Figure F-1
Piezometer F-8-PZ
Perched Water Elevations vs. Time
Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York

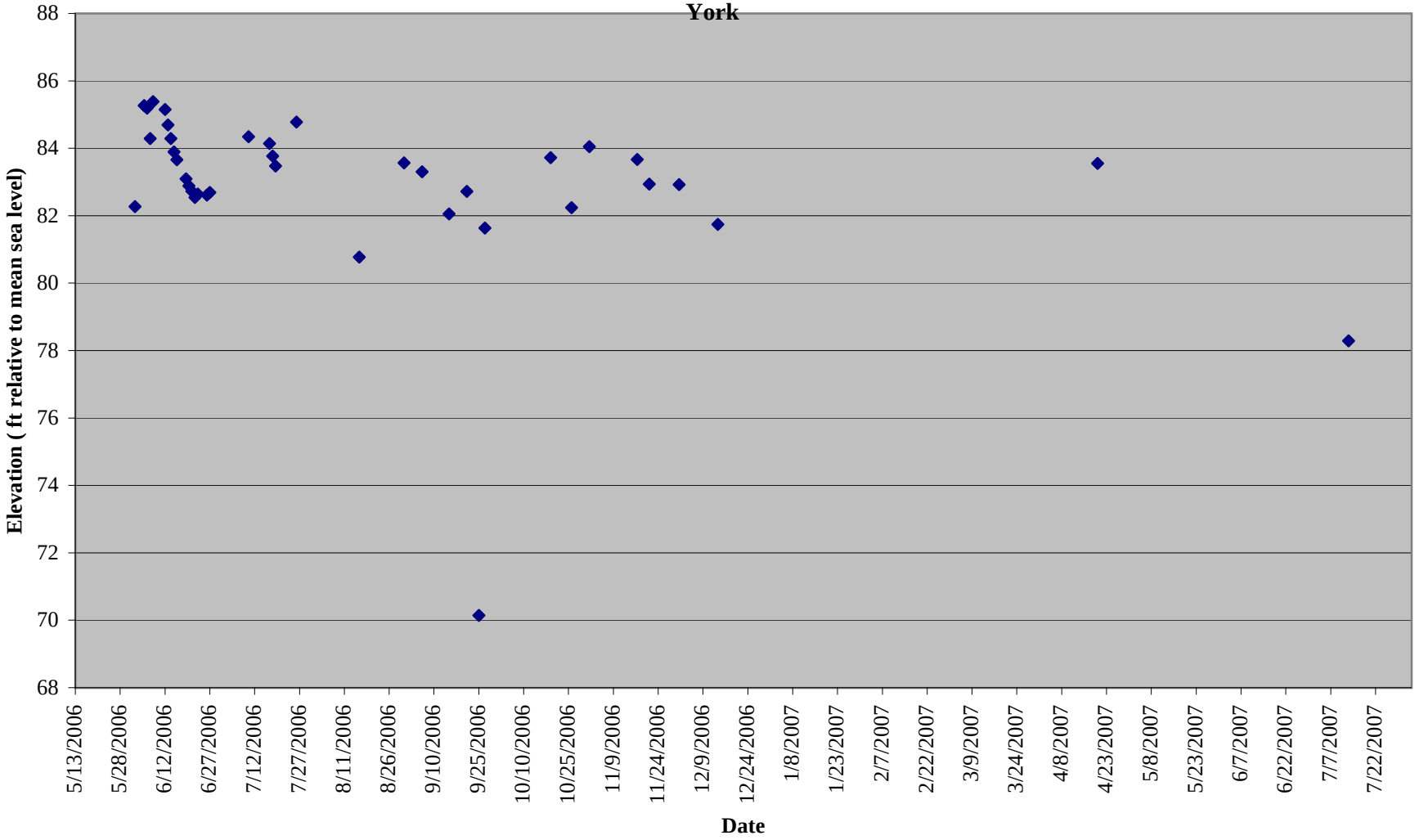


Figure F-2
Piezometer H-3-PZ
Perched Water Elevation vs. Time
Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York

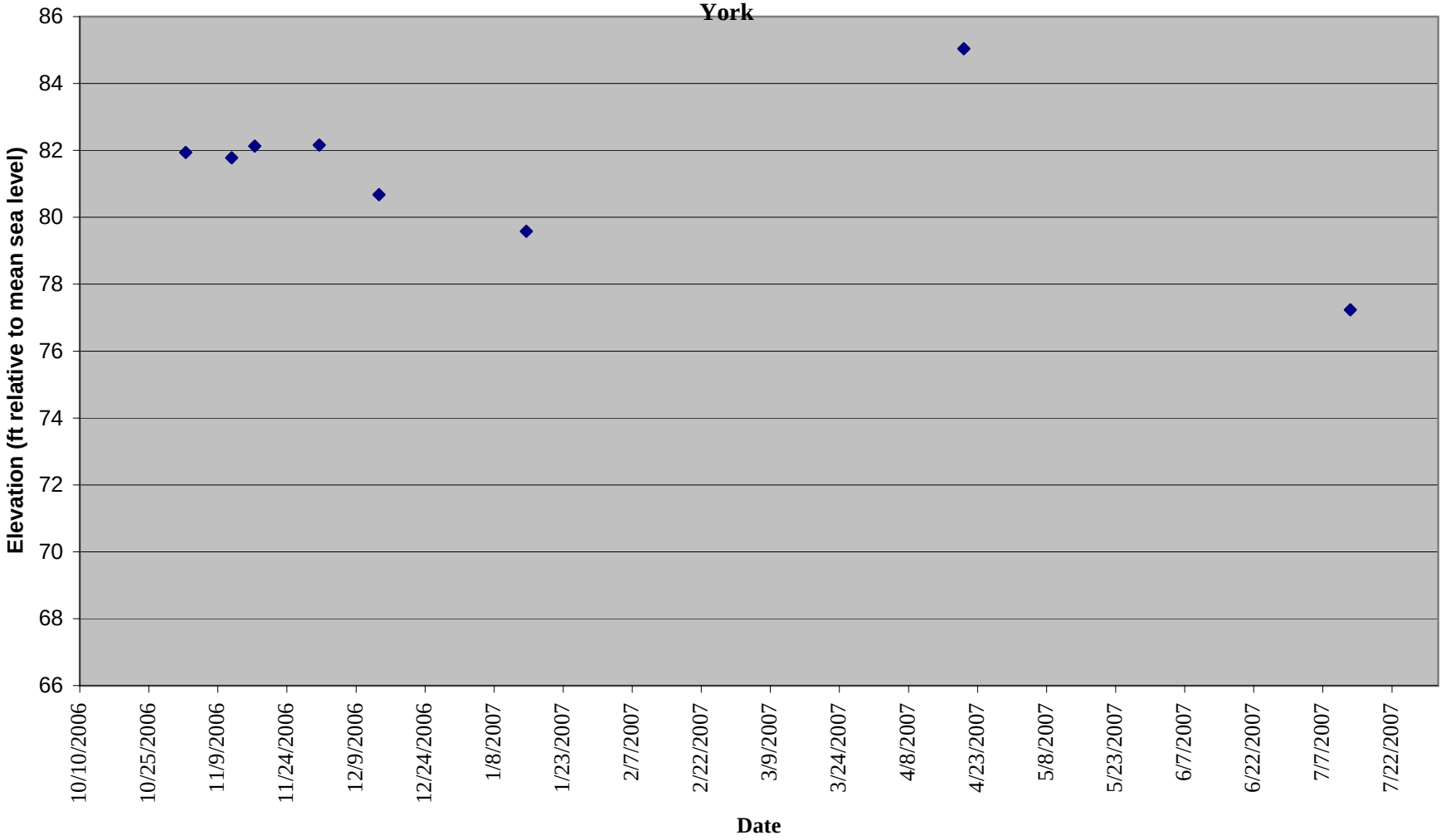
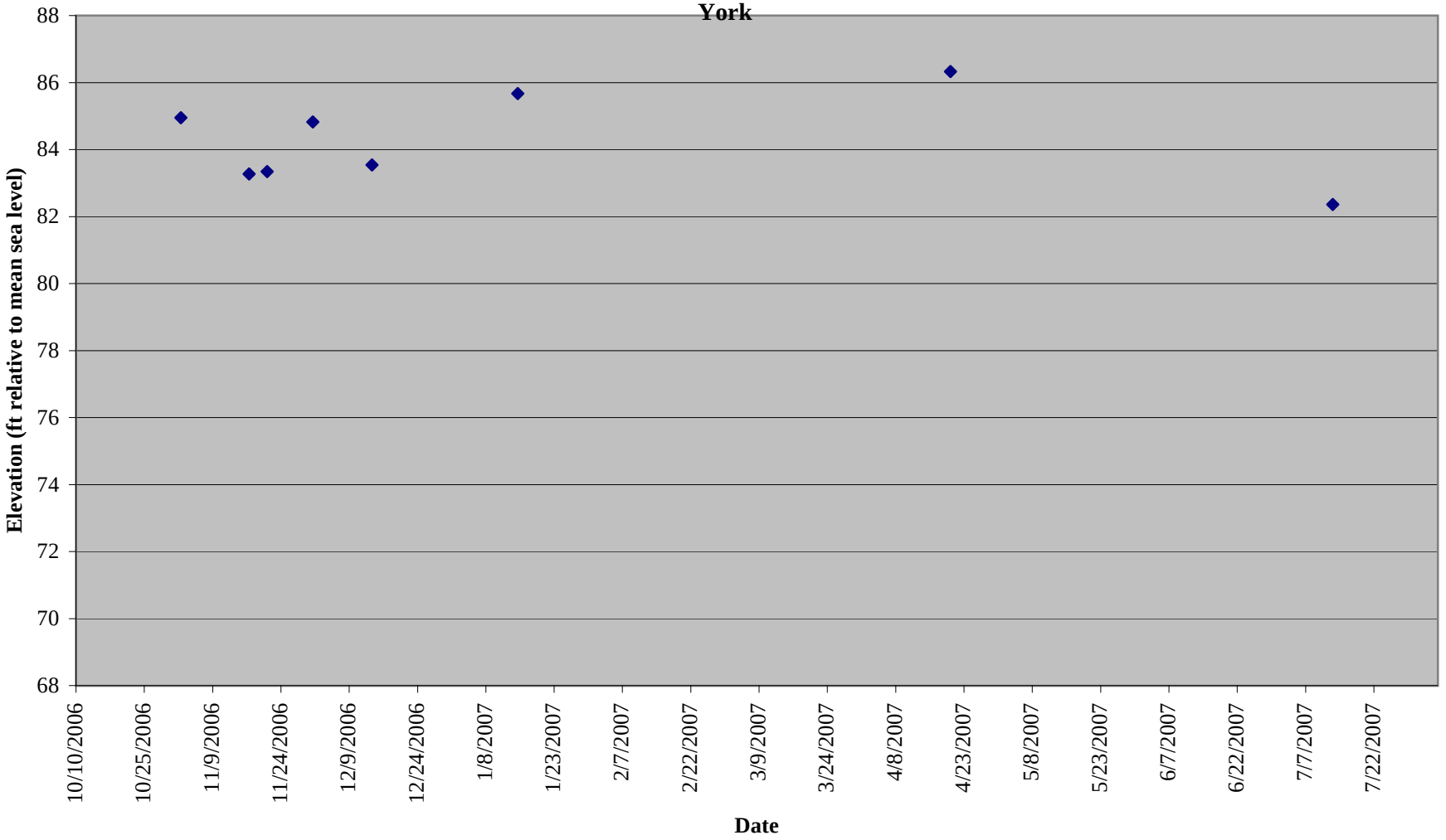


Figure F-3
Piezometer H-7-PZ
Perched Water Elevation vs. Time
Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York



VERTICAL PROFILE BORING GROUNDWATER SCREENING
OPERABLE UNIT 3 REMEDIAL INVESTIGATION
NORTHROP GRUMMAN CORPORATION
BETHPAGE, NEW YORK

VPB DESIGNATION: VPB-1 **DATE(S):** 7/28/2004 **SAMPLER:** Sean Chelios

Date	Start Time	Pump Decon Prior to Sampling	Stainless-Steel Screen Depth (ft bls)	Depth to Water (ft bls)	Gallons in Well	Purge Volume (gallons) (3 well volumes)	Total Volume Purged	Initial Sample Appearance	Temperature (C) Purge Volume 1	2	3	pH Purge Volume 1	2	3	Conductivity (umhos/cm) Purge Volume 1	2	3	Final Sample Appearance	Coded Replicate	Time Sampling Completed
7/28	0820	Yes	105-110	59.54	8.11	575	600	Clear	17.77	17.61	17.54	5.04	5.10	5.09	0.147	0.133	0.1360	Clear	NA	1329
7/28	1400	Yes	85-90	64.37	8.11	25	25	clear	19.35	18.29	18.33	5.71	5.79	5.84	0.004	0.004	0.005	clear	NA	1425
7/28	1442	Yes	67-72	65.14	8.11	25	10	Tan	21.42	/	/	5.85	/	/	0.131	/	/	Tan	NA	1520

ft bls feet below land surface.

VERTICAL PROFILE BORING GROUNDWATER SCREENING
OPERABLE UNIT 3 REMEDIAL INVESTIGATION
NORTHROP GRUMMAN CORPORATION
BETHPAGE, NEW YORK

VPB DESIGNATION: VPB-2 **DATE(S):** 7/29 **SAMPLER:** Sean Chelius

Date	Start Time	Pump Decon Prior to Sampling	Stainless-Steel Screen Depth (ft bls)	Depth to Water (ft bls)	Gallons in Well	Purge Volume (gallons) (3 well volumes)	Total Volume Purged	Initial Sample Appearance	Temperature (C) Purge Volume 1	2	3	pH Purge Volume 1	2	3	Conductivity (umhos/cm) Purge Volume 1	2	3	Final Sample Appearance	Coded Replicate	Time Sampling Completed	
7/29/04	0817	Yes	105-110	58.40	8.26	375	~380	Clear	17.25	16.84	16.97	5.26	5.18	5.23	0.132	0.134	0.134	Clear	NA	1135	START TIME
8/2/04	0900	Yes	87-92	58.33	8.24	~25	~30	Clear	~~4.11~~ 18.57	~~4.69~~ 18.54	~~4.~~ 18.62	4.71	4.69	4.70	0.199	0.197	0.197	Clear	NA	0915	0910
8/2/04	0935	Yes	65-70	60.63	8.35	~25	~~~30~~ ~15	Tan	18.52	18.55	18.74	6.25	6.26	6.24	0.135	0.135	0.135	Tan	NA	0952	0945

ft bls feet below land surface.

VERTICAL PROFILE BORING GROUNDWATER SCREENING
OPERABLE UNIT 3 REMEDIAL INVESTIGATION
NORTHROP GRUMMAN CORPORATION
BETHPAGE, NEW YORK

VPB DESIGNATION: VPB-3 DATE(S): 7/30/04 SAMPLER: Sean Chelius

Date	Start Time	Pump Decon Prior to Sampling	Stainless-Steel Screen Depth (ft bls)	Depth to Water (ft bls)	Gallons in Well	Purge Volume (gallons) (3 well volumes)	Total Volume Purged	Initial Sample Appearance	Temperature (C) Purge Volume 1	2	3	pH Purge Volume 1	2	3	Conductivity (umhos/cm) Purge Volume 1	2	3	Final Sample Appearance	Coded Replicate	Time Sampling Completed
7/30	0855	Yes	110-115	58.52	8.23	575	~580	Clear	18.29	18.31	18.30	5.60	5.58	5.50	0.193	0.194	0.194	Clear	NA	1345
7/30	1350	Yes	85-90	59.20	8.23	.25	25	Tan	18.97	18.91	18.92	5.71	5.70	5.70	0.198	0.198	0.198	Clear	NA	1400
7/30	1448	Yes	65-70	59.85	8.23	25	~15	Tan	19.21	19.32	19.29	6.23	6.25	6.21	0.133	0.133	0.133	Tan	NA	1512

ft bls feet below land surface.

VERTICAL PROFILE BORING GROUNDWATER SCREENING
OPERABLE UNIT 3 REMEDIAL INVESTIGATION
NORTHROP GRUMMAN CORPORATION
BETHPAGE, NEW YORK

VPB DESIGNATION: VP-3A DATE(S): 5/3/06 SAMPLER: P. Prezorski

Date	Start Time	Pump Decon Prior to Sampling	Stainless-Steel Screen Depth (ft bls)	Depth to Water (ft bls)	Gallons in Well	Purge Volume (gallons) (3 well volumes)	Total Volume Purged	Initial Sample Appearance	Temperature (C) Purge Volume 1	2	3	pH Purge Volume 1	2	3	Conductivity (umhos/cm) Purge Volume 1	2	3	Final Sample Appearance	Coded Replicate	Time Sampling Completed
5/3/06	8:36 AM	yes	60-65	53.88	1.78	5+35	40	tan	15.4	15.6	15.6	6.41	6.46	6.45	167.6	174.9	180.5	clear	N/A	9:46 AM
5/3/06	11:16 PM	yes	52-57	53.05	.632	1.9+35	37	Brown	19.4	17.6	17.7	6.65	6.67	6.66	225	233	235	clear	N/A	3:37 PM

ft bls feet below land surface.

Notes on VP-3A 60-65'
Purge Rate 1gpm (stable)
Rate lowered to sample
Turbidity at 1V=35, 2V=20, 3V=15 NTU
0.035 mg/L S2-

Notes on 52-57'
Purge rate 1400 ml/min
Rate lowered to sample
Turbidity at 1V=400, 2V=12, 3V=8.5 NTU
0.031 mg/L S2-

VERTICAL PROFILE BORING GROUNDWATER SCREENING
OPERABLE UNIT 3 REMEDIAL INVESTIGATION
NORTHROP GRUMMAN CORPORATION
BETHPAGE, NEW YORK

VPB DESIGNATION: VP-3B DATE(S): 5/4/06 SAMPLER: P. Prezorski Page 1 of 1

Date	Start Time	Pump Decon Prior to Sampling	Stainless-Steel Screen Depth (ft bls)	Depth to Water (ft bls)	Gallons in Well	Purge Volume (gallons) (3 well volumes)	Total Volume Purged	Initial Sample Appearance	Temperature (C) Purge Volume 1	2	3	pH Purge Volume 1	2	3	Conductivity (umhos/cm) Purge Volume 1	2	3	Final Sample Appearance	Coded Replicate	Time Sampling Completed
5/4/06	1:14 pm	yes	70-75	54.02	3.36	10 + 27	37	Brown	18.1	18.3	17.4	6.14	6.28	6.34	404	466	506	clear	MS/MSD	2:13 pm
								4th parameter	17.4			6.36			508					
5/4/06	3:10 pm	yes	60-65	53.85	1.78	5.3 + 27	33	tan	19.1	18.5	19.1	5.76	5.79	5.81	238	253	257	clear	N/A	4:30 pm
5/5/06	9:00 AM	yes Used New Bailer	53-58	54.1	0.624	1.9 + 27	5	brown, silty	1L 16.1	2L 15.8	3L 15.4	1L 5.55	2L 5.53	3L 5.52	~~445~~	3L 599	3L 1760 uns	brown silty	NA	10:30 AM
									15.7 4L	15.5 5L	15.6 6L	4L 5.50	5.56	6L 5.70	165.0 4L	156.9 5L	148 6L			
									15.9 7L	16.0 8L	15.6 5 gal	5.62 7L	5.61 8L	5.65 5 gal	153.3 7L	158.6 8L	143.7 5 gal			

ft bls feet below land surface.

Notes on 53-58

54.1 = Water level

Sulfide = 0.132 mg/L diluted 50ml H_2O

Turbidity on all readings >200 past limit of turbidity meter

* Bailer was used, Bailer was a 1L Bailer. Parameters taken on first 8L bailed and then before sample taken after 5 gallons had been bailed

Notes on 70-75'

Purge rate 1gpm
4th parameter needed to stabilize
Rate lowered to sample
Turbidity at 1V = 75, 2V = 70, 3V = 8.0, 4V = 5.3 NTU
-.007 mg/L S2-

Notes on 60-65'

Purge rate 1gpm
Rate lowered to sample but flow stopped upon return turbid.
Start of sampling 4:17 pm at turbidity 21 NTU.
Turbidity at 1V = 85, 2V = 30, 3V = 29, At sample time = 21 NTU
Sounded depth 65.32
DTW = 54.75 - casing (2.94')
.010 mg/L S2-

VERTICAL PROFILE BORING GROUNDWATER SCREENING
OPERABLE UNIT 3 REMEDIAL INVESTIGATION
NORTHROP GRUMMAN CORPORATION
BETHPAGE, NEW YORK

VPB DESIGNATION: VP-3C DATE(S): 5/2/06 SAMPLER: P. Prezorski Page 1 of 1

Date	Start Time	Pump Decon Prior to Sampling	Stainless-Steel Screen Depth (ft bls)	Depth to Water (ft bls)	Gallons in Well	Purge Volume (gallons) (3 well volumes)	Total Volume Purged	Initial Sample Appearance	Temperature (C) Purge Volume 1	2	3	pH Purge Volume 1	2	3	Conductivity (umhos/cm) Purge Volume 1	2	3	Final Sample Appearance	Coded Replicate	Time Sampling Completed
5/2/06	9:13 AM	yes	70-75	54.21	3.28	10+25	35	Brown	14.9	14.8	15.0	5.84	5.91	5.89	437	483	493	clear	N/A	10:16 AM
5/2/06	10:47 AM	yes	60-65	54.80	1.63	5+25	30	Brown	16.8	17.2	17.2	6.01	5.99	5.98	228	230	237	clear	N/A	11:58 AM
5/2/06	2:30 PM	yes	54-59	55.05	.632	1.9+25	27	Brown	17.0	17.0	17.1	5.72	5.69	5.74	103.7	103.7	103.1	clear	N/A	4:04 PM

ft bls feet below land surface.

