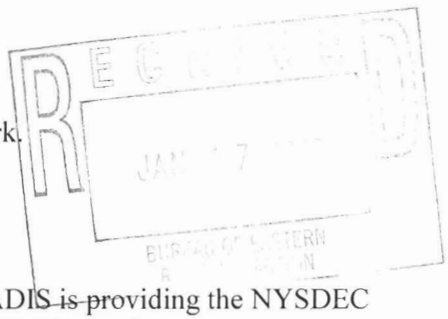
1-30-0039-0022

ARCADIS

Infrastructure, buildings, environment, communications

ARCADIS G&M, Inc.
88 Duryea Road
Melville
New York 11747
Tel 631 249 7600
Fax 631 249 7610
www.arcadis-us.com

Mr. Steven Scharf, P.E.
New York State Department of Environmental Conservation (NYSDEC)
Division of Environmental Remediation
625 Broadway
Albany, NY 12233-7015



ENVIRONMENTAL

Subject:
Third Quarter 2002 Groundwater Monitoring Data,
Northrop Grumman Corporation, Bethpage, New York

Date:
15 January 2003

Dear Mr. Scharf:

On behalf of Northrop Grumman Corporation, ARCADIS is providing the NYSDEC with groundwater data for the past two quarters (i.e., June/July of 2002 and October 2002) of outpost monitoring near Bethpage Water District Plants 4, 5, and 6. Table 1 summarizes volatile organic compound (VOC) concentrations detected in groundwater samples. Figures 1 through 3 depict the historical concentrations of total VOCs in groundwater.

Also provided are the results of the past two quarters (i.e., June/July of 2002 and October 2002) of monitoring for total cadmium and chromium (Cd/Cr). Table 2 summarizes Cd/Cr concentrations detected in groundwater samples during this period.

Please contact us if you have any questions or comments.

Sincerely,

ARCADIS G&M, Inc.

David E. Stern
Project Scientist

Carlo San Giovanni
Project Manager

Contact:
Carlo San Giovanni

Phone:
(631) 391-5259

Email:
csangiovanni@arcadis-us.com

Our ref:
NY001348.0006.00004

Copies:
J. Cofman - Northrop Grumman
J. Molloy - H2M
R. Krumholz - Bethpage Water District

G:\APROJECT\Northrop Grumman\Superfund\NY001321.0001 GW Monitoring\Reports\3th'Q02 BWD.rtf

ARCADIS

Table 1. Concentrations of Volatile Organic Compounds Detected in Outpost Monitoring Wells, Second and Third Quarters of 2002, Northrop Grumman Corporation, Bethpage, New York.

CONSTITUENT (Units in ug/L)	WELL: / SAMPLE ID: / DATE: / LAB/SAMPLER:	GM-35D2 GM 35D2 07/08/02 STL/G&M	GM-35D2 GM 35D-2 07/08/02 H2M/H2M	GM-35D2 GM-35D-2 10/03/02 STL/G&M	GM-35D2 GM-35D2 10/03/02 H2M/H2M	GM-36D GM-36D 07/09/02 STL/G&M	GM-36D GM-36D 07/09/02 H2M/H2M	GM-36D GM-36D 10/02/02 STL/G&M
Chloromethane		<20	<0.5	<5 J	<0.5	<5	<0.5	<5 J
Bromomethane		<20	<0.5	<5	<0.5	<5	<0.5	<5
Vinyl Choride		<8	<0.5	<2 J	<0.5	<2	<0.5	<2 J
Chloroethane		<20	<0.5	<5	<0.5	<5	<0.5	<5
Methylene chloride		<20	<0.5	<5	<0.5	<5	<0.5	<5
Acetone		<40	--	<10	--	<10	--	<10
Carbon disulfide		<20	--	<5	--	<5	--	<5
1,1-Dichloroethene		<20	**1.2**	**1 J**	**6.4**	<5	<0.5	<5
1,1-Dichloroethane		<20	<0.5	<5	<0.5	<5	<0.5	<5
cis-1,2-Dichloroethene		**5 J**	**1.7**	**4 J**	**4.4**	<5	<0.5	<5
trans-1,2-Dichloroethene		<20	<0.5	<5	<0.5	<5	<0.5	<5
Chloroform		<20	**0.6**	**0.5 J**	<0.5	<5	<0.5	<5
1,2-Dichloroethane		<20	<0.5	<5	<0.5	<5	<0.5	<5
2-Butanone		<40	--	<10	--	<10	--	<10
1,1,1-Trichloroethane		<20	<0.5	**0.7 J**	**1.1**	<5	<0.5	<5
Carbon tetrachloride		<20	<0.5	**0.4 J**	<0.5	<5	<0.5	<5
Bromodichloromethane		<20	<0.5	<5	<0.5	<5	<0.5	<5
1,2-Dichloropropane		<20	<0.5	<5	<0.5	<5	<0.5	<5
cis-1,3-Dichloropropene		<20	<0.5	<5	<0.5	<5	<0.5	<5
Trichloroethene		**430**	**357**	**430 D**	**357**	**17**	**10**	**24**
Dibromochloromethane		<20	<0.5	<5	<0.5	<5	<0.5	<5
1,1,2-Trichloroethane		<20	<0.5	<5	<0.5	<5	<0.5	<5
Benzene		<3	<0.5	<0.7	<0.5	<0.7	<0.5	<0.7
trans-1,3-Dichloropropene		<20	<0.5	<5	<0.5	<5	<0.5	<5
Bromoform		<20	<0.5	<5	<0.5	<5	<0.5	<5
4-Methyl-2-pentanone		<40	--	<10	--	<10	--	<10
2-Hexanone		<40	--	<10	--	<10	--	<10
Tetrachloroethene		**5 J**	**4.1**	**6**	**6.8**	**0.6 J**	<0.1	**1 J**
1,1,2,2-Tetrachloroethane		<20	<0.5	<5	<0.5	<5	<0.2	<5
Toluene		<20	<0.5	<5	<0.5	<5	<0.3	<5
Chlorobenzene		<20	<0.5	<5	<0.5	<5	<0.4	<5
Ethylbenzene		<20	<0.5	<5	<0.5	<5	<0.5	<5
Styrene		<20	<0.5	<5	<0.5	<5	<0.5	<5
Xylene (total)		<20	<0.5	<5	<0.5	<5	<0.5	<5
Vinyl Acetate		<20	--	<5	--	<5	--	<5
Freon-113		**11 J**	--	**12**	--	<5	--	<5
Total VOCs		**451**	**364.6**	**454.6**	**375.7**	**17.6**	**10**	**25**

