ARCADIS

Infrastructure, buildings, environment, communications

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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:
First and Second Quarter 2002 Groundwater Monitoring Data,
Northrop Grumman Corporation, Bethpage, New York.

Dear Mr. Scharf:

Date:
27 September 2002

On behalf of Northrop Grumman Corporation, ARCADIS G&M is providing the NYSDEC with groundwater data for the past two quarters (i.e., First and Second Quarters of 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., First and Second Quarters of 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.

Carlo San Giovanni
Project Manager

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Project Director

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

	WELL:	GM-35D2	GM-35D2	GM-35D2	GM-35D2	GM-36D	GM-36D	GM-36D
	SAMPLE ID:	GM-35D2	GM-35D2	GM 35D2	GM 35D-2	GM-36D	GM-36D	GM-36D
CONSTITUENT:	DATE:	04/26/02	04/26/02	07/08/02	07/08/02	04/23/02	04/23/02	07/09/02
(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		<20	<0.5	<20	<0.5	<5	<0.5	<5
Bromomethane		<20 J	<0.5	<20	<0.5	<5	<0.5	<5
Vinyl Choride		<8	<0.5	<8	<0.5	<2 J	<0.5	<2
Chloroethane		<20	<0.5	<20	<0.5	<5 J	<0.5	<5
Methylene chloride		<20	<0.5	<20	<0.5	<5	<0.5	<5
Acetone		<40	--	<40	--	<10 J	--	<10
Carbon disulfide		<20	--	<20	--	<5	--	<5
1,1-Dichloroethene		<20	**3**	<20	**1.2**	<5	<0.5	<5
1,1-Dichloroethane		<20	<0.5	<20	<0.5	<5	<0.5	<5
cis-1,2-Dichloroethene		**4 J**	**4**	**5 J**	1.7	<5	<0.5	<5
trans-1,2-Dichloroethene		<20	<0.5	<20	<0.5	<5	<0.5	<5
Chloroform		<20	**0.9**	<20	**0.6**	<5	<0.5	<5
1,2-Dichloroethane		<20	<0.5	<20	<0.5	<5	<0.5	<5
2-Butanone		<40	--	<40	--	<10 J	--	<10
1,1,1-Trichloroethane		<20	**0.9**	<20	<0.5	<5	<0.5	<5
Carbon tetrachloride		<20	**0.7**	<20	<0.5	<5	<0.5	<5
Bromodichloromethane		<20	<0.5	<20	<0.5	<5	<0.5	<5
1,2-Dichloropropane		<20	<0.5	<20	<0.5	<5	<0.5	<5
cis-1,3-Dichloropropene		<20	<0.5	<20	<0.5	<5	<0.5	<5
Trichloroethene		**280**	**401**	**430**	**357**	**18**	**18.8**	**17**
Dibromochloromethane		<20	<0.5	<20	<0.5	<5	<0.5	<5
1,1,2-Trichloroethane		<20	<0.5	<20	<0.5	<5	<0.5	<5
Benzene		<3	<0.5	<3	<0.5	<0.7	<0.5	<0.7
trans-1,3-Dichloropropene		<20	<0.5	<20	<0.5	<5	<0.5	<5
Bromoform		<20	<0.5	<20	<0.5	<5	<0.5	<5
4-Methyl-2-pentanone		<40	--	<40	--	<10	--	<10
2-Hexanone		<40	--	<40	--	<10 J	--	<10
Tetrachloroethene		**4 J**	**4.2**	**5 J**	4.1	**1 J**	**0.6**	**0.6 J**
1,1,2,2-Tetrachloroethane		<20	<0.5	<20	<0.5	<5	<0.5	<5
Toluene		<20	<0.5	<20	<0.5	<5	<0.5	<5
Chlorobenzene		<20	<0.5	<20	<0.5	<5	<0.5	<5
Ethylbenzene		<20	<0.5	<20	<0.5	<5	<0.5	<5
Styrene		<20	<0.5	<20	<0.5	<5	<0.5	<5
Xylene (total)		<20	<0.5	<20	<0.5	<5	<0.5	<5
Vinyl Acetate		<20 J	--	<20	--	<5 J	--	<5
Freon-113		**11 J**	--	**11 J**	--	<5	--	<5
Total VOCs		**299**	**414.7**	**451**	**364.6**	**19**	**19.4**	**17.6**

See footnotes on last page.

