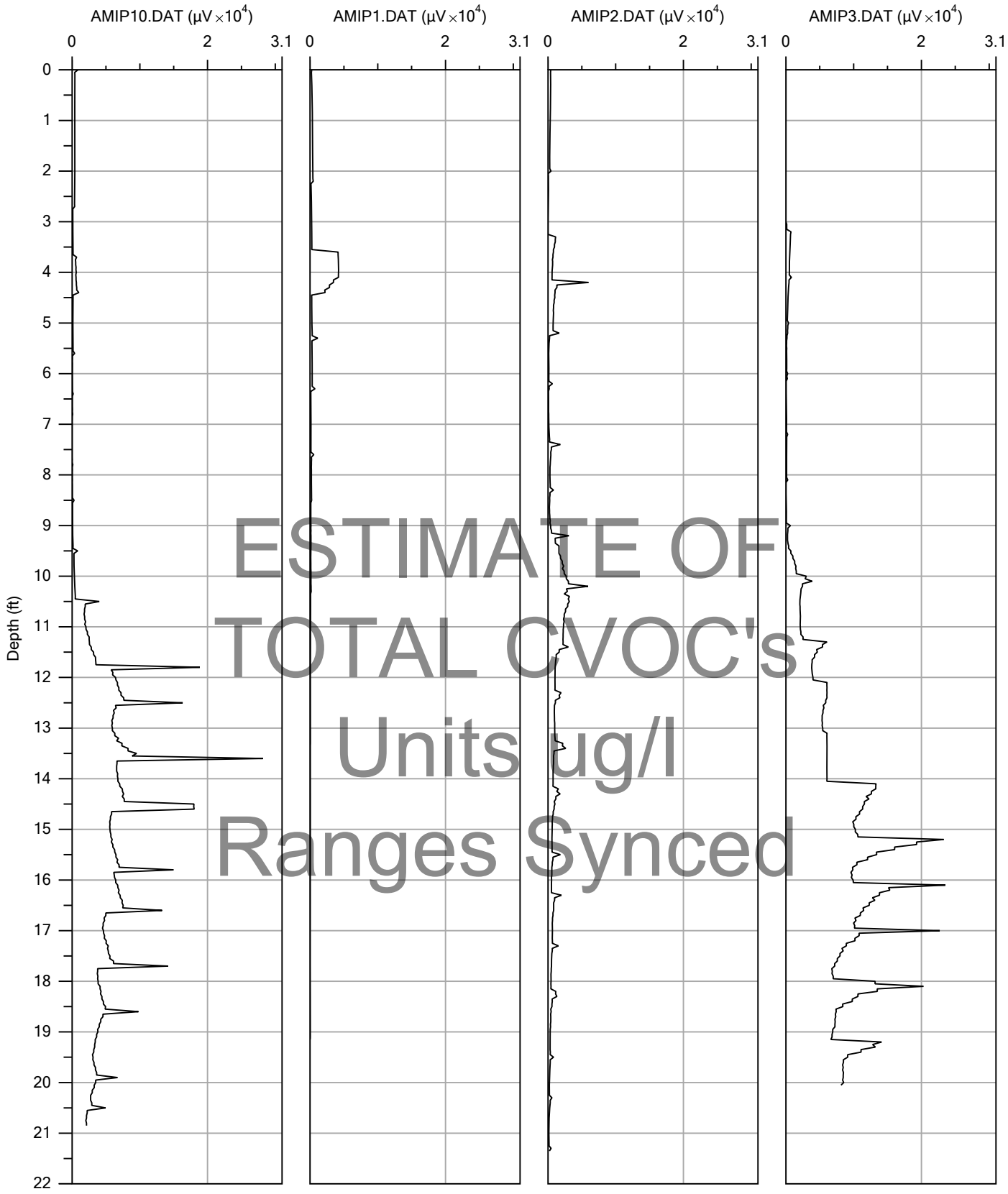
Company: AECOM	Operator: Will M
Project ID: ID:Area 2 (MW-31)	Client: Former Scott Aviation Facility



Total CVOC Max

AECOM

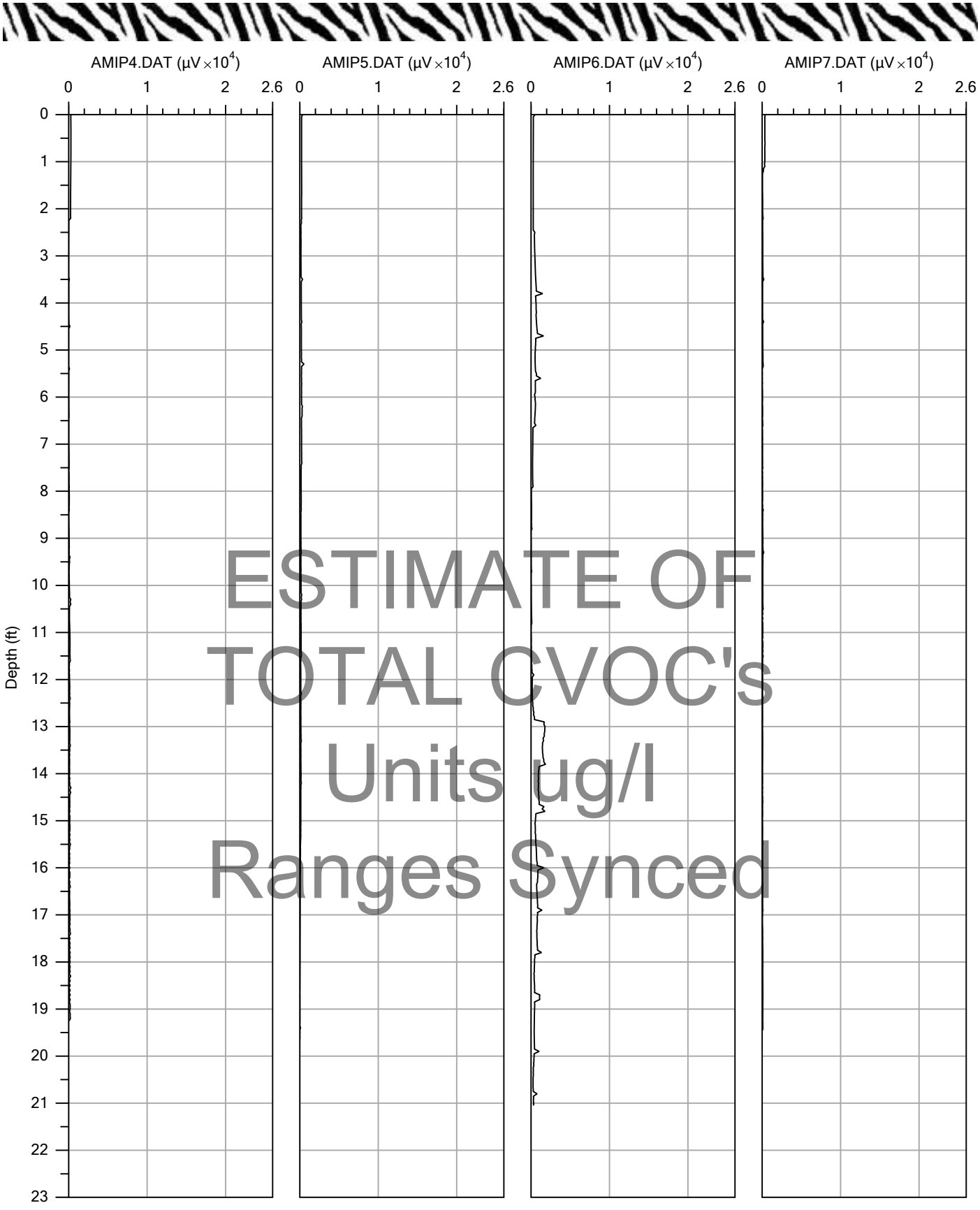
Company: AECOM	Operator: Will M
Project ID: Former Scott Aviation	Client: all units in ug/l



ZEBRA

Detector 4 Max

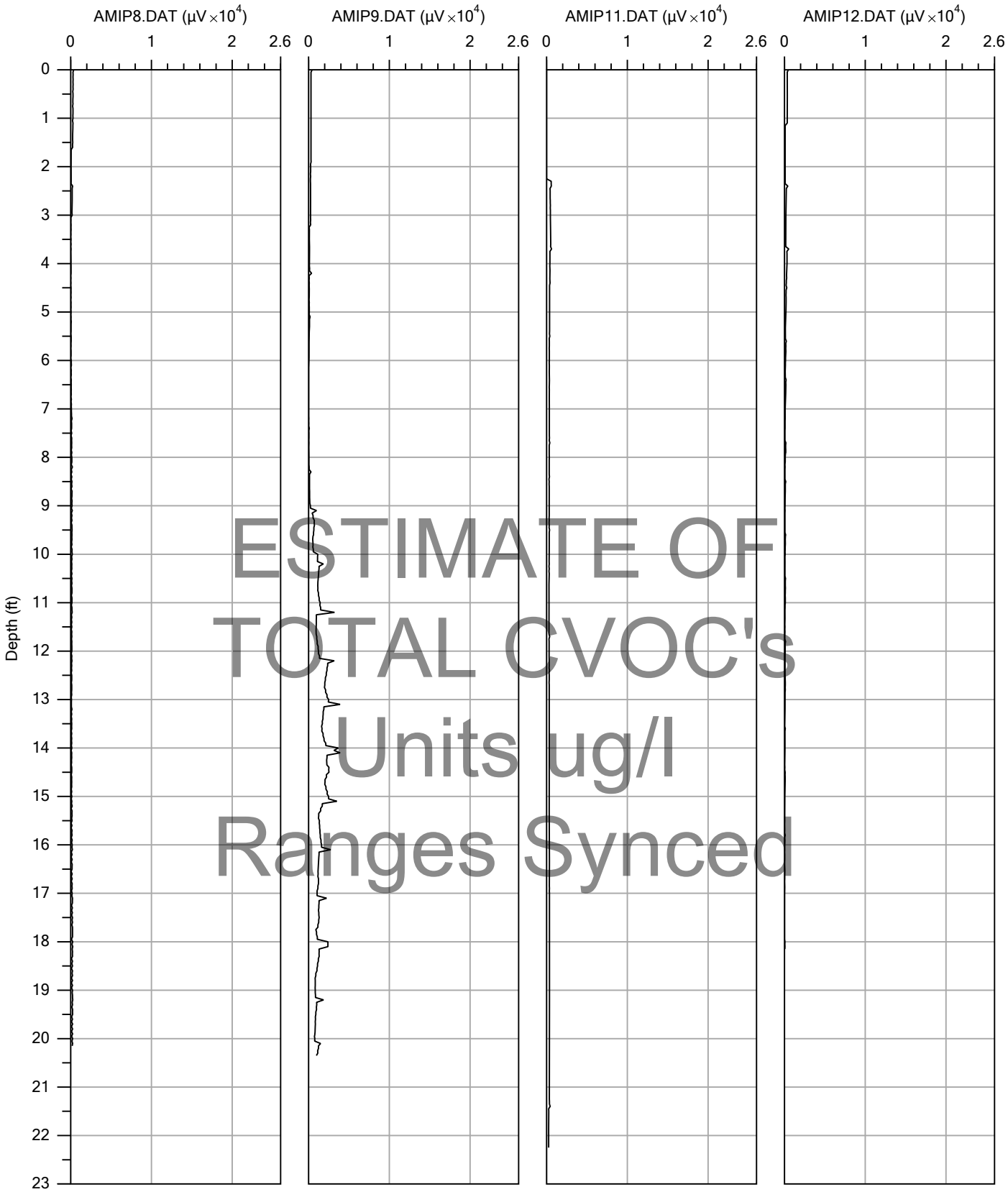
Company: AECOM	Operator: Will M
Project ID: Former Scott Aviation.	Client: all units in ug/l



Total CVOC Max

AECOM

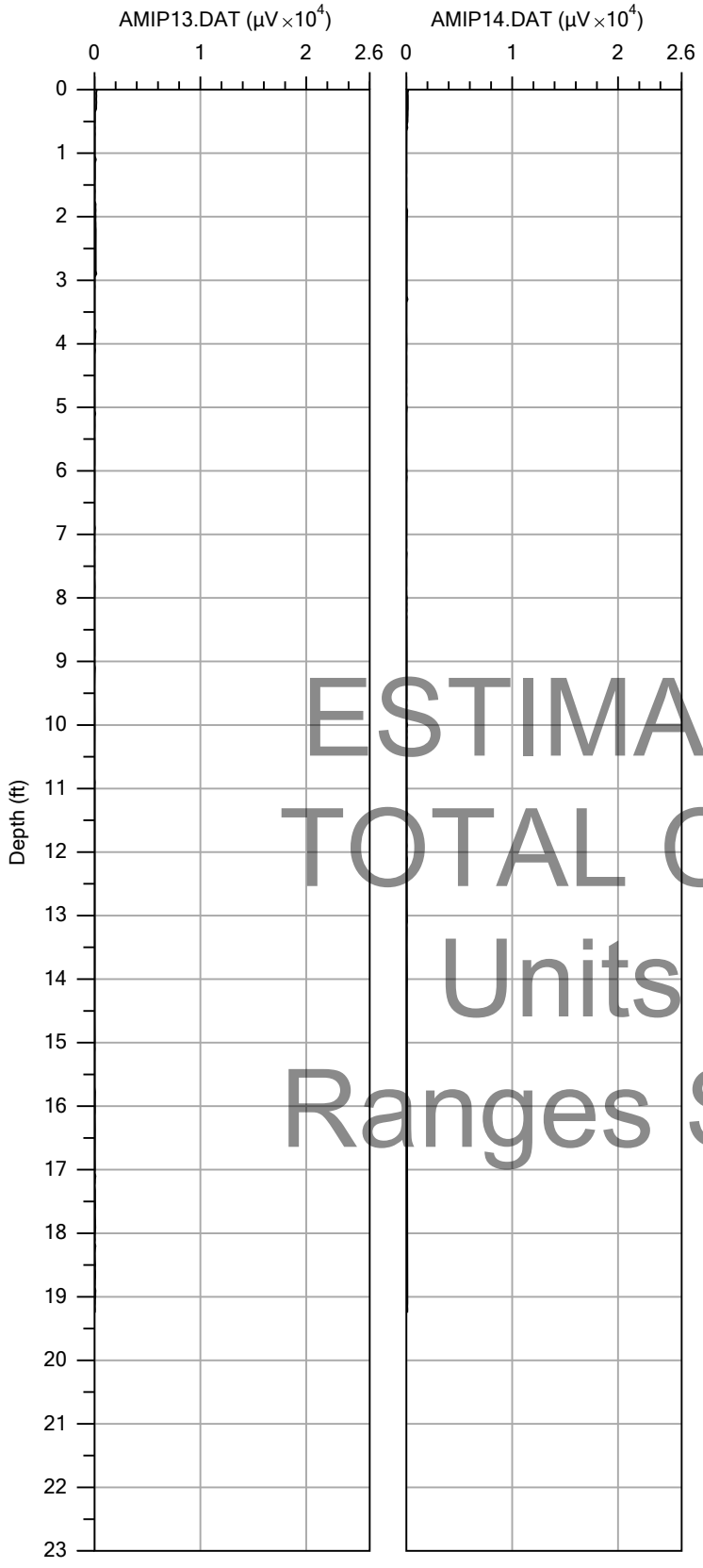
Company: AECOM	Operator: Will M
Project ID: Former Scott Aviation	Client: all units in ug/l



Total CVOC Max

AECOM

Company: AECOM	Operator: Will M
Project ID: Former Scott Aviation	Client: all units in ug/l



ESTIMATE OF TOTAL CVOC's Units ug/l Ranges Synced

Total CVOC Max

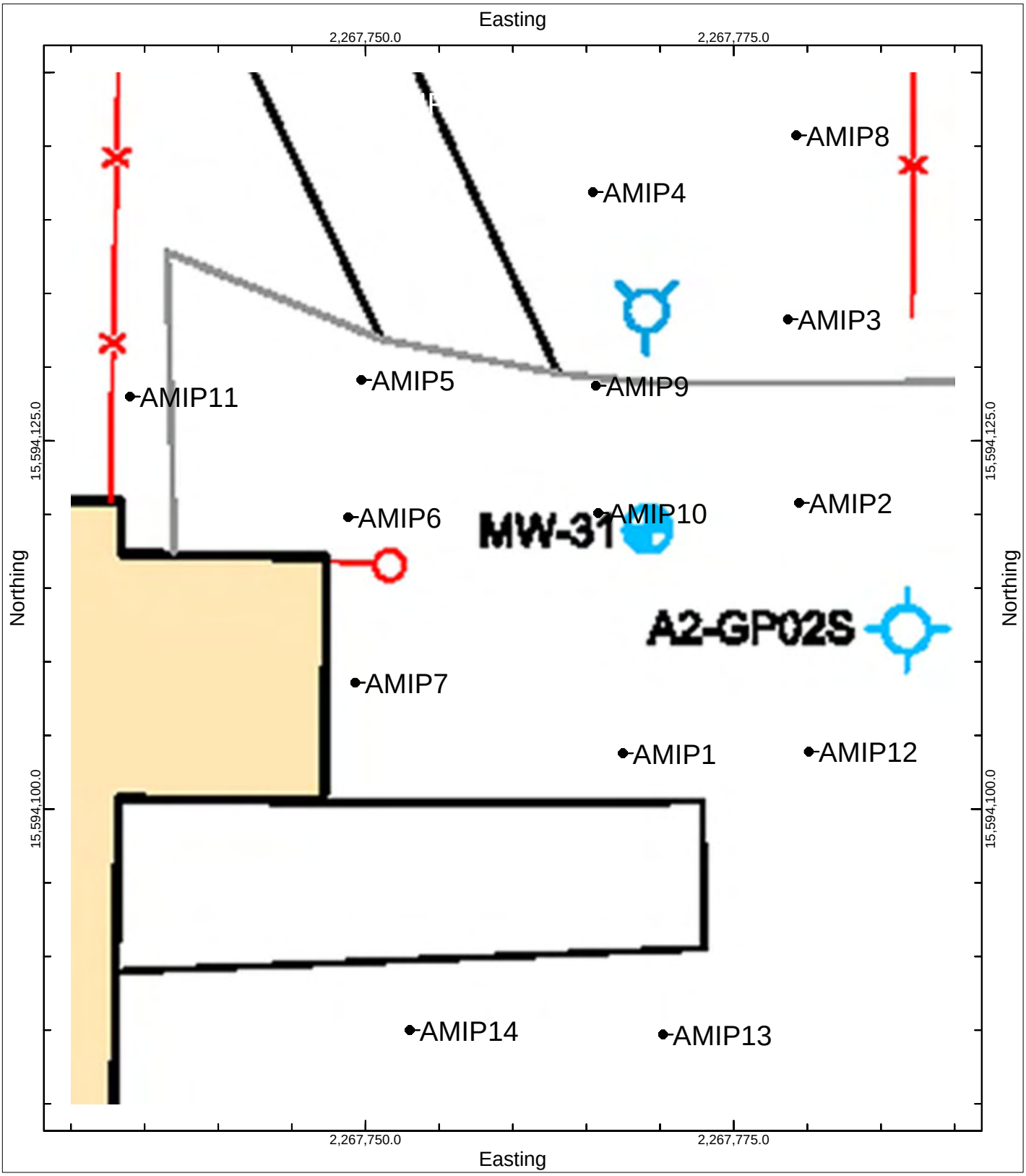
AECOM

Company: AECOM	Operator: Will M
Project ID: Former Scott Aviation	Client: all units in ug/l

AECOM
MIP Site Investigation
Former Scott Aviation Inc.
Lancaster, New York

LEGEND

MIP Borehole
Monitor Well
GPS=UTM (Northing, Easting)
Distance units = Feet (ft)
Depth Units = Feet (ft)