Notes 70-75'

Same tubing
Purge Rate 1gpm
Rate lowered to sample
Turbidity at 1V=40, 2V=11, 3V=5.7
Initial turbidity was 800 NTU
0.002 mg/L S2-

Notes 60-65'

Same tubing
Flow had stopped when time to take 2V. Flow back on own. Same rate 1gpm.
Rate lowered to sample
Turbidity at 1V=250, at 2V=110, 3V=14 NTU
0.008 mg/L S2-

Notes on 54-59'

Same tubing
Purge Rate 1300 ml/min
Rate lowered to sample
Turbidity at 1V=85, 2V=45, 3V=32 NTU
0.025 mg/L S2-

VERTICAL PROFILE BORING GROUNDWATER SCREENING
OPERABLE UNIT 3 REMEDIAL INVESTIGATION
NORTHROP GRUMMAN CORPORATION
BETHPAGE, NEW YORK

VPB DESIGNATION: VP-3C DATE(S): 05/08/06, 5/9/06, 5/10/06 SAMPLER: John Corral, P. Prezorski

2:39 | 2:56 | 3:13

Date	Start Time	Pump Decon Prior to Sampling	Stainless-Steel Screen Depth (ft bls)	Depth to Water (ft bls)	Gallons in Well	Purge Volume (gallons) (3 well volumes)	Total Volume Purged	Initial Sample Appearance	Temperature (C) Purge Volume 1	2	3	pH Purge Volume 1	2	3	Conductivity (umhos/cm) Purge Volume 1	2	3	Final Sample Appearance	Coded Replicate	Time Sampling Completed
05/08/06		yes	150-145	54.78	15.25	45.75+3 49 gallons	49	turbid brown	160 / 15.4	80 / 15.9	70 / 16.3	5.48	5.76	5.54	227	114.7	108.4			
"		yes	140-135	54.80	13.63	41+3 = 44 gallons	44	turbid brown	[illegible] / 17.0	60 / 15.7	55 / 15.7	[illegible] / 5.51	[illegible] / 5.47	[illegible] / 5.43	3:42 / 170.6	3:57 / 173.4	4:13 / 172.7	slightly [illegible]	NA	4:15 PM
5/9/06	9:47 AM	yes	~~130-125~~ [illegible]	54.77	12.04	36+3 = 39.1	40	tan	15.2	15.4	15.6	5.84	5.74	5.75	262	247	248	cloudy	N/A	10:37 AM
5/9/06	10:54 AM	yes	120-115	54.67	10.45	31.3+3 = 35	35	light tan	15.4	15.5	15.9	5.75	5.72	5.69	197.9	198.5	198.7	clear	N/A	11:44
5/9/06	12:47	yes	110-105	54.62	8.86	26.6+3	30	light tan	15.0	14.9	14.9	5.76	5.77	5.79	180.0	179.7	180.6	clear	N/A	1:26 pm
5/9/06	1:36	yes	100-95	54.74	7.24	22+3	25	Brown	15.0	15.3	15.4	5.75	5.79	5.82	224	227	222	clear	N/A	2:08 pm
5/9/06	3:34	yes	95-90	54.21	6.53	19.6+3	23	Brown	15.2	15.3	15.4	5.70	5.69	5.68	265	261	259	clear	N/A	4:05 pm
5/9/06	4:15	yes	90-85	54.29	5.71	17.1+3	21	clear	15.4	15.4	15.3	6.26	6.22	6.31	361	356	383	clear	N/A	4:53 pm
									15.3	15.3		6.18	6.22		345	354				
5/10/06	8:57 AM	yes	85-80	54.52	4.88	14.6+3	18	Brown	15.2	15.2	15.1	5.96	6.00	6.02	446	468	474	clear	N/A	9:25 AM
5/10/06	9:44 AM	yes	80-75	54.53	4.07	12.21+3	16	Light tan	15.7	15.7	15.8	5.85	5.79	5.79	320	338	363		N/A	
									15.4	15.4	15.4	5.76	5.77	5.79	383	397	409	turbid	[illegible]	10:52 AM
									15.5			5.78			415					

ft bls feet below land surface.

X Sample Not Submitted

Notes on 130-125':
Purge rate 1 gpm
Rate stable
Turbidity at 1V = over range,
2V = 450 NTU
3V = 95 NTU
Rate lowered to sample

Notes on VP-3C (120-115'):
Rate 1 gpm
Turbidity 1V = 50
2V = 12
3V = 6.8 NTU
Rate lowered to sample

Notes on 110-105':
Rate 1 gpm
Turbidity 1V = 75
2V = 24
3V = 8.8 NTU
Rate lowered to sample

Notes on 100-95':
Rate 1 gpm
Turbidity 1V = 850
2V = 150
3V = 45 NTU
Rate lowered to sample

Notes on 95-90':
Rate 1 gpm
Turbidity 1V = 390
2V = 55
3V = 16
Rate lowered to sample

VP-3C: 35 gallons added
Start at

Notes on 90-85':
Rate 1 gpm
Turbidity at 1V = 500, 2V = 250,
3V = 36, 4V = 16, 5V = 6.9 NTU
Rate lowered to sample

Notes on 85-80':
Rate 1 gpm
Turbidity 1V = 180
2V = 50
3V = 36 NTU
Rate lowered to sample

Notes on 80-75':
Rate 1 gpm
Turbidity 1V = over range 5V = 29
2V = 210 6V = 19
3V = 55 7V = 11 NTU
4V = 37
Rate lowered to sample, flow stopped. Rate increased. Sample turbidity increased. (See daily log)

VERTICAL PROFILE BORING GROUNDWATER SCREENING
OPERABLE UNIT 3 REMEDIAL INVESTIGATION
NORTHROP GRUMMAN CORPORATION
BETHPAGE, NEW YORK

VPB DESIGNATION: VP-3C DATE(S): 5/10/06 SAMPLER: P. Prezorski

Date	Start Time	Pump Decon Prior to Sampling	Stainless-Steel Screen Depth (ft bls)	Depth to Water (ft bls)	Gallons in Well	Purge Volume (gallons) (3 well volumes)	Total Volume Purged	Initial Sample Appearance	Temperature (C) Purge Volume 1	2	3	pH Purge Volume 1	2	3	Conductivity (umhos/cm) Purge Volume 1	2	3	Final Sample Appearance	Coded Replicate	Time Sampling Completed
5/10/06	1:55	Yes	75-70	54.36	3.30	9.90+3	13	Brown	15.7	15.6	15.6	5.79	5.76	5.76	298	347	399	cloudy	Rep 051006	2:20pm
									4 15.6	5 15.6	6 15.7	5.74	5.74	5.73	436	448	468			
									7 15.7			5.73			471					
5/10/06	2:59	Yes	70-65	54.62	2.46	7.38+3	11	Brown	16.2	15.8	15.8	5.85	5.82	5.80	224	248	266	cloudy	N/A	
									15.7			5.81			275					3:40pm
5/10/06	3:32	Yes	65-60	54.65	1.65	4.98+3	8	Brown	15.9	15.7	15.6	5.85	5.78	5.80	237	226	196.8	tan	N/A	4:36
									15.5			5.79			197.5					

ft bls feet below land surface.

Notes on 75-70':
Rate 1 spm
Turbidity
1V = overrange
2V = overrange
3V = 450
4V = 160
5V = 120
6V = 75
7V = 50
Turbidity at sample time 45 NTU

Notes on 70-65':
Rate 1 spm
Turbidity
1V = overrange
2V = 190
3V = 110
4V = 90
Turbidity at sample time 60 NTU

Notes on 60-65':
Turbidity
1V = overrange
2V = 650
3V = 380
4V = 500

VERTICAL PROFILE BORING GROUNDWATER SCREENING
OPERABLE UNIT 3 REMEDIAL INVESTIGATION
NORTHROP GRUMMAN CORPORATION
BETHPAGE, NEW YORK

VPB DESIGNATION: UP-3C (70'-75') DATE(S): 6/27/06 SAMPLER: JCberlin Page 1 of 1

×0.16 (G×3)+25G/3=parameters

Date	Start Time	Pump Decon Prior to Sampling	Stainless-Steel Screen Depth (ft bls)	Depth to Water (ft bls)	Gallons in Well	Purge Volume (gallons) (3 well volumes)	Total Volume Purged	Initial Sample Appearance	Temperature (C) Purge Volume 1	2	3	pH Purge Volume 1	2	3	Conductivity (umhos/cm) Purge Volume 1	2	3	Final Sample Appearance	Coded Replicate	Time Sampling Completed
6/27/06	11:35	Y	70-75	55.0	3.2	34.6	~83	turbid	19.7	19.3	19.4	5.86	5.78	5.76	342	421	472	clear	NA	12:30
									(4) 18.7	(5)	(6)	(4) 5.75			(4) 476	(5)	(6)			

Rate ≈ 1.5 G/min

ft bls feet below land surface.

Turbidity (ntu)	1V	2V	3V	4V
	450	75	33.7	19.2

VP-3D Samples
110-105
105-100
100-95
95-90
90-85
85-80
80-75
75-70
70-65
65-60
60-55
55-50

VERTICAL PROFILE BORING GROUNDWATER SCREENING
OPERABLE UNIT 3 REMEDIAL INVESTIGATION
NORTHROP GRUMMAN CORPORATION
BETHPAGE, NEW YORK

VPB DESIGNATION: VP-3D DATE(S): 5/22/06, 5/23/06, 5/24/06 SAMPLER: P. Prezorski Page 1 of 1

Date	Start Time	Pump Decon Prior to Sampling	Stainless-Steel Screen Depth (ft bls)	Depth to Water (ft bls)	Gallons in Well	Purge Volume (gallons) (3 well volumes)	Total Volume Purged	Initial Sample Appearance	Temperature (C) Purge Volume 1	2	3	pH Purge Volume 1	2	3	Conductivity (umhos/cm) Purge Volume 1	2	3	Final Sample Appearance	Coded Replicate	Time Sampling Completed
5/22/06	10:17 AM	yes	110-105	53.92	8.9	27+2	29	Brown	16.0	15.7	15.9	6.51	6.27	6.26	157.9	182.5	189.4	clear	N/A	10:55
5/22/06	11:13 AM	yes	105-100	53.60	8.22	24.7+2	27	tan then Brown	16.3	16.2	16.2	6.19	6.14	6.15	158.5	173.8	183.7	cloudy	N/A	11:50
5/22/06	1:08 PM	yes	100-95	53.82	7.4	22.2+2	25	Brown	17.0	16.7	16.8	6.09	6.05	6.05	158.1	177.1	184.6	clear	N/A	1:43
5/22/06	2:03 PM	yes	95-90	54.62	6.46	19.38+2	22	Brown	16.8	16.4	16.2	6.05	6.03	5.99	143.0	145.8	149.1	clear	N/A	2:45
5/23/06	9:59 AM	yes	90-85	54.04	5.75	17.25+2	20	Brown	14.1	14.8	14.8	6.06	5.96	5.93	255	169.7	170.0	clear	N/A	9:28 AM
5/23/06	10:07 AM	yes	85-80	54.00	4.96	14.88+2	17	Brown	15.6	15.8	15.6	6.10	6.05	6.05	180.5	179.7	179.7	clear	N/A	10:35 AM
5/23/06	11:05 AM	yes	80-75	54.18	4.13	12.39+2	15	tan then Brown	16.2	15.6	15.6	6.40	6.41	6.36	308	321	323	tan	N/A	11:25
5/23/06	11:49 AM	yes	75-70	54.00	3.36	10.08+2	12	Brown	16.5	16.8	16.3	6.54	6.53	6.54	315	350	357	tan	N/A	12:39 PM
5/23/06	1:38 PM	yes	70-65	53.92	2.57	7.7+2	10	Brown	17.3	18.1	18.1	6.65	6.64	6.64	295	309	324	light tan	MS/MSD	1:55 PM
—	—	—	—	—	—	—	—	—	17.9	—	—	6.60	—	—	334	—	—	—	—	—
5/24/06	3:28 PM	Yes	65-60	53.92	1.77	5.31+2	8	Brown	18.1	16.5	16.1	6.44	6.43	6.45	290	356	382	light tan	N/A	3:49 PM
—	—	—	—	—	—	—	—	—	15.8	—	—	6.44	—	—	390	—	—	—	—	—
5/24/06	9:07 AM	yes	60-55	53.20	1.1	3.3+2	6	Brown	16.1	16.0	16.5	5.98 6.14	6.14	6.14	340	333	335	Brown	N/A	9:55 AM
5/24/06	11:08 AM	New Bailer	56-51	53.62	.38	1.14+2	3.14	Brown	16.1	15.3	15.4	6.22	6.23	6.27	319	326	333	Brown	N/A	11:39 AM

ft bls feet below land surface.

Notes on 110-105':
Rate 1gpm
Turbidity
1V 850
2V 100
3V 36 NTU

Notes on 105-100':
Rate 1gpm
Turbidity
1V = 180
2V = 60
3V = 70 NTU
At sample time 40 NTU

Notes on 100-95':
Rate 1gpm
Turbidity
1V = 70
2V = 45
3V = 18 NTU

Notes on 95-90':
Rate 1gpm
Turbidity
1V = 60
2V = 29
3V = 25 NTU

Notes on 90-85':
Rate 1gpm
Turbidity
1V = 190
2V = 45
3V = 40 NTU

Notes on 85-80':
Rate 1gpm
Turbidity
1V = 500
2V = 45
3V = 23 NTU

Notes on 80-75':
Rate 1gpm
Turbidity
1V = overrange
2V = 450
3V = 550 NTU

Notes on 75-70':
Rate 1gpm
Turbidity
1V = 350
2V = 290
3V = 850 NTU

Notes on 70-65':
Rate 1gpm
turbidity
1V = 380
2V = 310
3V = overrange
4V = 200 NTU

Notes on 65-60':
Turbidity
1V & 2V overrange
3V = 330
4V = 180 NTU

Notes on 60-55':
Turbidity
1V, 2V & 3V overrange

Notes on 56-51'
Turbidity
1V, 2V & 3V overrange

VERTICAL PROFILE BORING GROUNDWATER SCREENING
OPERABLE UNIT 3 REMEDIAL INVESTIGATION
NORTHROP GRUMMAN CORPORATION
BETHPAGE, NEW YORK

VPB DESIGNATION: VPB-4 **DATE(S):** 8/2 - 8/3 2004 **SAMPLER:** Sean Chelius

Date	Start Time	Pump Decon Prior to Sampling	Stainless-Steel Screen Depth (ft bls)	Depth to Water (ft bls)	Gallons in Well	Purge Volume (gallons) (3 well volumes)	Total Volume Purged	Initial Sample Appearance	Temperature (C) Purge Volume 1	2	3	pH Purge Volume 1	2	3	Conductivity (umhos/cm) Purge Volume 1	2	3	Final Sample Appearance	Coded Replicate	Time Sampling Completed	Sampling Started
8/2/04	1200	Yes	105-110	57.28	8.59	550 + 26 = 576	~600	Clear	18.45	18.49	18.55	5.95	5.94	5.92	0.364	0.363	0.363	Clear	DUP-1	1703	1655
8/3/04	0825	Yes	85-90	57.28	8.59	.26	~30	Dk Tan	18.59	18.56	18.61	6.20	6.21	6.20	0.369	0.369	0.369	Tan	NA	0841	0831
8/3/04	0850	Yes	65-70	58.65	9.55	~28.5	~30	Dk Tan	19.10	18.95	18.76	6.49	6.51	6.51	0.449	0.449	0.448	Tan	NA	0926	0920

ft bls feet below land surface.

VERTICAL PROFILE BORING GROUNDWATER SCREENING
OPERABLE UNIT 3 REMEDIAL INVESTIGATION
NORTHROP GRUMMAN CORPORATION
BETHPAGE, NEW YORK

VPB DESIGNATION: VPB-5 DATE(S): 8/3 - 8/4 2004 SAMPLER: Sean Chelius Page 1 of 1

Date	Start Time	Pump Decon Prior to Sampling	Stainless-Steel Screen Depth (ft bls)	Depth to Water (ft bls)	Gallons in Well	Purge Volume (gallons) (3 well volumes)	Total Volume Purged	Initial Sample Appearance	Temperature (C) Purge Volume 1	2	3	pH Purge Volume 1	2	3	Conductivity (umhos/cm) Purge Volume 1	2	3	Final Sample Appearance	Coded Replicate	Time Sampling Completed
8/3/2004	1130	Yes	105-110	55.00	8.87	400 + 27 = 427 gal	~440	Clear	19.07	18.82	18.76	5.52	5.50	5.51	0.356	0.356	0.355	Clear	MS/MSD	1522
8/4	0932	Yes	85-90	55.65	8.86	~27 gal	~50	Tan	18.57	18.71	18.92	6.46	6.43	6.41	0.349	0.350	0.349	Cloudy	—	1004 ~~0950~~ 0955
8/4	1020	Yes	65-70	55.33	8.91	~27 gal	~50	Tan	18.50	18.67	18.94	6.53	6.53	6.52	0.199	0.199	0.199	cloudy	—	1048

STARTED 1505

1045

ft bls feet below land surface.

VERTICAL PROFILE BORING GROUNDWATER SCREENING
OPERABLE UNIT 3 REMEDIAL INVESTIGATION
NORTHROP GRUMMAN CORPORATION
BETHPAGE, NEW YORK

VPB DESIGNATION: VPB-6 DATE(S): 8/5/04 - 8/6/04 SAMPLER: SC, SH Page 1 of 1

Date	Start Time	Pump Decon Prior to Sampling	Stainless-Steel Screen Depth (ft bls)	Depth to Water (ft bls)	Gallons in Well	Purge Volume (gallons) (3 well volumes)	Total Volume Purged	Initial Sample Appearance	Temperature (C) Purge Volume 1	2	3	pH Purge Volume 1	2	3	Conductivity (mS) Purge Volume 1	2	3	Final Sample Appearance	Coded Replicate	Time Sampling Completed	START TIME
8/4/04	1220	Yes	105-110	55.16	8.94	550 + 27 = 577	~600 GAL	Clear	17.2	16.9	16.81	6.41	6.15	5.89	0.489	0.454	0.447	Clear	N/A	0935	0930
						26½"															
8/5/04	0940	Yes	85-90	56.75	8.68	26 GAL	~50	Tan			16.85			6.23			0.398	cloudy	N/A	1010	1005
- Had pump trouble, only able take 1 set of readings & sample.																					
8/5/04	1045	Yes	65-70	56.31	8.64	26 GAL	~50	Tan			16.94			6.11			0.452	tan	N/A	1115	1110
- PURGED DRY 3X, THEN COLLECTED SAMPLE																					

ft bls feet below land surface.

VERTICAL PROFILE BORING GROUNDWATER SCREENING
OPERABLE UNIT 3 REMEDIAL INVESTIGATION
NORTHROP GRUMMAN CORPORATION
BETHPAGE, NEW YORK

VPB DESIGNATION: VP-7 DATE(S): 8/3/04 - 8/4/04 SAMPLER: SH

Date	Start Time	Pump Decon Prior to Sampling	Stainless-Steel Screen Depth (ft bls)	Depth to Water (ft bls)	Gallons in Well	Purge Volume (gallons) (3 well volumes)	Total Volume Purged	Initial Sample Appearance	Temperature (C) Purge Volume 1	2	3	pH Purge Volume 1	2	3	Conductivity (~~umhos/cm~~) mS/cm Purge Volume 1	2	3	Final Sample Appearance	Coded Replicate	Time Sampling Completed
8/3/04	1200	Yes	105-110	55.85	8.7	26.1	630	Turbid	20.6	—	—	5.33	—	—	.661	—	—	Clear	NA	
Initial: PH - 6.09 / Cond - .281 / Temp - 19.8°C																				
8/4/04	0800	Pump in well from 8/3	- Purged 210 gallons on 8/3/04						—	18.9	18.9	—	5.00	4.98	—	.682	.694	Clear	NA	1015
8/4/04	1040	Yes	85-90	55.85	5.5	16.5	75	Slightly Turbid	18.4	18.1	18.9	5.90	5.80	5.80	.256	.341	.407	Clear	NA	1115
Initial: PH - 5.96 / Cond - .173 / Temp - 19.6°C																				
8/4/04	1137	Yes	65-70	55.85	2.3	6.9	30	Turbid	20.3	19.5	19.5	6.28	6.05	6.07	.151	.152	.157	Clear	NA	1215
Initial: PH - 6.86 / Cond - .316 / Temp - 22.4																				

ft bls feet below land surface.

VERTICAL PROFILE BORING GROUNDWATER SCREENING
OPERABLE UNIT 3 REMEDIAL INVESTIGATION
NORTHROP GRUMMAN CORPORATION
BETHPAGE, NEW YORK

VPB DESIGNATION: VP-8 DATE(S): 9/10/04 SAMPLER: SH

Date	Start Time	Pump Decon Prior to Sampling	Stainless-Steel Screen Depth (ft bls)	Depth to Water (ft bls)	Gallons in Well	Purge Volume (gallons) (3 well volumes)	Total Volume Purged	Initial Sample Appearance	Temperature (C) Purge Volume 1	2	3	pH Purge Volume 1	2	3	Conductivity (~~umhos/cm~~) mS/cm Purge Volume 1	2	3	Final Sample Appearance	Coded Replicate	Time Sampling Completed
9/10	940	Yes	275-300	58.8	38.7	117/186 304	304	Very Turbid	17.37	17.23	18.32	5.63	5.54	5.50	.079	.078	.077	Clear	NA	1215
			Initial	~~Temp~~		(SH)			17.71			5.88			.147			Turb	350	DO 2.55 mg/L
																		Rate	2gpm	
9/10	1245	Yes	275-280	Same	35.4	108(186)	294	Turbid	18.17	17.88	18.3	5.44	5.38	5.35	.069	.068	.65	Purge	Time	153 Mins
			Initial						17.86			5.47			.067			Start	Time	940 am
	*Note: pumped 200gal on 9/10, pumped 100gal (8:50am-10:00am) on 9/16																	Turb	@ 2nd	
																		Well	Volume = 23.1	
																		Purge	Time	(275-280)
																		147 mins		
																		Rate = 2gpm		
9/16/04	1030	yes	255-260	56.8	34.4	105+183	288	Slightly Brown	18.?3 ?	19.9	19.06	6.10 ~~2.06~~	5.79	5.77	.074 ~~.085~~	.075	.074	clear	—	1:00pm
									18.07			2.36			.066					

ft bls feet below land surface.

VERTICAL PROFILE BORING GROUNDWATER SCREENING
OPERABLE UNIT 3 REMEDIAL INVESTIGATION
NORTHROP GRUMMAN CORPORATION
BETHPAGE, NEW YORK

VPB DESIGNATION: VP8 DATE(S): 9/16/04 SAMPLER: M. EleFante

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Date	Start Time	Pump Decon Prior to Sampling	Stainless-Steel Screen Depth (ft bls)	Depth to Water (ft bls)	Gallons in Well	Purge Volume (gallons) (3 well volumes)	Total Volume Purged	Initial Sample Appearance	Temperature (C) Purge Volume 1	2	3	pH Purge Volume 1	2	3	Conductivity (umhos/cm) Purge Volume 1	2	3	Final Sample Appearance	Coded Replicate	Time Sampling Completed
9/16	1:55pm	Yes	235-240	58.8	29	87+183	270		19.49	19.07	17.9	5.85 6.02	5.75	5.74	.085	.088	.089	clear	NA	9:00 am 9/17
Initial									18.2			6.29			.085					
9/17/04	9:30 am	Yes	226-231	58.8	28	266	~270		19.50	20.3	20.2	5.85	5.74	5.77	.087	.089	.096		NA	12:00pm
									18.0			5.85			.088					
9/17/04	12:15pm	Yes	214-209	58.8	25	258	2260		not		Sampled								NA	well won't yield
									19.04			5.75			.098					
9/20/04	11:00 am	Yes	204-209	58.8	24.03	72.1+183 (255)	255		17.40	19.3	19.02	5.92	5.90	5.78	.121	.123	.127		NA	
									17.96			6.58			.144					
9/20/04	2:15pm	Yes	175-180	58.8	18.60	55.78+183 238.8	240		20.05			5.89			.260				NA	
									19.6			6.26			.168					
9/21/04	8:15	Yes	175-180	58.8	18.6	238.8	2240			16.31	17.21		6.20	6.00	.~~254~~	.251	.273	clear	NA	9:50
9/21/04	10:15	Yes	155-160'	58.8	16	48+183 231	232	turbid	18.14	18.86	19.62	5.95	5.91	5.79	.279	.284	.294		NA	
							initial		17.81			5.88	~~5.97~~		.178					

ft bls feet below land surface.