Table 1. Concentrations of Volatile Organic Compounds Detected in Outpost Monitoring Wells, First and Second Quarter 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:	07/09/02	04/23/02	04/23/02	07/09/02	07/09/02	04/25/02	04/25/02
(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	<0.5	<5	<0.5
Bromomethane		<0.5	<5	<0.5	<5 J	<0.5	<5 J	<0.5
Vinyl Choride		<0.5	<2 J	<0.5	<2	<0.5	<2	<0.5
Chloroethane		<0.5	<5 J	<0.5	<5	<0.5	<5	<0.5
Methylene chloride		<0.5	<5	<0.5	<5	<0.5	<5	<0.5
Acetone		--	<10 J	--	<10	--	<10 J	--
Carbon disulfide		--	<5	--	<5	--	<5	--
1,1-Dichloroethene		<0.5	<5	<0.5	<5	<0.5	**3 J**	**2.2**
1,1-Dichloroethane		<0.5	<5	<0.5	<5	<0.5	**6**	**4.7**
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**	**0.7**
1,2-Dichloroethane		<0.5	<5	<0.5	<5	<0.5	<5	<0.5
2-Butanone		--	<10 J	--	<10	--	<10	--
1,1,1-Trichloroethane		<0.5	<5	<0.5	<5	<0.5	**3 J**	**3**
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		**10**	<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 J	--	<10	--	<10	--
Tetrachloroethene		<0.1	<5	<0.5	<5	<0.1	**1 J**	**0.6**
1,1,2,2-Tetrachloroethane		<0.2	<5	<0.5	<5	<0.2	<5	<0.5
Toluene		<0.3	<5	<0.5	<5	<0.3	<5	<0.5
Chlorobenzene		<0.4	<5	<0.5	<5	<0.4	<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 J	--	<5	--	<5 J	--
Freon-113		--	<5	--	<5	--	<5	--
Total VOCs		**10**	0	0	0	0	**14**	**11.2**

See footnotes on last page.

Table 1. Concentrations of Volatile Organic Compounds Detected in Outpost Monitoring Wells, First and Second Quarter 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:	07/02/02	07/02/02	04/26/02	04/26/02	07/02/02	07/02/02	04/18/02
(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	<0.5	<25
Bromomethane		<5	<0.5	<5 J	<0.5	<5	<0.5	<25
Vinyl Choride		<2	<0.5	<2	<0.5	<2	<0.5	<10
Chloroethane		<5	<0.5	<5	<0.5	<5	<0.5	<25
Methylene chloride		<5	<0.5	<5	<0.5	<5	<0.5	<25
Acetone		<10	--	<10	--	<10	--	<50 J
Carbon disulfide		<5	--	<5	--	<5	--	<25
1,1-Dichloroethene		**3 J**	**1.5**	**3 J**	**1.3**	**3 J**	**1.5**	<25
1,1-Dichloroethane		**5 J**	**4.2**	**12**	**8.9**	**10**	**9.5**	<25
cis-1,2-Dichloroethene		<5	<0.5	<5	<0.5	<5	<0.5	<25
trans-1,2-Dichloroethene		<5	<0.5	<5	<0.5	<5	<0.5	<25
Chloroform		**1 J**	**0.8**	**1 J**	**0.6**	**0.9 J**	**0.7**	<25
1,2-Dichloroethane		<5	<0.5	<5	<0.5	<5	<0.5	<25
2-Butanone		<10	--	<10	--	<10	--	<50
1,1,1-Trichloroethane		**3 J**	**3.1**	**3 J**	**2.6**	**3 J**	**3**	<25
Carbon tetrachloride		<5	<0.5	<5	<0.5	<5	<0.5	<25
Bromodichloromethane		<5	<0.5	<5	<0.5	<5	<0.5	<25
1,2-Dichloropropane		<5	<0.5	<5	<0.5	<5	<0.5	<25
cis-1,3-Dichloropropene		<5	<0.5	<5	<0.5	<5	<0.5	<25
Trichloroethene		<5	<0.5	**3 J**	**2.1**	<5	**3.2**	**670**
Dibromochloromethane		<5	<0.5	<5	<0.5	<5	<0.5	<25
1,1,2-Trichloroethane		<5	<0.5	<5	<0.5	<5	<0.5	<25
Benzene		<0.7	<0.5	<0.7	<0.5	<0.7	<0.5	<4
trans-1,3-Dichloropropene		<5	<0.5	<5	<0.5	<5	<0.5	<25
Bromoform		<5	<0.5	<5	<0.5	<5	<0.5	<25
4-Methyl-2-pentanone		<10	--	<10	--	<10	--	<50
2-Hexanone		<10	--	<10	--	<10	--	<50
Tetrachloroethene		**1 J**	**0.7**	<5	<0.5	**0.4 J**	<0.5	<25
1,1,2,2-Tetrachloroethane		<5	<0.5	<5	<0.5	<5	<0.5	<25
Toluene		<5	<0.5	<5	<0.5	<5	<0.5	<25
Chlorobenzene		<5	<0.5	<5	<0.5	<5	<0.5	<25
Ethylbenzene		<5	<0.5	<5	<0.5	<5	<0.5	<25
Styrene		<5	<0.5	<5	<0.5	<5	<0.5	<25
Xylene (total)		<5	<0.5	<5	<0.5	<5	<0.5	<25
Vinyl Acetate		<5	--	<5 J	--	<5	--	<25
Freon-113		<5	--	<5	--	<5	--	<25 J
Total VOCs		**13**	**10.3**	**22**	**15.5**	**17.3**	**17.9**	**670**