See footnotes on last page.

Table 1. Concentrations of Volatile Organic Compounds Detected in Outpost Monitoring Wells, Second and Third Quarters of 2002, Northrop Grumman Corporation, Bethpage, New York.

	WELL:	GM-36D	GM-36D2	GM-36D2	GM-36D2	GM-36D2	GM-37D	GM-37D
	SAMPLE ID:	GM-36D	GM-36D2	GM-36D2	GM-36D2	GM-36D2	GM 37D	GM 37D
CONSTITUENT	DATE:	10/02/02	07/09/02	07/09/02	10/02/02	10/02/02	07/02/02	07/02/02
(Units in ug/L)	LAB/SAMPLER:	H2M/H2M	STL/G&M	H2M/H2M	STL/G&M	H2M/H2M	STL/G&M	H2M/H2M
Chloromethane		<0.5	<5	<0.5	<5 J	<0.5	<5	<0.5
Bromomethane		<0.5	<5 J	<0.5	<5	<0.5	<5	<0.5
Vinyl Choride		<0.5	<2	<0.5	<2 J	<0.5	<2	<0.5
Chloroethane		<0.5	<5	<0.5	<5	<0.5	<5	<0.5
Methylene chloride		<0.5	<5	<0.5	<5	<0.5	<5	<0.5
Acetone		--	<10	--	<10	--	<10	--
Carbon disulfide		--	<5	--	**5 J**	--	<5	--
1,1-Dichloroethene		<0.5	<5	<0.5	<5	<0.5	**3 J**	**1.5**
1,1-Dichloroethane		<0.5	<5	<0.5	<5	<0.5	**5 J**	**4.2**
cis-1,2-Dichloroethene		<0.5	<5	<0.5	<5	<0.5	<5	<0.5
trans-1,2-Dichloroethene		<0.5	<5	<0.5	<5	<0.5	<5	<0.5
Chloroform		<0.5	<5	<0.5	<5	<0.5	**1 J**	**0.8**
1,2-Dichloroethane		<0.5	<5	<0.5	<5	<0.5	<5	<0.5
2-Butanone		--	<10	--	<10	--	<10	--
1,1,1-Trichloroethane		<0.5	<5	<0.5	<5	<0.5	**3 J**	**3.1**
Carbon tetrachloride		<0.5	<5	<0.5	<5	<0.5	<5	<0.5
Bromodichloromethane		<0.5	<5	<0.5	<5	<0.5	<5	<0.5
1,2-Dichloropropane		<0.5	<5	<0.5	<5	<0.5	<5	<0.5
cis-1,3-Dichloropropene		<0.5	<5	<0.5	<5	<0.5	<5	<0.5
Trichloroethene		**19.7**	<5	<0.5	<5	<0.5	<5	<0.5
Dibromochloromethane		<0.5	<5	<0.5	<5	<0.5	<5	<0.5
1,1,2-Trichloroethane		<0.5	<5	<0.5	<5	<0.5	<5	<0.5
Benzene		<0.5	<0.7	<0.5	<0.7	<0.5	<0.7	<0.5
trans-1,3-Dichloropropene		<0.5	<5	<0.5	<5	<0.5	<5	<0.5
Bromoform		<0.5	<5	<0.5	<5	<0.5	<5	<0.5
4-Methyl-2-pentanone		--	<10	--	<10	--	<10	--
2-Hexanone		--	<10	--	<10	--	<10	--
Tetrachloroethene		**0.7**	<5	<0.1	<5	<0.5	**1 J**	**0.7**
1,1,2,2-Tetrachloroethane		<0.5	<5	<0.2	<5	<0.5	<5	<0.5
Toluene		<0.5	<5	<0.3	<5	<0.5	<5	<0.5
Chlorobenzene		<0.5	<5	<0.4	<5	<0.5	<5	<0.5
Ethylbenzene		<0.5	<5	<0.5	<5	<0.5	<5	<0.5
Styrene		<0.5	<5	<0.5	<5	<0.5	<5	<0.5
Xylene (total)		<0.5	<5	<0.5	<5	<0.5	<5	<0.5
Vinyl Acetate		--	<5	--	<5	--	<5	--
Freon-113		--	<5	--	<5	--	<5	--
Total VOCs		**20.4**	0	0	**5**	0	**13**	**10.3**

See footnotes on last page.