VERTICAL PROFILE BORING GROUNDWATER SCREENING
OPERABLE UNIT 3 REMEDIAL INVESTIGATION
NORTHROP GRUMMAN CORPORATION
BETHPAGE, NEW YORK

VPB DESIGNATION: VP-8 DATE(S): 9/21/04 – 9/23/04 SAMPLER: CFT

Date	Start Time	Pump Decon Prior to Sampling	Stainless-Steel Screen Depth (ft bls)	Depth to Water (ft bls)	Gallons in Well	Purge Volume (gallons) (3 well volumes)	Total Volume Purged	Initial Sample Appearance	Temperature (C) Purge Volume 1	2	3	pH Purge Volume 1	2	3	Conductivity (umhos/cm) Purge Volume 1	2	3	Final Sample Appearance	Coded Replicate	Time Sampling Completed
9/21/04	1250	Yes	135-140'	58.8	12.8	38.4 + 183 221.4	222	turbid	19.79	20.02	20.14	5.88	5.78	5.65	.309	.322	.332	clear	NA	1445
								initial	19.48			6.11			.163					
9/22/04	9:05	yes	115-120'	58.8	9.6	28.8 + 183 (212)	212	turbid	21.81	17.44	17.66	4.45	5.42	5.55	.276	.237	.245	clear	NA	10 55
								initial	10.15			6.58			.188					
9/22/04	11:18	yes	95-100'	58.8	6.4	6.4 + 183 (190)	190	turbid	22.0	20.29		5.75	5.46		.179	.219				
	1250 turned							initial	19.71	22.61		6.28	5.85		.148	.142				
9/23/04	8:00	yes	95-100'	11	11	11					19.22			6.88			.251	clear	NA	9:30
9/23/04	9:55	yes	75-80'	58.8	3.2	9.6	10	slightly turbid	21.50	22.52	23.12	6.37	6.38	6.26	.176	.225	.263	turbid	NA	10:40
								initial	19.77			6.06		~~6.05~~	.197					

ft bls feet below land surface.

VERTICAL PROFILE BORING GROUNDWATER SCREENING
OPERABLE UNIT 3 REMEDIAL INVESTIGATION
NORTHROP GRUMMAN CORPORATION
BETHPAGE, NEW YORK

VPB DESIGNATION: VPB 9

DATE(S): 8/17/04-8/23 SAMPLER: Mary E Elefante

	Date	Start Time	Pump Decon Prior to Sampling	Stainless-Steel Screen Depth (ft bls)	Depth to Water (ft bls)	Gallons in Well	Purge Volume (gallons) (3 well volumes)	Total Volume Purged	Initial Sample Appearance	Temperature (C) Purge Volume 1	2	3	pH Purge Volume 1	2	3	Conductivity (umhos/cm) Purge Volume 1	2	3	Final Sample Appearance	Coded Replicate	Time Sampling Completed
	8/17/04	9:55	Alconox + water	296-301	57.90'	39	+2409/11 = 340	~350g	Slightly Brown	18.8	19.23	19.07	5.76	5.85	6.00	.117	.117	.115	clear	NA	3:30pm
										18.5			9.06			.102					
Initial	8/18/04	9:05	Alconox + water	255-260	57.95	32	216+97 =315	~320	Sl. Brown w/ppt	19.2	20.2	19.5	6.10	6.02	6.11	.113	.111	.107	Clear	NA	2:30pm
		9:05								18.29	19.51		6.16	6.10	6.08	.133	.138				
Initial	8/19/04	8:30	Alconox + water	235-240	57.90	29	218+87.305	~310	dark brown w/ppt	20.2	21.40	22.3	6.47	6.05	5.90	.094	.112	.113	Clear	NA	11:45am
										20.58			6.48			.108					
Initial	8/19/04	12:30pm	Alconox + water	215-220	57.90	26	218+78 = 296	~300	dark brown w/ppt	21.96	23.3	23.2	5.37	5.88	5.87	.151	.133	.139	Clear	NA	3:30pm
										20.3			6.35			.121					
Initial	8/20/04	9:15am	Alconox + water	~~235~~ 195-200	57.90	23	218+68 = 286	300	Cloudy	23.0	23.09	23.3	6.36	6.27	6.16	.099	.102	.098	Clear	NA	12:30pm
										21.26			6.56			.122					
Initial	8/20	12:45pm	alconox + water	175-180	57.90	20	278	~280	Cloudy	21.6	23.1	20.1	6.30	6.83	6.61	.098	.092	.136 dist	Clear	NA	11:30am (8/23)
										23.8			6.33			.095					
Initial	8/23	12:20pm	alconox + water	153-158	57.90	15	265	270	Brown	23.6	23.3	20.5	6.78	6.00	5.80	.113	.120	.121	Clear	NA	11:15am (← 8/25)
									Brown	22.1			6.86			.146					
Initial																					

ft bls feet below land surface.

VERTICAL PROFILE BORING GROUNDWATER SCREENING
OPERABLE UNIT 3 REMEDIAL INVESTIGATION
NORTHROP GRUMMAN CORPORATION
BETHPAGE, NEW YORK

VPB DESIGNATION: VPB9 DATE(S): 8/25/04 - 8/27/04 SAMPLER: ME Elefante

Date	Start Time	Pump Decon Prior to Sampling	Stainless-Steel Screen Depth (ft bls)	Depth to Water (ft bls)	Gallons in Well	Purge Volume (gallons) (3 well volumes)	Total Volume Purged	Initial Sample Appearance	Temperature (C) Purge Volume 1	2	3	pH Purge Volume 1	2	3	Conductivity (umhos/cm) Purge Volume 1	2	3	Final Sample Appearance	Coded Replicate	Time Sampling Completed
8/25/04	11:35 am	Alconox + water	135-140	57.75	13	257 gal	~260	Brown	21.7	21.2	22.0	5.86	5.80	5.75	.109	.108	.104	Clear	NA	1:35 pm
Initial									19.9			6.03			.114					
8/26	8:00 am	Alconox + water	115-120	56.05	10	250	~250	Cloudy/ Brown	19.7	22.5	21.3	6.07	5.87	5.64	.181	.201	.201	Cloudy w/ silt	NA	11:00am
Initial									16.51			6.54			.154					
8/26/04	11:25 am	Alconox + water	95'-100'	59.50	7	235	~240	Thick Brown silty	20.0	20.9	19.9	5.63	5.95	5.41	.358	.389	.396	Clear w/ fine sand	NA	1:55pm
Initial									20.8			6.43			.200					
8/26/04	2:50pm	Alconox + water	75'-80'	changing to gravel	4	230	230		20.1	21.4		6.09	6.42		.282	.214			NA	
Initial									20.8			6.07			.295					
8/27/04	8:16	Yes	75-80	58.05	4	230	100	Thick/ Brown	—	21.4	20.34 (847)	—	6.42	6.32 (847)	—	.214	.187 (847)			
						Spike & MS/MSD sample			21.2 (907)	20.4 (940)	21.9 (950)	6.23 (907)	6.29 (940)	6.03 (950)	.178 (907)	.170 (940)	.171 (956)	Clear	New	0955
8/27/04	10:17	Yes	65-70	58.05	2	6	6.2	Very Turbid	21.51	20.94	20.90	6.34	6.45	6.50	.151	.230	.235	Very Turbid	—	11:56

ft bls feet below land surface.

VERTICAL PROFILE BORING GROUNDWATER SCREENING
OPERABLE UNIT 3 REMEDIAL INVESTIGATION
NORTHROP GRUMMAN CORPORATION
BETHPAGE, NEW YORK

VPB DESIGNATION: VP-10 DATE(S): 8/19/04 - 8/23/04 SAMPLER: KFT

Date	Start Time	Pump Decon Prior to Sampling	Stainless-Steel Screen Depth (ft bls)	Depth to Water (ft bls)	Gallons in Well	Purge Volume (gallons) (3 well volumes)	Total Volume Purged	Initial Sample Appearance	Temperature (C) Purge Volume 1	2	3	pH Purge Volume 1	2	3	Conductivity (~~umhos/cm~~ mS/cm) Purge Volume 1	2	3	Final Sample Appearance	Coded Replicate	Time Sampling Completed
8/19/04	8:44	Yes	145-150	58.2	14.69	44.06	302	brown turbid	19.95	19.01	19.24	5.97	5.86	5.84	.132	.138	.136	clear	NA	1130
	initial	reading	ph 6.66,	temp 18.14,	Cond	.098														
8/19/04	1255	yes	125-130	57.8	11.55	34.66	292	brown turbid	21.03	19.8	19.45	4.67	5.29	5.47	.190	.140	.134	clear	NA	1545
	initial	reading	ph 6.36	temp 19.37	cond	.105														
8/20/04	8:10	yes	105-110	57.8	8.35	25.06	282	turbid	19.77	20.02	20.49	6.03	5.94	5.82	.124	.117	.128	clear	NA	1120
	initial	reading	ph 6.23	temp 19.5	cond	.124														
8/20/04		yes	85-90	57.8	5.15	15.46	273	turbid	19.68	18.94	19.73	5.97	5.79	5.63	.153	.165	.166	clear	NA	1500
	initial	reading	ph 6.14	temp 25.10	cond	2.68														
8/23/04	8:00	yes	65-70	57.8	1.95	5.86	6	turbid	20.27	18.53	18.9	6.21	6.09	5.97	.191	.172	.185	turbid	N/A	8:40
	initial	reading	ph 6.19	temp 17.91	cond	.193														

ft bls feet below land surface.

VERTICAL PROFILE BORING GROUNDWATER SCREENING
OPERABLE UNIT 3 REMEDIAL INVESTIGATION
NORTHROP GRUMMAN CORPORATION
BETHPAGE, NEW YORK

VPB DESIGNATION: VP-10A **DATE(S):** 6/12/06 6/13/06 **SAMPLER:** Prezorski **Page** 1 **of** 1

Date	Start Time	Pump Decon Prior to Sampling	Stainless-Steel Screen Depth (ft bls)	Depth to Water (ft bls)	Gallons in Well	Purge Volume (gallons) (3 well volumes)	Total Volume Purged	Initial Sample Appearance	Temperature (C) Purge Volume 1	2	3	pH Purge Volume 1	2	3	Conductivity (umhos/cm) Purge Volume 1	2	3	Final Sample Appearance	Coded Replicate	Time Sampling Completed
6/12/06	1:53 pm	Yes	(60-65)	53.17	1.99	6 + 12	18	Brown	17.3	16.6	16.5	5.38	5.42	5.49	238	223	222	Clear	N/A	2:17 pm
6/12/06	3:01 pm	Yes	(55-60)	53.80	.99	3 + 12	15	Brown	18.7	19.3	18.5	5.77	5.66	5.73	133	133.5	134.7	Cloudy	N/A	4:14 pm
6/13/06	10:00 AM	Bailer	(50-55)	53.0	.32	.96 ~~+12~~ 48	0 ~~48~~	Brown	16.9	17.6	20.4	5.67	5.82	5.90	224	151.7	143.7	Brown	N/A	11:50 AM
—	—	—	—	—	—	—	—	—	18.1	—	—	6.00	—	—	140.6	—	—	—	—	—

ft bls feet below land surface.

Notes on VP-10A:

35 gal used on borehole water

60-65':
Turbidity at
1V = 110
2V = 21
3V = 23 NTU

55-60':
Turbidity at
1V = 650
2V = 230
3V = 220 NTU

50-55':
Turbidity overrange at 1V, 2V & 3V

VERTICAL PROFILE BORING GROUNDWATER SCREENING
OPERABLE UNIT 3 REMEDIAL INVESTIGATION
NORTHROP GRUMMAN CORPORATION
BETHPAGE, NEW YORK

VPB DESIGNATION: VPB 11 DATE(S): 6/30/04-8/31/04 SAMPLER: MSE

Date	Start Time	Pump Decon Prior to Sampling	Stainless-Steel Screen Depth (ft bls)	Depth to Water (ft bls)	Gallons in Well	Purge Volume (gallons) (3 well volumes)	Total Volume Purged	Initial Sample Appearance	Temperature (C) Purge Volume 1	2	3	pH Purge Volume 1	2	3	Conductivity (~~umhos/cm~~ mS/cm) Purge Volume 1	2	3	Final Sample Appearance	Coded Replicate	Time Sampling Completed
8/30/04	10:10 am	Alconox + water	145-150	58.15	15	45+225 290	~270	Foggy/ Brown	20.7	22.0	21.0	6.61	6.43	6.35	.164	.142	.140 .139	Clear	NA	10:15pm
Initial									20.7			7.07			.318					
8/30	12:45pm	Alconox + water	125-130	58.15	12	36+225 261	~265	Silty	23.2	22.0	21.5	5.89	5.77	5.88	.188	.191	.190	Clear	NA	2:30pm
Initial									20.9			6.31			.150					
8/30	3:05pm	Alconox + water	105-110	58.15	8	24+225 250	~250	Brown	20.0	19.8	20.0	6.22	5.45	5.52	.357	.398	.390	Clear	NA	10:30 am (8/31)
Initial									21.5			7.21			.142					
8/31/04	10:55		85-90	58.24	5	15+225 240	~240	Brown Silty/Sandy	20.3	20.7	20.6	6.46	6.57	6.67	.122	.127	.127	Clear	NA	1:20pm
Initial									20.6			5.88			.385					
8/31/04	1:35		65-70	58.25 58.35	2	6	~7	Silty Brown	25.8	25.4	25.9	6.85	6.88	6.88	.368	.365	.404	Cloudy	NA	3:00pm
Initial									25.2			7.23			.233					

ft bls feet below land surface.

VERTICAL PROFILE BORING GROUNDWATER SCREENING
OPERABLE UNIT 3 REMEDIAL INVESTIGATION
NORTHROP GRUMMAN CORPORATION
BETHPAGE, NEW YORK

VPB DESIGNATION: VP-12 DATE(S): 8/30 - 8/31/04 SAMPLER: LFT

Date	Start Time	Pump Decon Prior to Sampling	Stainless-Steel Screen Depth (ft bls)	Depth to Water (ft bls)	Gallons in Well	Purge Volume (gallons) (3 well volumes)	Total Volume Purged	Initial Sample Appearance	Temperature (C) Purge Volume 1	2	3	pH Purge Volume 1	2	3	Conductivity (~~umhos/cm~~ ms/cm) Purge Volume 1	2	3	Final Sample Appearance	Coded Replicate	Time Sampling Completed
8/30/04	10:18	yes	150-155	56	15.84	47.52	296	turbid	18.48	19.44	20.56	5.48	5.60	5.66	.265	.258	.251	clear colorless	N/A	1215
		initial	pH 5.42	Temp 19.16	Cond. 201															
8/30/04	1240	yes	130-135	56	12.64	37.92	286	turbid	19.37	20.0	20.20	6.33	6.19	6.07	.187	.241	.253	clear colorless	N/A	1540
		initial	pH 6.09	Temp 20.28	Cond. 103															
8/31/04	8:40	yes	110-115	56	9.44	28.32	276.32	turbid	18.58	18.56	18.64	6.34	6.40	6.44	.331	.358	.365	clear colorless	N/A	1050
		initial	pH 6.50	Temp 18.75	Cond .260															
8/31/04	1115	yes	90-95	56	6.24	18.72	266.72	very turbid	20.30	19.21	19.76	6.57	6.62	6.65	.458	.498	.541	clear colorless	N/A	1310
		initial	pH 6.67	Temp	19.19	Cond .227														
8/31/04	1340	yes	70-75	56	3.04	9.12	10	very turbid	19.52	18.59	18.25	6.77	6.57	6.62	.300	.365	.327	slightly turbid	N/A	1750
		initial	pH 6.88	Temp 21.98	Cond. 221															

ft bls feet below land surface.

VERTICAL PROFILE BORING GROUNDWATER SCREENING
OPERABLE UNIT 3 REMEDIAL INVESTIGATION
NORTHROP GRUMMAN CORPORATION
BETHPAGE, NEW YORK

VPB DESIGNATION: VP-12A DATE(S): 6/8/06 6/9/06 SAMPLER: Prezorski Page 1 of 1

Date	Start Time	Pump Decon Prior to Sampling	Stainless-Steel Screen Depth (ft bls)	Depth to Water (ft bls)	Gallons in Well	Purge Volume (gallons) (3 well volumes)	Total Volume Purged	Initial Sample Appearance	Temperature (C) Purge Volume 1	2	3	pH Purge Volume 1	2	3	Conductivity (umhos/cm) Purge Volume 1	2	3	Final Sample Appearance	Coded Replicate	Time Sampling Completed
6/8/06	3:27	yes	(70-75)	50.53	3.91	12+9	21	Brown	17.0	16.8	16.7	5.73	5.82	5.82	786	835	842	light tan	MS/MSD	3:59pm
6/9/06	4:16	yes	(60-65)	50.55	2.31	6.9+9	16	Brown	17.2	17.2	17.2	5.98	5.87	5.89	309	349	390	colorless	Rep 060806	4:51pm
—	—	—	—	—	—	—	—	—	17.2	17.2	—	5.86	5.89	—	449	459	—	—	—	—
6/9/06	8:50 AM	yes	(55-60)	50.90	1.46	4.4+9	14	Brown	17.2	16.7	16.6	6.05	5.90	5.91	396	456	486	colorless	N/A	9:13 AM
—	—	—	—	—	—	—	—	—	16.6	16.6	16.8	5.91	5.93	5.92	512	536	557	—	—	—
—	—	—	—	—	—	—	—	—	16.7	—	—	5.90	—	—	567	—	—	—	—	—
6/9/06	10:00	yes	(50-55)	50.53	.72	2.2+9	12	Brown	17.1	16.9	16.9	6.15	6.14	6.15	218	185.4	189.5	tan	N/A	10:22 AM

ft bls feet below land surface.

Notes on 70-75':
Turbidity at
1v = 850
2v = 360
3v = 190 NTU

Notes on 60-65':
Turbidity at
1v = overrange
2v = 65
3v = 25
4v = 14
5v = 9 NTU

Notes on 55-60':
Turbidity at
1v = 400
2v = 260
3v = 210
4v = 140
5v = 130
6v = 90
7v = 90

Notes on 50-55':
Turbidity
1v = overrange
2v = overrange
3v = 500 NTU

VERTICAL PROFILE BORING GROUNDWATER SCREENING
OPERABLE UNIT 3 REMEDIAL INVESTIGATION
NORTHROP GRUMMAN CORPORATION
BETHPAGE, NEW YORK

VPB DESIGNATION: VP-13 DATE(S): 1/12/05 - 1/14/05 SAMPLER: KFT Page 1 of 1

+150 each zone

Date	Start Time	Pump Decon Prior to Sampling	Stainless-Steel Screen Depth (ft bls)	Depth to Water (ft bls)	Gallons in Well	Purge Volume (gallons) (3 well volumes)	Total Volume Purged	Initial Sample Appearance	Temperature (C) Purge Volume 1	2	3	pH Purge Volume 1	2	3	Conductivity (umhos/cm) Purge Volume 1	2	3	Final Sample Appearance	Coded Replicate	Time Sampling Completed	remarks
1/12/05	8:30	Yes	105-110	55.8	8.67	176.02	~180	turbid	14.6	13.9	14.1	5.93	5.59	5.35	.549	.535	5.45	clear	—	11:05	
initial									13.9			6.73			.244						
1/12/05	12:15	Yes	95-100'	55.8	7.07	171.22		turbid	—												*stopped wouldn't pu
initial									13.0			6.14			.241						
1/12/05	1405	—	92-97'	55.8	6.59																*stopped wouldn't pu
initial									8.2			6.37			.297						* refer to notes on sampling technique
1/13/05	10:20	Yes	92-97'	55.8'	—	—		→ initial	14.8			6.33			.301						
									15.0	15.9	16.6	6.62	6.47	6.40	.305	.325	.331	turbid	—	10:40	
1/13/05	11:00	Yes	85-90'	55.8	5.47	+250 266.4			Stopped dw to poor zone for pumping; refer to notes;												to pumped 305cl
initial									15.1			6.23			.334						
1/13/05	1135	"	80-85'	55.8	4.672	+220 234.02			Stopped dw to poor pumping; refer to notes												
initial									12.3			6.65			.103						
1/14/05	10:00	Yes	80-85	50.1	4.672	+200 214.01															
initial									12.8			6.75			.375						

ft bls feet below land surface.

↳ abort sampling VP-13, going to redrill a few feet away to 85' bls and sample

* look @ field logs

VERTICAL PROFILE BORING GROUNDWATER SCREENING
OPERABLE UNIT 3 REMEDIAL INVESTIGATION
NORTHROP GRUMMAN CORPORATION
BETHPAGE, NEW YORK

VPB DESIGNATION: VP-13 (2) DATE(S): 1/25/05 - 1/26/05 SAMPLER: YFT

Date	Start Time	Pump Decon Prior to Sampling	Stainless-Steel Screen Depth (ft bls)	Depth to Water (ft bls)	Gallons in Well	Purge Volume (gallons) (3 well volumes)	Total Volume Purged	Initial Sample Appearance	Temperature (C) Purge Volume 1	2	3	pH Purge Volume 1	2	3	Conductivity (~~umhos/cm~~ S/cm) Purge Volume 1	2	3	Final Sample Appearance	Coded Replicate	Time Sampling Completed
1/25/05	1350	yes	80-85'	55.8	4.672	204.3 N		turbid	13.5			5.78			1.13	1		—	—	—
initial			100 gallons of H2O pumped						13.7			7.10			.352					
1/26/05	845	yes	80-85'	55.8	4.672	104.3	~206	turbid		14.0	13.7		5.75	5.59		1.20	1.23	clear	—	10:00
initial									14.8			5.94			1.18					
1/26/05	1070	yes	70-75	55.8	3.072	+150 159	~160	turbid	13.3	13.8	14.2	5.96	5.92	5.98	.567	.579	.544	clear	—	1340
initial									13.0			6.25			.215					
1/26/05	1400	yes	60-65	55.8	~~1.47~~	4.47	~6	turbid	9.8	12.9	11.8	7.23	6.76	.674	.223	.306	.346	turbid	—	1415
initial									7.7			7.39			.179					

ft bls feet below land surface.