See footnotes on last page.

Table 1. Concentrations of Volatile Organic Compounds Detected in Outpost Monitoring Wells, First and Second Quarter 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:	04/18/02	07/01/02	07/01/02	04/18/02	04/18/02	07/01/02	07/01/02
(Units in ug/L)	LAB/SAMPLER:	H2M/H2M	STL/G&M	H2M/H2M	STL/G&M	H2M/H2M	STL/G&M	H2M/H2M
Chloromethane		<1	<50	<2.5	<50	<1	<50	<2.5
Bromomethane		<1	<50	<2.5	<50 J	<1	<50	<2.5
Vinyl Choride		<1	<20	<2.5	<20	<1	<20	<2.5
Chloroethane		<1	<50	<2.5	<50	<1	<50	<2.5
Methylene chloride		<1	<50	<2.5	<50	<1	<50	<2.5
Acetone		--	<100	--	<100 J	--	<100	--
Carbon disulfide		--	<50	--	<50	--	<50	--
1,1-Dichloroethene		**2.1**	**6 J**	<2.5	<50	<1	<50	<2.5
1,1-Dichloroethane		<1	<50	<2.5	<50	<1	<50	<2.5
cis-1,2-Dichloroethene		**1.1**	<50	<2.5	**7 J**	**4.8**	**12 J**	**3.4**
trans-1,2-Dichloroethene		<1	<50	<2.5	<50	<1	<50	<2.5
Chloroform		**1**	<50	<2.5	<50	**1.5**	<50	<2.5
1,2-Dichloroethane		<1	<50	<2.5	<50	<1	<50	<2.5
2-Butanone		--	<100	--	<100 J	--	<100	--
1,1,1-Trichloroethane		**2.6**	<50	<2.5	<50	<1	<50	<2.5
Carbon tetrachloride		<1	<50	<2.5	<50	<1	<50	<2.5
Bromodichloromethane		<1	<50	<2.5	<50	<1	<50	<2.5
1,2-Dichloropropane		<1	<50	<2.5	<50	<1	<50	<2.5
cis-1,3-Dichloropropene		<1	<50	<2.5	<50	<1	<50	<2.5
Trichloroethene		**722**	**720**	**661**	**1200**	**1160**	**2000**	**1350**
Dibromochloromethane		<1	<50	<2.5	<50	<1	<50	<2.5
1,1,2-Trichloroethane		<1	<50	<2.5	<50	**1.3**	<50	<2.5
Benzene		<1	<7	<2.5	<7	<1	<7	<2.5
trans-1,3-Dichloropropene		<1	<50	<2.5	<50	<1	<50	<2.5
Bromoform		<1	<50	<2.5	<50	<1	<50	<2.5
4-Methyl-2-pentanone		--	<100	--	<100	--	<100	--
2-Hexanone		--	<100	--	<100	--	<100	--
Tetrachloroethene		<1	<50	<2.5	<50	<1	<50	<2.5
1,1,2,2-Tetrachloroethane		<1	<50	<2.5	<50	<1	<50	<2.5
Toluene		<1	<50	<2.5	<50	<1	<50	<2.5
Chlorobenzene		<1	<50	<2.5	<50	<1	<50	<2.5
Ethylbenzene		<1	<50	<2.5	<50	<1	<50	<2.5
Styrene		<1	<50	<2.5	<50	<1	<50	<2.5
Xylene (total)		<1	<50	<2.5	<50	<1	<50	<2.5
Vinyl Acetate		--	<50	--	<50 J	--	<50	--
Freon-113		--	<50	--	<50	--	<50	--
Total VOCs		**728.8**	**726**	**661**	**1207**	**1167.6**	**2012**	**1353.4**