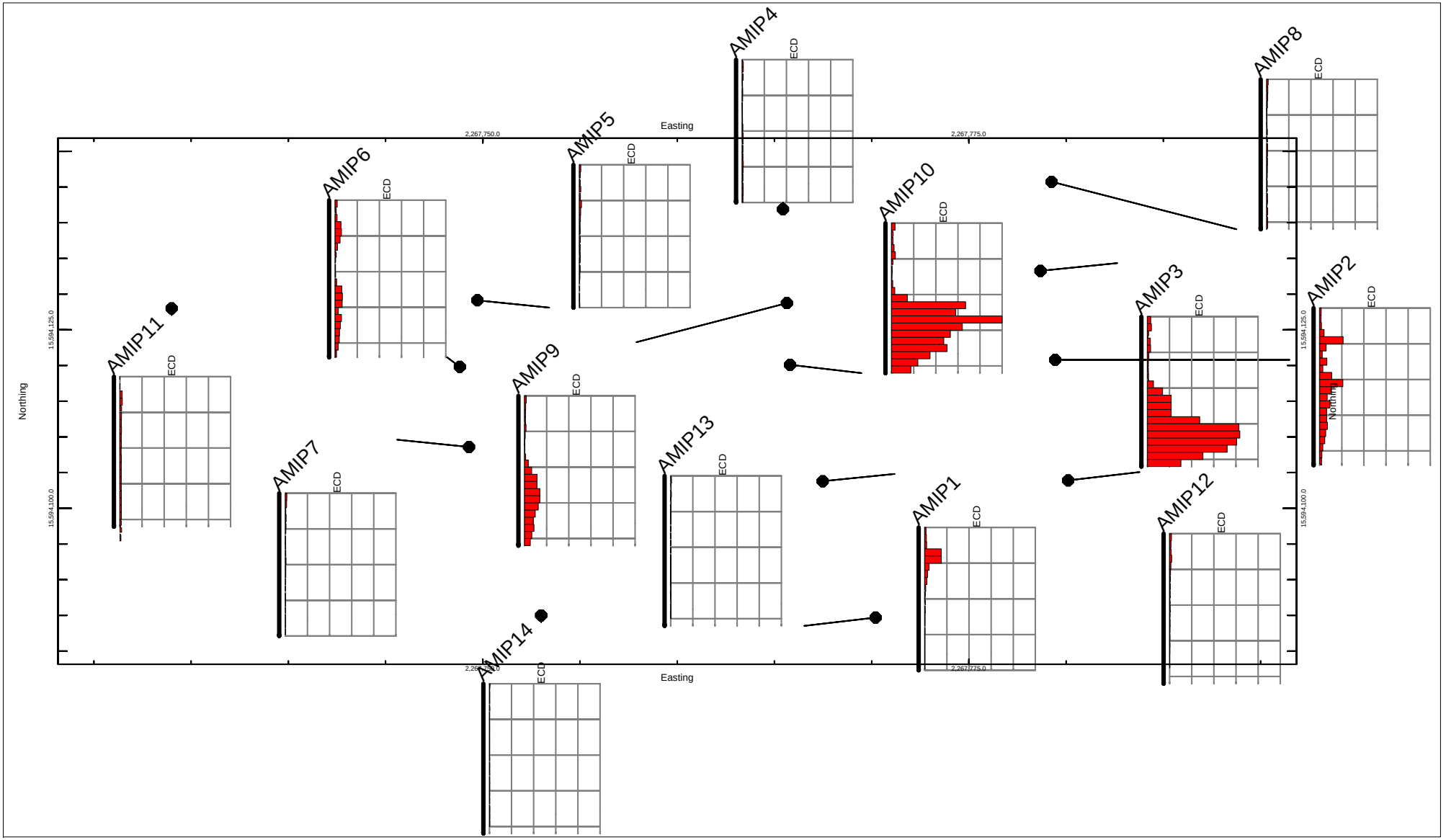


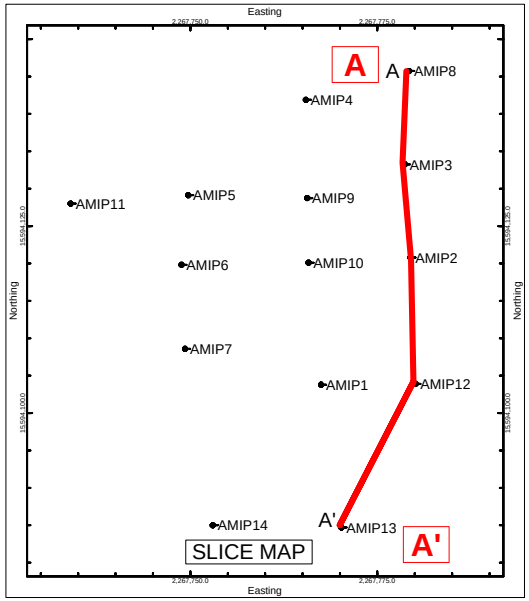
AECOM
MIP Site Investigation
Former Scott Aviation Inc.
Lancaster, New York

ECD Multi Log Map Report

LEGEND

ECD = Electron Capture Detector
PID = Photo Ionization Dectector
ECD/PID Units = Micro Volts (UV)
Distance units = Feet (ft)
Depth Units = Feet (ft)



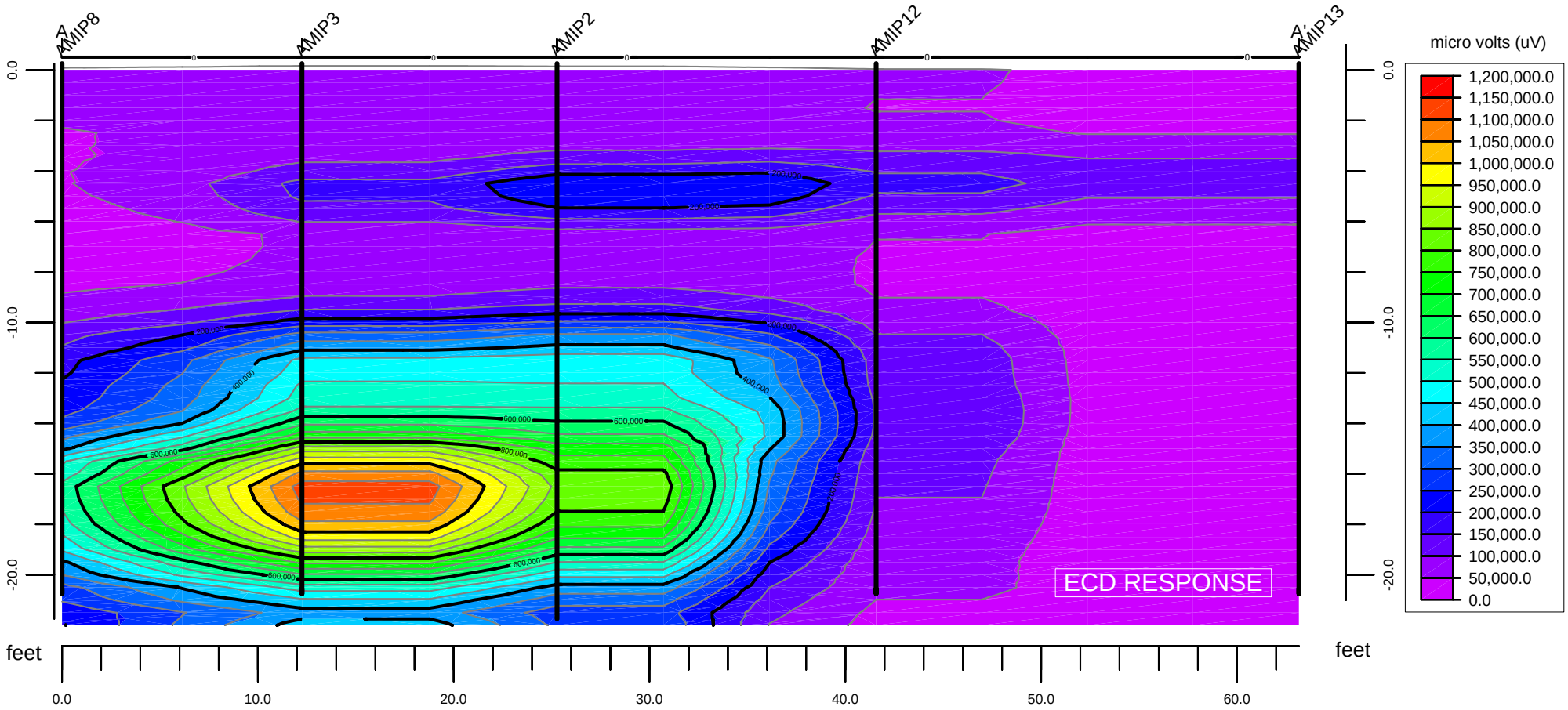


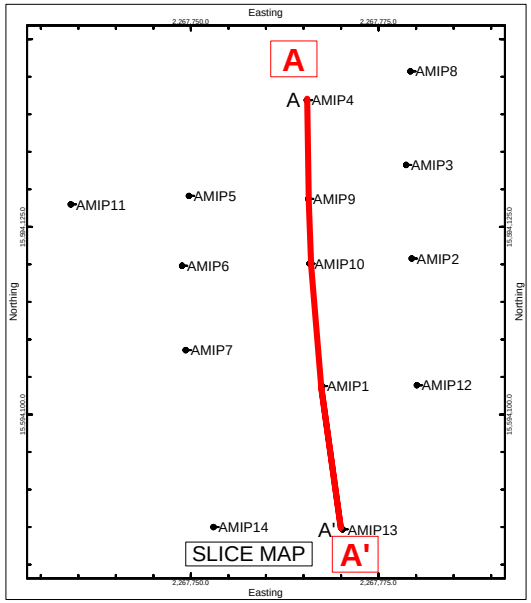
AECOM
MIP Site Investigation
Former Scott Aviation Inc.
Lancaster, New York

LEGEND

ECD = Electron Capture Detector
PID = Photo Ionization Dectector
ECD/PID Units = Micro Volts (UV)
Distance units = Feet (ft)
Depth Units = Feet (ft)

ECD Cross-Section Report
A to A'



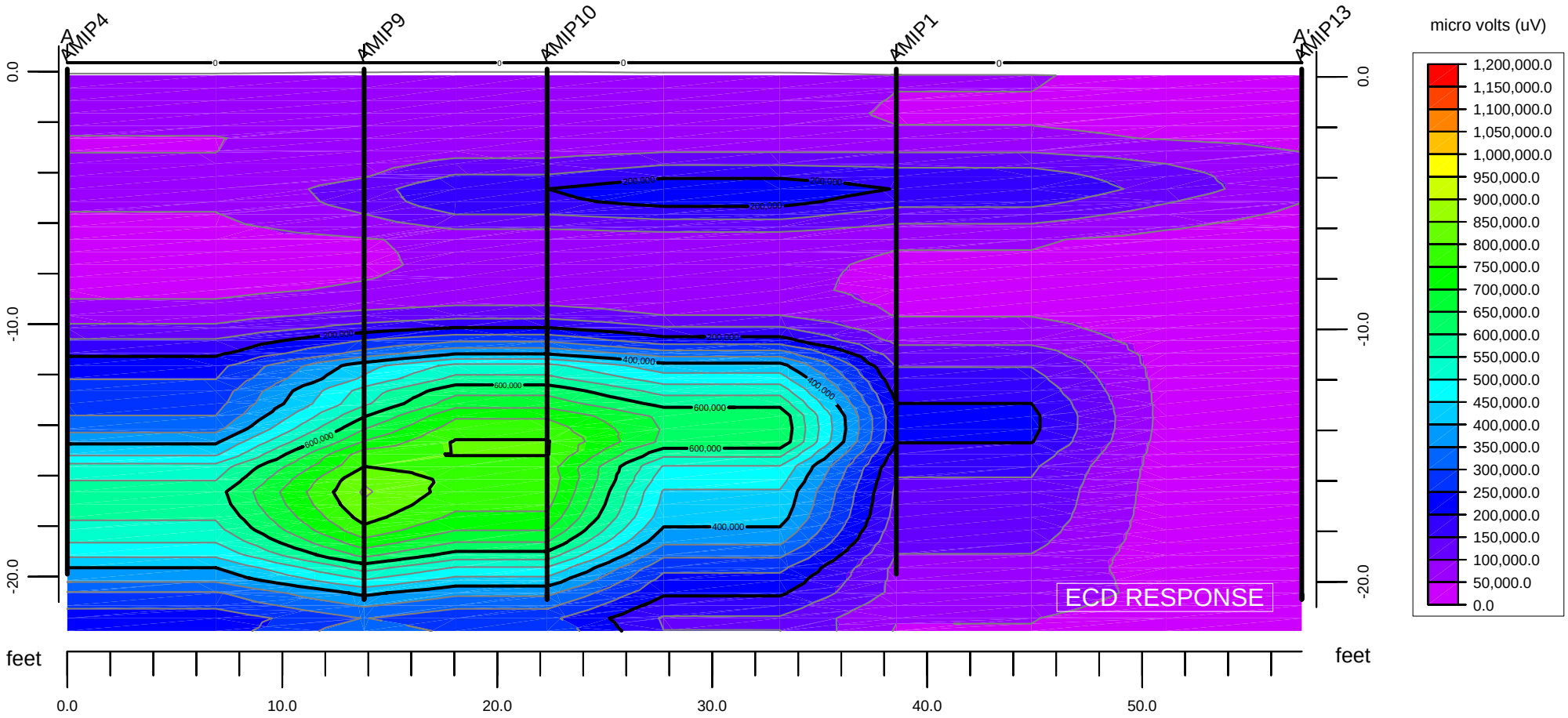


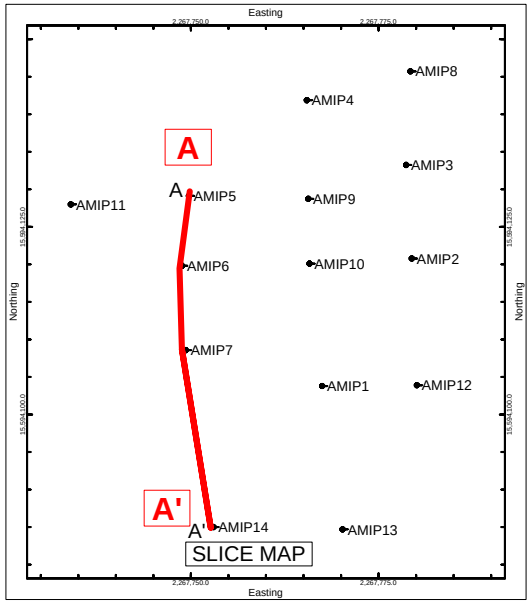
AECOM
MIP Site Investigation
Former Scott Aviation Inc.
Lancaster, New York

LEGEND

ECD = Electron Capture Detector
PID = Photo Ionization Dectector
ECD/PID Units = Micro Volts (UV)
Distance units = Feet (ft)
Depth Units = Feet (ft)

ECD Cross-Section Report
A to A'





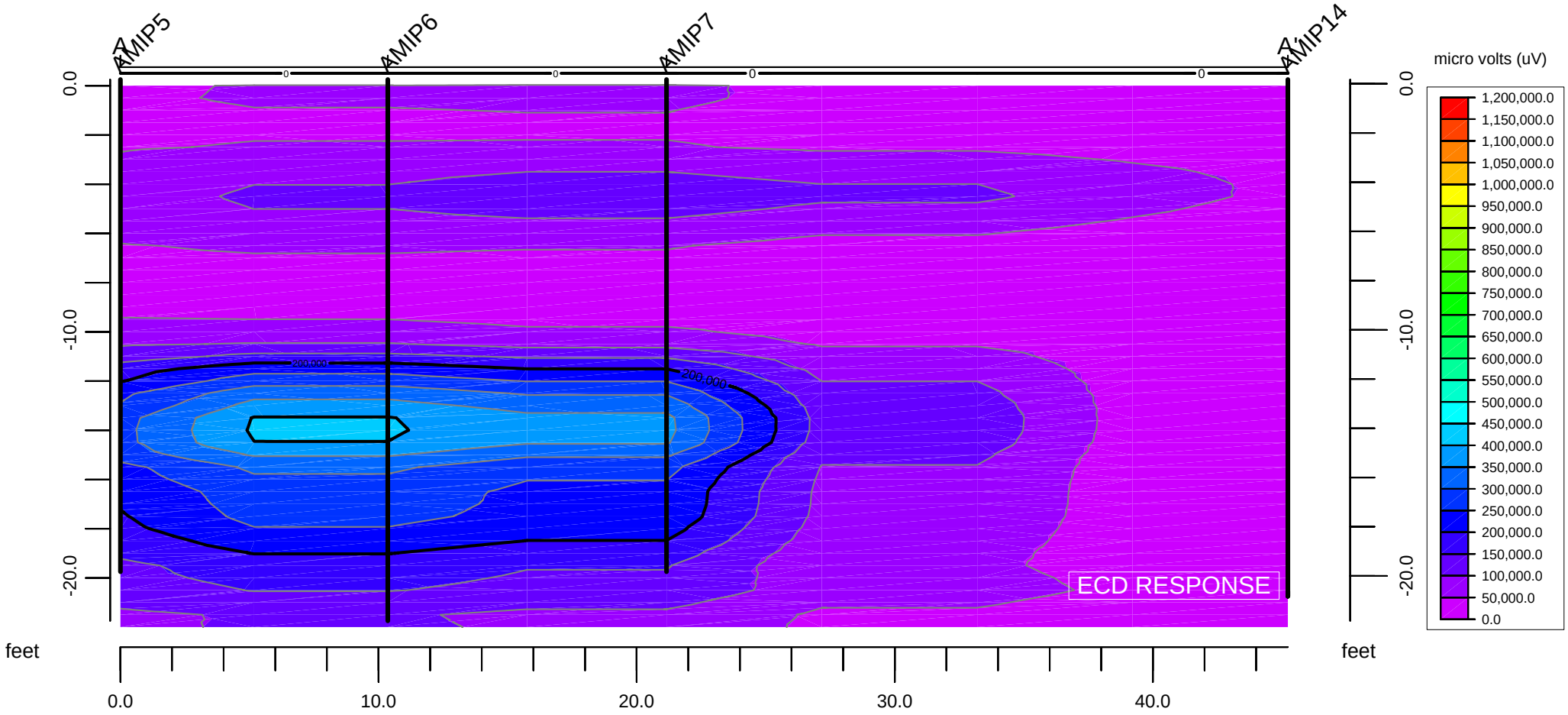
AECOM
MIP Site Investigation
Former Scott Aviation Inc.
Lancaster, New York

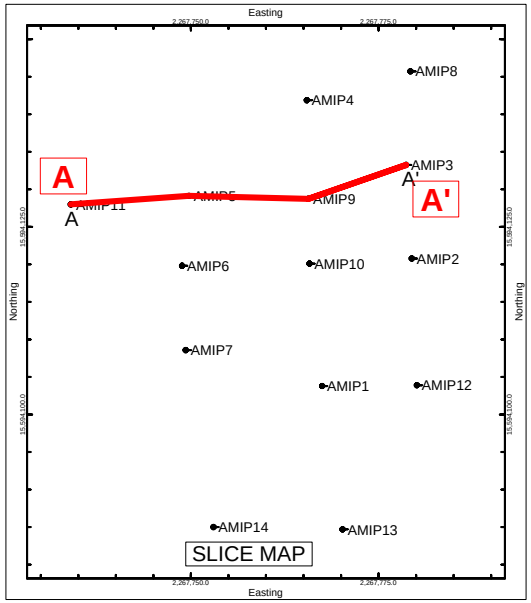
LEGEND

ECD = Electron Capture Detector
PID = Photo Ionization Dectector
ECD/PID Units = Micro Volts (UV)
Distance units = Feet (ft)
Depth Units = Feet (ft)