VERTICAL PROFILE BORING GROUNDWATER SCREENING
OPERABLE UNIT 3 REMEDIAL INVESTIGATION
NORTHROP GRUMMAN CORPORATION
BETHPAGE, NEW YORK

VPB DESIGNATION: VP-14

DATE(S): 1/6/05 / 1/7/1/10/1/11

SAMPLER: YPT

475 gal used
add # for
20/25 120, 110, 100, 90, 80

Date	Start Time	Pump Decon Prior to Sampling	Stainless-Steel Screen Depth (ft bls)	Depth to Water (ft bls)	Gallons in Well	Purge Volume (gallons) (3 well volumes)	Total Volume Purged	Initial Sample Appearance	Temperature (C) Purge Volume 1	2	3	pH Purge Volume 1	2	3	Conductivity (umhos/cm) Purge Volume 1	2	3	Final Sample Appearance	Coded Replicate	Time Sampling Completed
1/6/05	1415	YES	115-120	60.75	9.48	123.44	125	slightly turbid	13.4			6.58			.336					
initial						Stopped @ 41 gallons	pumped		12.1			8.60			.085					
1/7/05	845	YES	115-120	60.75	11					13.6	13.3		6.36	6.51		.781	.368	clear	—	9:55
1/7/05	10:15	YES	105-110	11	7.88	118.64	~120	slightly turbid	14.1	14.4	14.3	6.13	6.37	6.09	.510	.506	.529	clear	—	13:15
initial									12.7			6.72			.286					
1/7/05	1335	YES	95-100	11	6.28	113.84		slightly turbid	13.1	15.1		6.31	6.25		.516	.485				
initial						Stopped @ 80 gal			14.6			7.10			.191					
1/10/05	830	YES	95-100	11	11	~ 40gal					14.0			6.43			.494	clear	—	9:10
initial									13.8			7.23			.608					
1/10/05	9:35	YES	85-90	60.75	4.68	109.04		slightly turbid	12.5	14.0		6.40	6.58		.428	.413				
initial						pulled out 80 gallons			11.2			7.21			.276					
1/11/05	8:10	YES	85-90'	60.75	11						11.1			6.52			.429	clear	—	9:50
initial									9.0			7.21			.512					

ft bls feet below land surface.

VERTICAL PROFILE BORING GROUNDWATER SCREENING
OPERABLE UNIT 3 REMEDIAL INVESTIGATION
NORTHROP GRUMMAN CORPORATION
BETHPAGE, NEW YORK

VPB DESIGNATION: VP-14 **DATE(S):** 1/11/05 **SAMPLER:** XFT

Date	Start Time	Pump Decon Prior to Sampling	Stainless-Steel Screen Depth (ft bls)	Depth to Water (ft bls)	Gallons in Well	Purge Volume (gallons) (3 well volumes)	Total Volume Purged	Initial Sample Appearance	Temperature (C) Purge Volume 1	2	3	pH Purge Volume 1	2	3	Conductivity (umhos/cm) Purge Volume 1	2	3	Final Sample Appearance	Coded Replicate	Time Sampling Completed
1/11/05	10:15	YES	75-80	60.75	1.925	100.78	~101	Slightly turbid	13.0	14.1	13.4	6.53	6.44	6.54	1.09	.790	1.15	clear	—	11:45
initial									12.1			6.76			.257					
1/11/05	1215	YES	65-70	60.75	1.48	~~4.44~~ 4.44	6 gal	turbid	13.6	14.2	14.0	6.49	6.46	6.31	.650	.625	.644	turbid	—	1230
initial									11.5			6.78			.509					

ft bls feet below land surface.

VERTICAL PROFILE BORING GROUNDWATER SCREENING
OPERABLE UNIT 3 REMEDIAL INVESTIGATION
NORTHROP GRUMMAN CORPORATION
BETHPAGE, NEW YORK

VPB DESIGNATION: VP-14A DATE(S): 6/22/06 SAMPLER: Prezorski Page 1 of 1

Date	Start Time	Pump Decon Prior to Sampling	Stainless-Steel Screen Depth (ft bls)	Depth to Water (ft bls)	Gallons in Well	Purge Volume (gallons) (3 well volumes)	Total Volume Purged	Initial Sample Appearance	Temperature (C) Purge Volume 1	2	3	pH Purge Volume 1	2	3	Conductivity (umhos/cm) Purge Volume 1	2	3	Final Sample Appearance	Coded Replicate	Time Sampling Completed
6/22/06	9:50 AM	yes	(70-75)	56.42	2.97	8.91+10	19	Brown	19.6	19.4	18.9	5.79	5.88	5.94	664	586	585	cloudy	N/A	10:24 AM
6/22/06	11:08 AM	yes	(60-65)	56.42	1.37	4.11+10	15	Brown	19.9	19.3	19.4	5.63	5.57	5.57	1896 MS	2.27 MS	2.41 MS	cloudy	N/A	11:53 AM
—	—	—	—	—	—	—	—	—	19.5	—	—	5.57	—	—	2.78	—	—	—	—	—
6/22/06	1415	Bailer	(55-60)	56.35	.58	1.8		Brown	19.9	19.5	18.5	5.54	5.54	5.50	1597	1509	1443	Brown	N/A	1500
—	—	—	—	—	—	—	—	—	18.2	—	—	5.43	—	—	1442	—	—	—	—	—

ft bls feet below land surface.

Notes on VP-14A
40 gals used on well

(70-75):
Turbidity at
1V = 1000
2V = 650
3V = 330
Purge rate 1 gpm
Rate lowered to sample

(60-65):
Turbidity at
1V = 750
2V = 400
3V = 250
4V = 160 NTU
Purge rate .5 gpm
Rate lowered to sample

(55-60):
Turbidity at
1V, 2V & 3V & 4V
over range

VERTICAL PROFILE BORING GROUNDWATER SCREENING
OPERABLE UNIT 3 REMEDIAL INVESTIGATION
NORTHROP GRUMMAN CORPORATION
BETHPAGE, NEW YORK

VPB DESIGNATION: VP-15 DATE(S): 1/4/05 - 1/6/05 SAMPLER: KFT Page 1 of 1

† 100 for (110, 100, 90, 80) 4 zones

Date	Start Time	Pump Decon Prior to Sampling	Stainless-Steel Screen Depth (ft bls)	Depth to Water (ft bls)	Gallons in Well	Purge Volume (gallons) (3 well volumes)	Total Volume Purged	Initial Sample Appearance	Temperature (C) Purge Volume 1	2	3	pH Purge Volume 1	2	3	Conductivity (~~umhos/cm~~ ms/cm) Purge Volume 1	2	3	Final Sample Appearance	Coded Replicate	Time Sampling Completed
1/4/05	9:25	yes	105-110'	56.85	8.22	125	427	slightly turbid	15.6	15.2	15.6	7.38	5.64	5.58	.208	.239	.244	clear	—	11:45
initial									22.8			8.65			.073					
1/4/05	1250	yes	95-100	56.85	6.90	120.70	50 gal	slightly turbid	15.1			6.48			.244			—	—	—
initial							↓ Stopped		15.3			6.27			.208					
1/5/05	8:20	yes	95-100 cont'd	11	11	11	70gal			16.1	13.9		6.59	6.67		.248	.243	clear	—	9:30
1/5/05		yes	85-90	56.85	5.3	115.9	116	slightly turbid	11.7	13.7	13.5	6.44	6.34	6.38	.285	.267	.293	clear	FSP 1/5/05	1715
initial									17.0			6.45			.244					
1/5/05	1440	yes	75-80	56.85	3.7	111.11	~60	turbid	13.9			6.35			.401	,"				
initial									12.8			6.49			.271					
1/6/05	840	yes	75-80	56.85	11					12.6	13.5		6.96	6.98		.457	.407	clear	—	9:30
1/4/05		yes	65-70	56.85	2.10	6.31			11.4	12.2	11.5	6.39	6.49	6.56	.319	.325	.334	clear	—	10:15
initial									11.6			7.28			.110					

ft bls feet below land surface.

VERTICAL PROFILE BORING GROUNDWATER SCREENING
OPERABLE UNIT 3 REMEDIAL INVESTIGATION
NORTHROP GRUMMAN CORPORATION
BETHPAGE, NEW YORK

VPB DESIGNATION: VP-15A DATE(S): 6/26/06 SAMPLER: Jennifer Cherkin Page 1 of 1

(G×3) + H2O added (3G) = parameters
3

Date	Start Time	Pump Decon Prior to Sampling	Stainless-Steel Screen Depth (ft bls)	Depth to Water (ft bls)	×0.16 Gallons in Well	Purge Volume (gallons) (3 well volumes)	Total Volume Purged	Initial Sample Appearance	Temperature (C) Purge Volume 1	2	3	pH Purge Volume 1	2	3	Conductivity (umhos/cm) Purge Volume 1	2	3	Final Sample Appearance	Coded Replicate	Time Sampling Completed	
6/26/06	11:00a	Y	60-65	53.28	1.88	40.63	50G	Turbid	17.8	17.8	17.7	5.48	5.85	5.83	241	243	249	Clear	—	11:25	Rate ≈ 2G/min
6/26/06	13:10	Y	55-60	52.3	1.23	38.69	45G	Turbid	18.7	18.8	18.7	5.76	5.70	5.65	245	248	251	Turbid	—	13:40	Rate ≈ 1.5 G/min
6/26/06	14:15	Y	50-55	52.9	0.34	36.01	B	Turbid	18.8	18.0	17.8	5.70	5.73	5.65	253	252	251	Turbid	—	15:15	→ Bailed (G×3 0.34×3 = 1.02G)
	[redacted]																				

ft bls feet below land surface.

(NTU) Turbidity 1 2 3
(60-65) 100 75 50
(55-60) 100 50 >100
(50-55) >100 >100 >100

[redacted]

VERTICAL PROFILE BORING GROUNDWATER SCREENING
OPERABLE UNIT 3 REMEDIAL INVESTIGATION
NORTHROP GRUMMAN CORPORATION
BETHPAGE, NEW YORK

VPB DESIGNATION: VP-16 DATE(S): 12\17\04 SAMPLER: JC

(145.0) ms/cm

Date	Start Time	Pump Decon Prior to Sampling	Stainless-Steel Screen Depth (ft bls)	Depth to Water (ft bls)	Gallons in Well	Purge Volume (gallons) (3 well volumes)	Total Volume Purged	Initial Sample Appearance	Temperature (C) Purge Volume 1	2	3	pH Purge Volume 1	2	3	Conductivity (~~umhos/cm~~) Purge Volume 1	2	3	Final Sample Appearance	Coded Replicate	Time Sampling Completed
12\17\04	13:30pm	Yes	105-110'	~~55.78~~	8.68	171.04	~175	All three turbid	14.4	15.0	13.8	5.73	5.48	5.19	0.256	0.260	0.257		NA	
Initial									16.4			6.64			0.086					
12\20\04	11:30am	yes	95-100'	~~55.78~~	7.08	166.24	~170	Turbid	11.9	14.0	6.2	5.87	5.89	5.69	0.297	0.363	0.320		NA	
Initial									7.2			6.45			0.265					
12\21\04	10:30am	Yes	85-90'	55.78'	5.48	161.44	~165	Turbid	13.4	9.0	14.0	6.08	6.38	6.25	0.555	0.569	0.584		NA	
Initial									11.6			5.95			0.384					
1\3\05	10:30am	Yes	75'-80'	56.30'	3.79	156.38	~160	Turbid	15.7	15.7	16.1	6.16	6.30	6.09	0.416	0.430	0.432		NA	
Initial									15.7			5.70			0.432					
1\3\05			65'-70'	56.30'	2.19	6.58			17.3	16.9	16.9	6.58	6.43	6.38	0.288	0.283	0.296		NA	
Initial									21.0			7.47			0.120					

ft bls feet below land surface.

VERTICAL PROFILE BORING GROUNDWATER SCREENING
OPERABLE UNIT 3 REMEDIAL INVESTIGATION
NORTHROP GRUMMAN CORPORATION
BETHPAGE, NEW YORK

VPB DESIGNATION: VP-16A DATE(S): 6/20/06 SAMPLER: Prezorski Page 1 of 1

Date	Start Time	Pump Decon Prior to Sampling	Stainless-Steel Screen Depth (ft bls)	Depth to Water (ft bls)	Gallons in Well	Purge Volume (gallons) (3 well volumes)	Total Volume Purged	Initial Sample Appearance	Temperature (C) Purge Volume 1	2	3	pH Purge Volume 1	2	3	Conductivity (umhos/cm) Purge Volume 1	2	3	Final Sample Appearance	Coded Replicate	Time Sampling Completed
6/20/06	11:01 AM	Yes	(60-65)	50.89	2.26	7+12	19	Brown	18.6	17.8	17.8	5.99	6.00	6.03	595	596	602	Clear	N/A	11:28 AM
6/20/06	11:46	Yes	(55-60)	50.02	1.6	4.8+12	17	Brown	18.6	18.1	17.7	6.16	6.03	6.06	678	683	691	clear	N/A	12:10
6/20/06	1448	Bailer	(48-53)	50.84	.34	1	1	Brown	19.0	17.5	17.6	6.41	6.43	6.45	620	701	747	Brown	N/A	15:20
—	—	—	—	—	—	—	—	—	17.4	—	—	6.46	—	—	755	—	—	~~Brown~~	~~N/A~~	—

ft bls feet below land surface.

Notes on VP-16A
35 gal water used on well

(60-65):
Turbidity at
1V = 280
2V = 140
3V = 85 NTU
Purge rate 1gpm, Rate lowered to sample.

(55-60):
Turbidity at
1V = 120
2V = 75
3V = 65 NTU
Purge Rate 1gpm, Rate lowered to sample.

(48-53):
Turbidity over range at 1V, 2V & 3V

VERTICAL PROFILE BORING GROUNDWATER SCREENING
OPERABLE UNIT 3 REMEDIAL INVESTIGATION
NORTHROP GRUMMAN CORPORATION
BETHPAGE, NEW YORK

VPB DESIGNATION: VP-17 DATE(S): 11/22/04 – 11/23/04 SAMPLER: KFT Page 1 of 1

+69 ms/cm

Date	Start Time	Pump Decon Prior to Sampling	Stainless-Steel Screen Depth (ft bls)	Depth to Water (ft bls)	Gallons in Well	Purge Volume (gallons) (3 well volumes)	Total Volume Purged	Initial Sample Appearance	Temperature (C) Purge Volume 1	2	3	pH Purge Volume 1	2	3	Conductivity (umhos/cm) Purge Volume 1	2	3	Final Sample Appearance	Coded Replicate	Time Sampling Completed
11/22	1230	YES	~~110-110~~ ~~#0=100~~ 105-110	60	8	93	~100	turbid silty	16.3	16.5	16.2	6.60	5.63	5.45	.196	.174	.150	clear, colorless	NA	
initial									16.7			7.18			.476					
11/22	1350	YES	95-100	60	6.4	88.2	~90	turbid silty	16.3	16.2	16.0	5.88	5.61	5.55	.259	.271	.268	turbid	NA	
initial									15.7			6.22			.150					
11/23/04	8:45	YES	85-90	60	4.8	83.4	~90	turbid silty	16.1	15.6	15.8	6.24	5.70	5.74	.326	.301	.300	clear	NA	
initial									16.1			6.55			.306					
11/23/04	10:00	YES	75-80	60	3.2	78.6	~80	turbid silty	16.1	14.1	16.3	6.14	5.96	5.95	.242	.299	.331	clear	NA	
initial									15.1			6.19			.220					
11/23/04	11:10	YES	65-70	60	1.6	4.8	~6	turbid silty	16.5	16.6	16.6	6.14	6.17	6.14	.327	.286	.275	slightly turbid	NA	
initial									15.0			6.12			.326					

ft bls feet below land surface.

VERTICAL PROFILE BORING GROUNDWATER SCREENING
OPERABLE UNIT 3 REMEDIAL INVESTIGATION
NORTHROP GRUMMAN CORPORATION
BETHPAGE, NEW YORK

VPB DESIGNATION: VP-18 DATE(S): 11/23/04 - 11/30/04 SAMPLER: KFT Page 1 of 1

*69 ms/cm

Date	Start Time	Pump Decon Prior to Sampling	Stainless-Steel Screen Depth (ft bls)	Depth to Water (ft bls)	Gallons in Well	Purge Volume (gallons) (3 well volumes)	Total Volume Purged	Initial Sample Appearance	Temperature (C) Purge Volume 1	2	3	pH Purge Volume 1	2	3	Conductivity (~~umhos/cm~~) Purge Volume 1	2	3	Final Sample Appearance	Coded Replicate	Time Sampling Completed
11/23/04	1310	yes	105-110	60	8	93	~100	turbid brown	15.2	15.9	15.9	6.35	5.42	5.36	.149	.145	.152	clear	NA	
initial									15.5			6.78			.145					
11/23/04	1410	yes	95-100	60	6.4	88.2	~90		17.4			6.22			.196					
initial									15.8			6.06			.135					
	going to start VP-18 95-100 @ the start of purging the second well volume																			
11/29/04	10:15	yes	95-100	60	6.4	88.2	~90	turbid		15.7	16.1		6.10 ~~5.97~~	5.91	.~~234~~	.234	.227	clear	NA	12:10
initial									13.9			5.27			.254					
11/29/04	1350	yes	85-90'	60'	4.8	83.4	~85	turbid	15.10	15.4	14.9	6.18	5.87	5.71	.214	.221	.218	clear	NA	1520
initial									14.9			6.18			.216					
11/30/04	9:10	yes	75-80'	60'	3.2	78.6	~80	turbid	15.9	15.7	15.8	5.87	5.59	5.48	.155	.152	.150	clear	NA	10:15
initial									15.8			6.51			.202					
11/30/04	1045	yes	65-70'	60'	1.6	4.8	~6	turbid	15.2	16.2	16.3	6.04	5.90	5.86	.219	.244	.247	slightly turbid	NA	11:02
initial									15.5			6.53			.141					

ft bls feet below land surface.

VERTICAL PROFILE BORING GROUNDWATER SCREENING
OPERABLE UNIT 3 REMEDIAL INVESTIGATION
NORTHROP GRUMMAN CORPORATION
BETHPAGE, NEW YORK

VPB DESIGNATION: VP-18A

DATE(S): 6/6/06 – 6/7/06

SAMPLER: Prezorski

Date	Start Time	Pump Decon Prior to Sampling	Stainless-Steel Screen Depth (ft bls)	Depth to Water (ft bls)	Gallons in Well	Purge Volume (gallons) (3 well volumes)	Total Volume Purged	Initial Sample Appearance	Temperature (C) Purge Volume 1	2	3	pH Purge Volume 1	2	3	Conductivity (umhos/cm) Purge Volume 1	2	3	Final Sample Appearance	Coded Replicate	Time Sampling Completed
6/6/06	3:18	yes	(60-65)	53.44	1.85	5.55+7	13	Brown	18.8	18.5	18.1	5.38	5.41	5.41	333	345	353	clear	N/A	3:42 PM
6/7/06	9:20 AM	yes	(55-60)	53.54	1.03	3+7	10	Brown	16.4	16.4	16.4	5.92	5.91	5.95	466	481	483	slightly turbid	N/A	9:40 AM
6/7/06	11:28 pm	Bailer	(50-55)	53.47	.25	.75	1	Brown	15.9	15.7	15.8	5.71	6.28	6.77	574	624	615	tan	N/A	2:12 PM
—	—	—	—	—	—	—	—	—	15.9	15.8	15.9	6.14	6.25	6.17	617	675	676	—	—	—

ft bls feet below land surface.

Notes on

60-65°:
Turbidity at
1V = 170
2V = 65
3V = 75 NTU

55-60°:
Turbidity at
1V = 250
2V = 100
3V = 90 NTU

50-55°:
Turbidity 1V, 2V, 3V overrange
(All overrange)

VERTICAL PROFILE BORING GROUNDWATER SCREENING
OPERABLE UNIT 3 REMEDIAL INVESTIGATION
NORTHROP GRUMMAN CORPORATION
BETHPAGE, NEW YORK

VPB DESIGNATION: VP-19 **DATE(S):** 12/15/04 - 12/17/04 **SAMPLER:** JC

(275/4 =) 68.75

Date	Start Time	Pump Decon Prior to Sampling	Stainless-Steel Screen Depth (ft bls)	Depth to Water (ft bls)	Gallons in Well	Purge Volume (gallons) (3 well volumes)	Total Volume Purged	Initial Sample Appearance	Temperature (C) Purge Volume 1	2	3	pH Purge Volume 1	2	3	Conductivity (~~umhos/cm~~) ms/cm Purge Volume 1	2	3	Final Sample Appearance	Coded Replicate	Time Sampling Completed
12/15/04	11:00am	Yes	105'-110'	58.5'	9.34	93.5	~110	Turbid	13.5	13.0	13.2	5.81	5.41	5.42	0.143	0.149	0.141		NA	
Initial	11:10am								12.9			6.05			0.249					
12/15/04	12:40pm	Yes	95'-100'	58.5'	8.64	88.67	~105	Turbid	12.8	13.0	12.5	5.85	5.86	5.55	0.115	0.115	0.115		NA	
Initial									13.0			6.25			0.125					
12/16/04	9:05am	Yes	85'-90'	58.5'	5.04	83.87	~100	Turbid	12.2	12.7	11.3	5.81	5.76	5.64	0.201	0.194	0.193		NA	
Initial									12.0			6.21			0.245					
12/16/04	1:15pm	Yes	75'-80'	59.0'	3.36	78.83	~80	Turbid	13.8	13.9	13.0	5.63	5.57	5.43	0.245	0.255	0.262		NA	
Initial									12.9			6.29			0.074					
12/17/04	9:40am	Yes	65'-70'	59.0'	1.76	5.28	~10	Turbid	13.8	13.8	NA	5.68	5.60	[illegible]	0.262	0.259	0.250		NA	
Initial									12.9			5.82			0.259					

ft bls feet below land surface.

VERTICAL PROFILE BORING GROUNDWATER SCREENING
OPERABLE UNIT 3 REMEDIAL INVESTIGATION
NORTHROP GRUMMAN CORPORATION
BETHPAGE, NEW YORK

VPB DESIGNATION: VP-19A

DATE(S): 5/12/06 5/15/06

SAMPLER: P. Prezorski

Date	Start Time	Pump Decon Prior to Sampling	Stainless-Steel Screen Depth (ft bls)	Depth to Water (ft bls)	Gallons in Well	Purge Volume (gallons) (3 well volumes)	Total Volume Purged	Initial Sample Appearance	Temperature (C) Purge Volume 1	2	3	pH Purge Volume 1	2	3	Conductivity (umhos/cm) Purge Volume 1	2	3	Final Sample Appearance	Coded Replicate	Time Sampling Completed
5/12/06	1:48 pm	yes	70-75	52.84	3.54	10.64 + 7	18	Brown	15.6	15.5	15.4	5.41	5.32	5.32	265	303	329	clear	Rep 051206	2:55 pm
									15.5	15.5	15.5	5.26	5.26	5.26	362	374	387			
									15.5			5.24			393					
5/12/06	3:10 pm	yes	60-65	53.26	1.88	5.64 + 7	13	Light Brown	15.5	15.4	15.4	5.83	5.85	5.81	339	341	344	clear	N/A	3:45 pm
									15.4			5.87			345					
5/15/06	1:05 pm	New Bailer	51-56	53.10	.464	1.39 + 7	9	Dark Grey	14.6	14.7	14.7	6.53	6.67	6.68	492	596	676	Grey	N/A	2:45 pm
									14.8			6.69			605					

ft bls feet below land surface.