See footnotes on last page.

Table 1. Concentrations of Volatile Organic Compounds Detected in Outpost Monitoring Wells, First and Second Quarter 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-7OD2	GM-70D2	GM-70D2	GM-70D2	GM-71D2	GM-71D2	GM-71D2
CONSTITUENT:	DATE:	04/17/02	04/17/02	06/26/02	06/26/02	04/25/02	04/25/02	06/26/02
(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	<1	<5 J	<0.5	<5	<0.5	<5 J
Bromomethane		<5 J	<1	<5	<0.5	<5 J	<0.5	<5
Vinyl Choride		<2	<1	<2	<0.5	<2	<0.5	<2
Chloroethane		<5	<1	<5	<0.5	<5	<0.5	<5
Methylene chloride		<5	<1	<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	<1	<5	**0.9**	<5	<0.5	<5
1,1-Dichloroethane		<5	<1	<5	<0.5	<5	<0.5	**0.7 J**
cis-1,2-Dichloroethene		**2 J**	<1	**2 J**	**1.4**	<5	<0.5	<5
trans-1,2-Dichloroethene		<5	<1	<5	<0.5	<5	<0.5	<5
Chloroform		<5	<1	<5	<0.5	**1 J**	**0.8**	**1 J**
1,2-Dichloroethane		<5	<1	<5	<0.5	<5	**0.6**	<5
2-Butanone		<10 J	--	<10 J	--	<10	--	<10 J
1,1,1-Trichloroethane		<5	<1	<5	<0.5	**0.6 J**	<0.5	<5
Carbon tetrachloride		<5	<1	<5	<0.5	**2 J**	**1.4**	**1 J**
Bromodichloromethane		<5	<1	<5	<0.5	<5	<0.5	<5
1,2-Dichloropropane		<5	<1	<5	<0.5	<5	<0.5	<5
cis-1,3-Dichloropropene		<5	<1	<5	<0.5	<5	<0.5	<5
Trichloroethene		**76**	**92.3**	**100**	**160**	**4 J**	**3.8**	**4 J**
Dibromochloromethane		<5	<1	<5	<0.5	<5	<0.5	<5
1,1,2-Trichloroethane		<5	<1	<5	<0.5	<5	<0.5	<5
Benzene		<0.7	<1	<0.7	<0.5	<0.7	<0.5	<0.7
trans-1,3-Dichloropropene		<5	<1	<5	<0.5	<5	<0.5	<5
Bromoform		<5	<1	<5	<0.5	<5	<0.5	<5
4-Methyl-2-pentanone		<10	--	<10 J	--	<10	--	<10 J
2-Hexanone		<10	--	<10	--	<10	--	<10
Tetrachloroethene		**4 J**	**2.5**	**5 J**	**6.3**	<5	<0.5	<5
1,1,2,2-Tetrachloroethane		<5	<1	<5	<0.5	<5	<0.5	<5
Toluene		**0.9 J**	<1	**0.8 J**	<0.5	<5	<0.5	<5
Chlorobenzene		<5	<1	<5	<0.5	<5	<0.5	<5
Ethylbenzene		<5	<1	<5	<0.5	<5	<0.5	<5
Styrene		<5	<1	<5	<0.5	<5	<0.5	<5
Xylene (total)		<5	<1	<5	<0.5	<5	<0.5	<5
Vinyl Acetate		<5 J	--	<5	--	<5 J	--	<5
Freon-113		<5	--	**0.8 J**	--	<5	--	<5
Total VOCs		**82.9**	**94.8**	**108.6**	**168.6**	**7.6**	**6.6**	**6.7**

See footnotes on last page.