Table 1. Concentrations of Volatile Organic Compounds Detected in Outpost Monitoring Wells, Second and Third Quarters of 2002, Northrop Grumman Corporation, Bethpage, New York.

	WELL:	GM-37D	GM-37D	GM-37D2	GM-37D2	GM-37D2	GM-37D2	GM-38D
	SAMPLE ID:	GM-37D	GM-37D	GM 37D2	GM-37D2	GM-37D2	GM-37D2	GM 38D
CONSTITUENT	DATE:	10/07/02	10/07/02	07/02/02	07/02/02	10/07/02	10/07/02	07/01/02
(Units in ug/L)	LAB/SAMPLER:	STL/G&M	H2M/H2M	STL/G&M	H2M/H2M	STL/G&M	H2M/H2M	STL/G&M
Chloromethane		<5	<0.5	<5	<0.5	<5 J	<0.5	<50
Bromomethane		<5 J	<0.5	<5	<0.5	<5 J	<0.5	<50
Vinyl Choride		<2	<0.5	<2	<0.5	<2	<0.5	<20
Chloroethane		<5	<0.5	<5	<0.5	<5	<0.5	<50
Methylene chloride		<5	<0.5	<5	<0.5	<5	<0.5	<50
Acetone		<10	--	<10	--	<10 J	--	<100
Carbon disulfide		<5	--	<5	--	<5	--	<50
1,1-Dichloroethene		**3 J**	<0.5	**3 J**	**1.5**	**2 J**	**0.5**	**6 J**
1,1-Dichloroethane		**4 J**	**2.3**	**10**	**9.5**	**9**	**7.1**	<50
cis-1,2-Dichloroethene		<5	<0.5	<5	<0.5	<5	<0.5	<50
trans-1,2-Dichloroethene		<5	<0.5	<5	<0.5	<5	<0.5	<50
Chloroform		<5	<0.5	**0.9 J**	**0.7**	**1 J**	<0.5	<50
1,2-Dichloroethane		<5	<0.5	<5	<0.5	<5	<0.5	<50
2-Butanone		<10	--	<10	--	<10 J	--	<100
1,1,1-Trichloroethane		<5	**1.7**	**3 J**	**3**	<5	**2.1**	<50
Carbon tetrachloride		<5	<0.5	<5	<0.5	<5	<0.5	<50
Bromodichloromethane		<5	<0.5	<5	<0.5	<5	<0.5	<50
1,2-Dichloropropane		<5	<0.5	<5	<0.5	<5	<0.5	<50
cis-1,3-Dichloropropene		<5	<0.5	<5	<0.5	<5	<0.5	<50
Trichloroethene		**0.5 J**	<0.5	<5	**3.2**	**4 J**	**2.9**	**720**
Dibromochloromethane		<5	<0.5	<5	<0.5	<5	<0.5	<50
1,1,2-Trichloroethane		<5	<0.5	<5	<0.5	<5	<0.5	<50
Benzene		<0.7	<0.5	<0.7	<0.5	<0.7	<0.5	<7
trans-1,3-Dichloropropene		<5	<0.5	<5	<0.5	<5	<0.5	<50
Bromoform		<5	<0.5	<5	<0.5	<5	<0.5	<50
4-Methyl-2-pentanone		<10 J	--	<10	--	<10	--	<100
2-Hexanone		<10 J	--	<10	--	<10 J	--	<100
Tetrachloroethene		<5	**0.5**	**0.4 J**	<0.5	<5	<0.5	<50
1,1,2,2-Tetrachloroethane		<5 J	<0.5	<5	<0.5	<5	<0.5	<50
Toluene		<5	<0.5	<5	<0.5	<5	<0.5	<50
Chlorobenzene		<5	<0.5	<5	<0.5	<5	<0.5	<50
Ethylbenzene		<5	<0.5	<5	<0.5	<5	<0.5	<50
Styrene		<5	<0.5	<5	<0.5	<5	<0.5	<50
Xylene (total)		<5	<0.5	<5	<0.5	<5	<0.5	<50
Vinyl Acetate		<5	--	<5	--	<5 J	--	<50
Freon-113		<5	--	<5	--	<5	--	<50
Total VOCs		**7.5**	**4.5**	**17.3**	**17.9**	**16**	**12.6**	**726**

See footnotes on last page.

Table 1. Concentrations of Volatile Organic Compounds Detected in Outpost Monitoring Wells, Second and Third Quarters of 2002, Northrop Grumman Corporation, Bethpage, New York.