Notes on 70-75':
Rate 1 gpm
Turbidity 1V = over range,
2V = 110, 3V = 55,
4V = 50, 5V = 27,
6V = 23, 7V = 26 NTU
rate lowered to sample
+0.035 mg/L S^{2-}

Notes on 60-65':
Rate 1 gpm
Turbidity 1V = 250,
2V = 100, 3V = 55,
4V = 45 NTU
Rate lowered to sample,
0.037 mg/L S^{2-}

Notes on 51-56':
0.195 mg/L S^{2-}
Bailed.
Turbidity at 1V, 2V, 3V over range.
Turbidity taken at sample time = 250 NTU (from Bailer)

VERTICAL PROFILE BORING GROUNDWATER SCREENING
OPERABLE UNIT 3 REMEDIAL INVESTIGATION
NORTHROP GRUMMAN CORPORATION
BETHPAGE, NEW YORK

VPB DESIGNATION: VP-20 DATE(S): 11/30/04 - 12/2/04 SAMPLER: KFT Page 1 of 1

+162.5 m/cm

Date	Start Time	Pump Decon Prior to Sampling	Stainless-Steel Screen Depth (ft bls)	Depth to Water (ft bls)	Gallons in Well	Purge Volume (gallons) (3 well volumes)	Total Volume Purged	Initial Sample Appearance	Temperature (C) Purge Volume 1	2	3	pH Purge Volume 1	2	3	Conductivity ~~(umhos/cm)~~ Purge Volume 1	2	3	Final Sample Appearance	Coded Replicate	Time Sampling Completed
11/30/04	1500	yes	105-110	58.1	8.304	187.41		turbid	15.4			5.97			.142				NA	
initial									15.7			6.89			.089					
12/1/04	8:15	yes	105-110	58.1	8.304	187.41	190	turbid		16.1	15		6.62	5.72		.188	.144	clear	NA	9:15
12/1/04	11:00	yes	95-100'	58.1	6.704	182.61	185	turbid	14.5	14.9	15.1	5.79	5.47	5.42	.178	.198	.207	clear	NA	1440
initial									14.7			6.07				.155				
12/2/04	8:45	yes	85-90'	58.1	4.8	167.3	~170	turbid	13.1	14.3	14.2	5.42	~~5.54~~ 5.42	~~5.40~~ 5.54	~~.199~~ 5.40	~~.195~~ .149	.194	clear	TIP 12.2.04	10:55
initial									16.1				5.62			.260				
12/2/04	12:15	yes	75-80'	58.1	3.2	165.7	2170	turbid	14.4	14.5	14.1	5.91	5.68	5.56	.178	.186	.194	clear	NA	14:00
initial									13.7			6.27			.177					
12/2/04	1500	yes	65-70'	58.1	1.90	5.7	6	turbid	13.6	13.8	13.5	6.21	6.30	6.37	.153	.138	.126	turbid	NA	1555
initial									10.4			6.09			.143					

ft bls feet below land surface.

VERTICAL PROFILE BORING GROUNDWATER SCREENING
OPERABLE UNIT 3 REMEDIAL INVESTIGATION
NORTHROP GRUMMAN CORPORATION
BETHPAGE, NEW YORK

VPB DESIGNATION: VP21 DATE(S): 06/06/05 SAMPLER: John Corral Page 1 of 1

Date	Start Time	Pump Decon Prior to Sampling	Stainless-Steel Screen Depth (ft bls)	Depth to Water (ft bls)	Gallons in Well	Purge Volume (gallons) (3 well volumes)	Total Volume Purged	Initial Sample Appearance	Temperature (C) Purge Volume 1	2	3	pH Purge Volume 1	2	3	Conductivity (umhos/cm) Purge Volume 1	2	3	Final Sample Appearance	Coded Replicate	Time Sampling Completed
6/06/05	10:30	yes	105-110	52.5	9.12	28gal+55gal= 83gal	83gal	cloudy	20.2	19.9	21.0	5.61	5.60	5.61	165.7	172.3	177.7	clear	NA	11:30
6/06/05	12:30	yes	103-98	/	8.00	24gal+55gal= 79gal	79gal	cloudy	23.0	20.6	20.4	5.79	5.85	5.73	183.9	182.5	195.9	clear	NA	2:46
6/09/05	8:30	yes	93-88	53.4	6.40	19gal+55gal= 74gal	26gal	cloudy	21.9	20.7	20.1	4.93	5.41	5.48	.371 ms/cm	.335 ms/cm	.322 ms/cm	turbid	NA	10:30
6/09/05	10:40	yes	84-79	53.4	4.96	15gal+55gal 70gal	10gal	cloudy	23.4	22.8	21.4	5.63	5.73	5.78	.335 ms/cm	.376 ms/cm	.439 ms/cm	turbid	NA	11:30
6/09/05	Hour 11:40	yes	70-65	53.4	2.72	8gal+55gal= 63gal	6gal	cloudy	29.7	27.5	24.7	5.66	5.85 ms/cm	6.07	.492 ms/cm	.485 ms/cm	.487 ms/cm	turbid	NA	1:00
6/09/05	1:20	yes	55-60	53.4	1.28	4gal+55gal= 59gal	3gal	cloudy	19.5	18.6	18.8	5.98	5.99	6.00	.268 ms/cm	.169 ms/cm	.169 ms/cm	turbid	NA	1:50

ft bls feet below land surface.

VERTICAL PROFILE BORING GROUNDWATER SCREENING
OPERABLE UNIT 3 REMEDIAL INVESTIGATION
NORTHROP GRUMMAN CORPORATION
BETHPAGE, NEW YORK

VPB DESIGNATION: VP22 DATE(S): 06/16/05 SAMPLER: John Corral Page 1 of 1

µS/cm

Date	Start Time	Pump Decon Prior to Sampling	Stainless-Steel Screen Depth (ft bls)	Depth to Water (ft bls)	Gallons in Well	Purge Volume (gallons) (3 well volumes)	Total Volume Purged	Initial Sample Appearance	Temperature (C) Purge Volume 1	2	3	pH Purge Volume 1	2	3	Conductivity (µmhos/cm) Purge Volume 1	2	3	Final Sample Appearance	Coded Replicate	Time Sampling Completed
06/16/05	8:35	yes	105-110	52.8	9	42+28= 70	70	clear	17.1	17.2	17.1	4.90	5.28	5.42	.364	.332	.346	clear	-	9:15
06/16/05	9:25	yes	95-100	52.92	8	42+24= 66	66	clear	17.9	18.1	18.1	5.52	5.42	5.16	.321	.353	.358	clear	-	10:30
06/16/05	10:40	yes	83-88	53.5	6	18+42= 60	15	turbid	18.6	18.0	18.1	5.73	5.64	5.88	.306	.278	.211	turbid	-	11:20
06/16/05	11:30	yes	75-80	52.8	4.5	~~42+14=~~ 56	15	turbid	19.1	19.0	18.9	6.20	6.12	5.83	.212	.220	.207	turbid	-	11:55
06/16/05	12:00	yes	65-70	52.6	3	42+9= 51	9	turbid	23.7	19.7	19.1	6.38	6.31	6.68	.218	.215	.211	turbid	-	12:40
06/16/05	12:50	-	52-57	52.8	1	42+3= 45	3	turbid	17.8	17.8	18.0	6.03	6.24	6.23	.166	.160	.155	turbid	-	1:16 Vials

ft bls feet below land surface.

VERTICAL PROFILE BORING GROUNDWATER SCREENING
OPERABLE UNIT 3 REMEDIAL INVESTIGATION
NORTHROP GRUMMAN CORPORATION
BETHPAGE, NEW YORK

VPB DESIGNATION: VP23 DATE(S): 06/15/05 SAMPLER: John Corral Page 1 of 1

mS/cm

Date	Start Time	Pump Decon Prior to Sampling	Stainless-Steel Screen Depth (ft bls)	Depth to Water (ft bls)	Gallons in Well	Purge Volume (gallons) (3 well volumes)	Total Volume Purged	Initial Sample Appearance	Temperature (C) Purge Volume 1	2	3	pH Purge Volume 1	2	3	Conductivity (umhos/cm) Purge Volume 1	2	3	Final Sample Appearance	Coded Replicate	Time Sampling Completed
06/15/05	10:45	yes	105-110	52.85	9.3	28+42=70	70	~~clear~~ slight, cloudy	18.1	17.5	17.4	5.31	5.71	5.97	3665	.287	.309	clear	—	11:25
06/15/05	11:35	yes	95-100	52.9	8	24+42=66	66	clear	17.6	17.5	17.3	6.21	5.98	6.07	.283	.308	.320	clear	—	12:10
06/15/05	12:45	yes	85-90	52.92	7	21+42=63	63	clear	17.6	17.5	17.3	6.40	6.27	6.17	.301	.310	.326	clear	—	1:00
06/15/05	1:30	yes	75-80	52.4	5	15+42=57	57	cloudy	18.1	17.8	17.7	~~6.34~~ 6.34	6.34	6.28	.240	.291	.238	clear	—	2:05
06/15/05	2:15	yes	65-70	52.8	3	42+9=51	51	clear	18.0	17.8	17.7	6.27	6.02	~~6.02~~ 5.98	.383	.392	.393	clear	—	2:55
06/15/05	3:00	yes	52-57	52.4	1	3+42=45	5	cloudy	19.4	20.3	19.4	6.13	6.34	6.39	.383	.467	.532	cloudy	—	3:40

ft bls feet below land surface.

VERTICAL PROFILE BORING GROUNDWATER SCREENING
OPERABLE UNIT 3 REMEDIAL INVESTIGATION
NORTHROP GRUMMAN CORPORATION
BETHPAGE, NEW YORK

VPB DESIGNATION: VP-23A DATE(S): 10/12/06 SAMPLER: Scherlin Page 1 of 1

10G=(G)ocarter added into well.

Date	Start Time	Pump Decon Prior to Sampling	Stainless-Steel Screen Depth (ft bls)	Depth to Water (ft bls)	Gallons in Well	Purge Volume (gallons) (3 well volumes)	Total Volume Purged	Initial Sample Appearance	Temperature (C) Purge Volume 1	2	3	pH Purge Volume 1	2	3	Conductivity (umhos/cm) Purge Volume 1	2	3	Final Sample Appearance	Coded Replicate	Time Sampling Completed
10/12/06	11:35	Y	62-67	51.3	67-51.3= 15.7x.1= 1.57	1.57x3= 7.54+10G= 18G	≈20G	Turbid	18.1	17.6	17.5	5.49	5.72	5.82	0.531	0.410	0.400	Turbid	—	11:50
	12:15	Y	57-62	52.10	62-52=10 10x.16=1.6	1.6x3=4.8 +10=15G	≈20G	Turbid	18.1	17.7	17.5	5.95	5.97	5.96	0.644	0.649	0.650	Clady	—	12:25

ft bls feet below land surface.

DTW
While pumping
(Draw Down ≈ 52.3 ft/s

Draw Down ≈ 52.7 ft/s

Well (Depth)	Turbidity (ntu)
62-67 (1st parameter)	71100
(2nd P)	888
(3rd P)	4>9
57-62' (1st P)	71100
(2nd P)	564
(3rd P)	84.4

VERTICAL PROFILE BORING GROUNDWATER SCREENING
OPERABLE UNIT 3 REMEDIAL INVESTIGATION
NORTHROP GRUMMAN CORPORATION
BETHPAGE, NEW YORK

VPB DESIGNATION: VP24 DATE(S): 06/14/05 SAMPLER: John Corral Page 1 of 1

mS/cm

Date	Start Time	Pump Decon Prior to Sampling	Stainless-Steel Screen Depth (ft bls)	Depth to Water (ft bls)	Gallons in Well	Purge Volume (gallons) (3 well volumes)	Total Volume Purged	Initial Sample Appearance	Temperature (C) Purge Volume 1	2	3	pH Purge Volume 1	2	3	Conductivity (umhos/cm) Purge Volume 1	2	3	Final Sample Appearance	Coded Replicate	Time Sampling Completed
06/14/05	9:15	yes	105-110	53.4	9.12	28+67= 95	95	clear	19.2	19.0	19.1	5.00	5.57	5.66	.346	.373	.347 S/cm	clear	—	10:50
06/14/05	11:00	yes	94-99	53.6	8	24+67= 91	25	turbid	19.8	21.2	19.6	5.96	5.93	5.86	.188	.300	.320	turbid	—	12:00
6/14/05	12:50	yes	83-88	53.3	5.6	17+67= 84	17	turbid	19.7	24.9	19.3	6.10	6.24	5.99	.339	.361	.303	turbid	—	1:45
6/14/05	2:00	yes	73-78	53.6	4	12+67= 79	79	clear	20.0	18.3	18.2	6.40	6.31	6-32 S/cm	.372	.362	.364	clear	—	2:40
6/14/05	2:50	yes	63-68	53.6	2.4	7+67= 74	7	turbid	22.0	21.2	22.0	6.48	6.35	6.18	.353	.330	.324	turbid	—	3:30
6/14/05	3:48 3:50	—	53-58	53.6	1	3+67= 70	3	turbid	19.9	21.4	18.3	6.15	6.10	6.00	.387	.427	.448	turbid	—	4:30

ft bls feet below land surface.

VERTICAL PROFILE BORING GROUNDWATER SCREENING
OPERABLE UNIT 3 REMEDIAL INVESTIGATION
NORTHROP GRUMMAN CORPORATION
BETHPAGE, NEW YORK

VPB DESIGNATION: VP-25 DATE(S): 6/13/05 SAMPLER: John Corral Page 1 of 1

Date	Start Time	Pump Decon Prior to Sampling	Stainless-Steel Screen Depth (ft bls)	Depth to Water (ft bls)	Gallons in Well	Purge Volume (gallons) (3 well volumes)	Total Volume Purged	Initial Sample Appearance	Temperature (C) Purge Volume 1	2	3	pH Purge Volume 1	2	3	Conductivity (mS/cm) Purge Volume 1	2	3	Final Sample Appearance	Coded Replicate	Time Sampling Completed
6/13/05	10:40	yes	100-95	54.35	8		[redacted] 25	turbid	19.9	21.7	19.3	5.04	5.41	5.41	.239	.229	.216	slightly cloudy	–	11:50
6/13/05	12:00	yes	85-90	54.3	7		[redacted] 20	turbid	25.8	29.1	24.7	5.92	5.93	5.91	.217	.223	.180	turbid	–	1:15
6/13/05	1:30	yes	75-80	54.6	4		[redacted] 15	turbid	23.2	22.4	25.1	5.88 [redacted]	5.92	5.98	.163	.163	.197	turbid	–	2115
6/13/05	2:25	yes	65-70	54.6	2.6		[redacted] 10	turbid	23.9	23.8	22.3	6.03	6.07 [redacted]	4.78	.280	.316	.406	turbid	Rep 06/13	3:20
[redacted]	[redacted]	–	[redacted]				4hr				22.7			5.88			.340			
6/13/05	3:40	–	54-59	54.6	0.8		[redacted] 3	turbid	19.2	19.3	19.1	6.34	6.33 [redacted]	6.31	1.15 [redacted]	1.10	1.12	turbid	–	4:30

ft bls feet below land surface.

VERTICAL PROFILE BORING GROUNDWATER SCREENING
OPERABLE UNIT 3 REMEDIAL INVESTIGATION
NORTHROP GRUMMAN CORPORATION
BETHPAGE, NEW YORK

VPB DESIGNATION: VP-26 DATE(S): 6/8/05 / 6/9/05 SAMPLER: Schertz

DTW x .16 (Gallons x 3) + 80 / 3

MS

Date	Start Time	Pump Decon Prior to Sampling	Stainless-Steel Screen Depth (ft bls)	Depth to Water (ft bls)	Gallons in Well	Purge Volume (gallons) (3 well volumes)	Total Volume Purged	Initial Sample Appearance	Temperature (C) Purge Volume 1	2	3	pH Purge Volume 1	2	3	Conductivity (umhos/cm) Purge Volume 1	2	3	Final Sample Appearance	Coded Replicate	Time Sampling Completed
6/8/05	9:45	Yes	101-106	54.3	8.3	105	110	turbid	20.6	21.2	21.5	5.46	5.45	5.39	0.393	0.375	0.376	Cloudy	NA	11:50
6/8/05	13:25	Yes	79-84	54.4	4.74	94	90	turbid	24.6	23.4	23.3	5.81	5.81	5.70	0.399	0.440	0.462	Clear	NA	16:35
6/9/05	8:45	Yes	71-76	54.0	3.52	91	15	turbid	21.7	22.3	21.4	5.91	5.91	5.82	0.300	0.311	0.351	Cloudy	NA	9:35
6/9/05	10:00	Yes	63-68	53.0	2.40	87.2	30	very turbid	21.7	21.8	22.8	5.92	5.92	6.43	0.486	0.270	0.264	turbid	NA	11:00
6/9/05	11:25	Yes	53-58	54.0	0.64	82	10	very turbid	20.5	21.8	23.7	6.54	6.54	6.56	0.380	0.380	0.382	turbid	NA	12:10

ft bls feet below land surface.

VERTICAL PROFILE BORING GROUNDWATER SCREENING
OPERABLE UNIT 3 REMEDIAL INVESTIGATION
NORTHROP GRUMMAN CORPORATION
BETHPAGE, NEW YORK

VPB DESIGNATION: VP27 **DATE(S):** 06/17/05 **SAMPLER:** JHC

Date	Start Time	Pump Decon Prior to Sampling	Stainless-Steel Screen Depth (ft bls)	Depth to Water (ft bls)	Gallons in Well	Purge Volume (gallons) (3 well volumes)	Total Volume Purged	Initial Sample Appearance	Temperature (C) Purge Volume 1	2	3	pH Purge Volume 1	2	3	Conductivity (umhos/cm) Purge Volume 1	2	3	Final Sample Appearance	Coded Replicate	Time Sampling Completed
06/17/05	10:00	yes	105-110	55.78	9	60+27=87	87	clear	17.2	16.9	17.6	4.62	4.89	5.17	.227	.155	.168	clear	–	11:00
06/21/05	11:45	yes	92-97	56.4	8	60+24=84	84	clear	19.0	17.7	17.6	4.85	5.04	5.13	.280	.273	.283	clear	–	12:40
06/21/05	12:50	yes	79-84	52.0	6.5	60+15=75	15	clear	18.9	19.8	21.0	5.56	5.64	5.83	.216	.222	.191	a.turbid	–	1:50
06/21/05	2:00	yes	64-69	56.3	3	60+9=69	9	turbid	20.0	19.3	19.6	6.08	6.03	5.98	.200	.208	.291	turbid	–	3:10
06/21/05	3:20	–	55-60	56.52	1	60+3=63	3	turbid	17.9	16.4	16.2	6.32	6.38	6.43	.784	1.25	1.29	turbid	REP 062105	4:00

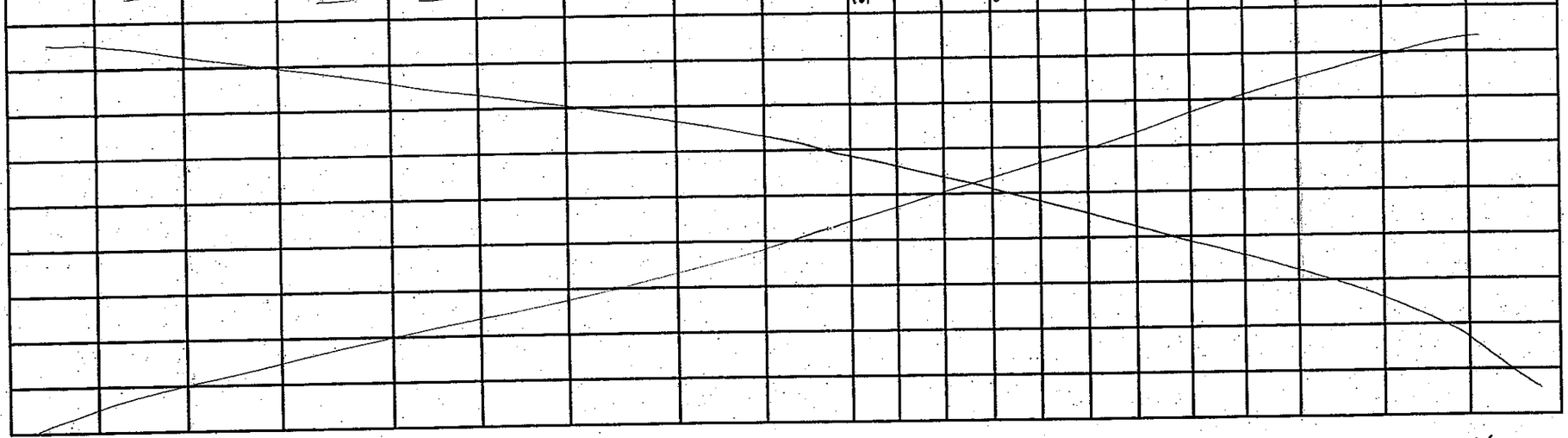
µS/cm

ft bls feet below land surface.

VERTICAL PROFILE BORING GROUNDWATER SCREENING
OPERABLE UNIT 3 REMEDIAL INVESTIGATION
NORTHROP GRUMMAN CORPORATION
BETHPAGE, NEW YORK

VPB DESIGNATION: VP-27A DATE(S): 5/17/06 SAMPLER: P. Prezorski Page 1 of 1

Date	Start Time	Pump Decon Prior to Sampling	Stainless-Steel Screen Depth (ft bls)	Depth to Water (ft bls)	Gallons in Well	Purge Volume (gallons) (3 well volumes)	Total Volume Purged	Initial Sample Appearance	Temperature (C) Purge Volume 1	2	3	pH Purge Volume 1	2	3	Conductivity (umhos/cm) Purge Volume 1	2	3	Final Sample Appearance	Coded Replicate	Time Sampling Completed
5/17/06	9:21 AM	Yes	70-75	53.53	3.43	10.29 + 10	21	Brown	16.5	16.1	16.0	6.36	6.11	6.01	182.6	198.9	225	clear	N/A	10:11 AM
—	—	—	—	—	—	—	—	—	16.0	16.1	—	6.03	5.98	—	238	239	—	—	—	—
5/17/06	10:45 AM	Yes	60-65	53.70	1.81	5.4 + 10	16	Brown	16.6	16.7	16.3	6.43	6.45	6.47	452	475	484	clear	N/A	11:43
—	—	—	—	—	—	—	—	—	16.8	16.6	16.1	6.45	6.50	6.50	491	489	479	—	—	—
—	—	—	—	—	—	—	—	—	16.2	—	—	6.50	—	—	474	—	—	—	—	—



ft bls feet below land surface.