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

CONSTITUENT: (Units in ug/L)	WELL: / SAMPLE ID: / DATE: / LAB/SAMPLER:	GM-71D2 / GM-71D2 / 06/26/02 / 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		**0.8**
1,2-Dichloroethane		**0.7**
2-Butanone		--
1,1,1-Trichloroethane		<0.5
Carbon tetrachloride		**1.4**
Bromodichloromethane		<0.5
1,2-Dichloropropane		<0.5
cis-1,3-Dichloropropene		<0.5
Trichloroethene		**3.8**
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		**6.7**

See footnotes on last page.

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

CONSTITUENT: (Units in ug/L)	NYSDEC SCGs [1]	WELL: / SAMPLE ID: / DATE:	10631 N-10631 03/27/02	10631 N-10631 06/14/02	GM-16SR GM-16SR 03/27/02	GM-16SR GM 16SR 07/08/02	GM-17SR GM-17SR 06/18/02	GM-17SR GM-17SR 05/03/02	GM-18S GM-18S 03/27/02	GM-18S GM-18S 06/14/02
Cadmium, Total	5		**2.3 B**	**3 B**	<10	<1.3	<1.3	<10	<10	<1.3
Cadmium, Dissolved	5		**2.1 B**	**1.9 B**	<10	<1.3	<1.3	<10	<10	<1.3
Chromium, Total	50		**35.4**	**50.5**	**2.4 B**	<1.5	**1.8 B**	**3.9 B**	**2 B**	**24.3**
Chromium, Dissolved	50		**19.6**	**21.5**	<10	<1.5	<1.5	<10	<10	<1.5

(1)	Standards, Criteria, and Guidance Values.
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 CRDL.
(1)	Standards, Criteria, and Guidance values based on documents referenced in the Groundwater Feasibility Study Report (ARCADIS Geraghty & Miller 2000); most stringent value listed.
--	Not analyzed or applicable

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

CONSTITUENT: (Units in ug/L)	NYSDEC SCGs [1]	WELL: / SAMPLE ID: / DATE:	GM-32S GM-32S 04/12/02	GM-32S GM 32S 07/08/02	GM-78S GM-78S 04/09/02	GM-78S GM-78S 06/18/2002	GM-78I GM-78I 04/09/02	GM-78I GM-78I 06/18/02	MW-01GF MW-1GF 04/12/02	MW-1GF MW-16F 07/08/02	MW-02GF MW-2GF 04/12/02
Cadmium, Total	5		<10	<1.3	<10	<1.3	<10	<1.3	<10	<1.3	<10
Cadmium, Dissolved	5		<10	<1.3	--	--	--	--	<10	<1.3	<10
Chromium, Total	50		**109**	**125**	**3.4 B**	**2.7 B**	**6.2 B**	**8.7 B**	**3.3 B**	**2.8 B**	**41.1**
Chromium, Dissolved	50		**98.6**	**125**	--	--	--	--	<10	<1.5	**45.1**