AECOM ZEBRA

ECD Cross-Section Report
A to A'





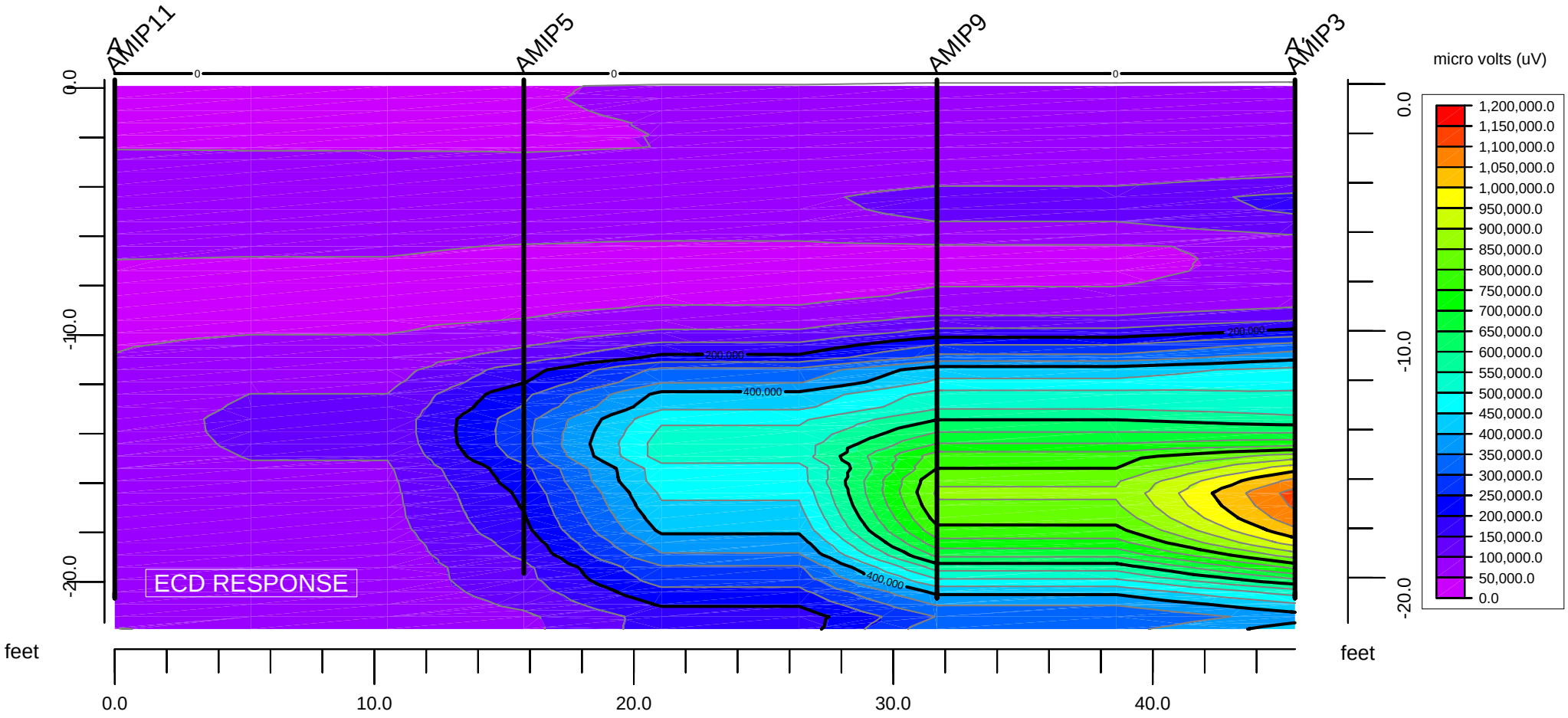
AECOM
MIP Site Investigation
Former Scott Aviation Inc.
Lancaster, New York

LEGEND

ECD = Electron Capture Detector
PID = Photo Ionization Dectector
ECD/PID Units = Micro Volts (UV)
Distance units = Feet (ft)
Depth Units = Feet (ft)

AECOM ZEBRA

ECD Cross-Section Report
A to A'

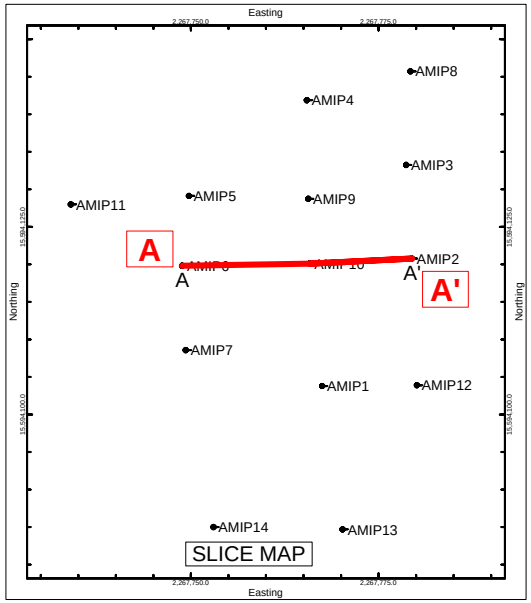


AECOM
MIP Site Investigation
Former Scott Aviation Inc.
Lancaster, New York

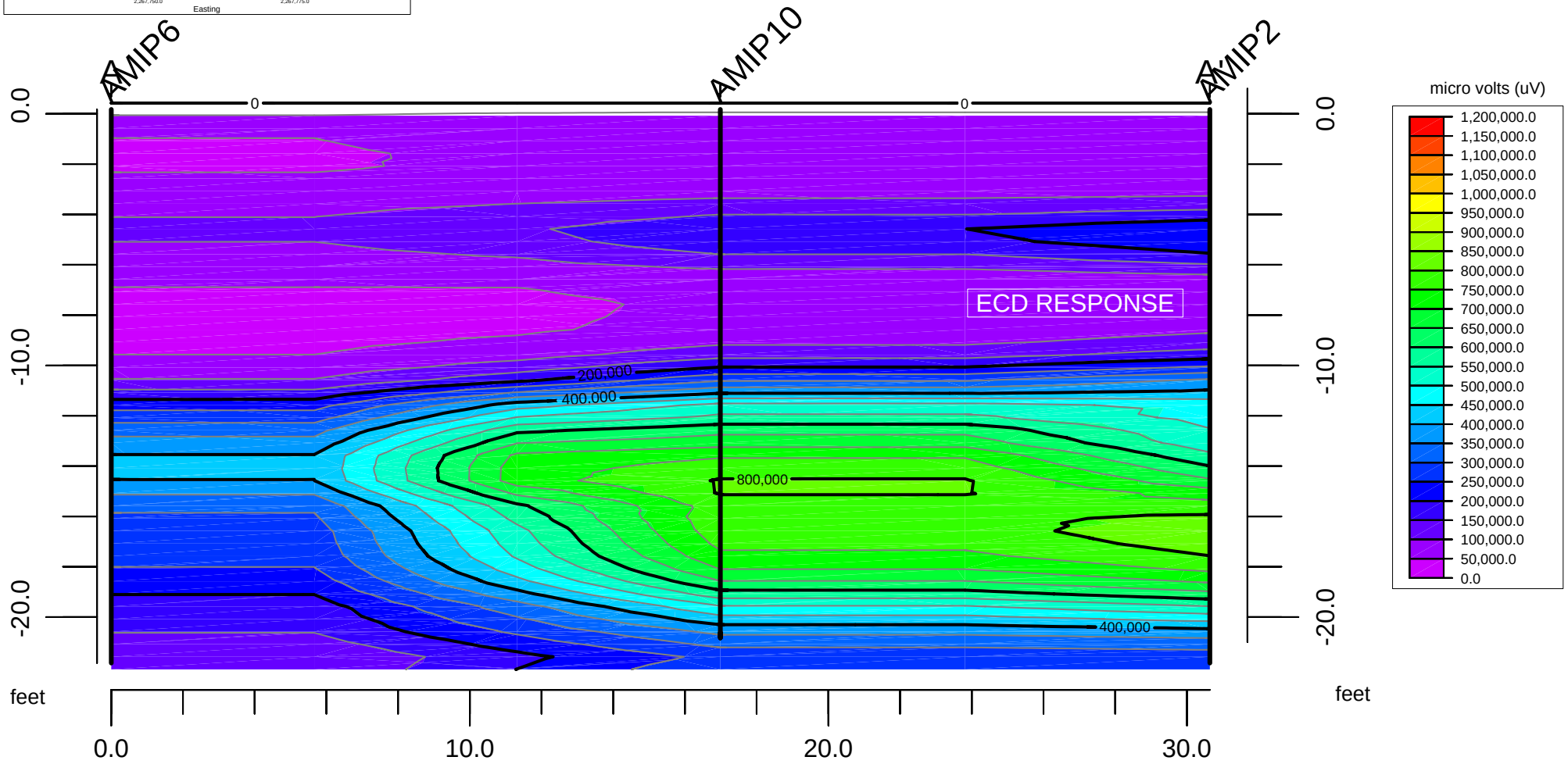
LEGEND

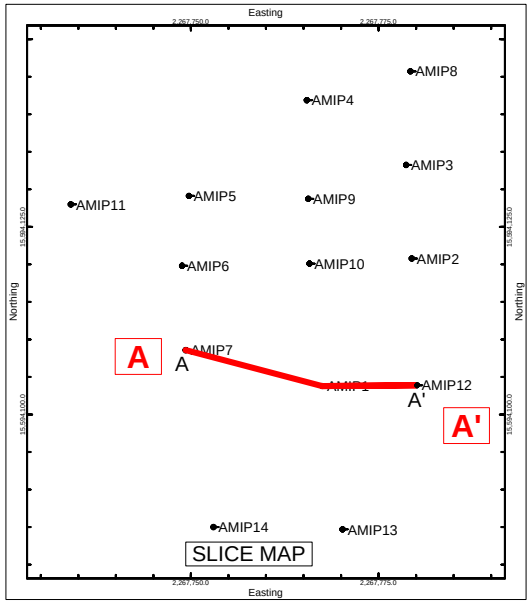
ECD = Electron Capture Detector
PID = Photo Ionization Dectector
ECD/PID Units = Micro Volts (UV)
Distance units = Feet (ft)
Depth Units = Feet (ft)

AECOM ZEBRA



ECD Cross-Section Report
A to A'





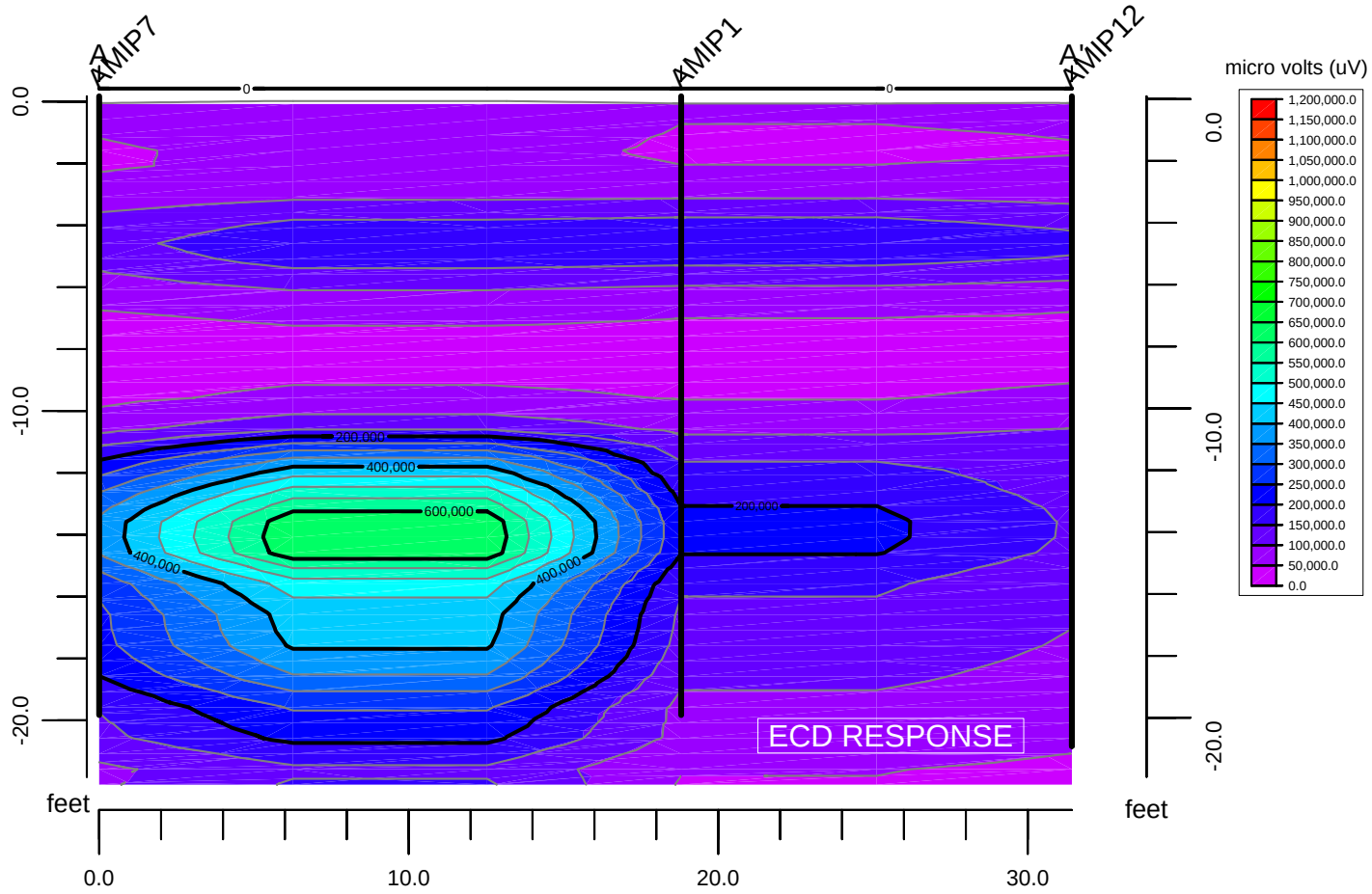
AECOM
MIP Site Investigation
Former Scott Aviation Inc.
Lancaster, New York

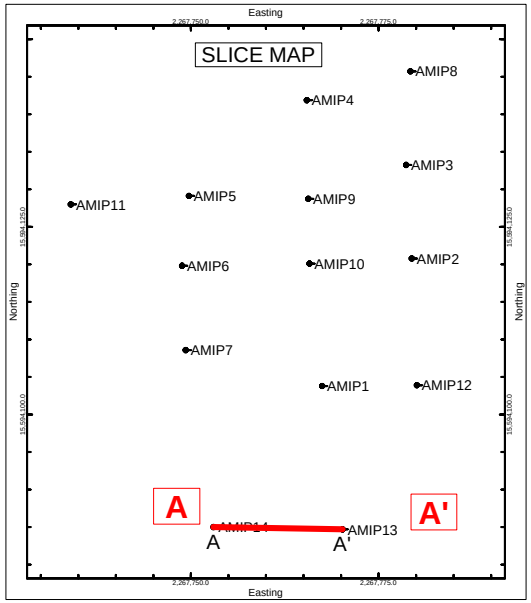
LEGEND

ECD = Electron Capture Detector
PID = Photo Ionization Dectector
ECD/PID Units = Micro Volts (UV)
Distance units = Feet (ft)
Depth Units = Feet (ft)

AECOM ZEBRA

ECD Cross-Section Report
A to A'



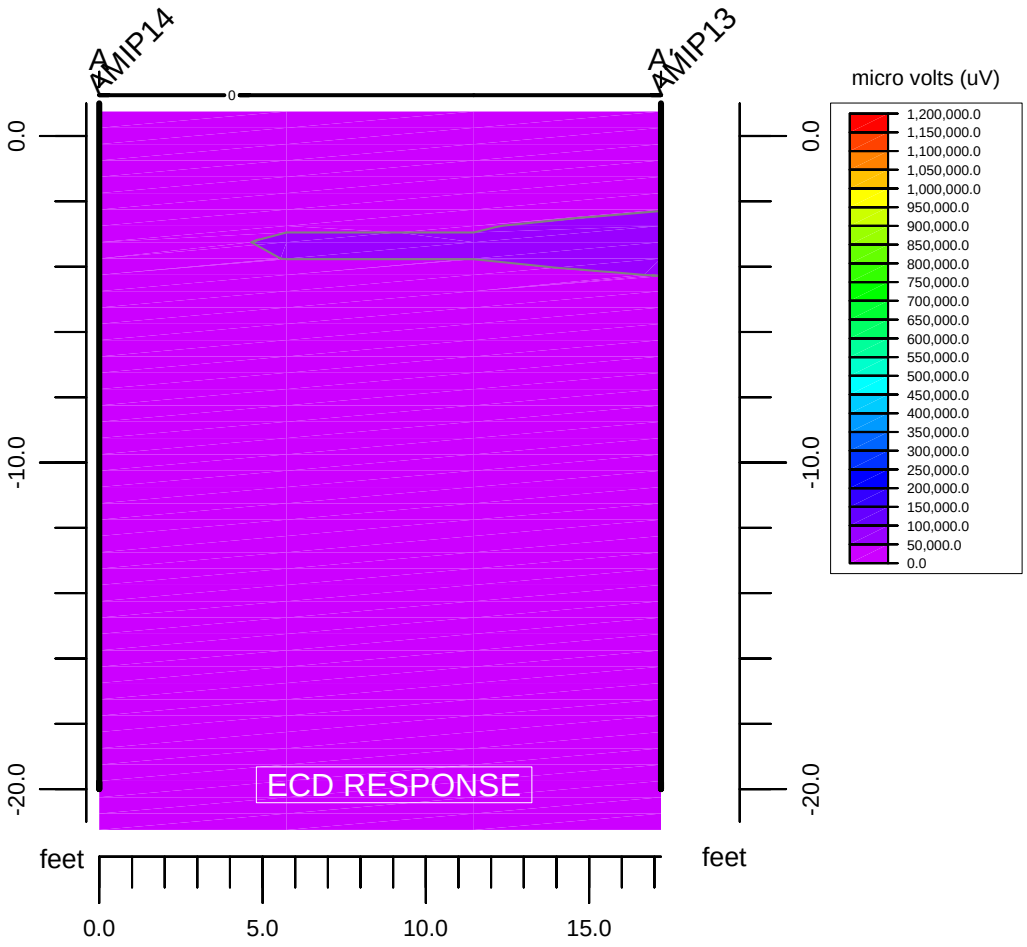


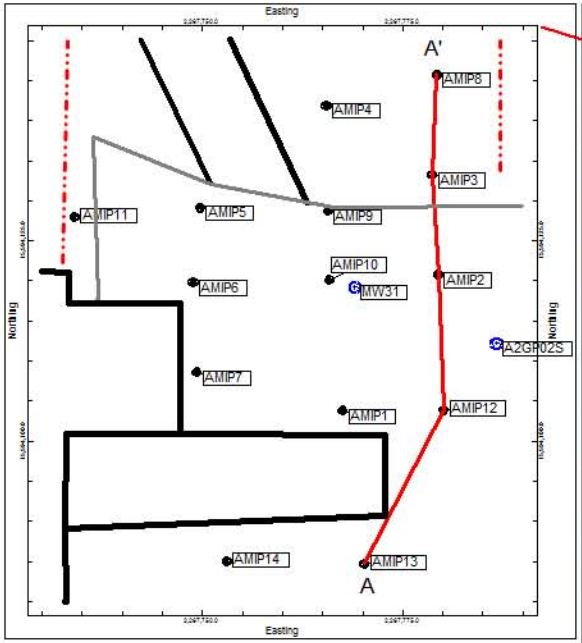
AECOM
MIP Site Investigation
Former Scott Aviation Inc.
Lancaster, New York