	WELL:	GM-38D	GM-38D	GM-38D	GM-38D2	GM-38D2	GM-38D2	GM-38D2
	SAMPLE ID:	GM 38D	GM-38D	GM-38D	GM 38D2	GM 38D2	GM-38D2	GM-38D2
CONSTITUENT	DATE:	07/01/02	10/04/02	10/04/02	07/01/02	07/01/02	10/04/02	10/04/02
(Units in ug/L)	LAB/SAMPLER:	H2M/H2M	STL/G&M	H2M/H2M	STL/G&M	H2M/H2M	STL/G&M	H2M/H2M
Chloromethane		<2.5	<25 J	<2.5	<50	<2.5	<100	<2.5
Bromomethane		<2.5	<25 J	<2.5	<50	<2.5	<100 J	<2.5
Vinyl Choride		<2.5	<10	<2.5	<20	<2.5	<40	<2.5
Chloroethane		<2.5	<25	<2.5	<50	<2.5	<100	<2.5
Methylene chloride		<2.5	<25	<2.5	<50	<2.5	<100	<2.5
Acetone		--	<50 J	--	<100	--	<200	--
Carbon disulfide		--	<25	--	<50	--	<100	--
1,1-Dichloroethene		<2.5	<25	<2.5	<50	<2.5	<100	<2.5
1,1-Dichloroethane		<2.5	<25	<2.5	<50	<2.5	<100	<2.5
cis-1,2-Dichloroethene		<2.5	<25	<2.5	**12 J**	**3.4**	<100	**2.6**
trans-1,2-Dichloroethene		<2.5	<25	<2.5	<50	<2.5	<100	<2.5
Chloroform		<2.5	<25	<2.5	<50	<2.5	<100	<2.5
1,2-Dichloroethane		<2.5	<25	<2.5	<50	<2.5	<100	<2.5
2-Butanone		--	<50 J	--	<100	--	<200	--
1,1,1-Trichloroethane		<2.5	<25	<2.5	<50	<2.5	<100	<2.5
Carbon tetrachloride		<2.5	<25	<2.5	<50	<2.5	<100	<2.5
Bromodichloromethane		<2.5	<25	<2.5	<50	<2.5	<100	<2.5
1,2-Dichloropropane		<2.5	<25	<2.5	<50	<2.5	<100	<2.5
cis-1,3-Dichloropropene		<2.5	<25	<2.5	<50	<2.5	<100	<2.5
Trichloroethene		**661**	**830**	**626**	**2000**	**1350**	**1500**	**1170**
Dibromochloromethane		<2.5	<25	<2.5	<50	<2.5	<100	<2.5
1,1,2-Trichloroethane		<2.5	<25	<2.5	<50	<2.5	<100	<2.5
Benzene		<2.5	<4	<2.5	<7	<2.5	<14	<2.5
trans-1,3-Dichloropropene		<2.5	<25	<2.5	<50	<2.5	<100	<2.5
Bromoform		<2.5	<25	<2.5	<50	<2.5	<100	<2.5
4-Methyl-2-pentanone		--	<50	--	<100	--	<200 J	--
2-Hexanone		--	<50 J	--	<100	--	<200 J	--
Tetrachloroethene		<2.5	<25	<2.5	<50	<2.5	<100	<2.5
1,1,2,2-Tetrachloroethane		<2.5	<25	<2.5	<50	<2.5	<100 J	<2.5
Toluene		<2.5	<25	<2.5	<50	<2.5	<100	<2.5
Chlorobenzene		<2.5	<25	<2.5	<50	<2.5	<100	<2.5
Ethylbenzene		<2.5	<25	<2.5	<50	<2.5	<100	<2.5
Styrene		<2.5	<25	<2.5	<50	<2.5	<100	<2.5
Xylene (total)		<2.5	<25	<2.5	<50	<2.5	<100	<2.5
Vinyl Acetate		--	<25 J	--	<50	--	<100	--
Freon-113		--	<25	--	<50	--	<100	--
Total VOCs		**661**	**830**	**626**	**2012**	**1353.4**	**1500**	**1172.6**

See footnotes on last page.

Table 1. Concentrations of Volatile Organic Compounds Detected in Outpost Monitoring Wells, Second and Third Quarters of 2002, Northrop Grumman Corporation, Bethpage, New York.