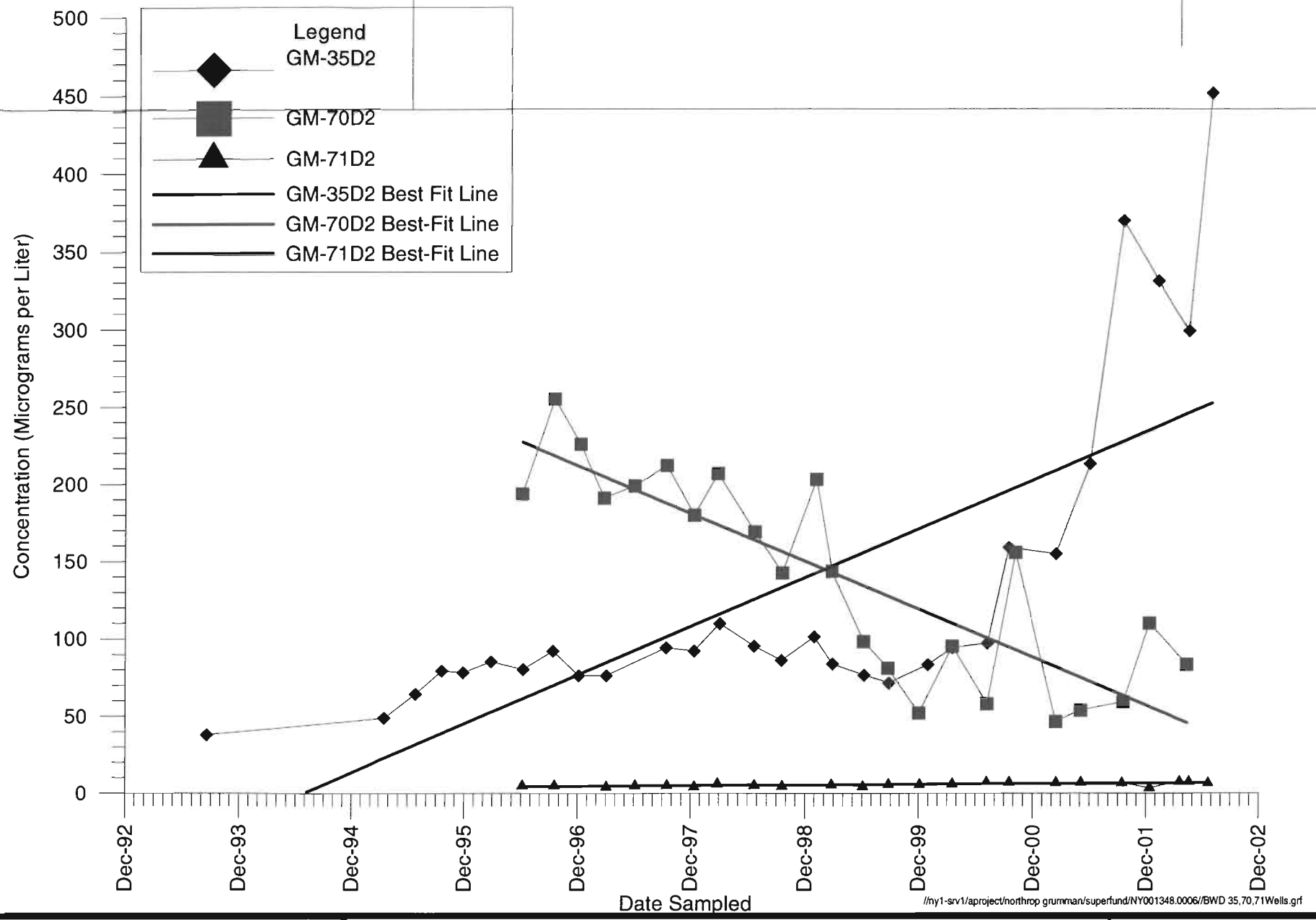
(1) Standards, Criteria, and Guidance Values.
ug/L Micrograms per liter
B Detected between the IDL and CRDL.
IDL Instrument detection limit
CRDL Contract-required detection limit
NYSDEC New York State Department of Environmental Conservation
EQ Equipment
[ ] Value exceeds associated SCG value.
Bold Constituent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

ARCADIS

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

CONSTITUENT: (Units in ug/L)	NYSDEC SCGs [1]	WELL: / SAMPLE ID: / DATE:	MW-2GF 2GF 07/08/02	MW-3R MW-3R 03/27/02	MW-3R MW-3R 06/14/02	WATER EQ.BLANK FB061402 06/14/02	WATER EQ.BLANK FB 6-18-02 06/18/02	WATER EQ.BLANK FB070802 07/08/02
Cadmium, Total	5		<1.3	**28.4**	**30.1**	<1.3	<1.3	<1.3
Cadmium, Dissolved	5		<1.3	**27.1**	**26.9**	--	--	--
Chromium, Total	50		**38**	**57.9**	**49.7**	<1.5	<1.5	<1.5
Chromium, Dissolved	50		**32.1**	**50**	**39.4**	--	--	--