LEGEND

ECD = Electron Capture Detector
PID = Photo Ionization Dectector
ECD/PID Units = Micro Volts (UV)
Distance units = Feet (ft)
Depth Units = Feet (ft)

ECD Cross-Section Report
A to A'





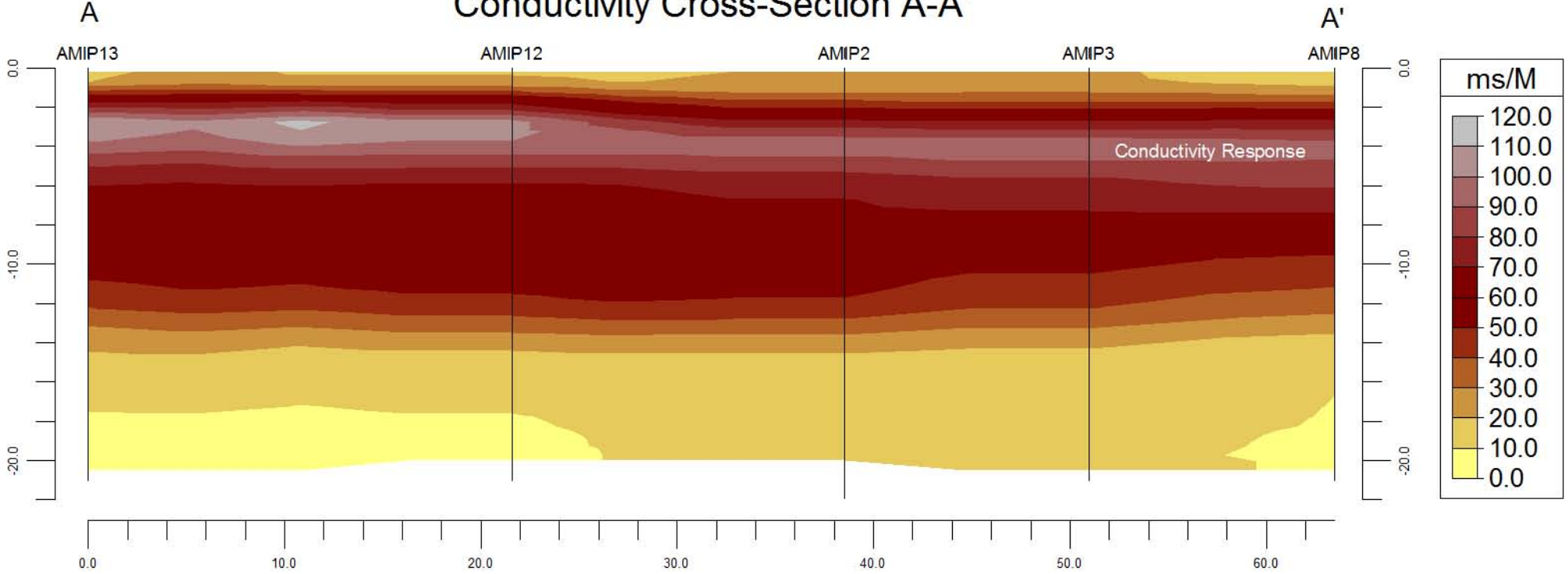
AECOM
MIP Site Investigation
Former Scott Aviation Inc.
Lancaster, New York

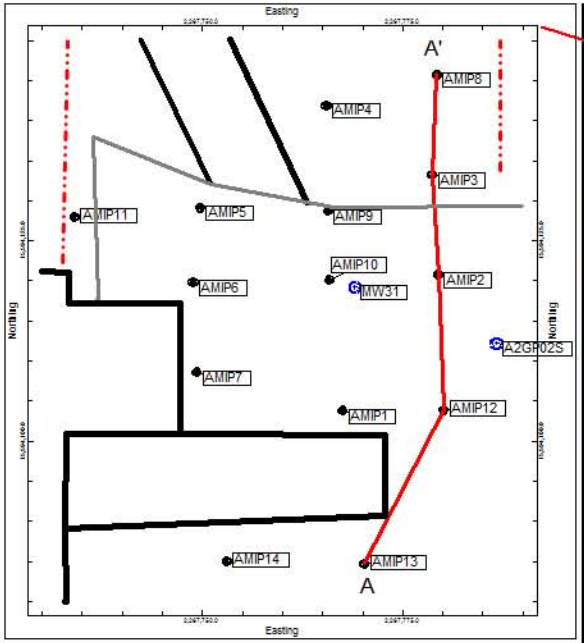
LEGEND

ECD = Electron Capture Detector
PID = Photo Ionization Dectector
ECD/PID Units = Micro Volts (UV)
Conductivity Units = ms/M
Distance units = Feet (ft)
Depth Units = Feet (ft)

AECOM ZEBRA

Conductivity Cross-Section A-A'



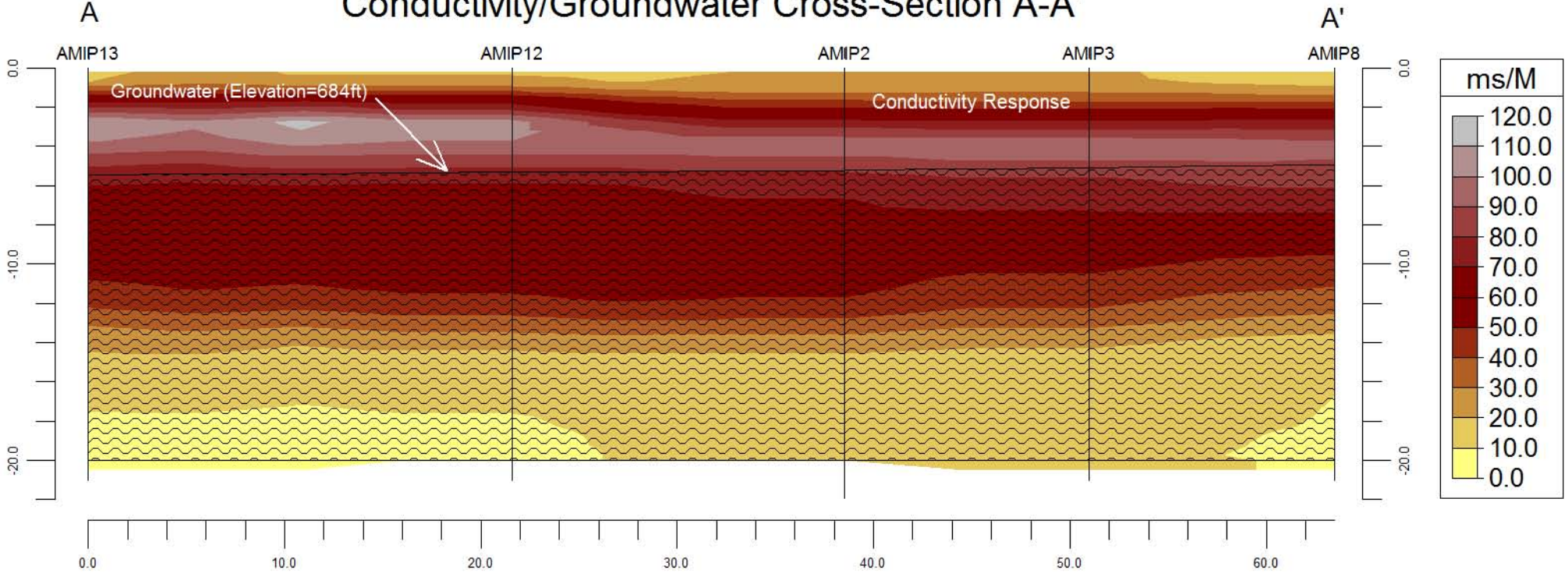


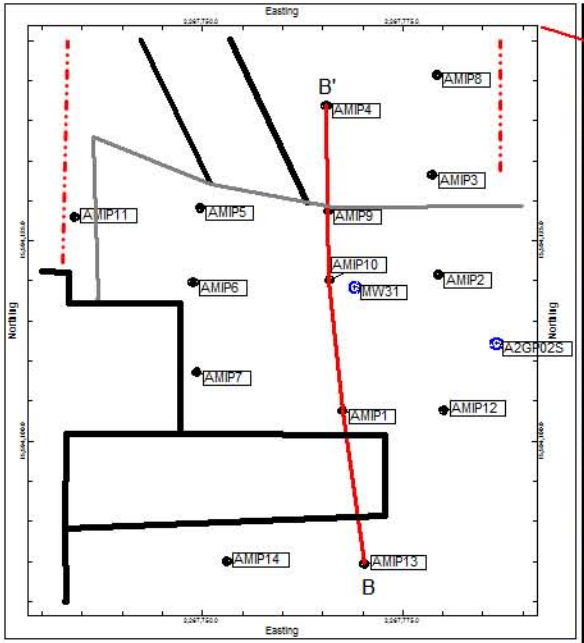
AECOM
MIP Site Investigation
Former Scott Aviation Inc.
Lancaster, New York

LEGEND

ECD = Electron Capture Detector
PID = Photo Ionization Dectector
ECD/PID Units = Micro Volts (UV)
Conductivity Units = ms/M
Distance units = Feet (ft)
Depth Units = Feet (ft)

Conductivity/Groundwater Cross-Section A-A'



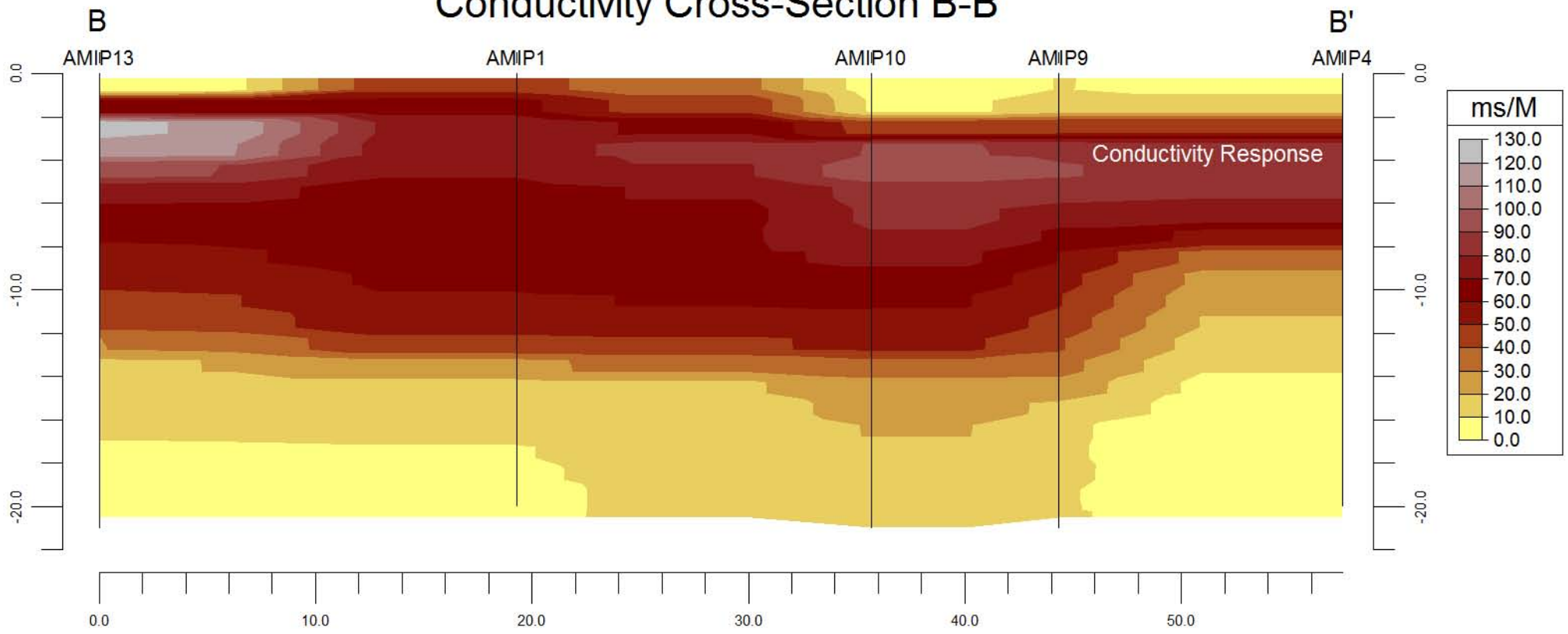


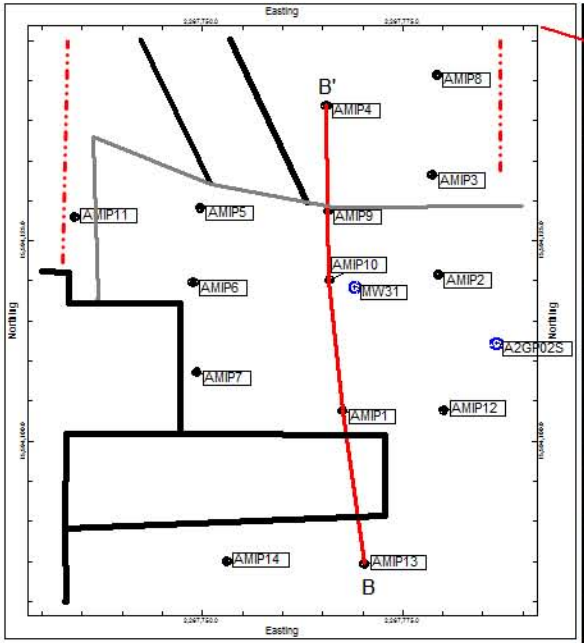
AECOM
MIP Site Investigation
Former Scott Aviation Inc.
Lancaster, New York

LEGEND

ECD = Electron Capture Detector
PID = Photo Ionization Dectector
ECD/PID Units = Micro Volts (UV)
Conductivity Units = ms/M
Distance units = Feet (ft)
Depth Units = Feet (ft)

Conductivity Cross-Section B-B'



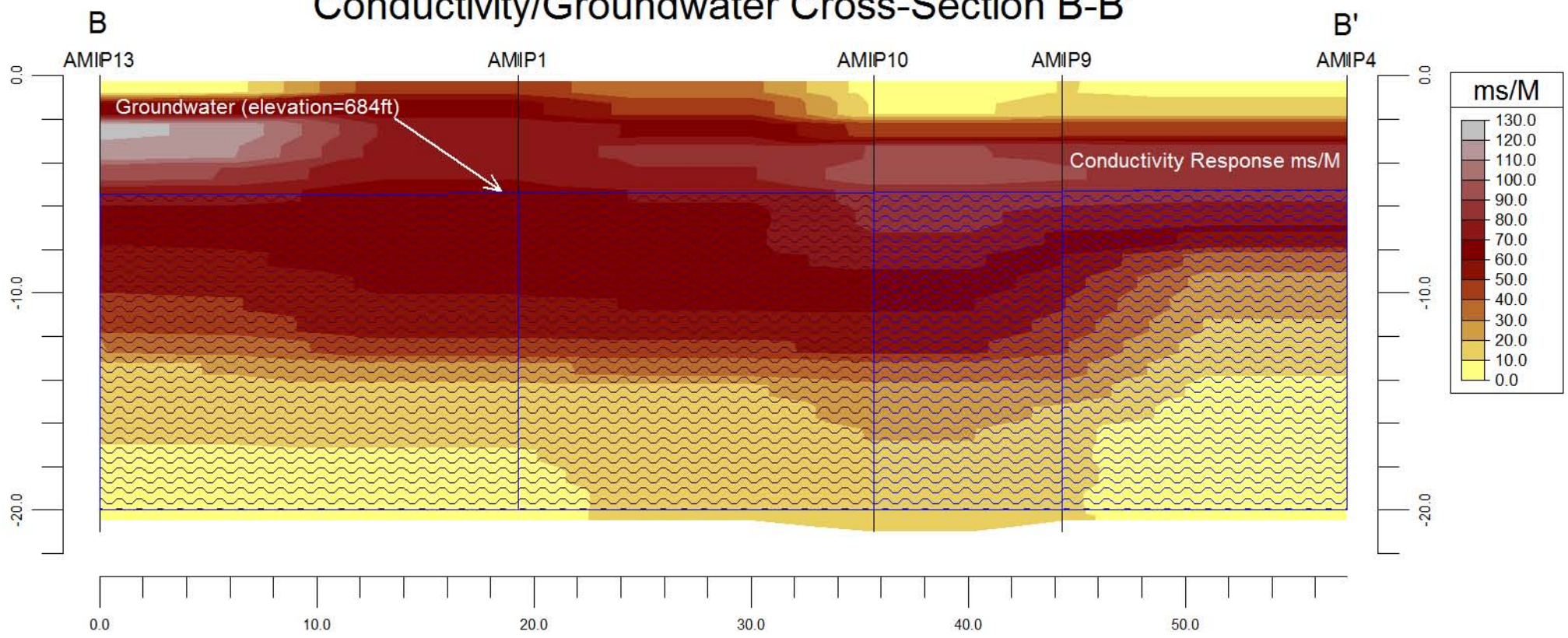


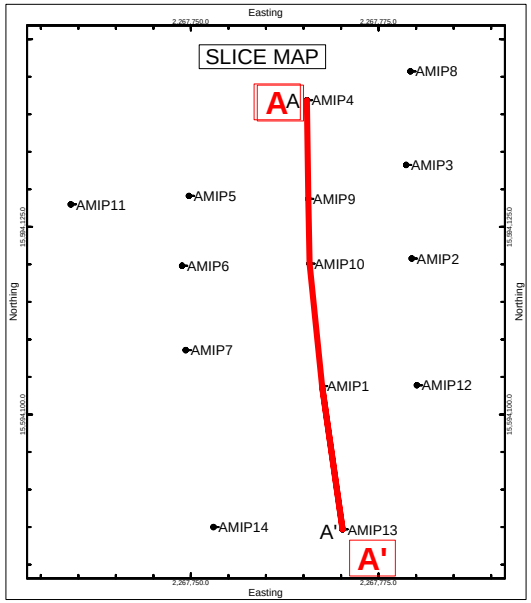
AECOM
MIP Site Investigation
Former Scott Aviation Inc.
Lancaster, New York

LEGEND

ECD = Electron Capture Detector
PID = Photo Ionization Dectector
ECD/PID Units = Micro Volts (UV)
Conductivity Units = ms/M
Distance units = Feet (ft)
Depth Units = Feet (ft)

Conductivity/Groundwater Cross-Section B-B'



