1-30-003A-002 Scharf

ARCADIS

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Project Manager
New York State Department of Environmental Conservation (NYSDEC)
Remedial Action, Bureau A
Division of Environmental Remediation
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Albany, New York 12233-7015

ENVIRONMENTAL

Subject:
Interim Data Report for Outpost Well OW1-1, Northrop Grumman Corporation and Naval Weapons Industrial Reserve Plant Sites, Bethpage, New York.
(NYSDEC Site #s 1-30-003A and B)

Date:
26 May 2004

Contact:
Mike Wolfert

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Dear Mr. Scharf:

Pursuant to the procedures established in the July 2003 Public Water Supply Contingency Plan (PWSCP) (ARCADIS G&M, Inc. 2003), ARCADIS has prepared this Interim Data Report on behalf of Northrop Grumman Corporation (NGC) and the U.S. Navy to serve as formal notification of the analytical results of groundwater samples collected from Outpost Well OW1-1. As you will recall, Outpost Well OW1-1 was installed to provide early warning of the advance of the groundwater plume toward South Farmingdale Water District Public Supply Wells N-4043, N-5148, and N-7377. The following text summarizes groundwater sample collection and analytical procedures, the data evaluation process, and provides our findings and conclusions.

In general, the outpost wells were purged and sampled using a dedicated submersible pump and packer system following methodologies approved by the NYSDEC. As stated in the Operable Unit 2 Record of Decision (ROD) (and reiterated in the PWSCP), groundwater samples were analyzed in the laboratory for the Target Compound List (TCL) volatile organic compounds (VOCs), using United States Environmental Protection Agency Method 502.2 and the analytical results were compared to the PWSCP-established trigger values. To assess whether an exceedence of a trigger value had occurred, the detected concentrations of the site-related VOCs were compared to the trigger value. If the trigger value was met or exceeded in the initial sampling event, then two subsequent sampling events were performed to verify the constituent(s) that was initially detected and the respective concentration(s). A complete discussion of the rationale and decision-making process is provided in the PWSCP.

The groundwater quality data for Well OW1-1 are provided in Table 1 (enclosed). The subject well was sampled on April 23, 2004. Based on detections of site-related

VOCs at concentrations that exceeded the OW-1 Well Cluster trigger value from the April 23rd sampling event, the well was re-sampled on April 30 and May 6, 2004. The results of the April 30th and May 6th sampling events confirmed the April 23rd results, in that the same constituents were detected at similar concentrations. The data were therefore determined to be representative of current water quality conditions in the well and indicate that the groundwater plume comprised of site-related VOCs has impacted Well OW1-1 at concentrations exceeding the associated trigger value.

In accordance with the PWSCP, this report (with accompanying data) has been prepared and copies have been sent to the individuals listed below. If you have any questions or need additional information, please feel free to contact us.

Sincerely,

ARCADIS G&M, Inc.

David E. Stern
Senior Hydrogeologist

Carlo San Giovanni

Carlo San Giovanni
Project Manager

Michael F. Wolfert
Project Director

Enclosures

Copies:
John Cofman, Northrop Grumman
Larry Leskovjan, Northrop Grumman
James Colter, NAVFAC Northern Division
Ian Ushe, NYSDOH
Edoardo Licci, South Farmingdale Water District

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Table 1. Concentrations of Site-Related Volatile Organic Compounds Detected in Outpost Well OW 1-1, First Quarter 2004, Northrop Grumman Corporation, Bethpage, New York. [1]

CONSTITUENT (Units in ug/L)	NYSDEC Standards Criteria and Guidance Values[2]	WELL: / SAMPLE ID: / DATE:	OW 1-1 / OW 1-1 / 04/23/04	OW 1-1 / OW 1-1 / 04/30/04	OW 1-1 / OW 1-1 / 05/06/04
Chlorobenzene	5		<0.5	<0.5	<0.5
1,1-Dichloroethene	5		**8.4**	**7.2**	**6.1**
1,1-Dichloroethane	5		**3.8**	**4.0**	**3.4**
trans-1,2-Dichloroethene	5		<0.5	<0.5	<0.5
cis-1,2-Dichloroethene	5		<0.5	<0.5	<0.5
Chloroform	7		<0.5	<0.5	<0.5
1,2-Dichloroethane	5		<0.5	<0.5	<0.5
1,1,1-Trichloroethane	5		**13**	**15**	**12**
Carbon tetrachloride	5		<0.5	<0.5	<0.5
Trichloroethene	5		**3.8**	**4.0**	**3.2**
1,1,2,2-Tetrachloroethane	5		<0.5	<0.5	<0.5
Tetrachloroethene	5		<0.5	<0.5	<0.5
Freon-113 *	5		<0.5	<0.5	<0.5
1,1,2-Trichloroethane	5		<0.5	<0.5	<0.5
Total Site-Related VOCs:			**29**	**30.2**	**24.7**
Well Cluster OW-1 TVOC Trigger Value: [1]			**0.6**	**0.6**	**0.6**

Footnotes:

(1) Site-related VOCs and trigger values were established in the Public Water Supply Contingency Plan (ARCADIS G&M, Inc. 2003).

(2) Standards, Criteria, and Guidance (SCG) values based on documents referenced in the OU2 Feasibility Study Report (ARCADIS Geraghty & Miller, Inc. 2000); most stringent value listed.

General Notes:

- Results analyzed and reported as a NYSDEC Category A deliverable per the NYS DER-10 Guidance Document (NYSDEC 2002).
- Samples analyzed by EPA Method 502.2, as specified in the OU2 Record of Decision.
- Results were validated by ARCADIS by following the contract laboratory program national functional guidelines for organic data review (USEPA 1999).

Definitions:

OU2 Operable Unit 2
VOCs Volatile organic compounds
ug/L Micrograms per liter
NYSDEC New York State Department of Environmental Conservation
* Freon 113 also known as 1,1,1-Trichloro-2,2,2-trifluoroethane.
[ ] Value exceeds associated SCG value.
Bold value indicates a detection.