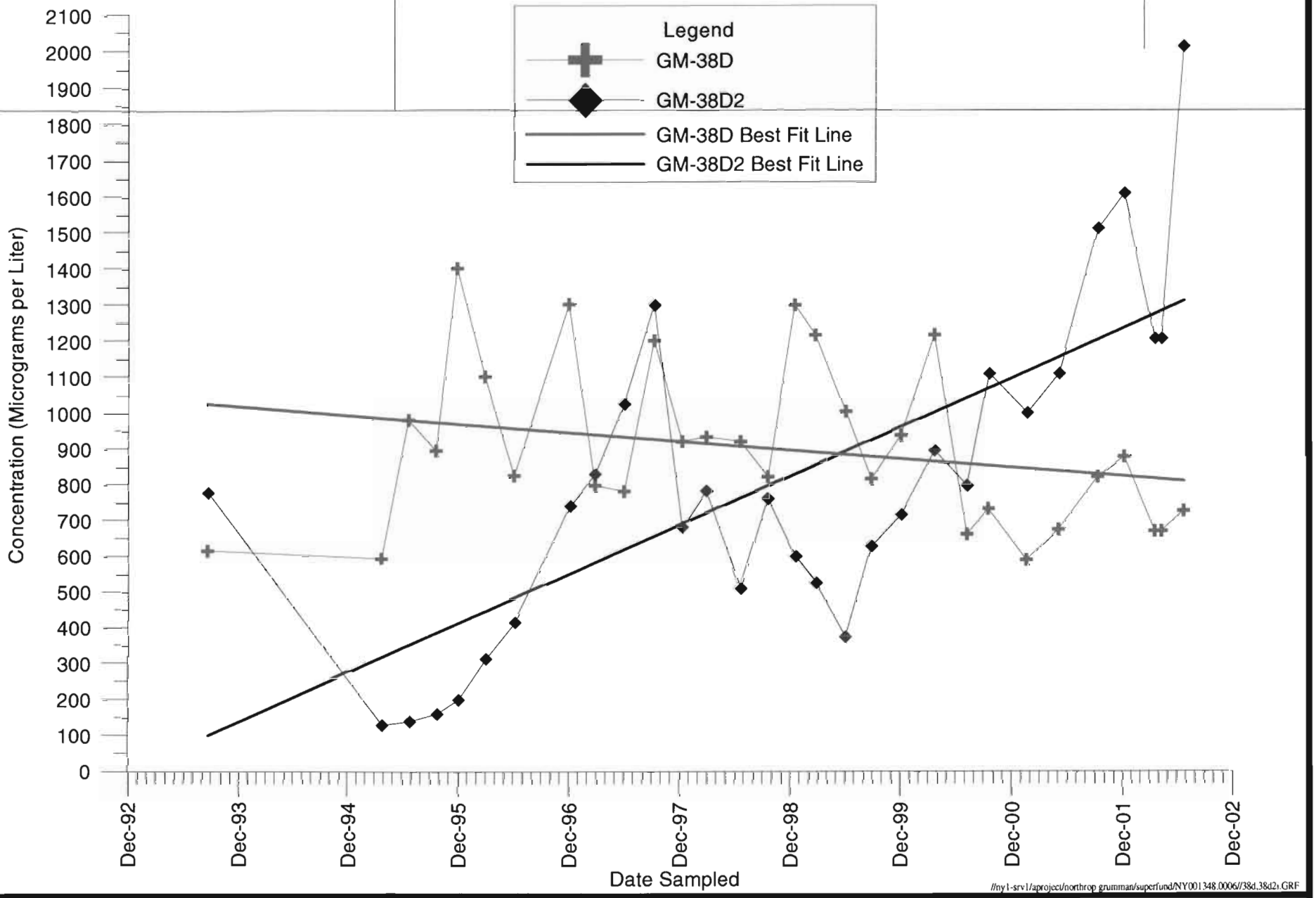
(1) Standards, Criteria, and Guidance Values.
ug/L Micrograms per liter
B Detected between the IDL and CRDL.
IDL Instrument detection limit
CRDL Contract-required detection limit
NYSDEC New York State Department of Environmental Conservation
EQ Equipment
[ ] Value exceeds associated SCG value.
Bold Constituent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