	WELL:	GM-70D2	GM-70D2	GM-70D2	GM-70D2	GM-71D2	GM-71D2	GM-71D2
	SAMPLE ID:	GM-70D2	GM-70D2	GM-70D2	GM-70D2	GM-71D2	GM-71D2	GM-71D2
CONSTITUENT	DATE:	06/26/02	06/26/02	10/08/02	10/08/02	06/26/02	06/26/02	10/08/02
(Units in ug/L)	LAB/SAMPLER:	STL/G&M	H2M/H2M	STL/G&M	H2M/H2M	STL/G&M	H2M/H2M	STL/G&M
Chloromethane		<5 J	<0.5	<5	<0.5	<5 J	<0.5	<5
Bromomethane		<5	<0.5	<5	<0.5	<5	<0.5	<5
Vinyl Choride		<2	<0.5	<2	<0.5	<2	<0.5	<2
Chloroethane		<5	<0.5	<5	<0.5	<5	<0.5	<5
Methylene chloride		<5	<0.5	<5	<0.5	<5	<0.5	<5
Acetone		<10 J	--	<10 J	--	<10 J	--	<10 J
Carbon disulfide		<5	--	<5	--	<5	--	<5
1,1-Dichloroethene		<5	**0.9**	<5	<0.5	<5	<0.5	<5
1,1-Dichloroethane		<5	<0.5	<5	<0.5	**0.7 J**	<0.5	<5
cis-1,2-Dichloroethene		**2 J**	**1.4**	**1 J**	**0.8**	<5	<0.5	<5
trans-1,2-Dichloroethene		<5	<0.5	<5	<0.5	<5	<0.5	<5
Chloroform		<5	<0.5	<5	<0.5	**1 J**	**0.8**	**1 J**
1,2-Dichloroethane		<5	<0.5	<5 J	<0.5	<5	**0.7**	<5 J
2-Butanone		<10 J	--	<10	--	<10 J	--	<10
1,1,1-Trichloroethane		<5	<0.5	<5 J	<0.5	<5	<0.5	**0.4 J**
Carbon tetrachloride		<5	<0.5	<5	<0.5	**1 J**	**1.4**	**2 J**
Bromodichloromethane		<5	<0.5	<5	<0.5	<5	<0.5	<5
1,2-Dichloropropane		<5	<0.5	<5	<0.5	<5	<0.5	<5
cis-1,3-Dichloropropene		<5	<0.5	<5	<0.5	<5	<0.5	<5
Trichloroethene		**100**	**160**	**63**	**97.0**	**4 J**	**3.8**	**4 J**
Dibromochloromethane		<5	<0.5	<5	<0.5	<5	<0.5	<5
1,1,2-Trichloroethane		<5	<0.5	<5	<0.5	<5	<0.5	<5
Benzene		<0.7	<0.5	<0.7	<0.5	<0.7	<0.5	<0.7
trans-1,3-Dichloropropene		<5	<0.5	<5	<0.5	<5	<0.5	<5
Bromoform		<5	<0.5	<5	<0.5	<5	<0.5	<5
4-Methyl-2-pentanone		<10 J	--	<10	--	<10 J	--	<10
2-Hexanone		<10	--	<10	--	<10	--	<10
Tetrachloroethene		**5 J**	**6.3**	**2 J**	**4.6**	<5	<0.5	<5
1,1,2,2-Tetrachloroethane		<5	<0.5	<5	<0.5	<5	<0.5	<5
Toluene		**0.8 J**	<0.5	<5	<0.5	<5	<0.5	<5
Chlorobenzene		<5	<0.5	<5	<0.5	<5	<0.5	<5
Ethylbenzene		<5	<0.5	<5	<0.5	<5	<0.5	<5
Styrene		<5	<0.5	<5	<0.5	<5	<0.5	<5
Xylene (total)		<5	<0.5	<5	<0.5	<5	<0.5	<5
Vinyl Acetate		<5	--	<5	--	<5	--	<5
Freon-113		**0.8 J**	--	<5	--	<5	--	<5
Total VOCs		**108.6**	**168.6**	**66**	**102.4**	**6.7**	**6.7**	**7.4**

See footnotes on last page.

Table 1. Concentrations of Volatile Organic Compounds Detected in Outpost Monitoring Wells, Second and Third Quarters of 2002, Northrop Grumman Corporation, Bethpage, New York.

CONSTITUENT (Units in ug/L)	WELL: / SAMPLE ID: / DATE: / LAB/SAMPLER:	GM-71D2 / GM-71D2 / 10/08/02 / H2M/H2M
Chloromethane		<0.5
Bromomethane		<0.5
Vinyl Choride		<0.5
Chloroethane		<0.5
Methylene chloride		<0.5
Acetone		--
Carbon disulfide		--
1,1-Dichloroethene		<0.5
1,1-Dichloroethane		<0.5
cis-1,2-Dichloroethene		<0.5
trans-1,2-Dichloroethene		<0.5
Chloroform		**0.5**
1,2-Dichloroethane		<0.5
2-Butanone		--
1,1,1-Trichloroethane		**1.9**
Carbon tetrachloride		<0.5
Bromodichloromethane		<0.5
1,2-Dichloropropane		<0.5
cis-1,3-Dichloropropene		<0.5
Trichloroethene		**3.5**
Dibromochloromethane		<0.5
1,1,2-Trichloroethane		<0.5
Benzene		<0.5
trans-1,3-Dichloropropene		<0.5
Bromoform		<0.5
4-Methyl-2-pentanone		--
2-Hexanone		--
Tetrachloroethene		<0.5
1,1,2,2-Tetrachloroethane		<0.5
Toluene		<0.5
Chlorobenzene		<0.5
Ethylbenzene		<0.5
Styrene		<0.5
Xylene (total)		<0.5
Vinyl Acetate		--
Freon-113		--
Total VOCs		**5.9**

See footnotes on last page.

Table 1. Concentrations of Volatile Organic Compounds Detected in Outpost Monitoring Wells, Second and Third Quarter 2002, Northrop Grumman Corporation, Bethpage, New York.

H2M	Holzmacher, McClendon & Murrell, P.C., Melville, NY.
G&M	ARCADIS G&M, Inc.
STL	Severn Trent Laboratories, Inc., Shelton, Connecticut.
ug/L	Micrograms per liter
J	Estimated value
--	Not analyzed
REP	Replicate sample
Bold	Constituent detected above Method Detection Limit.

ARCADIS

Table 2. Concentrations of Total and Dissolved Cadmium and Chromium Detected in Groundwater and Blank Samples, Second and Third Quarters of 2002, Northrop Grumman Corporation, Bethpage, New York.

