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January 26, 2012

SENT VIA ELECTRONIC MAIL

Ms. Heather Bishop
Division of Environmental Remediation
New York State Department of Environmental Conservation
625 Broadway
Albany, New York 12233-7015

Subject: **Well Abandonment Letter Report
Site 2 Former Pesticide Pit Burial Area, Stewart Air National Guard Base
Site #: 3-36-022**

Dear Ms. Bishop:

On behalf of National Guard Bureau (NGB), AECOM has prepared this letter to describe the abandonment of wells associated with the closure of Site 2 Former Pesticide Pit Burial Area (Site). The Site number is 3-36-022. The Site is located on the Stewart Air National Guard Base (ANGB), Newburgh, Orange County, New York (Figure 1). The Stewart ANGB occupies approximately 268 acres and is located in both the Town of Newburgh and the Town of New Windsor. Stewart ANGB is located southeast of the airport complex at the Stewart International Airport (IAP) as shown in Figure 1.

SITE ACTIVITIES

In 2011, Site 2 was removed from the New York State Department of Environmental Conservation (NYSDEC) Registry of Inactive Hazardous Waste Sites. As part of Site closure, and per the NYSDEC-approved *Proposed Well Abandonment Plan* (AECOM, October 17, 2011), the two wells associated with Site 2 (MW-16 and MW-17) were abandoned on January 17, 2012. The former well locations are depicted on Figure 2. Monitoring well MW-01, upgradient from Site 2, was not abandoned at this time; this well has pesticide levels above groundwater standards and will continue to be used for groundwater monitoring. Wells MW-16 and MW-17 were abandoned in accordance with NYSDEC Commissioner Policy 43 (CP-43) *Groundwater Monitoring Well Decommissioning Policy* (November 3, 2009). Both monitoring wells were constructed of 2-inch PVC installed to approximately 51 feet below ground surface (bgs). The wells were completed with steel stick up casings and were each protected by three steel bollards.

Field work was performed by AECOM's drilling subcontractor Aquifer Drilling and Testing (ADT) under oversight by AECOM geologist and Stewart ANGB personnel (Larry Keeno). Per CP-43, the well abandonment procedure included filling the casing with grout using a tremie pipe, cutting the well casing at approximately one-foot bgs once the casing was filled with grout, and removing the protective steel stick up casing. Additionally the three protective steel bollards around each well were removed. A standard grout mix was used: one 94-pound bag of Portland cement to 3.9-pounds of powdered bentonite and 7.8 gallons of potable water, supplied by ADT. Approximately 25-gallons of grout was used in total; 10- gallons for MW-16 and 15 gallons for MW-17. On-site top soil provided by ANGB staff was used to restore the ground surface in the area of each well.

The removed well materials (i.e. steel stickups and bollards) were recycled on-site. Since the water from the monitoring wells did not contain any impacts above groundwater criteria, all water displaced from the wells during abandonment was discharged directly to the ground.



The well decommissioning form found in CP-43 was completed for each well decommissioned and is included as Attachment A. A photograph log of the abandonment activities is included in Attachment B.

Should you have any questions or require additional information, please do not hesitate to call me at (518) 396-7638 or Ms. Jody Murata at (240) 612-8120.