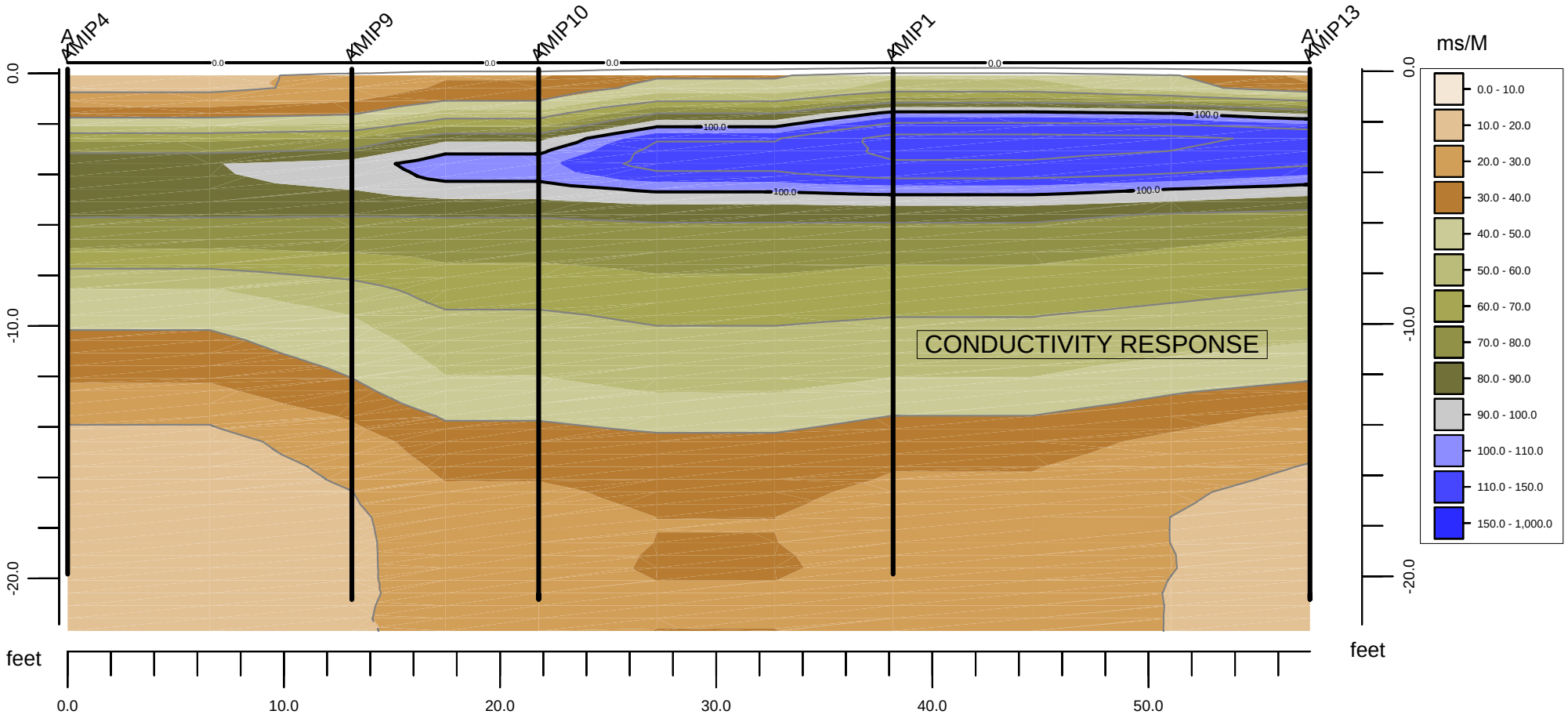


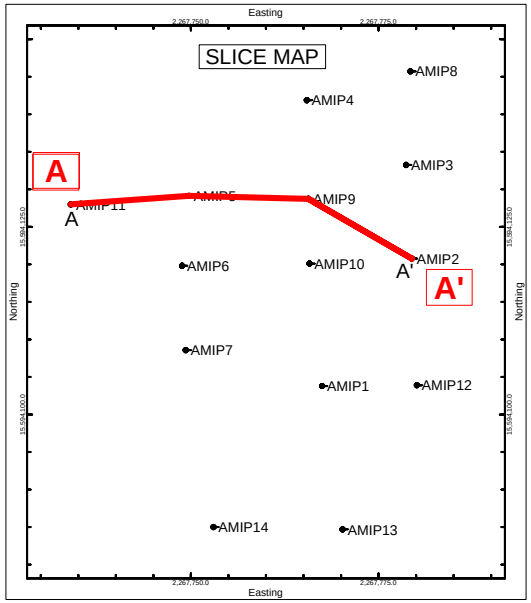
AECOM
MIP Site Investigation
Former Scott Aviation Inc.
Lancaster, New York

LEGEND

ECD = Electron Capture Detector
PID = Photo Ionization Dectector
ECD/PID Units = Micro Volts (UV)
Distance units = Feet (ft)
Depth Units = Feet (ft)

Conductivity Cross-Section Report



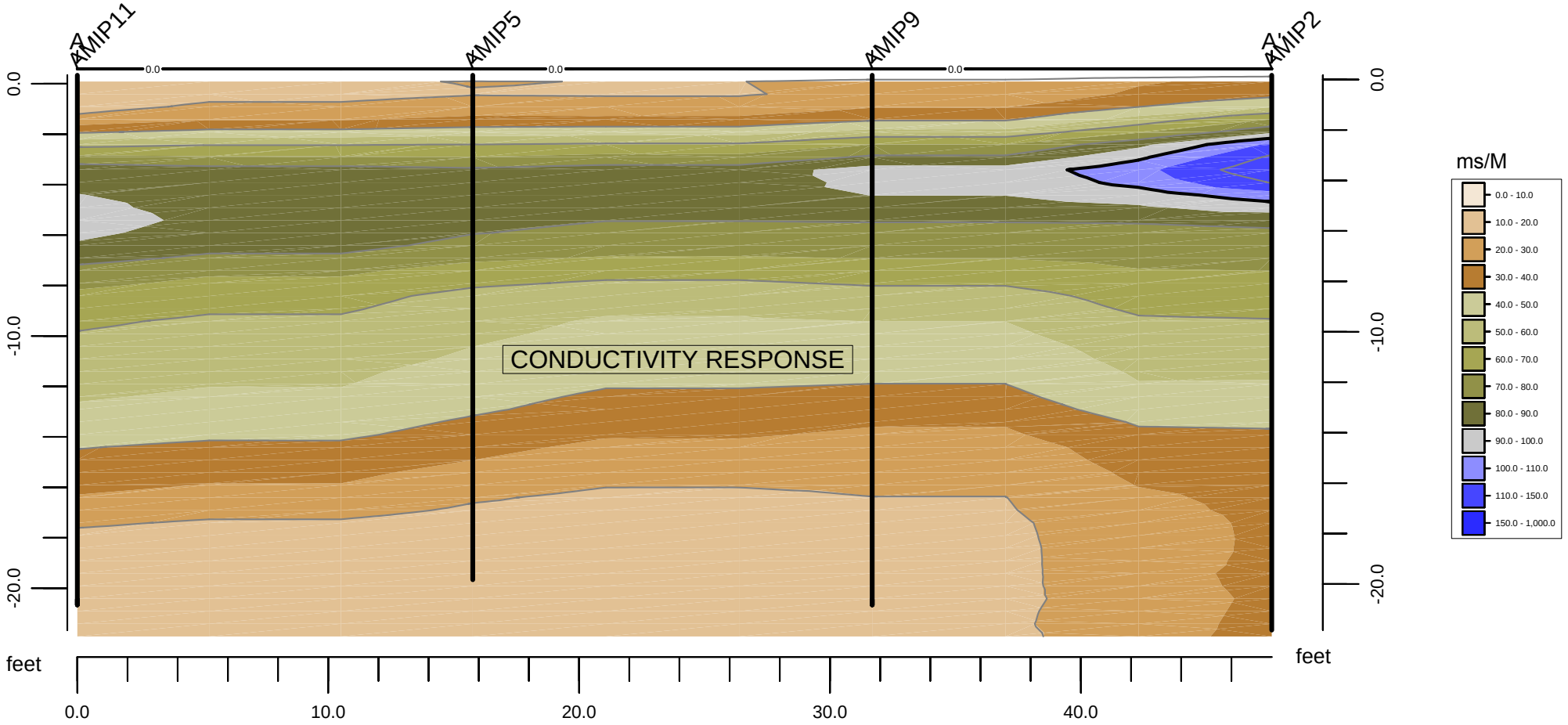


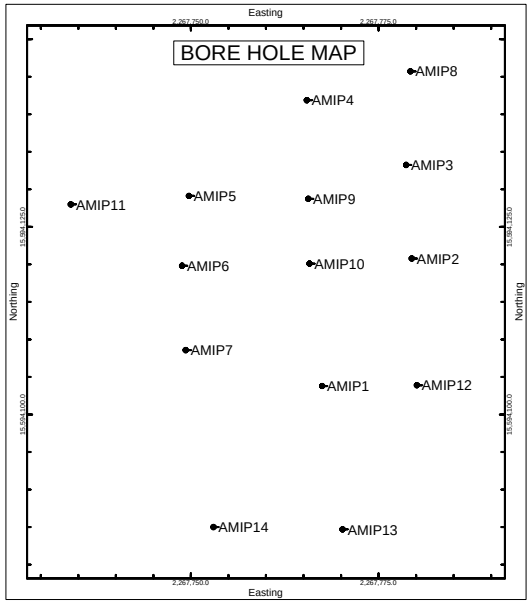
AECOM
MIP Site Investigation
Former Scott Aviation Inc.
Lancaster, New York

LEGEND

ECD = Electron Capture Detector
PID = Photo Ionization Dectector
ECD/PID Units = Micro Volts (UV)
Distance units = Feet (ft)
Depth Units = Feet (ft)

Conductivity Cross-Section Report



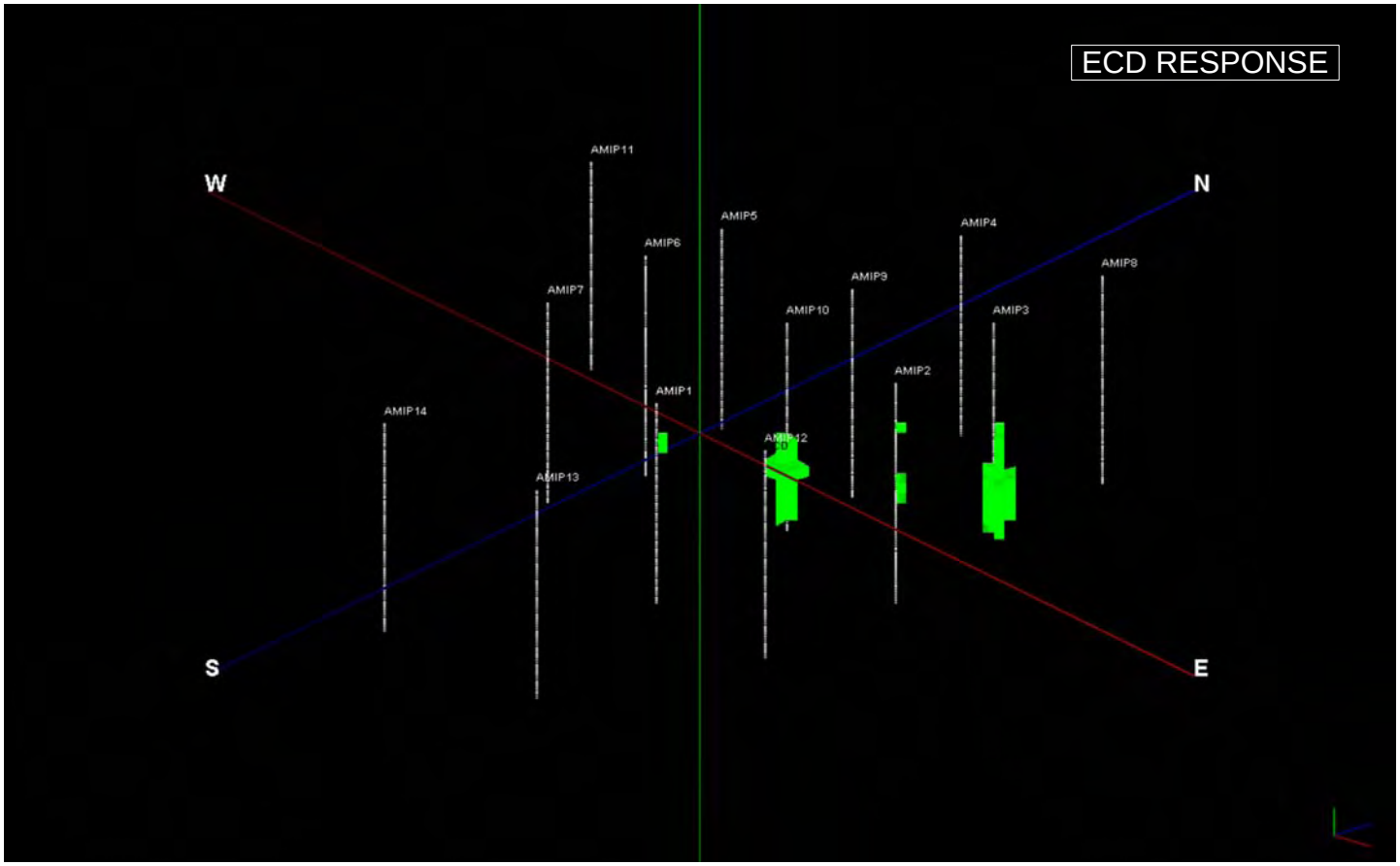


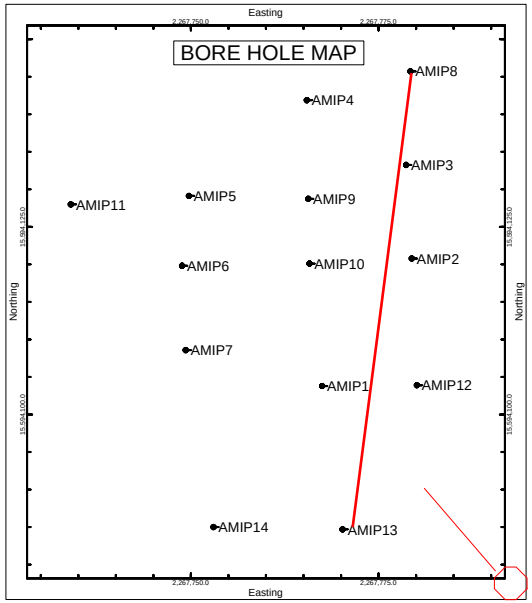
AECOM
MIP Site Investigation
Former Scott Aviation Inc.
Lancaster, New York

LEGEND

ECD = Electron Capture Detector
PID = Photo Ionization Dectector
ECD/PID Units = Micro Volts (UV)
Distance units = Feet (ft)
Depth Units = Feet (ft)

ECD 3D Multi Log Map



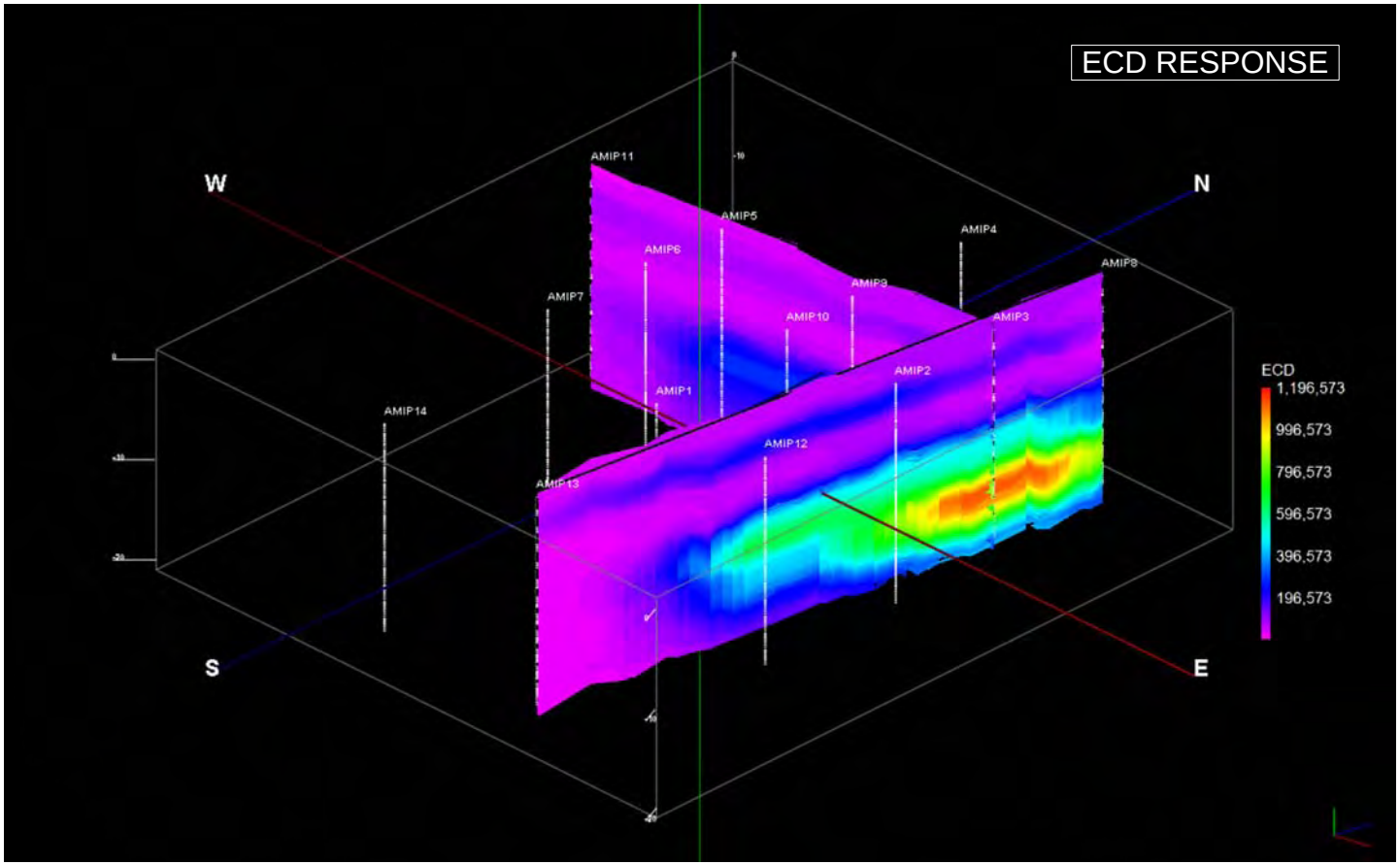


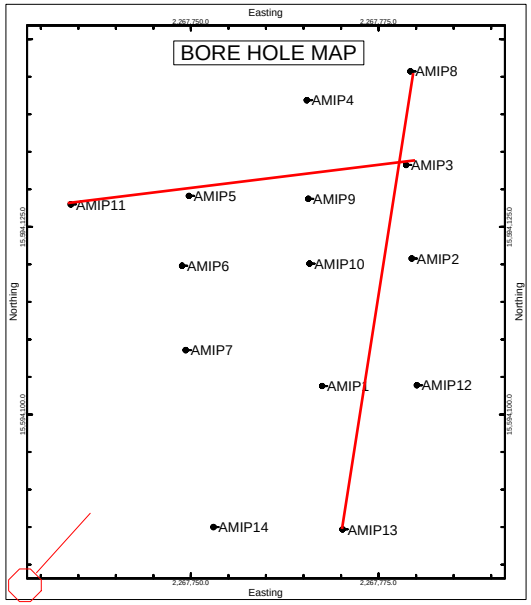
AECOM
MIP Site Investigation
Former Scott Aviation Inc.
Lancaster, New York

LEGEND

ECD = Electron Capture Detector
PID = Photo Ionization Dectector
ECD/PID Units = Micro Volts (UV)
Distance units = Feet (ft)
Depth Units = Feet (ft)