Notes on VP-27A 70-75'

Rate 1gpm

Turbidity
1v = 400
2v = 65
3v = 45
4v = 25
5v = 23 NTV S2-
0.024 mg/L

Notes on VP-27A 60-65'

Turbidity
1v = 850
2v = 370
3v = 240
4v = 95
5v = 65
6v = 60
7v = 45
At sample time 39 NTV
0.042 mg/L S2-

VERTICAL PROFILE BORING GROUNDWATER SCREENING
OPERABLE UNIT 3 REMEDIAL INVESTIGATION
NORTHROP GRUMMAN CORPORATION
BETHPAGE, NEW YORK

VPB DESIGNATION: VP28 **DATE(S):** 06117105 **SAMPLER:** John Corral

mS/cm

Date	Start Time	Pump Decon Prior to Sampling	Stainless-Steel Screen Depth (ft bls)	Depth to Water (ft bls)	Gallons in Well	Purge Volume (gallons) (3 well volumes)	Total Volume Purged	Initial Sample Appearance	Temperature (C) Purge Volume 1	2	3	pH Purge Volume 1	2	3	Conductivity (umhos/cm) Purge Volume 1	2	3	Final Sample Appearance	Coded Replicate	Time Sampling Completed
06117105	1145	yes	105-110	57.6	9	60+27=87	87	clear	17.0	16.9	16.9	5.04	5.35	5.24	.229	.245	.250	clear	–	2135
06117105	2:45	yes	95-100	57.6	7	60+21=81	81	clear	17.7	16.9	16.8	5.20	5.28	5.38	.222	.244	.255	clear	–	3:50
6/20/05	8:30	yes	73-78	56.5	3.5	60+11=71	15	turbid	18.3	18.3	17.5	5.08	5.74	5.79	.218	.159	.176	turbid	–	9:40
6/20/05	9:50	yes	62-67	52.4	2	60+6=66	6	turbid	19.1	19.3	17.3	6.23	5.88	5.89	.177	.174	.183	turbid	–	10:50
6/20/05	11:00	–	52-57	57.6	1	60+3=63	3	turbid	16.9	16.9	16.2	5.98	5.88	5.82	.396	.388	.407	turbid	REP062005	12:00

ft bls feet below land surface.

VERTICAL PROFILE BORING GROUNDWATER SCREENING
OPERABLE UNIT 3 REMEDIAL INVESTIGATION
NORTHROP GRUMMAN CORPORATION
BETHPAGE, NEW YORK

VPB DESIGNATION: VP-28A DATE(S): 6/5/06 SAMPLER: Prezorski Page 1 of 1

Date	Start Time	Pump Decon Prior to Sampling	Stainless-Steel Screen Depth (ft bls)	Depth to Water (ft bls)	Gallons in Well	Purge Volume (gallons) (3 well volumes)	Total Volume Purged	Initial Sample Appearance	Temperature (C) Purge Volume 1	2	3	pH Purge Volume 1	2	3	Conductivity (umhos/cm) Purge Volume 1	2	3	Final Sample Appearance	Coded Replicate	Time Sampling Completed
6/5/06	AM 11:35	Baila	53-58	54.55	.552	1.66	5	Brown	16.6	16.6	16.3	6.78	6.89	6.81	387	358	412	tan	N/A	2:45pm
—	—	—	—	—	—	—	—	—	15.6	15.5	—	6.60	6.51	—	440	437	—	—	—	—

Note: Turbidity over range at each parameter

ft bls feet below land surface.

VERTICAL PROFILE BORING GROUNDWATER SCREENING
OPERABLE UNIT 3 REMEDIAL INVESTIGATION
NORTHROP GRUMMAN CORPORATION
BETHPAGE, NEW YORK

VPB DESIGNATION: VP29

DATE(S): 06/22/05

SAMPLER: John Corral

Date	Start Time	Pump Decon Prior to Sampling	Stainless-Steel Screen Depth (ft bls)	Depth to Water (ft bls)	Gallons in Well	Purge Volume (gallons) (3 well volumes)	Total Volume Purged	Initial Sample Appearance	Temperature (C) Purge Volume 1	2	3	pH Purge Volume 1	2	3	Conductivity (mS/cm) Purge Volume 1	2	3	Final Sample Appearance	Coded Replicate	Time Sampling Completed
06/22/05	8:00	yes	110-105	55.55	[illegible]	50+27=77	77	clear	18.2	18.0	17.3	4.71	4.69 [illegible]	4.64	.307	.285	.245	clear	—	9:50
06/22/05	10:10	yes	100-95	58.0	8	50+24=74	30	turbid	18.0	20.2	17.3	5.45	5.57 [illegible]	5.63	.219	.265	.278	cloudy	—	11:30
06/22/05	11:45	yes	89-84	55.7	5	50+15=65	20	turbid	16.8	16.5	16.	75.79	5.62	5.83	.291	.279	.337	turbid	-	12:45
06/22/05	1:00	yes	77-72	55.1	3.5	50+11=61	14	turbid	2048	19.2	18.6	5.71	5.81	5.94	.348	.352	.337	turbid	-	1:35
06/22/05	1:40	yes	68-63	55.2	2.0	50+6=56	6	turbid	21.4	19.2	18.6	6.00	6.22	5.86	.311	.313	.302	turbid	-	2:30
06/22/05	2:40	-	59-54	55.1	1.0	50+3=53	3	turbid	18.4	19.6 [illegible]	16.8	6.25	6.37	5.71	.351	.236	.227	turbid	-	3:40

ft bls feet below land surface.

VERTICAL PROFILE BORING GROUNDWATER SCREENING
OPERABLE UNIT 3 REMEDIAL INVESTIGATION
NORTHROP GRUMMAN CORPORATION
BETHPAGE, NEW YORK

VPB DESIGNATION: VP30 DATE(S): 06/20/05 – SAMPLER: John Corral Page 1 of 1

Date	Start Time	Pump Decon Prior to Sampling	Stainless-Steel Screen Depth (ft bls)	Depth to Water (ft bls)	Gallons in Well	Purge Volume (gallons) (3 well volumes)	Total Volume Purged	Initial Sample Appearance	Temperature (C) Purge Volume 1	2	3	pH Purge Volume 1	2	3	Conductivity (umhos/cm) Purge Volume 1	2	3	Final Sample Appearance	Coded Replicate	Time Sampling Completed
6-20-05	2:15	yes	86-83	55.7	6	18+83=101	101	clear	18.4	18.4	17.0	7.43	5.50	5.91	.460	.417	.414	clear	–	3:05
6-20-05	3:15	–	69-64	54.4	2.5	8+83=91	8	turbid	18.1	19.1	18.6	6.43	6.22	5.98	.124	.131	.146	turbid	–	4:00
6/20/05	8:00	–	57-62	54.4	1	3+83=86	3	turbid	19.7	18.9	18.7	5.71	5.78	5.87	.250	.218	.223	turbid	–	9:30

ft bls feet below land surface.

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VERTICAL PROFILE BORING GROUNDWATER SCREENING
OPERABLE UNIT 3 REMEDIAL INVESTIGATION
NORTHROP GRUMMAN CORPORATION
BETHPAGE, NEW YORK

VPB DESIGNATION: VP-32 **DATE(S):** 6/22/05 **SAMPLER:** JCherlin

Date	Start Time	Pump Decon Prior to Sampling	Stainless-Steel Screen Depth (ft bls)	Depth to Water (ft bls)	Gallons in Well (G×3)+5%/3.14	Purge Volume (gallons) (3 well volumes)	Total Volume Purged	Initial Sample Appearance	Temperature (C) Purge Volume 1	2	3	pH Purge Volume 1	2	3	Conductivity (umhos/cm) ms/cm Purge Volume 1	2	3	Final Sample Appearance	Coded Replicate	Time Sampling Completed
6/22/05	8:50	Y	85-90	53.0'	3.92	100.76	10 G	Turbid	19.9	19.7	20.5	4.73	5.65	5.88	0.418	0.373	0.378	cloudy	NA	10:10
6/22/05	10:40	Y	65-70	53.0'	2.72	85.72	90 G	Turbid	20.4	19.1	20.1	6.20	5.85	5.56	0.411	0.394	0.399	clear	NA	12:30
6/22/05	13:00	Y	52-57	53.0'	0.64	84.92	4G	Turbid	18.5	18.7	20.3	6.26	6.25	6.11	0.342	0.34	0.371	Turbid	NA	13:20

ft bls feet below land surface.

VERTICAL PROFILE BORING GROUNDWATER SCREENING
OPERABLE UNIT 3 REMEDIAL INVESTIGATION
NORTHROP GRUMMAN CORPORATION
BETHPAGE, NEW YORK

VPB DESIGNATION: VP-33 DATE(S): 6/22/05 SAMPLER: Schellin

Date	Start Time	Pump Decon Prior to Sampling	Stainless-Steel Screen Depth (ft bls)	Depth to Water (ft bls)	Gallons in Well	Purge Volume (gallons) (3 well volumes)	Total Volume Purged	Initial Sample Appearance	Temperature (C) Purge Volume 1	2	3	pH Purge Volume 1	2	3	Conductivity (~~umhos~~ mS/cm) Purge Volume 1	2	3	Final Sample Appearance	Coded Replicate	Time Sampling Completed
6/22/05	13:40	Y	85-90'	54.0'	5.76	67.28 (50)	75G	Turbid	19.0	18.8	20.7	6.16	5.61	5.44	0.366	0.435	0.444	Cloudy	NA	14:40
6/22/05	14:55	Y	65-70	~~54.6'~~	~~2.46~~	~~57.89~~	60G	Turbid	19.6	18.1	19.3	5.81	5.95	5.83	0.403	0.397	0.395	Clear	NA	15:50
6/22/05	8:35	Y	~~53~~-57'	54.1'	0.46	50.46	4G	Turbid	16.1	15.5	15.7	6.14	6.18	6.16	0.260	0.223	0.205	Turbid	NA	8:55

ft bls feet below land surface.

VERTICAL PROFILE BORING GROUNDWATER SCREENING
OPERABLE UNIT 3 REMEDIAL INVESTIGATION
NORTHROP GRUMMAN CORPORATION
BETHPAGE, NEW YORK

VPB DESIGNATION: VP-34 DATE(S): 6/16/06 SAMPLER: Prezorski Page 1 of 1

Date	Start Time	Pump Decon Prior to Sampling	Stainless-Steel Screen Depth (ft bls)	Depth to Water (ft bls)	Gallons in Well	Purge Volume (gallons) (3 well volumes)	Total Volume Purged	Initial Sample Appearance	Temperature (C) Purge Volume 1	2	3	pH Purge Volume 1	2	3	Conductivity (umhos/cm) Purge Volume 1	2	3	Final Sample Appearance	Coded Replicate	Time Sampling Completed
6/16/06	9:32 AM	yes	(62-67)	51.65	2.456	8+12	20	Brown	18.5	18.1	17.9	5.50	5.57	5.68	383	358	368	clear	N/A	10:04 AM
—	—	—	—	—	—	—	—	—	17.9	—	—	5.74	—	—	364	—	—	—	—	—
6/16/06	10:33 AM	yes	(57-62)	51.75	1.64	5+12	17	Brown	19.6	18.6	18.7	5.62	5.54	5.49	143.8	139.8	136.6	clear	N/A	10:57 AM
6/16/06	1325	Bailer	(52-57)	51.64	.86	2.6	3	Brown	19.0	18.0	17.4	5.69	5.68	5.65	166.5	162.3	164.2	Brown	N/A	1400
6/16/06	1534	Bailer	(50-55)	51.68	.53	1.6	2	Brown	18.6	18.6	18.0	5.54	5.46	5.66	167.4	152.8	159.8	Brown	N/A	1610
									18.3	—	—	5.56	—	—	157.0	—	—	—	—	—

ft bls feet below land surface.

Notes on:
35gal used on Borehole

(62-67')
Turbidity at
1v = 400
2v = 210
3v = 90
4v = 45
Purge rate 1gpm
Rate lowered to sample

(57-62')
Turbidity at
1v = 140
2v = 55
3v = 21
Purge rate 1gpm
Rate lowered to sample

(52-57')
Turbidity all over range
Sample discarded

(50-55')
Turbidity all over range

VERTICAL PROFILE BORING GROUNDWATER SCREENING
OPERABLE UNIT 3 REMEDIAL INVESTIGATION
NORTHROP GRUMMAN CORPORATION
BETHPAGE, NEW YORK

VPB DESIGNATION: VP-35 DATE(S): 10/13/06 SAMPLER: D. Zub Page 1 of 1

Date	Start Time	Pump Decon Prior to Sampling	Stainless-Steel Screen Depth (ft bls)	Depth to Water (ft bls)	Gallons in Well	Purge Volume (gallons) (3 well volumes)	Total Volume Purged	Initial Sample Appearance	time/Temperature (C) Purge Volume 1	2	3	pH/Turb. Purge Volume 1	2	3	Conductivity (~~umhes/cm~~) mS/cm Purge Volume 1	2	3	Final Sample Appearance	Coded Replicate	Time Sampling Completed	
10/13/06	1409	yes	67'	51.40'	2.49	≈7.5+6.6 (14)	[illegible]	Turbid	1418 / 17.6	1423 / 16.8	1429 / 17.4	5.46 / 799	5.80 / 999	5.86 / 483	.368	.281	.280	turb.	N/A	1430	
10/13/06	1457	yes	62'	51.40	1.7	5.25+3.75	(9 gal)	Turbid	1501 / 18.4	1504 / 17.6	1507 / 16.4	6.05 / 785	6.00 / 309	6.10 / 10	.213	.251	.249	clear	Rep 10-13-06	1510	
10/13/06	1536	yes	56'	51.90	.65	≈2gal+2.2	≈(4.5)	Turbid	16.2	16.1	15.8	6.16 / 999	6.15 / 100	6.18 / N/A	223	.248	.259	Turb	N/A	1605	Turb > 500 unit Not working

ft bls feet below land surface.

20 gal/9v = 2.22 gal

VERTICAL PROFILE BORING GROUNDWATER SCREENING
OPERABLE UNIT 3 REMEDIAL INVESTIGATION
NORTHROP GRUMMAN CORPORATION
BETHPAGE, NEW YORK

VPB DESIGNATION: VP-36 DATE(S): 6/14/06 6/15/06 SAMPLER: Prezorski Page 1 of 1

Date	Start Time	Pump Decon Prior to Sampling	Stainless-Steel Screen Depth (ft bls)	Depth to Water (ft bls)	Gallons in Well	Purge Volume (gallons) (3 well volumes)	Total Volume Purged	Initial Sample Appearance	Temperature (C) Purge Volume 1	2	3	pH Purge Volume 1	2	3	Conductivity (umhos/cm) Purge Volume 1	2	3	Final Sample Appearance	Coded Replicate	Time Sampling Completed
6/14/06	1:55 pm	yes	(62-67)	50.61	2.6	8+12	20	Brown	19.2	18.1	17.9	5.91	5.80	5.80	377	392	405	clear	N/A	2:27 pm
—	—	—	—	—	—	—	—	—	18.1	—	—	5.79	—	—	402	—	—	—	—	—
6/14/06	2:51 pm	yes	(57-62)	50.41	1.85	6+12	18	Brown	18.7	18.6	18.3	5.73	5.71	5.72	196	186.2	182.4	clear	N/A	3:16 pm
6/14/06	3:43 pm	yes	(52-57)	50.42	1.05	3+12	15	Brown	19.1	18.6	18.4	5.82	5.82	5.80	256	343	384	clear	N/A	4:27 pm
—	—	—	—	—	—	—	—	—	18.4	18.3	18.2	5.79	5.79	5.79	432	459	481	—	—	—
—	—	—	—	—	—	—	—	—	18.3	18.1	—	5.78	5.78	—	515	520	—	—	—	—
6/15/06	10:35 AM	Bailer	(47-52)	50.60	.22	.67	1	Brown	18.2	17.2	16.8	6.05	6.02	6.08	659	655	658	Brown	N/A	10:42

ft bls feet below land surface.

Notes: 35 gal potable water added to borehole

(62-67'):
Turbidity at 1v = 450
2v = 100
3v = 60 NTU
4v = 55 NTU
Purge rate 1gpm
Rate lowered to sample

(57-62'):
Purge rate 1gpm
Turbidity at 1v = 730
2v = 260
3v = 110 NTU
Rate lowered to sample

(52-57'):
Additional sample point 47-52' prior to start of purge.
Purge volume (3WV+12) not reduced. Purge rate 1gpm
Turbidity at 1v = over-range
2v = —
3v = 650
4v = 170
5v = 210
6v = 110, 7v = 80, 8v = 70 NTU
Rate lowered to sample

(47-52'):
Turbidity overrange at 1v, 2v, 3v

VERTICAL PROFILE BORING GROUNDWATER SCREENING
OPERABLE UNIT 3 REMEDIAL INVESTIGATION
NORTHROP GRUMMAN CORPORATION
BETHPAGE, NEW YORK

VPB DESIGNATION: B-43E

DATE(S): 10/4/06

SAMPLER: P. Prezorski

Date	Start Time	Pump Decon Prior to Sampling	Stainless-Steel Screen Depth (ft bls)	Depth to Water (ft bls)	Gallons in Well	Purge Volume (gallons) (3 well volumes)	Total Volume Purged	Initial Sample Appearance	Temperature (C) Purge Volume 1	2	3	pH Purge Volume 1	2	3	Conductivity (umhos/cm) Purge Volume 1	2	3	Final Sample Appearance	Coded Replicate	Time Sampling Completed
10/4/06	8:32 AM	~~New~~ Bailer	56-55	50.97	.64	2	2	Brown	18.3	17.8	17.6	6.35	6.33	6.18	1067	1069	1051	Light Brown	N/A	9:01 AM
—	—	—	—	—	—	—	—	—	17.5	—	—	6.18	—	—	1047	—	—	—	—	—

ft bls feet below land surface.

ARCADIS G&M, Inc.

Low-Flow Groundwater Sampling Log

Project Number: NY001348.0806 Task: 00002 Well ID: CAMW-1
Date: 4/14/06 Sampled By: GW/JAC
Sampling Time: 11:00 Recorded By: Scherlin
Weather: Clear 60s Coded Replicate No.: N/A

Instrument Identification
Water Quality Meter(s): Serial #:

Purging Information
Casing Material: PVC Purge Method: Rediflow Pump/Low Flow
Casing Diameter: 4" Screen Interval (ft bmp): Top 42.95 Bottom 62.95
Sounded Depth (ft bmp): 62.95 Pump Intake Depth (ft bmp): 62.95
Depth to Water (ft bmp): 53.35 Purge time Start: 10:10 Finish: 11:00

Field Parameter Measurements Taken During Purging

Time	Minutes Elapsed	Rate (mL/min)	Volume Purged	Temp (°C)	pH (SI Units)	Spec. Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft bmp)	Comments
10:10	/	/	/	16.3	6.40	272	150	5.64	50	53.35	
10:15				16.2	6.48	271	147	5.38	45		
10:20				16.2	6.54	182.9	136	5.93	45	53.75	
10:25				15.8	6.54	165.1	130	5.76	45		
10:30				15.6	6.54	162.4	124	5.07	38	53.75	
10:35				15.7	6.56	162.4	120	5.14	34		
10:40				15.9	6.56	159.9	119	5.40	30		
10:50				19.2	6.52	135.8	125	5.97	23	53.75	
10:55				18.9	6.56	135.9	124	6.16	23		
					52-	0.008					

Sample Condition Color: Colorless Odor: Odorless Appearance: none
Sample Collection

Parameter:	Container:	No.	Preservative:
See COC			

PID Reading: At wellhead 0.0
Comments: No onsite activities. Dust monitoring not necessary

ARCADIS G&M, Inc.

Low-Flow Groundwater Sampling Log

Project Number: NY001348.0806 Task: 00002 Well ID: CAMW-2
Date: 4/12/06 Sampled By: GW/PP
Sampling Time: 12:16 pm Recorded By: PP
Weather: clear 60° Coded Replicate No.: N/A

Instrument Identification
Water Quality Meter(s): _____ Serial #: _____

Purging Information
Casing Material: PVC Purge Method: Rediflow Pump
Casing Diameter: 4" Screen Interval (ft bmp): Top 43 Bottom 63
Sounded Depth (ft bmp): 63 Pump Intake Depth (ft bmp): _____
Depth to Water (ft bmp): 51.78 Purge time Start: 11:30 AM Finish: 12:15 pm

Field Parameter Measurements Taken During Purging

Time	Minutes Elapsed	Rate (mL/min)	Volume Purged	Temp (°C)	pH (SI Units)	Spec. Cond. (µS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft bmp)	Comments
11:30	—	—	—	16.7	6.75	867	128	4.40	150	—	—
11:35	—	—	—	16.6	6.59	832	136	3.99	250	51.84	—
11:40	—	—	—	16.9	6.57	790	136	3.73	200	—	—
11:45	—	—	—	17.4	6.52	767	133	3.49	150	51.84	—
11:50	—	—	—	17.9	6.51	742	130	3.37	120	—	—
11:55	—	—	—	18.3	6.50	738	128	3.33	110	51.84	—
12:00	—	—	—	18.6	6.49	722	127	3.23	95	—	—
12:05	—	—	—	18.9	6.48	710	125	3.16	80	51.84	—
12:10	—	—	—	19.1	6.48	702	124	3.11	60	—	—
12:15	—	—	—	19.3	6.47	696	123	3.12	55	51.84	—
									31	AT MOTAS SAMPLE	
							S^{2-} = 0.043				

Sample Condition Color: — Odor: — Appearance: —
Sample Collection

Parameter:	Container:	No.	Preservative:
See COC			

PID Reading At wellhead zero
Comments Dust monitor = 0 mg/m³ upwind & downwind
Different Rediflow pump used ~~EPA~~ PP

ARCADIS G&M, Inc.

Low-Flow Groundwater Sampling Log

Project Number: NY001348.0806 Task: 00002 Well ID: CAMW-3
Date: 4/12/06 Sampled By: GW/BP
Sampling Time: 10:46 AM Recorded By: BP
Weather: clear 50's Coded Replicate No.: N/A

Instrument Identification
Water Quality Meter(s): Serial #:

Purging Information
Casing Material: PVC Purge Method: Rediflow Pump / Low Flow
Casing Diameter: 4" Screen Interval (ft bmp): Top 41.60 Bottom 61.60
Sounded Depth (ft bmp): 61.60 Pump Intake Depth (ft bmp):
Depth to Water (ft bmp): 50.74 Purge time Start: 9:40 AM Finish: 10:45

Field Parameter Measurements Taken During Purging

Time	Minutes Elapsed	Rate (mL/min)	Volume Purged	Temp (°C)	pH (SI Units)	Spec. Cond. µS (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft bmp)	Comments
9:40	—	—	—	14.8	6.91	1015	241	5.08	750	—	—
9:45	—	—	—	16.4	6.97	1047	225	4.30	7500	50.77	—
9:50	—	—	—	16.8	6.97	1050	216	4.17	1000	—	—
9:55	—	—	—	17.5	6.98	1047	208	4.10	600	50.77	—
10:00	—	—	—	18.1	6.98	1044	196	4.19	350	—	—
10:05	—	—	—	18.6	6.97	1035	177	3.82	220	50.77	—
10:10	—	—	—	18.6	6.97	1031	169	3.88	170	—	—
10:15	—	—	—	18.6	6.96	1021	160	3.98	160	50.77	—
10:20	—	—	—	18.5	6.96	1010	156	4.05	120	—	—
10:25	—	—	—	18.4	6.96	1007	151	3.94	100	50.76	—
10:30	—	—	—	18.3	6.96	998	146	3.87	95	—	—
10:35	—	—	—	18.3	6.96	991	139	3.92	80	50.77	—
10:40	—	—	—	18.4	6.96	989	132	3.82	70	—	—
10:45	—	—	—	18.4	6.97	984	125	3.81	45	50.76	—
							S^{2-} =	0.042			

Sample Condition Color: Odor: Appearance:

Sample Collection

Parameter:	Container:	No.	Preservative:
See COC			

PID Reading: At wellhead Zero

Comments: Clean pump used

ARCADIS G&M, Inc.