CONSTITUENT (Units in ug/L)	NYSDEC SCGs [1]	WELL: / SAMPLE ID: / DATE:	10631 N-10631 06/14/02	10631 N-10631 10/17/02	GM-16SR GM-16SR 07/08/02	GM-16SR GM-16SR 10/11/02	GM-17SR GM-17SR 06/18/02	GM-17SR GM-17SR 10/07/02	GM-18S GM-18S 06/14/02	GM-18S GM-18S 10/07/02	GM-32S GM-32S 07/08/02	GM-32S GM-32S 10/17/02
Cadmium, Total	5		**3 B**	**1.8 B**	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3
Cadmium, Dissolved	5		**1.9 B**	**1.4 B**	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3
Chromium, Total	50		**50.5**	**4.6 B**	<1.5	<1.5	**1.8 B**	<1.5	**24.3**	**4.9 B**	**125**	**134**
Chromium, Dissolved	50		**21.5**	**2 B**	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	**125**	**130**

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

ug/L Micrograms per liter

B Detected between the IDL and CRDL

IDL Instrument detection limit

CRDL Contract-required detection limit

NYSDEC New York State Department of Environmental Conservation

EQ Equipment

[ ] Value exceeds associated SCG value.

Bold Constituent detected above IDL.

-- Not analyzed.

Table 2. Concentrations of Total and Dissolved Cadmium and Chromium Detected in Groundwater and Blank Samples, Second and Third Quarters of 2002, Northrop Grumman Corporation, Bethpage, New York.

CONSTITUENT (Units in ug/L)	NYSDEC SCGs [1]	WELL: / SAMPLE ID: / DATE:	GM-78S GM-78S 06/18/02	GM-78S GM-78S 10/10/02	GM-78I GM-78I 06/18/02	GM-78I GM-78I 10/10/02	MW-1GF MW-1GF 07/08/02	MW-01GF MW-1GF 10/17/02	MW-2GF MW-2GF 07/08/02	MW-02GF MW-2GF 10/17/02	MW-3R MW-3R 06/14/02	MW-03R MW-3R 10/11/02
Cadmium, Total	5		<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	**30.1**	**26.7**
Cadmium, Dissolved	5		--	--	--	--	<1.3	<1.3	<1.3	<1.3	**26.9**	**29.1**
Chromium, Total	50		**2.7 B**	<1.5	**8.7 B**	<1.5	**2.8 B**	<1.5	**38**	**36.3**	**49.7**	**37.8**
Chromium, Dissolved	50		--	--	--	--	<1.5	<1.5	**32.1**	**36.4**	**39.4**	**40.1**

(1) Standards, Criteria, and Guidance values based on documents referenced in the Groundwater Feasibility Study Report (ARCADIS Geraghty & Miller 2000); most stringent value listed.
ug/L Micrograms per liter
B Detected between the IDL and CRDL
IDL Instrument detection limit
CRDL Contract-required detection limit
NYSDEC New York State Department of Environmental Conservation
EQ Equipment
[ ] Value exceeds associated SCG value.
Bold Constituent detected above IDL.
-- Not analyzed.

Table 2. Concentrations of Total and Dissolved Cadmium and Chromium Detected in Groundwater and Blank Samples, Second and Third Quarters of 2002, Northrop Grumman Corporation, Bethpage, New York.

CONSTITUENT (Units in ug/L)	NYSDEC SCGs [1]	WELL: SAMPLE ID: DATE:	WATER EQ. BLANK FB100702 10/07/02	WATER EQ. BLANK FB101102 10/11/02	WATER EQ. BLANK FB101702 10/17/02
Cadmium, Total	5		<1.3	<1.3	<1.3
Cadmium, Dissolved	5		--	--	--
Chromium, Total	50		<1.5	<1.5	<1.5
Chromium, Dissolved	50		--	--	--