ECD 3D Fence
South EAST View



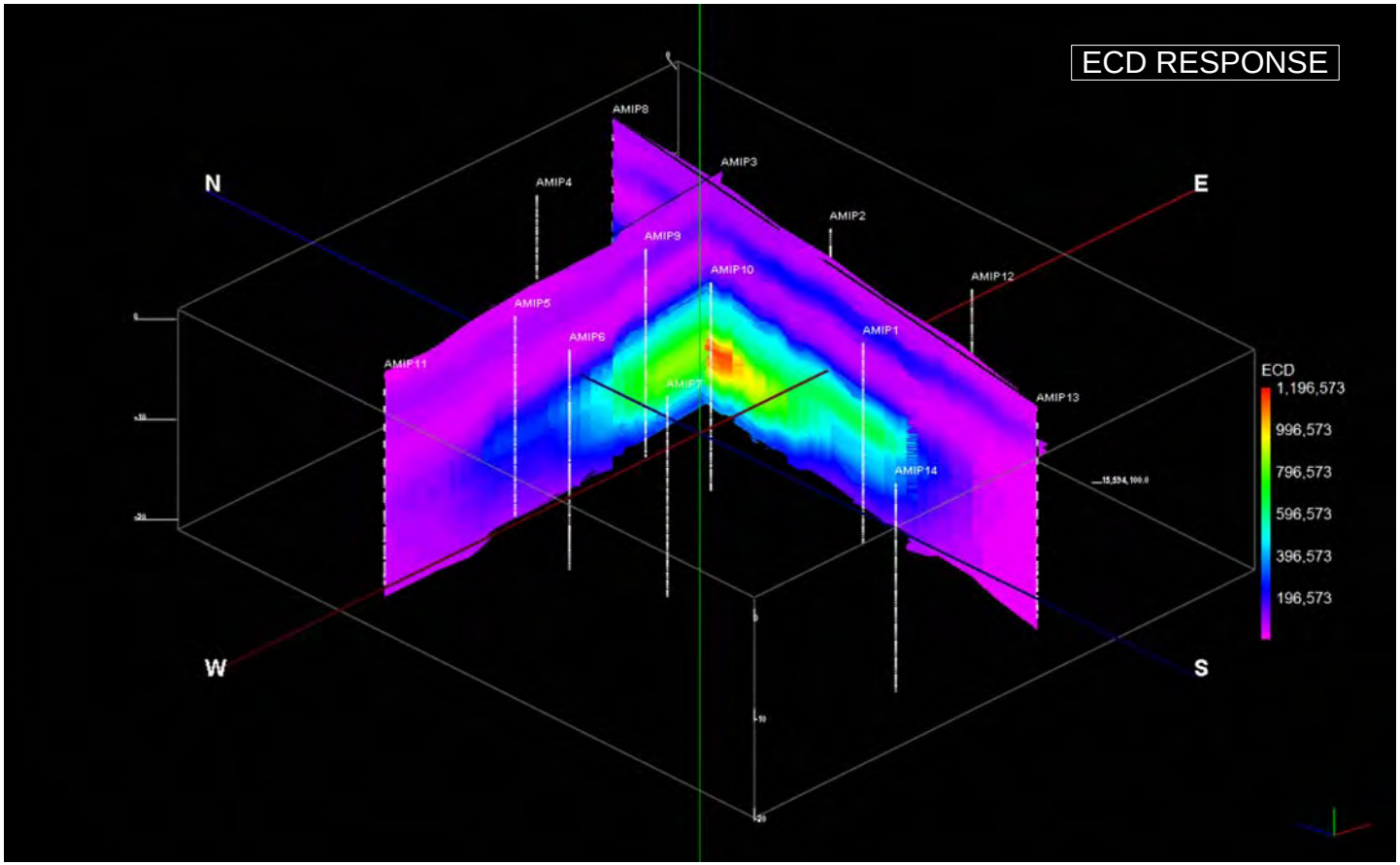


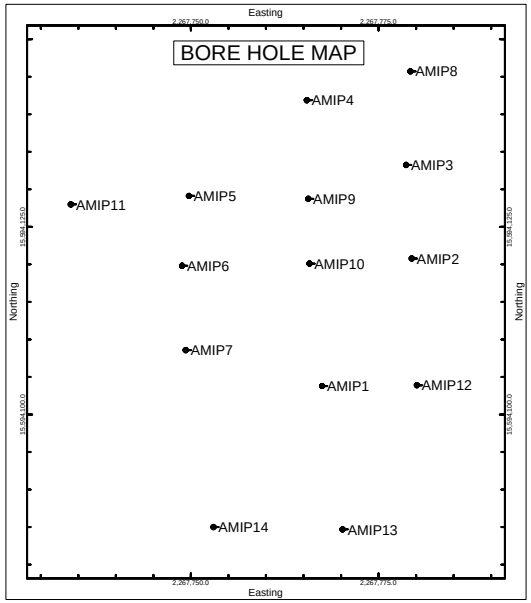
AECOM
MIP Site Investigation
Former Scott Aviation Inc.
Lancaster, New York

LEGEND

ECD = Electron Capture Detector
PID = Photo Ionization Dectector
ECD/PID Units = Micro Volts (UV)
Distance units = Feet (ft)
Depth Units = Feet (ft)

ECD 3D Fence
South West View



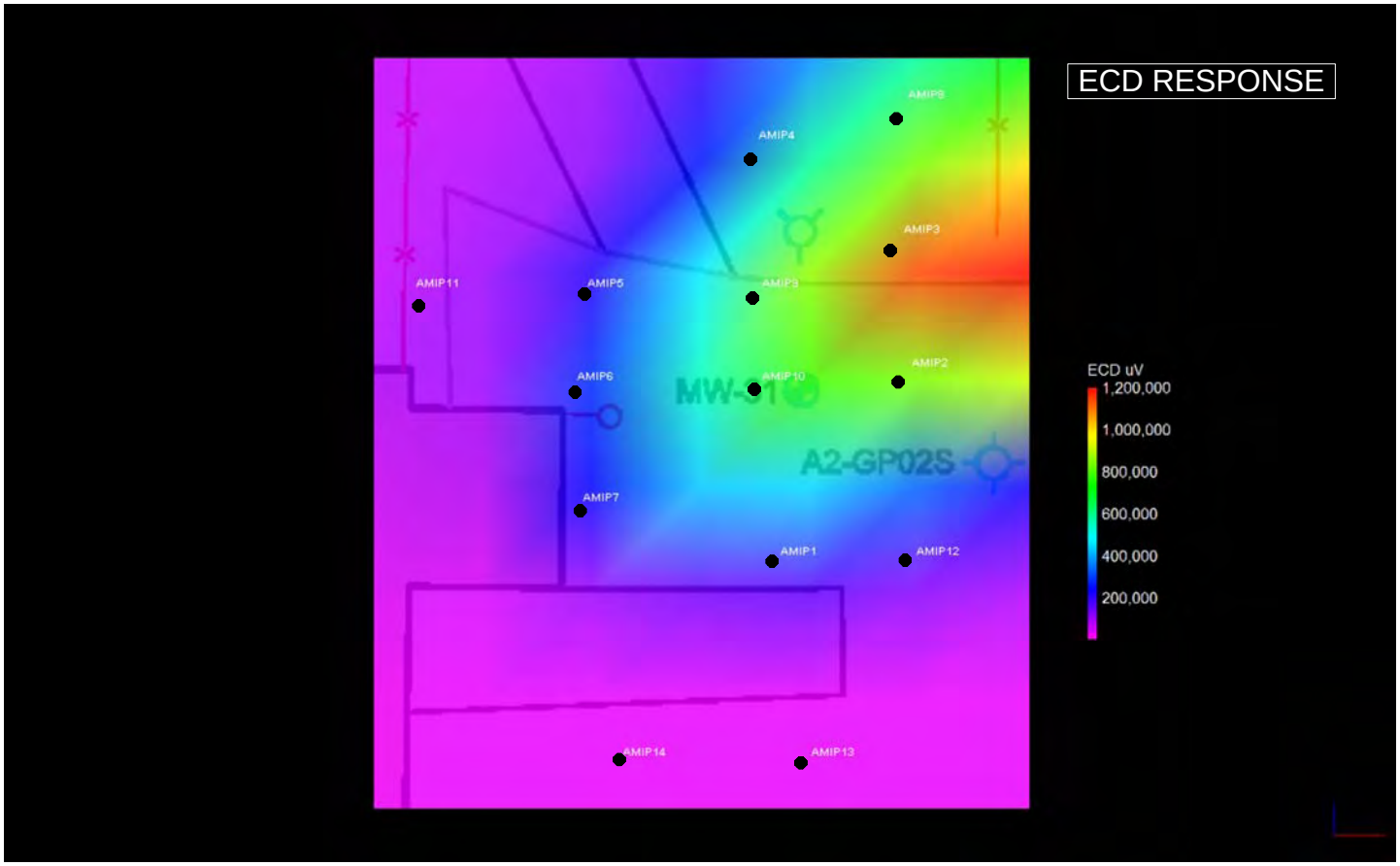


AECOM
MIP Site Investigation
Former Scott Aviation Inc.
Lancaster, New York

LEGEND

ECD = Electron Capture Detector
PID = Photo Ionization Dectector
ECD/PID Units = Micro Volts (UV)
Distance units = Feet (ft)
Depth Units = Feet (ft)

ECD Plan View
16.5 Feet Below Land Surface



ATTACHMENT 3

Analytical Report

SDG Number: RSH0120

Project Description(s)

Work Order RSH0120 - Earth Tech, Inc. - Scott Aviation site
Work Order RSH0205 - Earth Tech, Inc. - Scott Aviation site
Work Order RSH0207 - Earth Tech, Inc. - Scott Aviation site

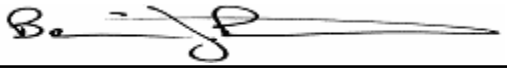
For:

Dino Zack

AECOM - Amherst, NY

100 Corporate Pkwy-Univ Centre

Amherst, NY 14226



Brian Fischer

Project Manager

Brian.Fischer@testamericainc.com

Thursday, August 20, 2009

AECOM - Amherst, NY
100 Corporate Pkwy-Univ Centre
Amherst, NY 14226

SDG Number: RSH0120

Project: Earth Tech, Inc. - Scott Aviation site
Project Number: EARTH-0001

Received: 08/05/09-08/07/09
Reported: 08/20/09 18:13

TestAmerica Buffalo
Current Certifications

As of 1/27/2009

STATE	Program	Cert # / Lab ID
Arkansas	CWA, RCRA, SOIL	88-0686
California*	NELAP CWA, RCRA	01169CA
Connecticut	SDWA, CWA, RCRA, SOIL	PH-0568
Florida*	NELAP CWA, RCRA	E87672
Georgia*	SDWA,NELAP CWA, RCRA	956
Illinois*	NELAP SDWA, CWA, RCRA	200003
Iowa	SW/CS	374
Kansas*	NELAP SDWA, CWA, RCRA	E-10187
Kentucky	SDWA	90029
Kentucky UST	UST	30
Louisiana*	NELAP CWA, RCRA	2031
Maine	SDWA, CWA	NY0044
Maryland	SDWA	294
Massachusetts	SDWA, CWA	M-NY044
Michigan	SDWA	9937
Minnesota	SDWA,CWA, RCRA	036-999-337
New Hampshire*	NELAP SDWA, CWA	233701
New Jersey*	NELAP,SDWA, CWA, RCRA,	NY455
New York*	NELAP, AIR, SDWA, CWA, RCRA,CLP	10026
Oklahoma	CWA, RCRA	9421
Pennsylvania*	NELAP CWA,RCRA	68-00281
Tennessee	SDWA	02970
Texas*	NELAP CWA, RCRA	T104704412-08-TX
USDA	FOREIGN SOIL PERMIT	S-41579
USDOE	Department of Energy	DOECAP-STB
Virginia	SDWA	278
Washington*	NELAP CWA,RCRA	C1677
Wisconsin	CWA, RCRA	998310390
West Virginia	CWA,RCRA	252

*As required under the indicated accreditation, the test results in this report meet all NELAP requirements for parameters for which accre ditation is required or available. Any exceptions to NELAP requirements are noted in this report.

AECOM - Amherst, NY
100 Corporate Pkwy-Univ Centre
Amherst, NY 14226

SDG Number: RSH0120

Project: Earth Tech, Inc. - Scott Aviation site
Project Number: EARTH-0001

Received: 08/05/09-08/07/09
Reported: 08/20/09 18:13

Case Narrative

According to 40CFR Part 136.3, pH, Chlorine Residual, Dissolved Oxygen, Sulfite, and Temperature analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field (e.g. field-pH), they were not analyzed immediately, but as soon as possible after laboratory receipt.

There are pertinent documents appended to this report, 19 pages, are included and are an integral part of this report.

TestAmerica Laboratories, Inc. certifies that the analytical results contained herein apply only to the samples tested as received by our Laboratory.

AECOM - Amherst, NY
100 Corporate Pkwy-Univ Centre
Amherst, NY 14226

SDG Number: RSH0120

Project: Earth Tech, Inc. - Scott Aviation site
Project Number: EARTH-0001

Received: 08/05/09-08/07/09
Reported: 08/20/09 18:13

DATA QUALIFIERS AND DEFINITIONS

B	Analyte was detected in the associated Method Blank.
D08	Dilution required due to high concentration of target analyte(s)
E	Concentration exceeds the calibration range and therefore result is semi-quantitative.
J	Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). Concentrations within this range are estimated.
P6	Sample received unpreserved, however the sample was analyzed within 7 days per EPA recommendation.
NR	Any inclusion of NR indicates that the project specific requirements do not require reporting estimated values below the laboratory reporting limit.

ADDITIONAL COMMENTS

Results are reported on a wet weight basis unless otherwise noted.

AECOM - Amherst, NY
100 Corporate Pkwy-Univ Centre
Amherst, NY 14226

SDG Number: RSH0120

Project: Earth Tech, Inc. - Scott Aviation site
Project Number: EARTH-0001

Received: 08/05/09-08/07/09
Reported: 08/20/09 18:13

Executive Summary - Detections

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: GEO-01 (RSH0205-01 - Solid)						**Sampled: 08/07/09 13:45**			**Recvd: 08/07/09 15:05**	
D2216										
Moisture Content	**10.9**		NR	NR	%	1.00	08/11/09 09:30	DJP	'[none]'	D2216
D2937										
In-Place Density	**2.11**		NR	NR	g/cm3	1.00	08/11/09 09:36	DJP	'[none]'	D2937
D2974										
Organic Soils	**0.8**		NR	NR	%	1.00	08/11/09 09:30	DJP	'[none]'	D2974
D854										
Specific Gravity	**2.737**		NR	NR		1.00	08/12/09 13:00	MPB	'[none]'	D854
Client ID: MW31-MNA (RSH0120-01 - Water)						**Sampled: 08/05/09 10:35**			**Recvd: 08/05/09 12:10**	
Gases by RSK-175										
Ethane	**21**		1.5	0.18	ug/L	1.00	08/10/09 19:28	MAN	9H10060	RSK175
Ethene	**12**		1.5	0.15	ug/L	1.00	08/10/09 19:28	MAN	9H10060	RSK175
Methane	**460**	E	1.0	0.22	ug/L	1.00	08/10/09 19:28	tch	9H10060	RSK175
General Chemistry Parameters										
Alkalinity, Total	**280**	B	5.00	0.79	mg/L	1.00	08/14/09 12:05	KLD	9H14050	2320B
Ammonia as N	**0.087**		0.020	0.009	mg/L	1.00	08/07/09 11:49	RMM	9H07017	350.1
Sulfate	**34.1**		5.0	1.5	mg/L	1.00	08/06/09 11:40	RJP	9H06047	D-516-90
Total Organic Carbon	**2.8**		1.0	0.4	mg/L	1.00	08/06/09 16:14	MDM	9H06043	5310 D
Client ID: MW31-MNA (RSH0120-01RE1 - Water)						**Sampled: 08/05/09 10:35**			**Recvd: 08/05/09 12:10**	
Gases by RSK-175										
Methane	**1500**	D08	100	22	ug/L	100	08/10/09 20:11	MAN	9H10060	RSK175
Client ID: SP-01 (RSH0207-01 - Water)						**Sampled: 08/07/09 12:20**			**Recvd: 08/07/09 15:05**	
Volatile Organic Compounds by EPA 8260B										
1,1,1-Trichloroethane	**31**		1.0	0.26	ug/L	1.00	08/09/09 14:50	NMD	9H09004	8260B
1,1-Dichloroethane	**1700**	E	1.0	0.38	ug/L	1.00	08/09/09 14:50	NMD	9H09004	8260B
1,1-Dichloroethene	**7.6**		1.0	0.29	ug/L	1.00	08/09/09 14:50	NMD	9H09004	8260B
Chloroethane	**24**		1.0	0.32	ug/L	1.00	08/09/09 14:50	NMD	9H09004	8260B
cis-1,2-Dichloroethene	**250**	E	1.0	0.38	ug/L	1.00	08/09/09 14:50	NMD	9H09004	8260B
trans-1,2-Dichloroethene	**4.9**		1.0	0.42	ug/L	1.00	08/09/09 14:50	NMD	9H09004	8260B
Trichloroethene	**490**	E	1.0	0.46	ug/L	1.00	08/09/09 14:50	NMD	9H09004	8260B
Vinyl chloride	**21**		1.0	0.24	ug/L	1.00	08/09/09 14:50	NMD	9H09004	8260B
Xylenes, total	**3.9**		2.0	0.66	ug/L	1.00	08/09/09 14:50	NMD	9H09004	8260B
Client ID: SP-01 (RSH0207-01RE1 - Water)						**Sampled: 08/07/09 12:20**			**Recvd: 08/07/09 15:05**	
Volatile Organic Compounds by EPA 8260B										
1,1,1-Trichloroethane	**32**	D08, P6,J	40	11	ug/L	40.0	08/10/09 17:45	TWS	9H10024	8260B
1,1-Dichloroethane	**2500**	D08, P6	40	15	ug/L	40.0	08/10/09 17:45	TWS	9H10024	8260B
cis-1,2-Dichloroethene	**290**	D08, P6	40	15	ug/L	40.0	08/10/09 17:45	TWS	9H10024	8260B
Trichloroethene	**600**	D08, P6	40	18	ug/L	40.0	08/10/09 17:45	TWS	9H10024	8260B
Client ID: SP-02 (RSH0207-02 - Water)						**Sampled: 08/07/09 13:15**			**Recvd: 08/07/09 15:05**	

AECOM - Amherst, NY
100 Corporate Pkwy-Univ Centre
Amherst, NY 14226

SDG Number: RSH0120

Project: Earth Tech, Inc. - Scott Aviation site
Project Number: EARTH-0001

Received: 08/05/09-08/07/09
Reported: 08/20/09 18:13

Executive Summary - Detections

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: SP-02 (RSH0207-02 - Water) - cont.						**Sampled: 08/07/09 13:15**		**Recvd: 08/07/09 15:05**		
Volatile Organic Compounds by EPA 8260B										
Trichloroethene	**0.51**	J	1.0	0.46	ug/L	1.00	08/10/09 14:44	TWS	9H10024	8260B
Xylenes, total	**1.0**	J	2.0	0.66	ug/L	1.00	08/10/09 14:44	TWS	9H10024	8260B

AECOM - Amherst, NY
100 Corporate Pkwy-Univ Centre
Amherst, NY 14226

SDG Number: RSH0120

Project: Earth Tech, Inc. - Scott Aviation site
Project Number: EARTH-0001

Received: 08/05/09-08/07/09
Reported: 08/20/09 18:13

Sample Summary

Sample Identification	Lab Number	Client Matrix	Date/Time Sampled	Date/Time Received	Sample Qualifiers
GEO-01	RSH0205-01	Solid	08/07/09 13:45	08/07/09 15:05	
MW31-MNA	RSH0120-01	Water	08/05/09 10:35	08/05/09 12:10	
SP-01	RSH0207-01	Water	08/07/09 12:20	08/07/09 15:05	
SP-02	RSH0207-02	Water	08/07/09 13:15	08/07/09 15:05	
TRIP BLANK	RSH0207-03	Water	08/07/09	08/07/09 15:05	