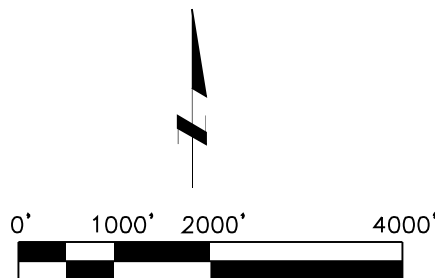
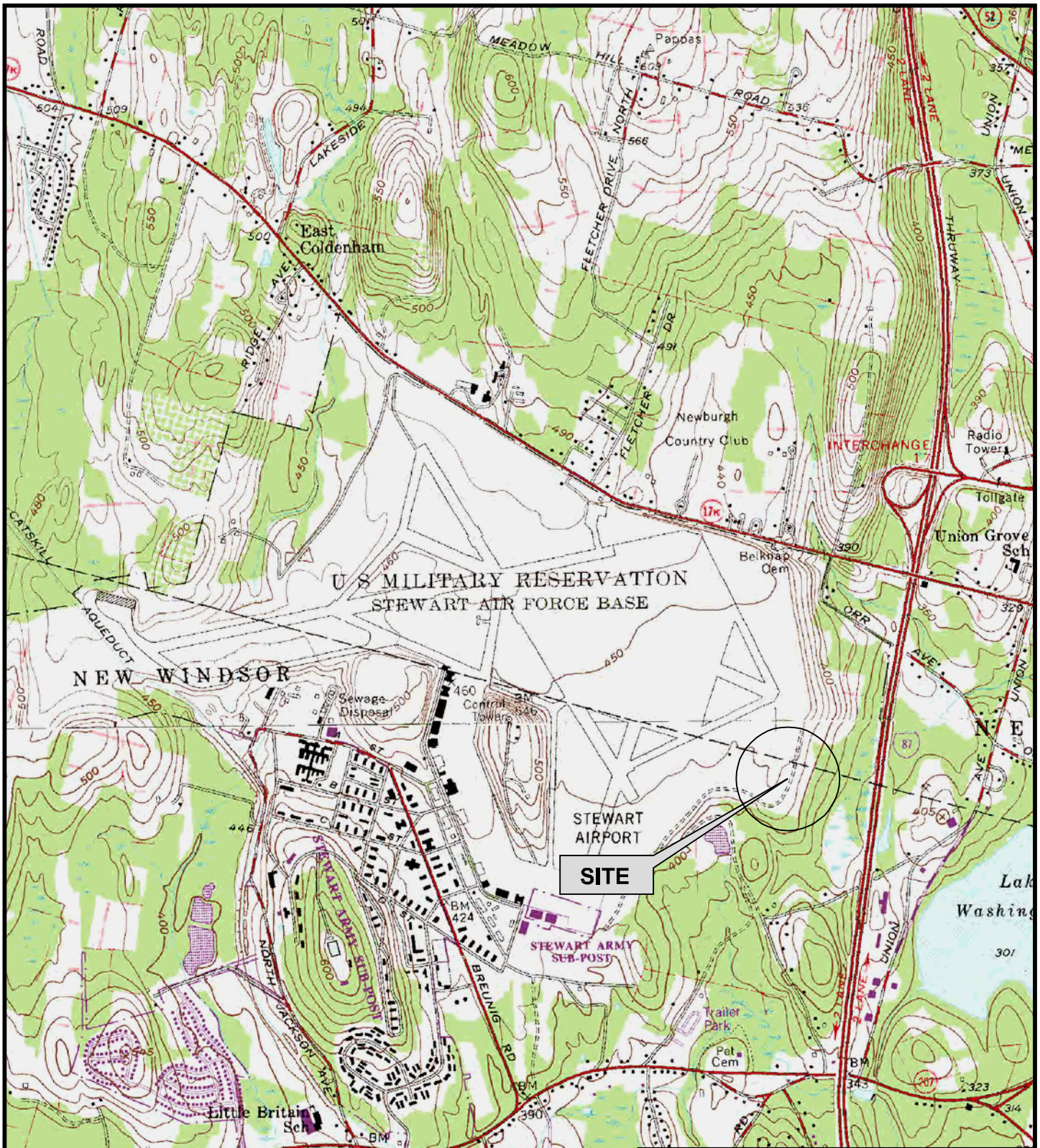
Yours sincerely,

A handwritten signature in black ink that reads "Scott Underhill". The signature is written in a cursive, flowing style.

Scott Underhill, P.E.
Project Manager

cc: Jody Murata, NGB
Captain Nicholas Caputo, Stewart ANGB EM
Veronica Allen, BB&E

FIGURES



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Figure 1
Site Location Plan
Site 2

Former Pesticide Burial Pit Area

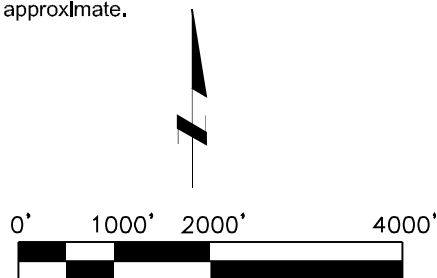
STEWART AIR NATIONAL GUARD BASE
ORANGE COUNTY, NEWBURGH, NEW YORK

Map Reference:
Study area can be found on the 7.5 minute quadrangle Newburgh
and Cornwall on the Hudson series.

FILE NAME:	DRN	PROJECT NO.	DATE	FIGURE NO.
	—	113753	10 / 2011	1



Note: Site and monitoring well locations are approximate.



Map Reference:
Study area can be found on the 7.5 minute quadrangle Newburgh
and Cornwall on the Hudson series.