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

ug/L Micrograms per liter

B Detected between the IDL and CRDL

IDL Instrument detection limit

CRDL Contract-required detection limit

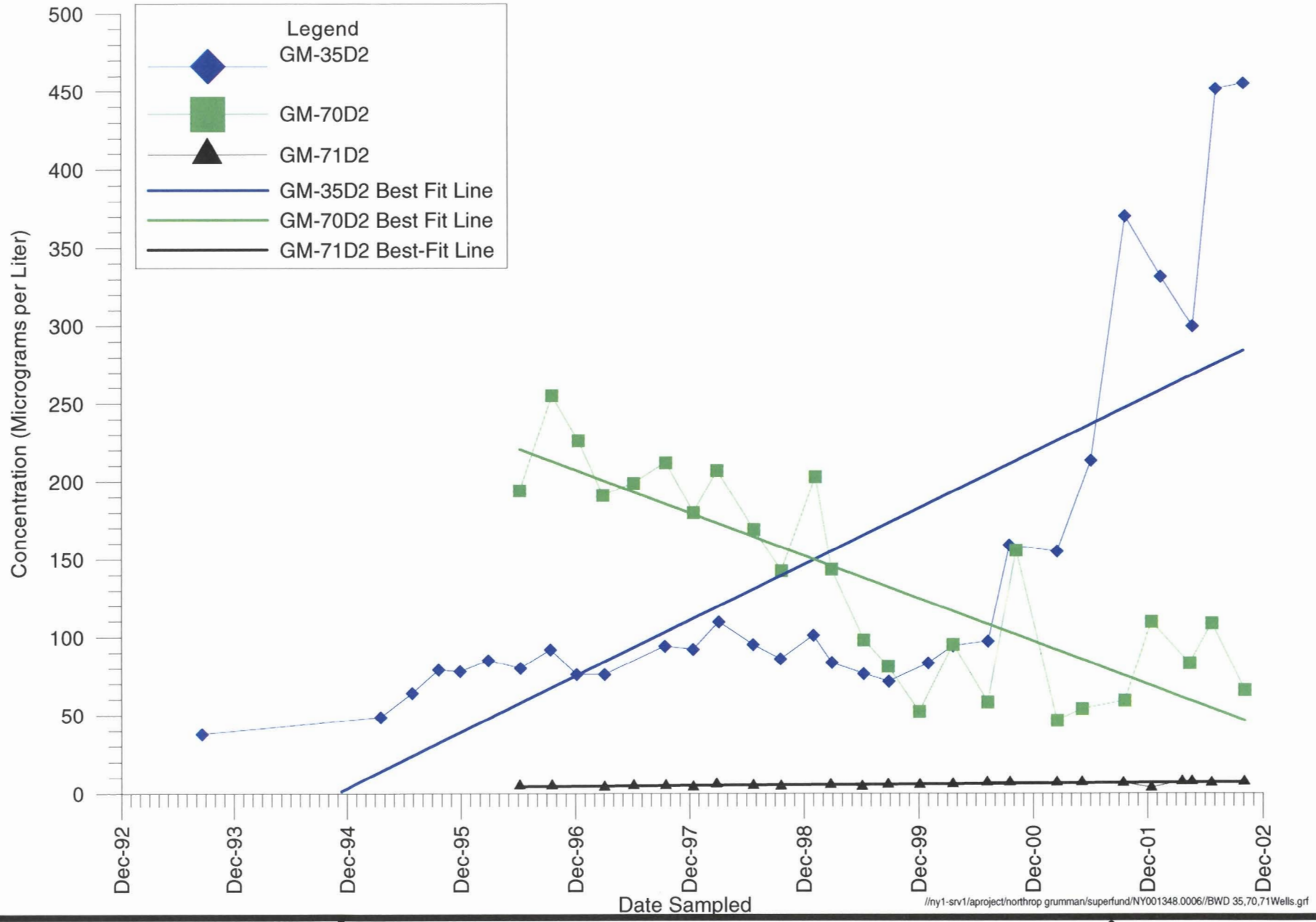
NYSDEC New York State Department of Environmental Conservation

EQ Equipment

[ ] Value exceeds associated SCG value.

Bold Constituent detected above IDL.

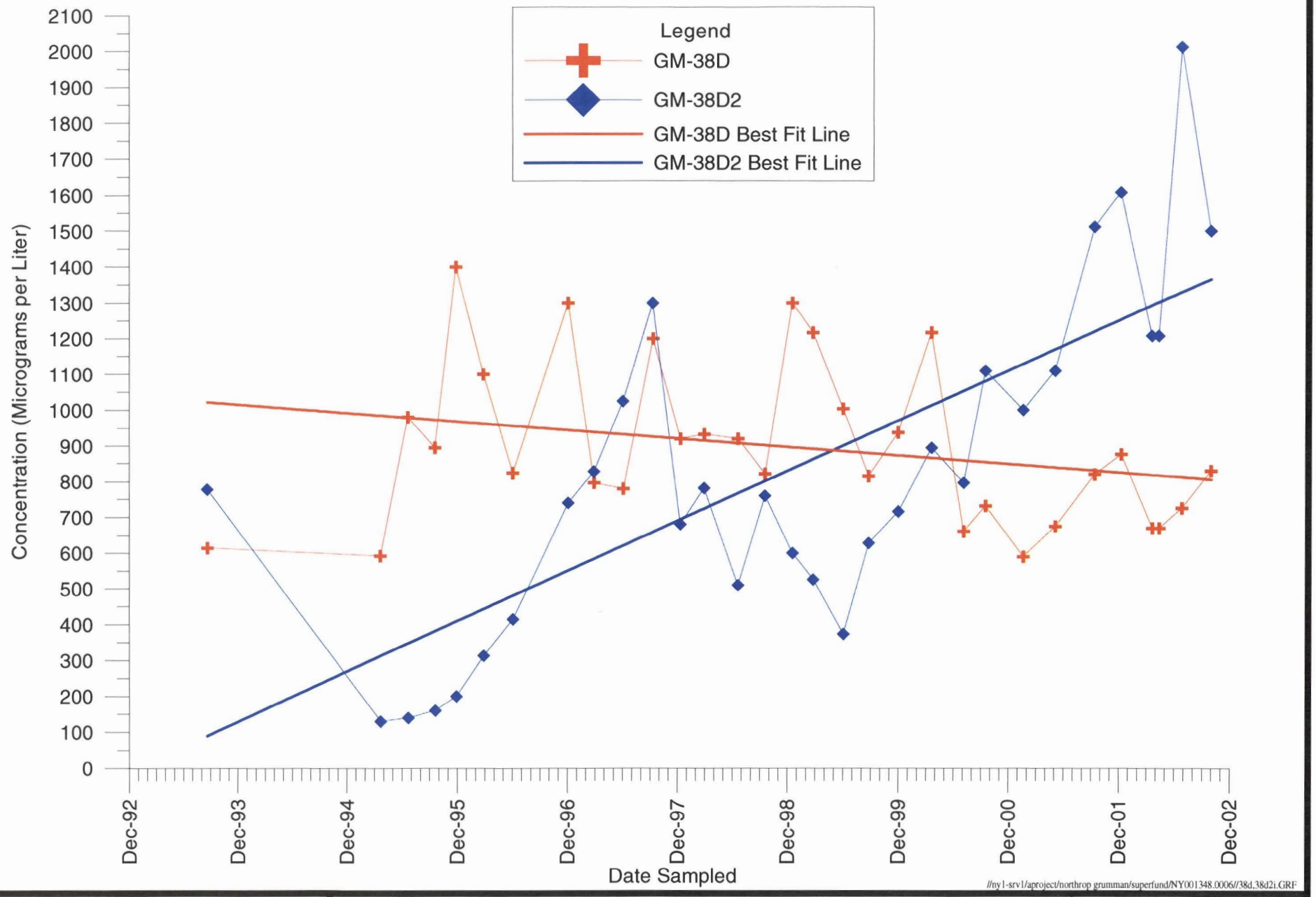
-- Not analyzed.