AECOM - Amherst, NY
100 Corporate Pkwy-Univ Centre
Amherst, NY 14226

SDG Number: RSH0120

Project: Earth Tech, Inc. - Scott Aviation site
Project Number: EARTH-0001

Received: 08/05/09-08/07/09
Reported: 08/20/09 18:13

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: GEO-01 (RSH0205-01 - Solid)						**Sampled: 08/07/09 13:45**		**Recvd: 08/07/09 15:05**		
D2216										
Moisture Content	**10.9**		NA	NR	%	1.00	08/11/09 09:30	DJP	'[none]'	D2216
D2937										
In-Place Density	**2.11**		NA	NR	g/cm3	1.00	08/11/09 09:36	DJP	'[none]'	D2937
D2974										
Organic Soils	**0.8**		NA	NR	%	1.00	08/11/09 09:30	DJP	'[none]'	D2974
D854										
Specific Gravity	**2.737**		NA	NR		1.00	08/12/09 13:00	MPB	'[none]'	D854

AECOM - Amherst, NY
100 Corporate Pkwy-Univ Centre
Amherst, NY 14226

SDG Number: RSH0120

Project: Earth Tech, Inc. - Scott Aviation site
Project Number: EARTH-0001

Received: 08/05/09-08/07/09
Reported: 08/20/09 18:13

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: MW31-MNA (RSH0120-01 - Water)						**Sampled: 08/05/09 10:35**		**Recvd: 08/05/09 12:10**		
Gases by RSK-175										
Ethane	**21**		1.5	0.18	ug/L	1.00	08/10/09 19:28	MAN	9H10060	RSK175
Ethene	**12**		1.5	0.15	ug/L	1.00	08/10/09 19:28	MAN	9H10060	RSK175
Methane	**460**	E	1.0	0.22	ug/L	1.00	08/10/09 19:28	tch	9H10060	RSK175
General Chemistry Parameters										
Alkalinity, Total	**280**	B	5.00	0.79	mg/L	1.00	08/14/09 12:05	KLD	9H14050	2320B
Ammonia as N	**0.087**		0.020	0.009	mg/L	1.00	08/07/09 11:49	RMM	9H07017	350.1
Nitrate-Nitrite	ND		0.05	0.02	mg/L-N	1.00	08/11/09 11:12	jmm	9H11042	353.2
Sulfate	**34.1**		5.0	1.5	mg/L	1.00	08/06/09 11:40	RJP	9H06047	D-516-90
Sulfide	ND		0.100	0.0220	mg/L	1.00	08/07/09 14:00	RJP	9H07052	4500-S D
Total Organic Carbon	**2.8**		1.0	0.4	mg/L	1.00	08/06/09 16:14	MDM	9H06043	5310 D

AECOM - Amherst, NY
100 Corporate Pkwy-Univ Centre
Amherst, NY 14226

SDG Number: RSH0120

Project: Earth Tech, Inc. - Scott Aviation site
Project Number: EARTH-0001

Received: 08/05/09-08/07/09
Reported: 08/20/09 18:13

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: MW31-MNA (RSH0120-01RE1 - Water)						**Sampled: 08/05/09 10:35**		**Recvd: 08/05/09 12:10**		
Gases by RSK-175										
Ethane	ND		150	18	ug/L	100	08/10/09 20:11	MAN	9H10060	RSK175
Ethene	ND		150	15	ug/L	100	08/10/09 20:11	MAN	9H10060	RSK175
Methane	**1500**	D08	100	22	ug/L	100	08/10/09 20:11	MAN	9H10060	RSK175

AECOM - Amherst, NY
100 Corporate Pkwy-Univ Centre
Amherst, NY 14226

SDG Number: RSH0120

Project: Earth Tech, Inc. - Scott Aviation site
Project Number: EARTH-0001

Received: 08/05/09-08/07/09
Reported: 08/20/09 18:13

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: SP-01 (RSH0207-01 - Water)						**Sampled: 08/07/09 12:20**		**Recvd: 08/07/09 15:05**		
Volatile Organic Compounds by EPA 8260B										
1,1,1-Trichloroethane	**31**		1.0	0.26	ug/L	1.00	08/09/09 14:50	NMD	9H09004	8260B
1,1-Dichloroethane	**1700**	E	1.0	0.38	ug/L	1.00	08/09/09 14:50	NMD	9H09004	8260B
1,1-Dichloroethene	**7.6**		1.0	0.29	ug/L	1.00	08/09/09 14:50	NMD	9H09004	8260B
Chloroethane	**24**		1.0	0.32	ug/L	1.00	08/09/09 14:50	NMD	9H09004	8260B
cis-1,2-Dichloroethene	**250**	E	1.0	0.38	ug/L	1.00	08/09/09 14:50	NMD	9H09004	8260B
trans-1,2-Dichloroethene	**4.9**		1.0	0.42	ug/L	1.00	08/09/09 14:50	NMD	9H09004	8260B
Trichloroethene	**490**	E	1.0	0.46	ug/L	1.00	08/09/09 14:50	NMD	9H09004	8260B
Vinyl chloride	**21**		1.0	0.24	ug/L	1.00	08/09/09 14:50	NMD	9H09004	8260B
Xylenes, total	**3.9**		2.0	0.66	ug/L	1.00	08/09/09 14:50	NMD	9H09004	8260B
1,2-Dichloroethane-d4	*99 %*		*Surr Limits: (66-137%)*				*08/09/09 14:50*	*NMD*	*9H09004*	*8260B*
4-Bromofluorobenzene	*116 %*		*Surr Limits: (73-120%)*				*08/09/09 14:50*	*NMD*	*9H09004*	*8260B*
Toluene-d8	*101 %*		*Surr Limits: (71-126%)*				*08/09/09 14:50*	*NMD*	*9H09004*	*8260B*

AECOM - Amherst, NY
100 Corporate Pkwy-Univ Centre
Amherst, NY 14226

SDG Number: RSH0120

Project: Earth Tech, Inc. - Scott Aviation site
Project Number: EARTH-0001

Received: 08/05/09-08/07/09
Reported: 08/20/09 18:13

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: SP-01 (RSH0207-01RE1 - Water)						**Sampled: 08/07/09 12:20**		**Recvd: 08/07/09 15:05**		
Volatile Organic Compounds by EPA 8260B										
1,1,1-Trichloroethane	**32**	D08, P6,J	40	11	ug/L	40.0	08/10/09 17:45	TWS	9H10024	8260B
1,1-Dichloroethane	**2500**	D08, P6	40	15	ug/L	40.0	08/10/09 17:45	TWS	9H10024	8260B
1,1-Dichloroethene	ND	D08, P6	40	12	ug/L	40.0	08/10/09 17:45	TWS	9H10024	8260B
Chloroethane	ND	D08, P6	40	13	ug/L	40.0	08/10/09 17:45	TWS	9H10024	8260B
cis-1,2-Dichloroethene	**290**	D08, P6	40	15	ug/L	40.0	08/10/09 17:45	TWS	9H10024	8260B
trans-1,2-Dichloroethene	ND	D08, P6	40	17	ug/L	40.0	08/10/09 17:45	TWS	9H10024	8260B
Trichloroethene	**600**	D08, P6	40	18	ug/L	40.0	08/10/09 17:45	TWS	9H10024	8260B
Vinyl chloride	ND	D08, P6	40	9.7	ug/L	40.0	08/10/09 17:45	TWS	9H10024	8260B
Xylenes, total	ND	D08, P6	80	26	ug/L	40.0	08/10/09 17:45	TWS	9H10024	8260B
1,2-Dichloroethane-d4	*99 %*	*D08, P6*	*Surr Limits: (66-137%)*				*08/10/09 17:45*	*TWS*	*9H10024*	*8260B*
4-Bromofluorobenzene	*114 %*	*D08, P6*	*Surr Limits: (73-120%)*				*08/10/09 17:45*	*TWS*	*9H10024*	*8260B*
Toluene-d8	*100 %*	*D08, P6*	*Surr Limits: (71-126%)*				*08/10/09 17:45*	*TWS*	*9H10024*	*8260B*

AECOM - Amherst, NY
100 Corporate Pkwy-Univ Centre
Amherst, NY 14226

SDG Number: RSH0120

Project: Earth Tech, Inc. - Scott Aviation site
Project Number: EARTH-0001

Received: 08/05/09-08/07/09
Reported: 08/20/09 18:13

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: SP-02 (RSH0207-02 - Water)						**Sampled: 08/07/09 13:15**		**Recvd: 08/07/09 15:05**		
Volatile Organic Compounds by EPA 8260B										
1,1,1-Trichloroethane	ND		1.0	0.26	ug/L	1.00	08/10/09 14:44	TWS	9H10024	8260B
1,1-Dichloroethane	ND		1.0	0.38	ug/L	1.00	08/10/09 14:44	TWS	9H10024	8260B
1,1-Dichloroethene	ND		1.0	0.29	ug/L	1.00	08/10/09 14:44	TWS	9H10024	8260B
Chloroethane	ND		1.0	0.32	ug/L	1.00	08/10/09 14:44	TWS	9H10024	8260B
cis-1,2-Dichloroethene	ND		1.0	0.38	ug/L	1.00	08/10/09 14:44	TWS	9H10024	8260B
trans-1,2-Dichloroethene	ND		1.0	0.42	ug/L	1.00	08/10/09 14:44	TWS	9H10024	8260B
Trichloroethene	**0.51**	J	1.0	0.46	ug/L	1.00	08/10/09 14:44	TWS	9H10024	8260B
Vinyl chloride	ND		1.0	0.24	ug/L	1.00	08/10/09 14:44	TWS	9H10024	8260B
Xylenes, total	**1.0**	J	2.0	0.66	ug/L	1.00	08/10/09 14:44	TWS	9H10024	8260B
1,2-Dichloroethane-d4	*100 %*		*Surr Limits: (66-137%)*				*08/10/09 14:44*	*TWS*	*9H10024*	*8260B*
4-Bromofluorobenzene	*112 %*		*Surr Limits: (73-120%)*				*08/10/09 14:44*	*TWS*	*9H10024*	*8260B*
Toluene-d8	*98 %*		*Surr Limits: (71-126%)*				*08/10/09 14:44*	*TWS*	*9H10024*	*8260B*

AECOM - Amherst, NY
100 Corporate Pkwy-Univ Centre
Amherst, NY 14226

SDG Number: RSH0120

Project: Earth Tech, Inc. - Scott Aviation site
Project Number: EARTH-0001

Received: 08/05/09-08/07/09
Reported: 08/20/09 18:13

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TRIP BLANK (RSH0207-03 - Water)						**Sampled: 08/07/09**			**Recvd: 08/07/09 15:05**	
Volatile Organic Compounds by EPA 8260B										
1,1,1-Trichloroethane	ND		1.0	0.26	ug/L	1.00	08/09/09 15:42	NMD	9H09004	8260B
1,1-Dichloroethane	ND		1.0	0.38	ug/L	1.00	08/09/09 15:42	NMD	9H09004	8260B
1,1-Dichloroethene	ND		1.0	0.29	ug/L	1.00	08/09/09 15:42	NMD	9H09004	8260B
Chloroethane	ND		1.0	0.32	ug/L	1.00	08/09/09 15:42	NMD	9H09004	8260B
cis-1,2-Dichloroethene	ND		1.0	0.38	ug/L	1.00	08/09/09 15:42	NMD	9H09004	8260B
trans-1,2-Dichloroethene	ND		1.0	0.42	ug/L	1.00	08/09/09 15:42	NMD	9H09004	8260B
Trichloroethene	ND		1.0	0.46	ug/L	1.00	08/09/09 15:42	NMD	9H09004	8260B
Vinyl chloride	ND		1.0	0.24	ug/L	1.00	08/09/09 15:42	NMD	9H09004	8260B
Xylenes, total	ND		2.0	0.66	ug/L	1.00	08/09/09 15:42	NMD	9H09004	8260B
1,2-Dichloroethane-d4	*103 %*		*Surr Limits: (66-137%)*				*08/09/09 15:42*	*NMD*	*9H09004*	*8260B*
4-Bromofluorobenzene	*114 %*		*Surr Limits: (73-120%)*				*08/09/09 15:42*	*NMD*	*9H09004*	*8260B*
Toluene-d8	*100 %*		*Surr Limits: (71-126%)*				*08/09/09 15:42*	*NMD*	*9H09004*	*8260B*

AECOM - Amherst, NY
100 Corporate Pkwy-Univ Centre
Amherst, NY 14226

SDG Number: RSH0120

Project: Earth Tech, Inc. - Scott Aviation site
Project Number: EARTH-0001

Received: 08/05/09-08/07/09
Reported: 08/20/09 18:13

SAMPLE EXTRACTION DATA

Parameter	Batch	Lab Number	Wt/Vol Extracte	Units	Extract Volume	Units	Date Prepared	Lab Tech	Extraction Method
Gases by RSK-175									
RSK175	9H10060	RSH0120-01	1.00	mL	1.00	mL	08/10/09 13:00	LMW	RSK-175
RSK175	9H10060	RSH0120-01RE	1.00	mL	1.00	mL	08/10/09 13:00	LMW	RSK-175
General Chemistry Parameters									
2320B	9H14050	RSH0120-01	50.00	mL	50.00	mL	08/14/09 12:05	KLD	No Prep Alkalinity
350.1	9H07017	RSH0120-01	5.00	mL	5.00	mL	08/07/09 09:32	RMM	Ammonia
353.2	9H11042	RSH0120-01	5.00	mL	5.00	mL	08/11/09 11:00	JMM	No prep Nitrate/Nitrite
4500-S D	9H07052	RSH0120-01	25.00	mL	25.00	mL	08/07/09 14:00	RJP	No prep Sulfide
5310 D	9H06043	RSH0120-01	40.00	mL	40.00	mL	08/06/09 16:14	JMM	No prep Carbon
D-516-90	9H06047	RSH0120-01	2.00	mL	2.00	mL	08/06/09 11:40	RJP	No prep Sulfate

SAMPLE EXTRACTION DATA

Parameter	Batch	Lab Number	Wt/Vol Extracte	Units	Extract Volume	Units	Date Prepared	Lab Tech	Extraction Method
Volatile Organic Compounds by EPA 8260B									
8260B	9H09004	RSH0207-01	5.00	mL	5.00	mL	08/09/09 10:25	NMD	5030B MS
8260B	9H09004	RSH0207-03	5.00	mL	5.00	mL	08/09/09 10:25	NMD	5030B MS
8260B	9H10024	RSH0207-01RE	5.00	mL	5.00	mL	08/10/09 09:46	TWS	5030B MS
8260B	9H10024	RSH0207-02	5.00	mL	5.00	mL	08/10/09 09:46	TWS	5030B MS

AECOM - Amherst, NY
100 Corporate Pkwy-Univ Centre
Amherst, NY 14226

SDG Number: RSH0120

Project: Earth Tech, Inc. - Scott Aviation site
Project Number: EARTH-0001

Received: 08/05/09-08/07/09
Reported: 08/20/09 18:13

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
Volatile Organic Compounds by EPA 8260B											
Blank Analyzed: 08/09/09 (Lab Number:9H09004-BLK1, Batch: 9H09004)											
1,1,1-Trichloroethane			1.0	0.26	ug/L	ND					
1,1-Dichloroethane			1.0	0.38	ug/L	ND					
1,1-Dichloroethene			1.0	0.29	ug/L	ND					
Chloroethane			1.0	0.32	ug/L	ND					
cis-1,2-Dichloroethene			1.0	0.38	ug/L	ND					
trans-1,2-Dichloroethene			1.0	0.42	ug/L	ND					
Trichloroethene			1.0	0.46	ug/L	ND					
Vinyl chloride			1.0	0.24	ug/L	ND					
Xylenes, total			2.0	0.66	ug/L	ND					
Surrogate: 1,2-Dichloroethane-d4					*ug/L*		*101*	*66-137*			
Surrogate: 4-Bromofluorobenzene					*ug/L*		*115*	*73-120*			
Surrogate: Toluene-d8					*ug/L*		*102*	*71-126*			
LCS Analyzed: 08/09/09 (Lab Number:9H09004-BS1, Batch: 9H09004)											
1,1,1-Trichloroethane			1.0	0.26	ug/L	ND		73-126			
1,1-Dichloroethane			1.0	0.38	ug/L	ND		71-129			
1,1-Dichloroethene		25	1.0	0.29	ug/L	24.3	97	65-138			
Chloroethane			1.0	0.32	ug/L	ND		69-136			
cis-1,2-Dichloroethene			1.0	0.38	ug/L	ND		74-124			
trans-1,2-Dichloroethene			1.0	0.42	ug/L	ND		73-127			
Trichloroethene		25	1.0	0.46	ug/L	24.2	97	74-123			
Vinyl chloride			1.0	0.24	ug/L	ND		65-133			
Xylenes, total			2.0	0.66	ug/L	ND		76-122			
Surrogate: 1,2-Dichloroethane-d4					*ug/L*		*97*	*66-137*			
Surrogate: 4-Bromofluorobenzene					*ug/L*		*113*	*73-120*			
Surrogate: Toluene-d8					*ug/L*		*99*	*71-126*			
Volatile Organic Compounds by EPA 8260B											
Blank Analyzed: 08/10/09 (Lab Number:9H10024-BLK1, Batch: 9H10024)											
1,1,1-Trichloroethane			1.0	0.26	ug/L	ND					
1,1-Dichloroethane			1.0	0.38	ug/L	ND					
1,1-Dichloroethene			1.0	0.29	ug/L	ND					
Chloroethane			1.0	0.32	ug/L	ND					
cis-1,2-Dichloroethene			1.0	0.38	ug/L	ND					
trans-1,2-Dichloroethene			1.0	0.42	ug/L	ND					

AECOM - Amherst, NY
100 Corporate Pkwy-Univ Centre
Amherst, NY 14226

SDG Number: RSH0120

Project: Earth Tech, Inc. - Scott Aviation site
Project Number: EARTH-0001

Received: 08/05/09-08/07/09
Reported: 08/20/09 18:13

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
Volatile Organic Compounds by EPA 8260B											
Blank Analyzed: 08/10/09 (Lab Number:9H10024-BLK1, Batch: 9H10024)											
Trichloroethene			1.0	0.46	ug/L	ND					
Vinyl chloride			1.0	0.24	ug/L	ND					
Xylenes, total			2.0	0.66	ug/L	ND					
Surrogate: 1,2-Dichloroethane-d4					*ug/L*		*98*	*66-137*			
Surrogate: 4-Bromofluorobenzene					*ug/L*		*116*	*73-120*			
Surrogate: Toluene-d8					*ug/L*		*100*	*71-126*			
LCS Analyzed: 08/10/09 (Lab Number:9H10024-BS1, Batch: 9H10024)											
1,1,1-Trichloroethane		25	1.0	0.26	ug/L	23.5	94	73-126			
1,1-Dichloroethane		25	1.0	0.38	ug/L	21.9	87	71-129			
1,1-Dichloroethene		25	1.0	0.29	ug/L	22.2	89	65-138			
Chloroethane		25	1.0	0.32	ug/L	25.6	103	69-136			
cis-1,2-Dichloroethene		25	1.0	0.38	ug/L	23.1	92	74-124			
trans-1,2-Dichloroethene		25	1.0	0.42	ug/L	23.0	92	73-127			
Trichloroethene		25	1.0	0.46	ug/L	23.5	94	74-123			
Vinyl chloride		25	1.0	0.24	ug/L	20.9	84	65-133			
Xylenes, total		75	2.0	0.66	ug/L	72.4	96	76-122			
Surrogate: 1,2-Dichloroethane-d4					*ug/L*		*92*	*66-137*			
Surrogate: 4-Bromofluorobenzene					*ug/L*		*115*	*73-120*			
Surrogate: Toluene-d8					*ug/L*		*101*	*71-126*			