ARCADIS GERAGHTY&MILLER

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

FIGURE 1



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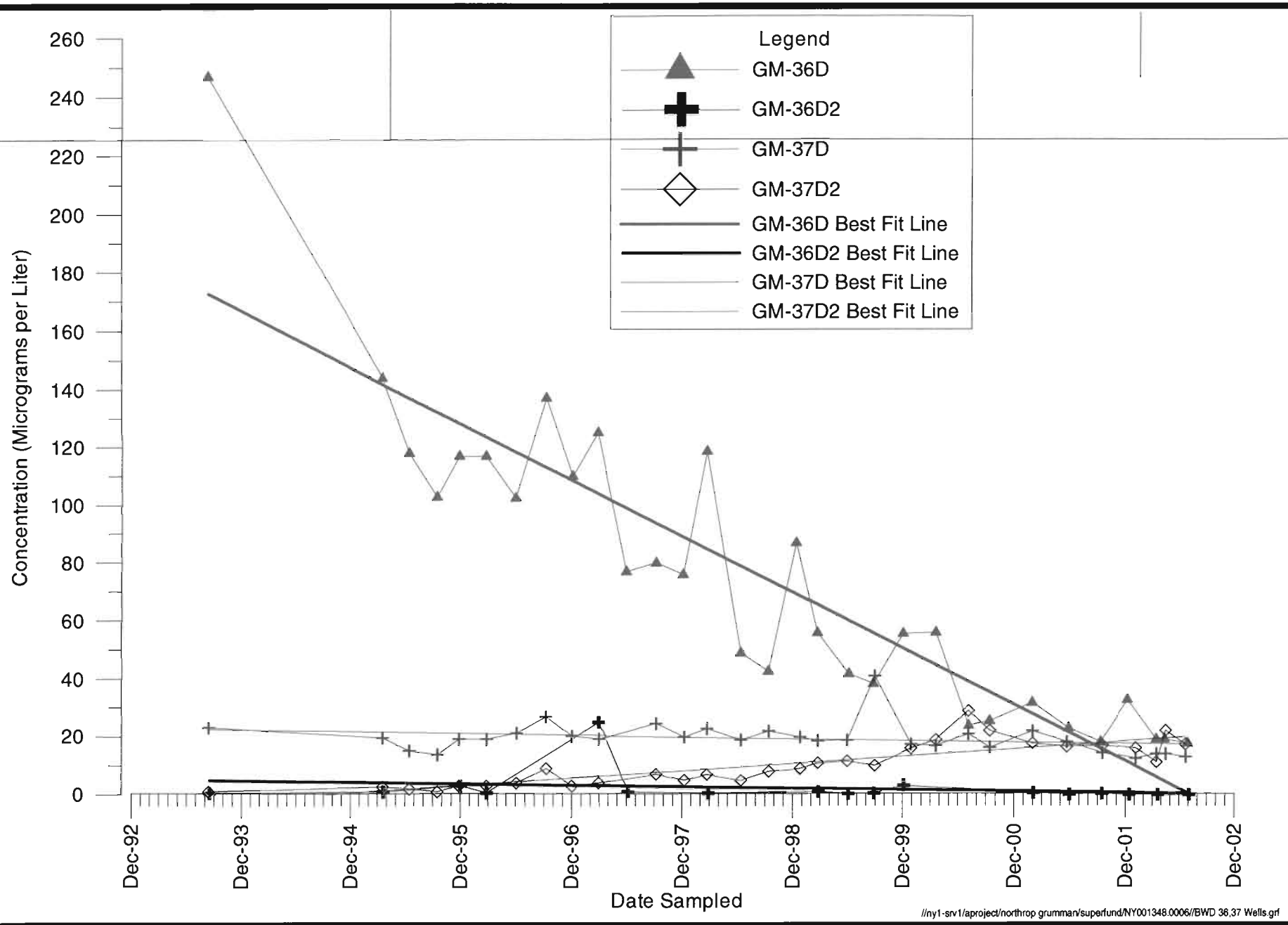
Total Volatile Organic Compound Concentrations in Selected Deep and Deep2 Monitoring Wells Northrop Grumman Corporation, Bethpage, New York

FIGURE 2



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

FIGURE 3