Low-Flow Groundwater Sampling Log

Project Number: NY001348.0806 Task: 00002 Well ID: CAMW-4
Date: 4/12/06 Sampled By: GW BP
Sampling Time: 4:07 pm Recorded By: BP
Weather: clear, windy 60's Coded Replicate No.: N/A

Instrument Identification
Water Quality Meter(s): / Serial #: /

Purging Information
Casing Material: PVC Purge Method: Rediflow Pump/Low Flow
Casing Diameter: 4" Screen Interval (ft bmp): Top 43.05 Bottom 63.05
Sounded Depth (ft bmp): 63.05 Pump Intake Depth (ft bmp):
Depth to Water (ft bmp): 51.15 Purge time Start: 3:35 pm Finish: 4:05

Field Parameter Measurements Taken During Purging

Time	Minutes Elapsed	Rate (mL/min)	Volume Purged	Temp (°C)	pH (SI Units)	Spec. Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft bmp)	Comments
3:35	—	—	—	16.0	6.20	463	182	7.55	40	—	—
3:40	—	—	—	15.5	5.97	447	185	7.32	45	51.16	—
3:45	—	—	—	15.7	5.95	443	186	7.05	40	—	—
3:50	—	—	—	16.6	5.97	428	187	7.04	33	51.16	—
3:55	—	—	—	17.2	5.97	427	190	7.08	23	—	—
4:00	—	—	—	17.5	5.96	427	192	7.10	22	51.16	—
4:05	—	—	—	17.5	5.95	429	194	7.12	22	—	—
							S2~	0.017			

Sample Condition Color: / Odor: / Appearance: /
Sample Collection

Parameter:	Container:	No.	Preservative:
See COC			

PID Reading: At wellhead zero

Comments: Clear Rediflow pump used
Dust monitor reading 0 mg/m³ upwind + downwind

ARCADIS G&M, Inc.

Low-Flow Groundwater Sampling Log

Project Number: NY001398.0896 Task: 00002 Well ID: CAMW-5
Date: 4/14/96 Sampled By: GW/SAC
Sampling Time: 12.55 Recorded By: Scherlin
Weather: Cloudy, 60°s Coded Replicate No.: N/A

Instrument Identification
Water Quality Meter(s): / Serial #: /

Purging Information
Casing Material: PVC Purge Method: Rediflo pump/ low flow
Casing Diameter: 4" Screen Interval (ft bmp): Top 53.16 Bottom 73.16
Sounded Depth (ft bmp): 73.16 Pump Intake Depth (ft bmp): ~5' from bottom
Depth to Water (ft bmp): 52.73 Purge time Start: 11:40 Finish: 12.55

Field Parameter Measurements Taken During Purging

Time	Minutes Elapsed	Rate (mL/min)	Volume Purged	Temp (°C)	pH (SI Units)	Spec. Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft bmp)	Comments
11:40	/	/	/	15.7	5.68	709	181	5.98	90	[illegible]	DTW= 52.73
11:45				15.7	5.66	730	182	5.83	90		
11:50				15.7	5.66	738	184	5.18	85	52.78	
11:55				15.8	5.66	738	187	5.02	85		
12:00				15.6	5.66	742	189	6.05	75	52.78	
12:05				15.5	5.66	744	186	5.25	60		
12:10				15.6	5.66	745	184	5.36	60	52.78	
12:15				15.9	5.67	745	182	5.14	60		
12:20				16.1	5.67	741	180	5.16	60	52.78	
12:25				16.7	5.63	736	171	6.63	60		
12:30				18.3	5.62	731	166	6.54	70	52.78	
12:35				19.1	5.62	727	173	6.69	60		
12:40				18.9	5.62	727	178	6.82	50	52.79	
12:45				18.6	5.26	730	181	6.69	50		
12:50				18.4	5.26	728	182	6.80	37	52.79	
					52 - 0.025						

Sample Condition Color: Clear Odor: None Appearance: Clear
Sample Collection

Parameter:	Container:	No.	Preservative:
TEECOC			

PID Reading 0.0 ppm @ BH
Comments No onsite activities. Dust monitoring not needed.

ARCADIS G&M, Inc.

Low-Flow Groundwater Sampling Log

Project Number: 4W001348.0806 Task: 00002 Well ID: B30MW-1
Date: 4/14/06 Sampled By: GW/JAC
Sampling Time: 14:45 Recorded By: SCherlin
Weather: Rain, 60° Coded Replicate No.: N/A

Instrument Identification
Water Quality Meter(s): Serial #:

Purging Information
Casing Material: ~~PVC~~ PVC Purge Method: Rediflo pump/ low flow
Casing Diameter: 4 Screen Interval (ft bmp): Top 57 Bottom 72
Sounded Depth (ft bmp): 72 Pump Intake Depth (ft bmp): ~5' from bottom
Depth to Water (ft bmp): 55.38' Purge time Start: 13:50 Finish: 14:45

Field Parameter Measurements Taken During Purging

Time	Minutes Elapsed	Rate (mL/min)	Volume Purged	Temp (°C)	pH (SI Units)	Spec. Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft bmp)	Comments
13:50	/	/	/	17.5	5.64	621	191	9.14	7100	55.38	DO=8.44
13:55				17.8	5.64	618	194	8.32	7100		
14:00				17.9	5.64	619	194	8.31	~~8100~~	55.41	Turb.=800
14:05				18.0	5.64	625	196	7.78	310		
14:10				17.9	5.64	628	200	7.29	240	55.43	
14:15				18.8	5.65	621	191	7.14	153		
14:20				18.9	5.66	612	186	7.47	100	55.43	
14:25				18.9	5.64	621	191	7.58	69		
14:30				18.9	5.64	627	198	7.67	25		
14:35				18.8	5.65	631	200	7.79	19	55.43	
						S^2 0.007					

Sample Condition Color: colorless Odor: odorless Appearance: clear
Sample Collection

Parameter:	Container:	No.	Preservative:
See COC			

PID Reading Rain
Comments No onsite activities, PDR not needed.

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Infrastructure, environment, facilities

Water Sampling Log

Project N- Grumman OU3 Project No. NY001464.0607.00003

Site Location Bethpage, NY Date 7-11-07

Well No. B30 MW-1 Replicate No. NA Weather cloudy 83°F

Sampling Personnel Williams/Prezorski Sampling Time: Begin 1714 End 1725

Purge Data

Measuring Point (describe)	TOC
Sounded Well Depth (ft bmp)	72
Depth to Water (ft bmp)	53.98
Depth to Packer (ft bmp)	—
Water Column in Well (ft)	18.02
Casing Diameter	2" (0.16)
Gallons in Well	2.88
	x3
Gallons Purged Prior to Sampling	9
Pump Intake Setting (ft bmp)	—
Packer Pressure (psi)	—
Pumping Rate (gpm)	1
Evacuation Method	2" Redi-Flow pump
Sampling Method	3 well volume
Purge Time Begin 1654 End 1709	

4=1 T=9 1V=3

Field Parameters

	I	1V	2V	3V	4V	5V
Color	tan	tan	tan	light tan	colorless	
Odor	None	None	None	None	None	
Appearance	turbid	turbid	turbid	cloudy	clear	
pH (s.u.)	4.29	4.65	4.72	4.73	4.88	4.93
Conductivity (mS/cm) or (µmhos/cm) [1]	576	564	563	560	547	547
Temperature (°C)	20.1	20.0	19.8	19.7	19.5	19.5
DO (mg/L)	7.72	7.42	7.40	—	7.36	6.96
ORP (mV)	312	302	300	301	301	301
Turbidity (NTU)	7500	588	210	118	51.3	20.9
Time	1654	1657	1700	1703	1706	1709
DTW (ft bmp)	—	—	—		—	—

Remarks: Well sounded at 71.30'
Pump set 5' into water table
Pump raised prior to sampling

Parameter	Container	No.	Preservative
See COC			

PID Reading High Humidity

Well Casing Volumes

Gal./Ft.				
	1 1/4" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1 1/2" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

ARCADIS G&M, Inc.

Low-Flow Groundwater Sampling Log

Project Number: NY001464.0807 Task: 00003 Well ID: BCPMW-6-1

Date: 4-20-07 Sampled By: GW CE

Sampling Time: ______ Recorded By: GW

Weather: CLEARED Coded Replicate No.: ______

Instrument Identification

Water Quality Meter(s): ______ Serial #: ______

Purging Information

Casing Material: ______ Purge Method: Low flow / 3WV

Casing Diameter: ______ Screen Interval (ft bmp): Top ______ Bottom ______

Sounded Depth (ft bmp): ______ Pump Intake Depth (ft bmp): ______

Depth to Water (ft bmp): ______ Purge time Start: ______ Finish: ______

Field Parameter Measurements Taken During Purging

Time	Minutes Elapsed	Rate (mL/min)	Volume Purged	Temp (°C)	pH (SI Units)	Spec. Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft bmp)	Comments
10:50				16.5	6.08	444	-199	7.12			
10:55				16.7	6.08	447	-201	6.01			
11:00				17.7	6.03	533	-125	5.53			
11:05				17.7	6.07	537	-113	5.65			

Sample Condition Color: COLORLESS Odor: NONE Appearance: CLEAR

Sample Collection

Parameter: ______ Container: ______ No. ______ Preservative: ______

PID Reading 0.0

Comments ______

ARCADIS

Water Sampling Log

Project NYDD1464.0807 60003 Project No. _____ Page ____ of ____

Site Location BETHPAGE Date 4-20-07

Site/Well No. BCP MW-6-1 Replicate No. _____

Weather _____ Sampling Time: Begin ~~10:00~~ 9.30 End _____

Evacuation Data

Measuring Point	
Sounded Well Depth (ft bmp)	110.00
Depth to Water (ft bmp)	53.44
Depth to Packer (ft bmp)	
Water Column in Well (ft)	56.56
Casing Diameter	4" (0.65)
Gallons in Well	36
Gallons Pumped/Bailed Prior to Sampling	144
Sample Pump Intake Setting (ft bmp)	
Packer Pressure (psi)	
Pumping Rate (gpm)	Q=3 T=4810-16
Evacuation Method	
Sampling Method	
Purge Time	Begin 10:00 End _____

Field Parameters

Color COLORLESS

Odor NONE

Appearance CLEAR

	I	1V	2V	3V
pH (s.u.)	6.23	6.06	6.10	6.10
Conductivity ~~(mS/cm)~~ (µmhos/cm)	563	497	494	586
Temperature (°C)	15.4	16.5	16.7	16.5
DO (mg/L)				
Turbidity (NTU)				
Time				
DTW (ft bmp)				

Remarks: _____

Constituents Sampled: See COC Sampling Personnel: G.W, C.E.

Well Casing Volumes

Gal./Ft.	1 1/4" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1 1/2" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	mS/cm	Milisiemens per centimeter	VOC	Volatile Organic Compounds
°C	Degrees Celsius	s.u.	Standard units	umhos/cm	Micromhos per centimeter
ft	feet	NTU	Nephelometric Turbidity Units		
gpm	Gallons per minute	N/A	Not Applicable		
mg/L	Miligrams per liter	COC	Chain of Custody		

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Water Sampling Log

Project N- Grumman/03 Project No. NY001464.0807.00003

Site Location Bethpage, NY Date 7/11/07

Well No. BCP MW 6-1 Replicate No. MS/MSD Weather cloudy 82°F

Sampling Personnel William Prezorski Sampling Time: Begin 10:55 AM End 11:25 AM

Purge Data

Measuring Point (describe)	TOC
Sounded Well Depth (ft bmp)	110
Depth to Water (ft bmp)	52.93
Depth to Packer (ft bmp)	/
Water Column in Well (ft)	57.07
Casing Diameter	4" (0.65)
Gallons in Well	37.1 x3
Gallons Purged Prior to Sampling	112
Pump Intake Setting (ft bmp)	/
Packer Pressure (psi)	/
Pumping Rate (gpm)	2
Evacuation Method	2" Rediflow pump
Sampling Method	3 well volume
Purge Time	Begin 9:50 AM End 10:47

Field Parameters

	I	1V	2V	3V
Color	colorless	colorless	colorless	colorless
Odor	None	None	None	None
Appearance	clear	clear	clear	clear
pH (s.u.)	6.89	5.97	5.93	5.89
Conductivity (mS/cm) or (µmhos/cm) [1]	441	394	374	365
Temperature (°C)	19	18.9	18.8	19.0
DO (mg/L)	5.81	5.12	5.48	5.26
ORP (mV)	207	194	200	208
Turbidity (NTU)	37.1	10.17	4.09	3.85
Time	9:50 AM	10:09	10:28	10:47
DTW (ft bmp)	—	—	—	—

Remarks: Pump set 10' above screen
Pump lowered prior to sampling
Q=2 T=56 IV=19

Parameter	Container	No.	Preservative
See COC			

PID Reading 0 ppm

Well Casing Volumes

Gal./Ft.				
	1 1/4" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1 1/2" = 0.09	2-1/2" = 0.26	3-1/2" = 0.50	6" = 1.47

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Water Sampling Log

Project: N-Grumman OU3 | Project No.: NY001464.0807.00003
Site Location: Bethpage, NY | Date: 7/19/07
Well No.: B-24MW2 | Replicate No.: NA | Weather: overcast 80°F
Sampling Personnel: Prezorski, Willard | Sampling Time: Begin 1515 | End

Purge Data

Measuring Point (describe)	TOC
Sounded Well Depth (ft bmp)	73.41
Depth to Water (ft bmp)	57.54
Depth to Packer (ft bmp)	/
Water Column in Well (ft)	15.87
Casing Diameter	2" (0.16)
Gallons in Well	2.54 x3
Gallons Purged Prior to Sampling	8
Pump Intake Setting (ft bmp)	/
Packer Pressure (psi)	/
Pumping Rate (gpm)	/
Evacuation Method	Bailer
Sampling Method	3 well volume
Purge Time	Begin 1440 End 1513

Field Parameters

	I	1V	2V	3V
Color	Brown	Brown	Brown	Brown
Odor	None	None	None	None
Appearance	Turbid	Turbid	turbid	turbid
pH (s.u.)	6.50	4.15	3.98	3.98
Conductivity (mS/cm) or	/	/	/	/
(µmhos/cm) [1]	442	183.9	164.0	157.0
Temperature (°C)	18.1	17.6	17.3	17.2
DO (mg/L)	1.56	1.91	1.50	/
ORP (mV)	239	300	361	369
Turbidity (NTU)	750	750	750	750
Time	1440	1450	1448	1513
DTW (ft bmp)	/	/	/	/

Remarks: Well developed on 7/12/07. Several feet of material removed. Turbidity for purge all greater than 50 NTU

Parameter	Container	No.	Preservative
See COC			

PID Reading: High Humidity

Well Casing Volumes

Gal./Ft.				
	1 1/4" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1 1/2" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

1) Circle one unit type

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Water Sampling Log

Project: N-Grumman OU3 | Project No.: NY001464.0807.00003
Site Location: Bethpage NY | Date: 7/11/07
Well No.: B24MW-2 | Replicate No.: NA | Weather: cloudy 83°F
Sampling Personnel: Williams Borowski | Sampling Time: Begin: — End: —

Purge Data

Measuring Point (describe)	Toc
Sounded Well Depth (ft bmp)	74
Depth to Water (ft bmp)	52.41
Depth to Packer (ft bmp)	—
Water Column in Well (ft)	21.59
Casing Diameter	2" (0.16)
Gallons in Well	3.45
Gallons Purged Prior to Sampling	11
Pump Intake Setting (ft bmp)	—
Packer Pressure (psi)	—
Pumping Rate (gpm)	1
Evacuation Method	2" Redflow pump
Sampling Method	3 well volume
Purge Time	Begin 1545 End 1608

Field Parameters

		1	1V	2V	3V
Color	Brown				
Odor	None				
Appearance	turbid				
pH (s.u.)		4.40			
Conductivity (mS/cm) or		—			
(µmhos/cm) [1]		168.8			
Temperature (°C)		20.4			
DO (mg/L)		1.12			
ORP (mV)		290			
Turbidity (NTU)		7500			
Time		1547			
DTW (ft bmp)		—			

BP

Remarks: Pump set at Mid-screen to remove silty material. Drawdown (62.-) water stops, let recover, not able to maintain flow at 1gpm

Parameter	Container	No.	Preservative
See COC			

PID Reading: High Humidity

Well Casing Volumes

Gal./Ft.				
	1 1/4" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1 1/2" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

ARCADIS G&M, Inc.

Low-Flow Groundwater Sampling Log

Project Number: NY001348.0806 Task: 00002 Well ID: BCP-MW-3
Date: 4/12/06 Sampled By: GW BB
Sampling Time: 1:31 pm Recorded By: BB
Weather: clear 60s Coded Replicate No.: N/A

Instrument Identification
Water Quality Meter(s): Serial #:

Purging Information
Casing Material: PVC Purge Method: Rediflow / Low Flow
Casing Diameter: 2" Screen Interval (ft bmp): Top 59 Bottom 74
Sounded Depth (ft bmp): 74 Pump Intake Depth (ft bmp):
Depth to Water (ft bmp): 53.13 Purge time Start: 1:00 pm Finish: 1:30

Field Parameter Measurements Taken During Purging

Time	Minutes Elapsed	Rate (mL/min)	Volume Purged	Temp (°C)	pH (SI Units)	Spec. Cond. (µS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft bmp)	Comments
1:00	—	—	—	16.8	6.37	480	93	4.89	7500	—	—
1:05	—	—	—	16.3	5.90	476	140	4.28	210	53.16	—
1:10	—	—	—	16.9	5.88	474	147	4.14	80	—	—
1:15	—	—	—	17.1	5.84	475	153	4.22	40	53.16	—
1:20	—	—	—	17.0	5.81	482	159	3.65	27	—	—
1:25	—	—	—	17.1	5.79	482	165	3.37	23	53.16	—
1:30	—	—	—	16.9	5.79	485	168	3.49	18	—	—
							S^{2-} = 0.015				

Sample Condition Color: — Odor: — Appearance: —

Sample Collection

Parameter:	Container:	No.	Preservative:
See COC			

PID Reading: At wellhead zero

Comments: Dust monitor reading 0 mg/m³ upwind & downwind
(Same rediflow pump as CAMW-2)

ARCADIS G&M, Inc.

Low-Flow Groundwater Sampling Log

Project Number: NY001349.0806 Task: 00002 Well ID: BCP-MW-3
Date: 10/5/06 Sampled By: P. Perzarski / G. Williams
Sampling Time: 11:15AM Recorded By: P. Perzarski
Weather: — Coded Replicate No.: N/A

Instrument Identification
Water Quality Meter(s): — Serial #: —

Purging Information
Casing Material: PVC Purge Method: Redi-flow pump / Low Flow
Casing Diameter: 4" Screen Interval (ft bmp): Top 59 Bottom 74
Sounded Depth (ft bmp): 75 Pump Intake Depth (ft bmp):
Depth to Water (ft bmp): 53.98 Purge time Start: 10:30 AM Finish: 11:15AM

Field Parameter Measurements Taken During Purging

Time	Minutes Elapsed	Rate (mL/min)	Volume Purged	Temp (°C)	pH (SI Units)	Spec. Cond. (µS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft bmp)	Comments
10:30				13.9	5.66	400	58	4.42			
10:35				13.8	5.68	383	36	3.98		53.15	
10:40				14.2	5.70	369	29	4.02			
10:45				15.0	5.74	345	29	4.11		53.32	
10:50				16.1	5.74	332	41	4.00			
10:55				16.5	5.75	330	49	3.69			
11:00				16.6	5.75	327	49	3.84		53.48	
11:05				16.7	5.75	325	53	3.72			
11:10				16.8	5.75	326	58	3.75		53.46	
11:15				16.9	5.76	325	61	3.62	23		

Sample Condition Color: colorless Odor: None Appearance: clear

Sample Collection

Parameter:	Container:	No.	Preservative:
See COC			

PID Reading: 0 ppm

Comments:

G:\APROJECT\WHCS Melville\EKD Files\Testlowflowsampforms.xls-Low-Flow-GW-Samp.