AECOM - Amherst, NY
100 Corporate Pkwy-Univ Centre
Amherst, NY 14226

SDG Number: RSH0120

Project: Earth Tech, Inc. - Scott Aviation site
Project Number: EARTH-0001

Received: 08/05/09-08/07/09
Reported: 08/20/09 18:13

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
Gases by RSK-175											
Blank Analyzed: 08/10/09 (Lab Number:9H10060-BLK1, Batch: 9H10060)											
Ethane			1.5	0.18	ug/L	ND					
Ethene			1.5	0.15	ug/L	ND					
Methane			1.0	0.22	ug/L	ND					
LCS Analyzed: 08/10/09 (Lab Number:9H10060-BS1, Batch: 9H10060)											
Ethane		6.8	1.5	0.18	ug/L	7.35	109	41-176			
Ethene		7.2	1.5	0.15	ug/L	6.68	92	62-143			
Methane		3.9	1.0	0.22	ug/L	4.41	114	67-140			

AECOM - Amherst, NY
100 Corporate Pkwy-Univ Centre
Amherst, NY 14226

SDG Number: RSH0120

Project: Earth Tech, Inc. - Scott Aviation site
Project Number: EARTH-0001

Received: 08/05/09-08/07/09
Reported: 08/20/09 18:13

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
General Chemistry Parameters											
Blank Analyzed: 08/06/09 (Lab Number:9H06043-BLK1, Batch: 9H06043)											
Total Organic Carbon			0.5	0.4	mg/L	ND					
LCS Analyzed: 08/06/09 (Lab Number:9H06043-BS1, Batch: 9H06043)											
Total Organic Carbon		60.0	0.5	0.4	mg/L	56.7	95	90-110			
General Chemistry Parameters											
Blank Analyzed: 08/06/09 (Lab Number:9H06047-BLK1, Batch: 9H06047)											
Sulfate			5.0	1.5	mg/L	ND					
LCS Analyzed: 08/06/09 (Lab Number:9H06047-BS1, Batch: 9H06047)											
Sulfate			5.0	1.5	mg/L	30.1		90-110			
General Chemistry Parameters											
Blank Analyzed: 08/07/09 (Lab Number:9H07017-BLK1, Batch: 9H07017)											
Ammonia as N			0.020	0.009	mg/L	ND					
LCS Analyzed: 08/07/09 (Lab Number:9H07017-BS1, Batch: 9H07017)											
Ammonia as N		0.750	0.020	0.009	mg/L	0.710	95	90-110			
General Chemistry Parameters											
Blank Analyzed: 08/07/09 (Lab Number:9H07052-BLK1, Batch: 9H07052)											
Sulfide			0.100	0.0220	mg/L	ND					
LCS Analyzed: 08/07/09 (Lab Number:9H07052-BS1, Batch: 9H07052)											
Sulfide		0.750	0.100	0.0220	mg/L	0.703	94	90-110			
General Chemistry Parameters											
Blank Analyzed: 08/11/09 (Lab Number:9H11042-BLK1, Batch: 9H11042)											
Nitrate-Nitrite			0.05	0.02	mg/L-N	ND					
LCS Analyzed: 08/11/09 (Lab Number:9H11042-BS1, Batch: 9H11042)											
Nitrate-Nitrite		1.50	0.05	0.02	mg/L-N	1.45	97	90-110			
General Chemistry Parameters											
Blank Analyzed: 08/14/09 (Lab Number:9H14050-BLK1, Batch: 9H14050)											
Alkalinity, Total			5.00	0.79	mg/L	0.80					J
LCS Analyzed: 08/14/09 (Lab Number:9H14050-BS1, Batch: 9H14050)											
Alkalinity, Total		100	5.00	0.79	mg/L	92.1	92	90-110			B

AECOM - Amherst, NY
100 Corporate Pkwy-Univ Centre
Amherst, NY 14226

SDG Number: RSH0120

Project: Earth Tech, Inc. - Scott Aviation site
Project Number: EARTH-0001

Received: 08/05/09-08/07/09
Reported: 08/20/09 18:13

LABORATORY QC DATA

Analyte	Source Result	Spike Level	MRL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers

Chain of Custody Record

Temperature on Receipt ____

Drinking Water? Yes ☐ No ☒

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client	Project Manager	Date	Chain of Custody Number
AECOM	Tim Renn	8/5/09	133593
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 1 of 1**
10 Corporate Pkwy, Suite 341	716-836-4506 ext 15	TA Buffalo	
City / State / Zip Code	**Site Contact**	**Lab Contact**	
Amherst / NY / 14226	Dina Zack	Brian Fisher	
Project Name and Location (State)	**Carrier/Waybill Number**		
Scott Aviation MNA sampling August 2009			
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Analysis: Bottle qty	SO4	Sulfide	NO3+NO2	NH3	Alk	RSK175	TOC	Special Instructions/ Conditions of Receipt
MW31-MNA	8/5/09	10:35		X			X		X	X	X	X		X	X	X	X	X	X	X	
Trip Blank (MF 8/5/09)	"																				

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal
☐ Return To Client ☒ Disposal By Lab ☐ Archive For ____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other STD

QC Requirements (Specify)

	Date	Time
1. Relinquished By	8/5/09	12:10
2. Relinquished By		
3. Relinquished By		

	Date	Time
1. Received By	8/6/09	1210
2. Received By		
3. Received By		

Comments

60

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Burlington
30 Community Drive, Suite 11
South Burlington, VT 05403 Tel: 802 660 1990

CHAIN OF CUSTODY RECORD

Report to:
Company: AECOM
Address: 100 Corporate Pkwy Suite 341 Amherst, NY 14226
Contact: Dino Zack
Phone: ~~836~~ 716-836-4506 ext 15
Fax:
Contract/ Quote: STLNYB

Invoice to:
Company: AECOM
Address:
Contact:
Phone:
Fax:

Sampler's Name
Sampler's Signature

Lab Use Only
Due Date:
Temp. of coolers when received (C°): 16.0
1 | 2 | 3 | 4 | 5
Custody Seal N / Y
Intact N / Y
Screened For Radioactivity ☐

Proj. No.
Project Name: Scott Aviation Geotechnical
No./Type of Containers²: 2

Matrix¹	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	VOA	A/G 1 Lt.	250 ml	P/O	ANALYSIS REQUESTED: ASTM D422	ASTM D854	ASTM D2216	ASTM D2974	ASTM D2937	Lab/Sample ID (Lab Use Only)
S	8/6/09	1315	X		Geo-01					X	X	X	X	X	

Relinquished by: (Signature)	Date 8/7/09	Time 15:05	Received by: (Signature)	Date 8/7/09	Time 1505
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Remarks

Client's delivery of samples constitutes acceptance of TestAmerica terms and conditions contained in the Price Schedule.

¹Matrix WW - Wastewater W - Water S - Soil L - Liquid A - Air bag C - Charcoal Tube SL - Sludge O - Oil
²Container VOA - 40 ml vial A/G - Amber / Or Glass 1 Liter 250 ml - Glass wide mouth P/O - Plastic or other

TestAmerica Cannot accept verbal changes. Please Fax written changes to (802) 660-1919

TAL-8234(1007)

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4142 (0907)

Client	Project Manager	Date	Chain of Custody Number
AECOM	Tim Rean	8/7/09	395937
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	
100 Corporate Pkwy Suite 341	716-836-4506 ext 15, Jeff Rowley ext 13		Page 1 of 1
City / **State** / **Zip Code**	**Site Contact** / **Lab Contact**		
Amherst / NY / 14226	Dino Zack / Brian Fischer		
Project Name and Location (State)	**Carrier/Waybill Number**		
Scott Aviation Mip Groundwater Study August 2009			
Contract/Purchase Order/Quote No			

Analysis (Attach list if more space is needed)

Special Instructions/ Conditions of Receipt

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil		Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH		8260 VOC **	please see comment	Special Instructions/ Conditions of Receipt
SP-01	8/7/09	12:20		X							X				X		
SP-02	8/7/09	13:15		X							X				X		
Trip Blank	8/7/09	-		X							X				X		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal
☐ Return To Client ☒ Disposal By Lab ☐ Archive For ____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other STD

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By [signature]	8/7/09	15:05	1. Received By [signature]	8/7/09	1505
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments
** please report only these analytes: TCE, 1,1,1-TCA, 1,1-DCA, trans-1,2-DCE, cis-1,2-DCE, vinyl chloride, chloroethane, total xylenes
Questions, please call!
2.6°

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

TestAmerica
South Burlington, VT

Sample Data Summary Package

RSH0205

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

August 17, 2009

Mr. Brian Fischer
TestAmerica, Inc.
10 Hazelwood Drive
Suite 106
Amherst, NY 14228

Re: Laboratory Project No. 29012
Case: SCOTTGEO; SDG: RSH0205

Dear Mr. Fischer:

Enclosed are the analytical results for the sample that was received by TestAmerica Burlington on August 8th, 2009. A laboratory identification number was assigned, and designated as follows:

Lab ID	Client Sample ID	Sample Date	Sample Matrix
Received: 08/08/09 ETR No: 133025			
803167	RSH0205-01	08/07/09	SOLID

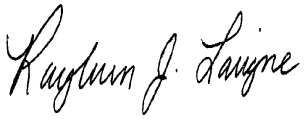
Documentation of the condition of the samples at the time of their receipt and any exception to the laboratory's Sample Acceptance Policy is documented in the Sample Handling section of this submittal.

The sample was analyzed for moisture content by ASTM D2216, organic content by ASTM D2974, specific gravity by ASTM D854 and for in-place density by ASTM D2937. The density results do not represent the in-place density of the soil. The sample was received in a disturbed state, and subsequent to receipt, the laboratory molded the sample into a Shelby tube, and performed the test accordingly.

Any reference within this report to Severn Trent Laboratories, Inc. or STL, should be understood to refer to TestAmerica Laboratories, Inc. (formerly known as Severn Trent Laboratories, Inc.) The analytical results associated with the samples presented in this test report were generated under a quality system that adheres to requirements specified in the NELAC standard. Release of the data in this test report and any associated electronic deliverables is authorized by the Laboratory Director's designee as verified by the following signature.

If there are any questions regarding this submittal, please contact me at 802 660-1990.

Sincerely,



Rayburn Lavigne
Project Manager

Enclosure

Chain of Custody

SUBCONTRACT ORDER

TestAmerica Buffalo

RSH0205

SENDING LABORATORY:

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228
Phone: 716-691-2600
Fax: 716-691-7991
Project Manager: Brian Fischer

RECEIVING LABORATORY:

TestAmerica Burlington
30 Community Drive; Suite 11
S. Burlington, VT 05403
Phone :(802) 655-1203
Fax: (802) 655-1248

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: RSH0205-01	**Solid**	**Sampled:08/07/09 13:45**	[redacted]	
SUB - Organic Matter 2974	08/19/09 12:00	02/03/10 13:45		
Containers Supplied:				

Released By	Date	Received By	Date
[signature]	8/7/09 1700	[signature] TA	08/08/09 1015
Released By	Date	Received By	Date

Page 1 of 1

WORK ORDER LOGIN REVIEW

RSH0205

TestAmerica Buffalo

AECOM - Amherst, NY

Sample	Client ID	Sample Alias	Sample Date/Time	Received Date/Time	QC Sam
RSH0205-01	GEO-01	GEO-01	08/07/09 13:45	08/07/09 15:05	False
RSH0205-01	GEO-01	GEO-01	08/07/09 13:45	08/07/09 15:05	False

Reviewed By

Date

Sample Data Summary – Geotechnical

GEOTECHNICAL / GENERAL CHEMISTRY

Sample Report Summary

Client Sample No.
RSH0205-01

Lab Name: TestAmerica Burlington | **Contract:** RSH0205 | **SDG No.:** RSH0205

Lab Code: TALVT | **Case No.:** SCOTTGEO | **Lab Sample ID:** 803167

Matrix: SOLID | **Client:** STLNYB | **Date Received:** 08/08/09

% Solids:

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
D2216	Moisture Content	08/11/09		%	1	0.0	10.9	
D2937	In-Place Density	08/11/09		g/cm3	1	0.0	2.11	
D2974	Organic Soils	08/11/09		%	1	0.0	0.8	
D854	Specific Gravity	08/12/09			1		2.737	

Printed on: 08/14/09 07:05 AM

ASTM Method D2216: Standard Test Method for Determination of Water (Moisture) Content of Soil and Rock by Mass Calculations

Client Code:	STLNYB	**Start Date:**	08/11/09
ETR:	133025	**Start Time:**	09:30
SDG:	RSH0205	**End Date:**	08/12/09
		Analyst:	DJP

Laboratory Number	Weight of Pan (g)	Weight of Pan + Wet Sample (g)	Weight of Pan + Dry Sample (g)	Moisture Content (%)
803167	4.16	248.59	224.51	10.9

ASTM Method D2937: Standard Test Method for Density of Soil in Place by the Drive-Cylinder Method Calculations

Client Code: STLNYB
ETR: 133025
SDG: RSH0205

Start Date: 08/11/09
Start Time: 09:36
End Date: 08/12/09
Analyst: DJP

	Weight Of					Measurement of							
Laboratory Number	Container (g)	Container + Sample (g)	Pan (g)	Pan + Wet Sample (g)	Pan + Dry Sample (g)	Sample Recovery (cm)	Container Diameter (cm)	Area (cm^2)	Wet Sample (g)	Dry Mass Basis (%)	Sample Volume (cm^3)	Dry Mass (g)	In-Place Density (g/cm^3)
803167	166.94	785.56	4.16	248.59	224.51	15.20	4.70	17.35	618.62	10.9%	263.71	557.68	2.11

ASTM Method D2974: Standard Test Methods for Moisture, Ash, and Organic Matter of Peat and Other Organic Soils
Calculations

Client Code: STLNYB
ETR: 133025
SDG: RSH0205

Start Date: 08/11/09
Start Time: 09:30
End Date: 09/13/09
Analyst: DJP

Laboratory Number	Weight of Pan (g)	Pan + Wet Sample (g)	Pan +Dry Sample (g)	Pan+ Ashed Sample (g)	Wet Sample (g)	Dry Sample (g)	Organic Matter (g)	Moisture Content (%)	Organic Matter (%)	Ash Content (%)
803167	4.16	248.59	224.51	222.72	244.43	220.35	1.79	10.9	0.8	99.2

ASTM Method D854: Standard Test Method for Specific Gravity of Soils
Calculations

Client Code: STLNYB
ETR: 133025
SDG: RSH0205

Start Date: 08/12/09
Start Time: 1300
End Date: 08/14/09
Analyst: MPB

Laboratory Number	Flask Number	Weight Of				Temp. of Flask + H_2O + Sample (°C)	Calibrated Pycnometer Mass (g)	Calibrated Pycnometer Volume (mL)	Oven Dried Sample Mass (g)	Pycnometer + H_2O @ Sample Temp. (g)	Specific Gravity at Sample Temp.	Specific Gravity at 20°C
		Flask (g)	Flask + H_2O + Sample (g)	Pan (g)	Pan + Dry Soil (g)							
803167	20	101.55	390.01	248.04	309.61	21.1	101.58	249.86	61.57	350.933	2.737	2.737

Sample Handling

FedEx

ORIGIN ID: DKKA (716) 691-2600
SAMPLE CONTROL
TESTAMERICA - BUFFALO
10 HAZELWOOD DR

AMHERST, NY 14228
UNITED STATES US

Ship Date: 07AUG09
ActWgt: 23.0 LB MAN
System#: 735603/CAFE2361
Account: S 235689596
Dimmed: 18x16x10 IN

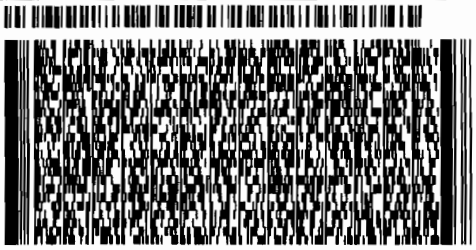
TO SAMPLE RECEIVING
TEST AMERICA BURLINGTON
30 COMMUNITY DRIVE
SUITE 11
SOUTH BURLINGTON, VT 05403

(802) 660-1990

FedEx
Express

CLS#5187/22/23

Ref: ORGANIC MAT
Dept: STL LABS



Delivery Address
Barcode

BILL RECIPIENT

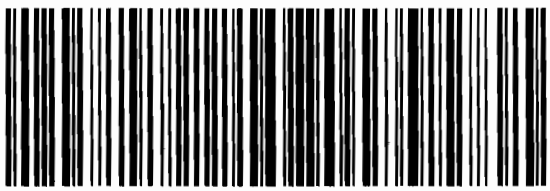
PRIORITY SATURDAY

Deliver By:
08AUG09

TRK# 9653 8549 4184 Form 0201

BTV AA

05403 -VT-US X0 BTVA



TestAmerica Burlington
SAMPLE RECEIPT & LOG IN CHECKLIST

Client: STLNUS	Date Received: 08/08/09	Log In Date: 8/11/09	
ETR: 133025	Time Received: 1615	By:	
SDG: RSH0205	Received By: WM	Signature:	
Project: 7901Z	# Coolers Received: 1	PM Signature: Kathleen J Langevin	
Samples Delivered By: X Shipping Service ☐ Courier ☐ Hand ☐ Other (specify)		Date: 08/12/09	
List Air bill Number(s) or Attach a photocopy of the Air Bill:			

COOLER SCREEN	YES	NO	NA	COMMENTS
There is ***no*** evidence to indicate tampering	X			
Custody seals are present and intact	X			
Custody seal numbers are present	X			
If yes, list custody seal numbers: 356518				

Thermal Preservation Type: X Wet Ice ☐ Blue Ice ☐ None ☐ Other (specify)

IR Gun ID: 9L Correction Factor (CF) = −1 °C

Cooler 1:	1.6 °C	Cooler 6	°C	Cooler 11	°C	Cooler 16	°C
Cooler 2:	°C	Cooler 7	°C	Cooler 12	°C	Cooler 17	°C
Cooler 3:	°C	Cooler 8	°C	Cooler 13	°C	Cooler 18	°C
Cooler 4:	°C	Cooler 9	°C	Cooler 14	°C	Cooler 19	°C
Cooler 5	°C	Cooler 10	°C	Cooler 15	°C	Cooler 20	°C

Unless otherwise documented, the recorded temperature readings are adjusted readings to account for the CF of the IR Gun

EPA Criteria: 0-6°C, except for air and geo samples which should be at ambient temperature and tissue samples, which may be frozen.

Some clients require thermal preservation criteria of 2-4°C or other such criteria. The PM must notify SM when alternate criteria is specified.

SAMPLE CONDITION	YES	NO	NA	COMMENTS
Sample containers were received intact	✓			
Legible sample labels are affixed to each container	✓			

CHAIN OF CUSTODY (COC)	YES	NO	NA	COMMENTS
COC is present and includes the following information for each container:				
• Sample ID / Sample Description	X			
• Date of Sample Collection	X			
• Time of Sample Collection	✓			
• Identification of the Sampler		X		No Sampler Relinquished
• Preservation Type			X	
• Requested Tests Method(s)	X			
• Necessary Signatures	X			
Internal Chain of Custody (ICOC) Required		X		
If yes to above, ICOC Record initiated for every Worksheet			X	

SAMPLE INTEGRITY / USABILITY	YES	NO	NA	COMMENTS
The sample container matches the COC	X			
Appropriate sample containers were received for the tests requested	X			
Samples were received within holding time	X			
Sufficient amount of sample is provided for requested analyses	X			
VOA vials do not have headspace or a bubble >6mm (1/4" diameter)			X	
Appropriate preservatives were used for the tests requested			X	
pH of inorganic samples checked and is within method specification			X	
If no, attach Inorganic Sample pH Adjustment Form			✓	

ANOMALY / NCR SUMMARY

1 of 2 500mL WM NP clear glass jars were broken during ~~bagging~~ unpacking. NCR filed, proceed with testing. Tim 8/11/09

FSR002:12.19.07:3
TestAmerica Burlington