ARCADIS GERAGHTY & MILLER

Total Volatile Organic Compound Concentrations in Selected Deep2 Monitoring Wells Northrop Grumman Corporation, Bethpage, New York

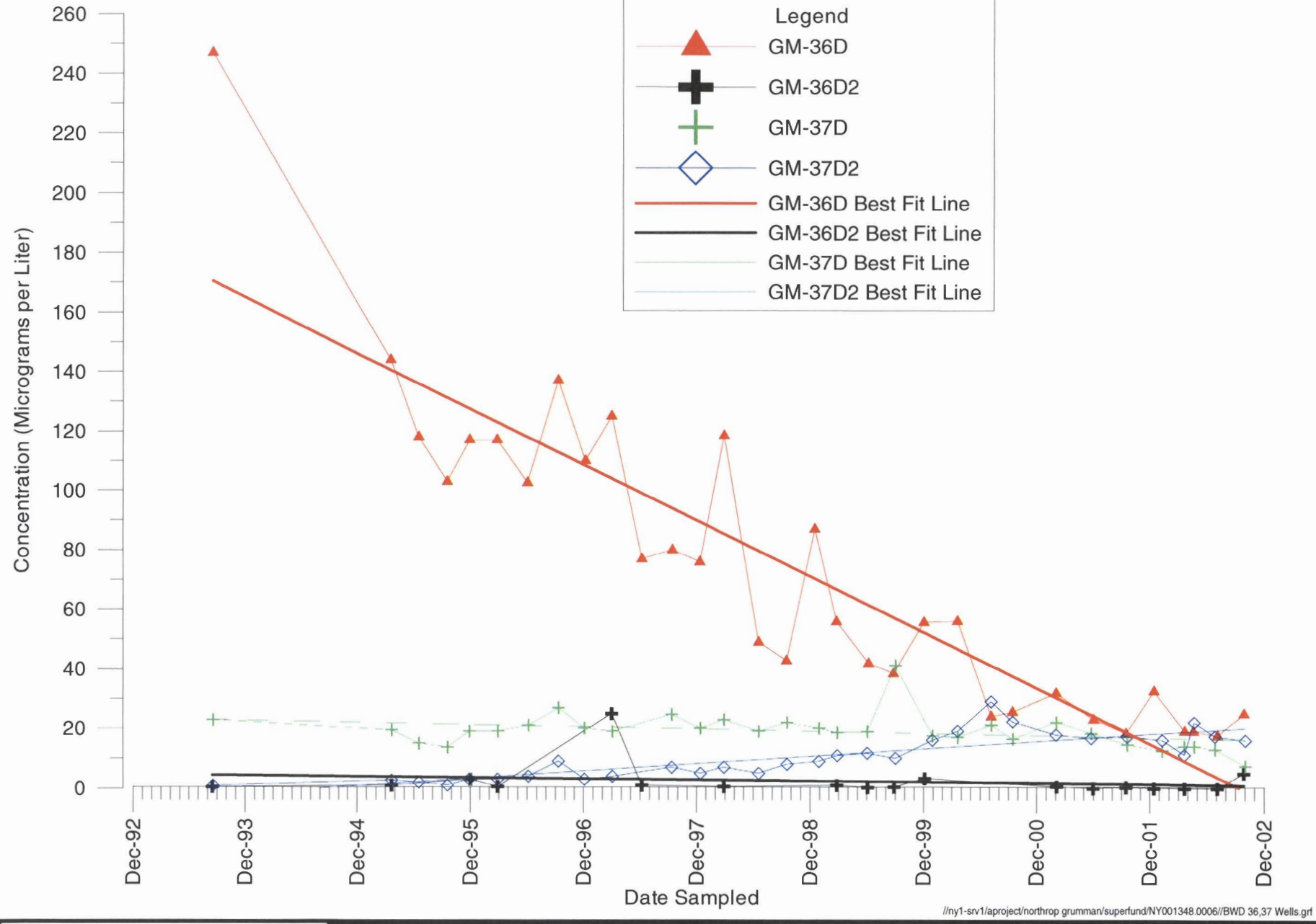
FIGURE 1



ARCADIS GERAGHTY & MILLER

Total Volatile Organic Compound Concentrations in Selected Deep and Deep2 Monitoring Wells Northrop Grumman Corporation, Bethpage, New York

FIGURE 2



ARCADIS GERAGHTY & MILLER

Total Volatile Organic Compound Concentrations in Selected Deep and Deep2 Monitoring Wells Northrop Grumman Corporation, Bethpage, New York

FIGURE 3