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Figure 2
Well Abandonment Locations
Site 2
Former Pesticide Burial Pit Area

STEWART AIR NATIONAL GAURD BASE
ORANGE COUNTY, NEWBURGH, NEW YORK

FILE NAME:	DRN	PROJECT NO.	DATE	FIGURE NO.
	—	113753	10 / 2011	2

ATTACHMENT A
CP-43 Well Decommissioning Reports

WELL DECOMMISSIONING RECORD

Site Name: Stewart ANGB	Well I.D.: MW-16
Site Location: Newburgh, New York	Driller: Roger & Rich
Drilling Co.: Aquifer Drilling & Testing	Inspector: GLW, EG
	Date: 1/17/12

DECOMMISSIONING DATA (Fill in all that apply)		WELL SCHEMATIC*	
<u>OVERDRILLING</u>			
Interval Drilled			
Drilling Method(s)			
Borehole Dia. (in.)			
Temporary Casing Installed? (y/n)			
Depth temporary casing installed			
Casing type/dia. (in.)			
Method of installing			
<u>CASING PULLING</u>			
Method employed	Hand Saw		
Casing retrieved (feet)	3'		
Casing type/dia. (in.)	2"		
<u>CASING PERFORATING</u>			
Equipment used			
Number of perforations/foot			
Size of perforations			
Interval perforated			
<u>GROUTING</u>			
Interval grouted (FBLS)	0-51' bgs		
# of batches prepared	2 (see MW-17)		
For each batch record:			
Quantity of water used (gal.)	See MW-17		
Quantity of cement used (lbs.)	See MW-17		
Cement type	See MW-17		
Quantity of bentonite used (lbs.)	See MW-17		
Quantity of calcium chloride used (lbs.)			
Volume of grout prepared (gal.)	8		
Volume of grout used (gal.)	10		

COMMENTS:

Jackhammered cement and removed steel stickup and 3 steel protective bollards. Cut off PVC 1 foot bgs. Grouted well to the top and restored the surface with Site soils.

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

WELL DECOMMISSIONING RECORD

Site Name: Stewart ANGB	Well I.D.: MW-17
Site Location: Newburgh, New York	Driller: Roger & Rich
Drilling Co.: Aquifer Drilling & Testing	Inspector: GLW, EG
	Date: 1/17/12

DECOMMISSIONING DATA (Fill in all that apply)		WELL SCHEMATIC*	
<u>OVERDRILLING</u>			
Interval Drilled			
Drilling Method(s)			
Borehole Dia. (in.)			
Temporary Casing Installed? (y/n)			
Depth temporary casing installed			
Casing type/dia. (in.)			
Method of installing			
<u>CASING PULLING</u>			
Method employed	By hand		
Casing retrieved (feet)	5'		
Casing type/dia. (in.)	2"		
<u>CASING PERFORATING</u>			
Equipment used			
Number of perforations/foot			
Size of perforations			
Interval perforated			
<u>GROUTING</u>			
Interval grouted (FBLs)	0-51' bgs		
# of batches prepared	1		
For each batch record:			
Quantity of water used (gal.)	18		
Quantity of cement used (lbs.)	188		
Cement type	I-II		
Quantity of bentonite used (lbs.)	4		
Quantity of calcium chloride used (lbs.)			
Volume of grout prepared (gal.)	25		
Volume of grout used (gal.)	15		

COMMENTS:

Used drill rig to remove steel stickup and 3 steel protective bollards. Spun off top 5' of PVC casing, leaving the top at 1 foot bgs. Grouted well to the top and restored the surface with Site soils.

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

ATTACHMENT B
Photograph Log

AECOM Technical Services Northeast, Inc.**PHOTOGRAPH LOG****Client:** NYSDEC**Site Location:** Stewart Air National Guard
Base, Newburgh, New York**Site No.** 3-36-022**Photo No.**
1**Date:**
1/17/12**Direction Photo Taken:**

View southwest.

Description:Jack hammering concrete
surrounding MW-16.**Photo No.**
2**Date:**
1/17/12**Direction Photo Taken:**

View northwest.

Description:Pulling MW-17 stickup out
of the ground with the drill
rig.

AECOM Technical Services Northeast, Inc.**PHOTOGRAPH LOG****Client:** NYSDEC**Site Location:** Stewart Air National Guard
Base, Newburgh, New York**Site No.** 3-36-022**Photo No.**
3**Date:**
1/17/12**Direction Photo
Taken:**

View northwest.

Description:Mixing the grout to fill the
wells.**Photo No.**
4**Date:**
1/17/12**Direction Photo
Taken:**

View northwest.

Description:Retracting the tremie pipe
used to place the grout.

AECOM Technical Services Northeast, Inc.**PHOTOGRAPH LOG****Client:** NYSDEC**Site Location:** Stewart Air National Guard
Base, Newburgh, New York**Site No.** 3-36-022**Photo No.**
5**Date:**
1/17/12**Direction Photo
Taken:**

View east.

Description:View of the former
location of MW-17.**Photo No.**
6**Date:**
1/17/12**Direction Photo
Taken:**

View south.

Description:View of the former
location of MW-16.