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Water Sampling Log

Project N-Grumman OU3 Project No. NY001346.0806.00002 Page 1 of 1

Site Location Bethpage, NY Date 10/5/06

Site/Well No. BCP-MW-3 Replicate No. N/A

Weather / Sampling Time: Begin 11:46 End 11:48 AM

Evacuation Data

Measuring Point	TOC
Sounded Well Depth (ft bmp)	75
Depth to Water (ft bmp)	53.98
Depth to Packer (ft bmp)	/
Water Column in Well (ft)	21.02
Casing Diameter	2" (.16)
Gallons in Well	3.36
Gallons Pumped/Bailed	+3
Prior to Sampling	10
Sample Pump Intake Setting (ft bmp)	/
Packer Pressure (psi)	/
Pumping Rate (gpm)	1
Evacuation Method	Redflow pump
Sampling Method	3 WV
Purge Time Begin	11:33 End 11:45

Field Parameters

	1	1V	2V	3V
Color	colorless	colorless	colorless	colorless
Odor	None	None	None	None
Appearance	cloudy	clear	clear	clear
pH (s.u.)	5.78	5.83	5.80	5.80
Conductivity (~~mS/cm~~)	—	—	—	—
Conductivity (µmhos/cm)	313	321	322	326
Temperature (°C)	15.0	14.6	14.2	14.1
DO (mg/L)	—	—	—	
Turbidity (NTU)	—	—	—	12
Time	11:33	11:37	11:41	11:45
DTW (ft bmp)				

Remarks: Q = 1 T = 10 1V = 4

Constituents Sampled: See COC Sampling Personnel: P. Prezorski / G Williams

Well Casing Volumes

Gal./Ft.				
	$1^{1/4}$" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	$1^{1/2}$" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	mS/cm	Milisiemens per centimeter	VOC	Volatile Organic Compounds
°C	Degrees Celsius	s.u.	Standard units	umhos/cm	Micromhos per centimeter
ft	feet	NTU	Nephelometric Turbidity Units		
gpm	Gallons per minute	N/A	Not Applicable		
mg/L	Miligrams per liter	COC	Chain of Custody		

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Water Sampling Log

Project NGC Project No. NY001348.0806.00002 Page 1 of 1

Site Location Bethpage, NY Date 11/10/06

Site/Well No. BCPMW-3 Replicate No. N/A (MS/MSD)

Weather Clear Sampling Time: Begin 1449 End 1507

Evacuation Data

Measuring Point	TOC
Sounded Well Depth (ft bmp)	74
Depth to Water (ft bmp)	53.21
Depth to Packer (ft bmp)	/
Water Column in Well (ft)	20.79
Casing Diameter	2" (.16)
Gallons in Well	3.33
Gallons Pumped/Bailed Prior to Sampling	10 gal
Sample Pump Intake Setting (ft bmp)	58 ft
Packer Pressure (psi)	/
Pumping Rate (gpm)	1 gpm
Evacuation Method	Rodi flo
Sampling Method	Rodiflo
Purge Time	Begin 1449 End 1507

Field Parameters

	1	1V	2V	3V
Color	Lt Brn	" "	" "	" "
Odor	None	" "	" "	" "
Appearance	Turbid	Slt. Turb	"	" "
pH (s.u.)	6.58	6.42	6.31	6.31
Conductivity ~~(mS/cm)~~	101	114	117	118
(µmhos/cm)	98.3	120.4	116.0	116.5
Temperature (°C)	14.3	15.0	14.9	15.2
DO (mg/L)	4.27	2.90	2.87	2.71
Turbidity (NTU)	—	—	—	—
Time	1449	1455	1501	1507
DTW (ft bmp)	53.21	—	—	—

Remarks:

Constituents Sampled: See COC Sampling Personnel: D. Zuck / G. Williams

Well Casing Volumes

Gal./Ft.				
	$1^{1/4}$" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	$1^{1/2}$" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	mS/cm	Milisiemens per centimeter	VOC	Volatile Organic Compounds
°C	Degrees Celsius	s.u.	Standard units	umhos/cm	Micromhos per centimeter
ft	feet	NTU	Nephelometric Turbidity Units		
gpm	Gallons per minute	N/A	Not Applicable		
mg/L	Milligrams per liter	COC	Chain of Custody		

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Water Sampling Log

Project: NGC 043 | Project No.: NY001348.0006.2 | Page 1 of 1

Site Location: Bethpage NY | Date: 12/11/06

Site/Well No.: BCP MW-3 | Replicate No.: N/A | Code No.: N/A

Weather: P/C ≈ 50° | Sampling Time: Begin ✓ End ✓

Evacuation Data

Measuring Point	TOC
MP Elevation (ft)	✓
Land Surface Elevation (ft)	✓
Sounded Well Depth (ft bmp)	75
Depth to Water (ft bmp)	53.90
Water-Level Elevation (ft)	~~Est~~
Water Column in Well (ft)	21.1
Casing Diameter/Type	2" (.16)
Gallons in Well	3.3
Gallons Pumped/Bailed Prior to Sampling	≈10
Sample Pump Intake Setting (ft bmp)	55'
Purge Time	begin 1621 end 1631
Pumping Rate (gpm)	1gpm
Evacuation Method	

Field Parameters

	I	1V	2V	3V
Color	Lt Brown			
Odor	trace			
Appearance	turbid			
pH (s.u.)	6.32	6.38	6.30	626
Conductivity (mS/cm)	✓	✓	—	—
(µmhos/cm)	155.1	150.6	156.4	156.2
Turbidity (NTU)	✓	✓	—	—
Temperature (°C)	13.9	15.4	15.6	15.4
Dissolved Oxygen (mg/L)				
~~Salinity~~ Time (%)	1621	1624	1627	1630

Sampling Method: RediFlo

Remarks: O.OPID

Constituents Sampled	Container Description	Number	Preservative
See COC 21.			
.16			
126			
210			
3.36			

Sampling Personnel: G. Williams / D. Zack

Well Casing Volumes

Gal./Ft.				
	1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	ml	milliliter	NTU	Nephelometric Turbidity Units
°C	Degrees Celsius	mS/cm	Milisiemens per centimeter	PVC	Polyvinyl chloride
ft	feet	msl	mean sea-level	s.u.	Standard units
gpm	Gallons per minute	N/A	Not Applicable	umhos/cm	Micromhos per centimeter
mg/L	Miligrams per liter	NR	Not Recorded	VOC	Volatile Organic Compounds

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Water Sampling Log

Project NGC-BCP Project No. NY001348.0806.00002

Site Location BCPMW-3 Date 11/15/07

Well No. BCPMW-3 Replicate No. N/A Weather cloudy-Rain/40°F

Sampling Personnel Chelin/Prezorski Sampling Time: Begin 14:20 End 14:30

Purge Data

Measuring Point (describe)	TOC
Sounded Well Depth (ft bmp)	74
Depth to Water (ft bmp)	52.51
Depth to Packer (ft bmp)	
Water Column in Well (ft)	21.49
Casing Diameter	2" ID
Gallons in Well	(21.5x.16)=3.44G
Gallons Purged	(3.44x3)=10.32G
Prior to Sampling	11G
Pump Intake	
Setting (ft bmp)	~1' above screen
Packer Pressure (psi)	
Pumping Rate (gpm)	1
Evacuation Method	~~Peristaltic pump~~
Sampling Method	Rediflo pump
Purge Time	Begin ~~14:08~~ 1409 End 14:30

Field Parameters

	I	1V	2V	3V
Color	Colorless	Colorless	Colorless	Colorless
Odor	odorless	odorless	odorless	odorless
Appearance	Cloudy	Cloudy	Cloudy	Cloudy
pH (s.u.)	5.65	5.60	5.59	5.56
Conductivity (mS/cm) or ~~(µmhos/cm)~~ [1]	159.9	232	242	248
Temperature (°C)	12.3	13.0	13.3	13.2
DO (mg/L)	1.67	3.82	3.80	4.35
ORP (mV)	152	143	139	137
Turbidity (NTU)	>100	85	65	60
Time	14:08	14:12	14:16	14:20
DTW (ft bmp)	52.51	52.63	52.63	52.63

Remarks: #No PID due to casing

Parameter	Container	No.	Preservative
See COC			

PID Reading N/A

Well Casing Volumes

Gal./Ft.				
	1 1/4" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1 1/2" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

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Low-Flow Groundwater Sampling Log

Project Number: NY001464.0807 Task: 0010W Well ID: BCP MW-3
Date: 2/14/07 Sampled By: D. Zuck
Sampling Time: 5:50 Recorded By: D. Zuck
Weather: Overcast → P/C 25° Coded Replicate No.: N/A

Instrument Identification
Water Quality Meter(s): ✓ Serial #: ✓

Purging Information
Casing Material: ✓ Purge Method: Rediflo/Lowflow
Casing Diameter: 2" Screen Interval (ft bmp): Top _____ Bottom _____
Sounded Depth (ft bmp): 74 Pump Intake Depth (ft bmp): _____
Depth to Water (ft bmp): 54.7 Purge time Start: 5:45 Finish: 5:50

Field Parameter Measurements Taken During Purging

Time	Minutes Elapsed	Rate (mL/min)	Volume Purged	Temp (°C)	pH (SI Units)	Spec. Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft bmp)	Comments
5:45	0	500	0	12.1	5.41	504	151	4.16	—		
5:50	5	dc	500	14.9	5.41	507	153	4.14	156	—	

Sample Condition Color: Lt Brown Odor: None Appearance: turbid

Sample Collection

Parameter:	Container:	No.	Preservative:
VOC 2000 ASP + Freon 12 ↓ 22	40mL Vials	2	HCl

PID Reading ✓

Comments _____

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Water Sampling Log

Project NY001469.0807.164 Project No. NGC-043 Page 1 of 2

Site Location Bethpage NY Date 2/14/07

Site/Well No. BCPmw-3 Replicate No. N/A

Weather P/C 25° Sampling Time: Begin 5:50 End 5:55

Evacuation Data

Measuring Point	TOC
Sounded Well Depth (ft bmp)	74.00
Depth to Water (ft bmp)	54.70
Depth to Packer (ft bmp)	
Water Column in Well (ft)	19.3
Casing Diameter	2"(.16)
Gallons in Well	3.08
Gallons Pumped/Bailed Prior to Sampling	9.3
Sample Pump Intake Setting (ft bmp)	64'
Packer Pressure (psi)	/
Pumping Rate (gpm)	1
Evacuation Method	Rodi Pump
Sampling Method	3V + LF
Purge Time	Begin 5:32 End 5:50

Field Parameters

Color: Lt Brown

Odor: None

Appearance: slt. turb.

	I	1V	2V	3V
pH (s.u.)	3.16	5.51	5.49	5.56
Conductivity (mS/cm)	—	—		
(µmhos/cm)	5.82	440	459	463
Temperature (°C)	7.7	12.7	13.6	13.7
DO (mg/L)	4.37	3.52	3.55	3.57
Turbidity (NTU)	>500	373	309	—
Time	5:32	5:35	5:38	5:41
DTW (ft bmp)	54.70	—	—	

Remarks:

Constituents Sampled: See COC Sampling Personnel: D. Z. / G. Williams

Well Casing Volumes

Gal./Ft.				
	$1^{1/4}$" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	$1^{1/2}$" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	mS/cm	Milisiemens per centimeter	VOC	Volatile Organic Compounds
°C	Degrees Celsius	s.u.	Standard units	umhos/cm	Micromhos per centimeter
ft	feet	NTU	Nephelometric Turbidity Units		
gpm	Gallons per minute	N/A	Not Applicable		
mg/L	Miligrams per liter	COC	Chain of Custody		

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Water Sampling Log

Project N-Grumman OU3 Project No. NY001464.0907.00003

Site Location Bethpage, NY Date 4/19/07

Well No. BCP MW-3 Replicate No. NA Weather Overcast 50's

Sampling Personnel Williams Prezorski Sampling Time: Begin NA End NA

Purge Data

Measuring Point (describe)	TOC
Sounded Well Depth (ft bmp)	75
Depth to Water (ft bmp)	51.92
Depth to Packer (ft bmp)	
Water Column in Well (ft)	23.08
Casing Diameter	2" (0.16)
Gallons in Well	3.7
Gallons Purged	x3
Prior to Sampling	11
Pump Intake	
Setting (ft bmp)	—
Packer Pressure (psi)	—
Pumping Rate (gpm)	1
Evacuation Method	Rediflow Pump
Sampling Method	3 well volume
Purge Time	Begin 10:03 AM End 10:15 AM

Field Parameters

	I	1V	2V	3V
Color	Brown	light tan	light tan	light tan
Odor	None	None	None	None
Appearance	turbid	turbid	cloudy	cloudy
pH (s.u.)	5.89	5.72	5.72	5.75
Conductivity (~~mS/cm~~) or (µmhos/cm) [1]	— / 1564	— / 434	— / 470	— / 471
Temperature (°C)	14.4	15.2	15.9	15.9
DO (mg/L)	—	—	—	—
ORP (mV)	—	—	—	—
Turbidity (NTU)	—	—	—	—
Time	10:03 AM	10:07 AM	10:11	10:15
DTW (ft bmp)	—	—		

Remarks: Q = 1 T = 11 1V = 4

Parameter	Container	No.	Preservative
See COC			

PID Reading 0 ppm

Well Casing Volumes

Gal./Ft.				
	$1^{1/4}$" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	$1^{1/2}$" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

1) Circle one unit type

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Low-Flow Groundwater Sampling Log

Project: N-Grumman OU3
Project Number: NY001464.0807.00007
Site Location: Bethpage, NY
Well ID: BCP MW-3
Date: 4/19/07
Sampled By: Williams
Sampling Time: 10:37 AM
Recorded By: Prizonic
Weather: Overcast 50's
Coded Replicate No.: N/A

Instrument Identification
Water Quality Meter(s):
Serial #:

Casing Material: PVC
Casing Diameter: 2"
Sounded Depth (ft bmp): 75
Depth to Water (ft bmp): 51.92
Purge Method: Low Flow / Red Flow Pump
Screen Interval (ft bmp): Top 59 Bottom 74
Pump Intake Depth (ft bmp):
Purge Time: Start 10:16 AM Finish 10:35 AM

Field Parameter Measurements During Purging

Time	Minutes Elasped	Flow Rate (mL/min)	Volume Purged	Temp (°C)	pH (s.u.)	Conductivity (umhos or ~~mS/cm~~) 1)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft bmp)
10:16 AM		350		15.2	5.74	495	-342	3.79		
10:20		"		15.2	5.75	497	-133	3.39		
10:25		400		14.7	5.73	493	-150	3.72		
10:30		400		14.3	5.73	499	-131	3.92	100	
10:35 AM				16.4	5.71	486	-129	3.91	110	

Collected Sample Condition
Color:
Odor: None
Appearance: Cloudy

Parameter	Container	No.	Preservative
See CoC			

PID Reading: 6 ppm

Comments:

1) Circle one unit type

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Page 1 of 1

Water Sampling Log

Project: N-Grumman 003 | Project No.: NY001464.0807.00003
Site Location: Bethpage, NY | Date: 5/23/07
Well No.: BCP MW-3 | Replicate No.: N/A | Weather: clear 75°F
Sampling Personnel: Prezorski, Williams | Sampling Time: Begin: NA | End: NA

Purge Data

Measuring Point (describe)	TOC
Sounded Well Depth (ft bmp)	74
Depth to Water (ft bmp)	51.30
Depth to Packer (ft bmp)	/
Water Column in Well (ft)	22.7
Casing Diameter	2" (0.16)
Gallons in Well	3.6
Gallons Purged	x3
Prior to Sampling	11
Pump Intake	
Setting (ft bmp)	/
Packer Pressure (psi)	/
Pumping Rate (gpm)	1
Evacuation Method	2" Rediflow pump
Sampling Method	3 well volume
Purge Time	Begin 1517 End 1529

Field Parameters

	I	1V	2V	3V
Color	Brown	colorless	colorless	colorless
Odor	None	None	None	None
Appearance	turbid	cloudy	cloudy	cloudy
pH (s.u.)	5.47	5.27	5.27	5.25
Conductivity (mS/cm) or	—	—	—	—
(µmhos/cm) 1)	371	396	399	404
Temperature (°C)	17.1	16.3	16.3	16.3
DO (mg/L)	—	—	—	—
ORP (mV)	—	—	—	—
Turbidity (NTU)	650	130	170	160
Time	1517	1521	1525	1529
DTW (ft bmp)	—	—	—	—

Remarks: Q=1 T=11 1V=4
Pump set above screen

Parameter	Container	No.	Preservative
See COC			

PID Reading: 0ppm @ wellhead

Well Casing Volumes

Gal./Ft.				
	1 1/4" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1 1/2" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

1) Circle one unit type

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Low-Flow Groundwater Sampling Log

Project: N-Grumman 003
Project Number: NY001464.0807.00003
Site Location: Bethpage, NY
Well ID: BCPMW-3
Date: 5/23/07
Sampled By: Prezorski / William
Sampling Time: 1557
Recorded By: Prezorski
Weather: clear 75°F
Coded Replicate No.: N/A

Instrument Identification
Water Quality Meter(s):
Serial #:

Casing Material: PVC
Purge Method: 2" Redflow Pump / Low flow
Casing Diameter: 2"
Screen Interval (ft bmp): Top 59 Bottom 74
Sounded Depth (ft bmp): 74
Pump Intake Depth (ft bmp):
Depth to Water (ft bmp): 51.30
Purge Time: Start 1530 Finish 1555

Field Parameter Measurements During Purging

Time	Minutes Elasped	Flow Rate (mL/min)	Volume Purged	Temp (°C)	pH (s.u.)	Conductivity (umhos or ~~mS/cm~~)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft bmp)
1530		500		17.6	5.39	360	182	4.79	100	—
1535		500		19.2	5.49	350	174	4.51	210	51.31
1540		500		18.6	5.47	404	150	3.72	1100	—
1545		500		18.9	5.43	405	159	3.42	400	51.31
1550		500		19.4	5.38	401	167	3.79	170	—
1555		500		19.6	5.38	398	170	3.75	120	51.31

Collected Sample Condition: Color Colorless Odor None Appearance Cloudy

Parameter	Container	No.	Preservative
See COC			

PID Reading: 0 ppm

Comments:
Pump set @ mid screen
At 1535 Pump moved to near top of screen

1) Circle one unit type

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Page 1 of 1

Water Sampling Log

Project: N-Grumman OU3 | Project No.: NY001464.0807.00003
Site Location: Bethpage NY | Date: 7/12/07
Well No.: BCPMW-3 | Replicate No.: NA | Weather: clear 90°F
Sampling Personnel: Williams Perowski | Sampling Time: Begin 10:05 AM | End 10:11 AM

Purge Data

Measuring Point (describe)	TOC
Sounded Well Depth (ft bmp)	74
Depth to Water (ft bmp)	51.61
Depth to Packer (ft bmp)	/
Water Column in Well (ft)	22.39
Casing Diameter	2" (0.16)
Gallons in Well	3.6
Gallons Purged	x3
Prior to Sampling	11
Pump Intake Setting (ft bmp)	/
Packer Pressure (psi)	/
Pumping Rate (gpm)	Approx .5
Evacuation Method	2" Rediflow pump
Sampling Method	3 well volume
Purge Time	Begin 9:37 AM End 10:01 AM

Q=.5 +/- 22 1V=8

Field Parameters

	I	1V	2V	3V
Color	light tan	colorless	colorless	colorless
Odor	slight	slight	slight	slight
Appearance	turbid	clear	clear	clear
pH (s.u.)	6.67	5.79	5.75	5.76
Conductivity (mS/cm) or (µmhos/cm) [1]	422	415	387	376
Temperature (°C)	18.3	17.7	17.8	17.8
DO (mg/L)	1.74	2.55	3.34	3.04
ORP (mV)	62	70	75	~~5.76~~ 76
Turbidity (NTU)	130	33.7	34.3	25.6
Time	9:37	9:45	9:53	10:01
DTW (ft bmp)	—	—	—	—

Remarks: Pump set 2 into water table
Well sounded at 74.61'
~~ORP at 3V is 76mV~~
Note: 3V ORP is 76mV

Parameter	Container	No.	Preservative
See COC			

PID Reading: High humidity

Well Casing Volumes

Gal./Ft.				
	1 1/4" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1 1/2" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

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Water Sampling Log

Project: N- Grumman OU3 | Project No.: NY001464.0807.00003
Site Location: Bethpage, NY | Date: 9-18-07
Well No.: BGPMW-3 | Replicate No.: NA | Weather: clear, 65°F
Sampling Personnel: Williams & Prezorski | Sampling Time: Begin ____ End ____

Purge Data

Measuring Point (describe)	TOC
Sounded Well Depth (ft bmp)	74
Depth to Water (ft bmp)	51.38
Depth to Packer (ft bmp)	—
Water Column in Well (ft)	22.62
Casing Diameter	2" (0.16)
Gallons in Well	3.62
	x 3
Gallons Purged Prior to Sampling	11
Pump Intake Setting (ft bmp)	*
Packer Pressure (psi)	—
Pumping Rate (gpm)	1
Evacuation Method	2" redi-flow pump
Sampling Method	~~3 well volume~~ OP
Purge Time	Begin 1347 End 1359

Field Parameters

	I	1V	2V	3V
Color	tan	light tan	light tan	light tan
Odor	slight	slight	slight	slight
Appearance	turbid	turbid	turbid	turbid
pH (s.u.)	5.39	5.69	5.70	5.71
Conductivity (mS/cm) or (µmhos/cm)	352	360	364	365
Temperature (°C)	15.8	16.1	16.1	16.1
DO (mg/L)	3.73	4.81	4.46	4.68
ORP (mV)	194	147	134	129
Turbidity (NTU)	417	133	107.0	101.1
Time	1347	1351	1355	1359
DTW (ft bmp)	—	—	—	—

Remarks: * Pump set above screen
Pump lowered before low flow sampling
Q=1 t=11 1V=4

Parameter	Container	No.	Preservative
See COC			

PID Reading: Not working (Battery needs charging)

Well Casing Volumes

Gal./Ft.				
	1 1/4" = 0.06	~~2" = 0.16~~	3" = 0.37	4" = 0.65
	1 1/2" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

1) Circle one unit type

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Infrastructure, environment, facilities

Low-Flow Groundwater Sampling Log

Project	N- Grumman OU3				
Project Number	NY001464.0807.00003	**Site Location**	Bethpage, NY	**Well ID**	BCPMW-3
Date	9-18-07	**Sampled By**	Williams & Prezorski		
Sampling Time	1421	**Recorded By**	Prezorski		
Weather	Clear, 65°F	**Coded Replicate No.**	NA		

Instrument Identification			
Water Quality Meter(s)		**Serial #**	
Casing Material	PVC	**Purge Method**	Rediflow Pump / Low Flow
Casing Diameter	2"	**Screen Interval (ft bmp)**	Top 59 Bottom 74
Sounded Depth (ft bmp)	74	**Pump Intake Depth (ft bmp)**	—
Depth to Water (ft bmp)	51.38	**Purge Time**	Start 1405 Finish 1420

Field Parameter Measurements During Purging

Time	Minutes Elasped	Flow Rate (mL/min)	Volume Purged	Temp (°C)	pH (s.u.)	Conductivity (~~umhos or mS/cm~~) [1]	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft bmp)
1405		450		17.3	5.52	260	161	5.11	—	—
1410		450		17.7	5.74	366	129	3.59	—	—
1415		450		18.5	5.74	359	125	3.22	414	51.40
1420		450		19.3	5.73	353	124	3.06	250	—

Collected Sample Condition Color Light tan Odor Slight Appearance turbid

Parameter	Container	No.	Preservative
See COC			

PID Reading —

Comments

1) Circle one unit type

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Water Sampling Log

Project NGC-BCP Project No. M09134.0606.0003 Page 1 of 1

Site Location Bethpage, NY Date 11/12/07

Site/Well No. B24MW-3 Replicate No. /

Weather / Sampling Time: Begin / End /

Evacuation Data

Measuring Point	TOC
Sounded Well Depth (ft bmp)	~70
Depth to Water (ft bmp)	54.59
Depth to Packer (ft bmp)	/
Water Column in Well (ft)	15.41
Casing Diameter	2" D
Gallons in Well	(15.41 × .16) = 2.5G
Gallons Pumped/Bailed Prior to Sampling	(2.5G × 3) = 7.5G
Sample Pump Intake Setting (ft bmp)	/
Packer Pressure (psi)	/
Pumping Rate (gpm)	/
Evacuation Method	/
Sampling Method	Redi Flo
Purge Time	Begin ____ End ____

Field Parameters

Color: Brown

Odor: None

Appearance: Turbid

	I	1V	2V	3V
pH (s.u.)	5.46	5.40	5.48	5.44
Conductivity ~~(mS/cm)~~ (µmhos/cm)	572	527	534	538
Temperature (°C)	14.2	14.2	14.4	14.4
DO (mg/L)				
Turbidity (NTU)				
Time	2:58	3:00.5	3:03	3:06
DTW (ft bmp)				

Remarks: Q=1 T= 7.5 1V=2.5 gal

Constituents Sampled: See COC Sampling Personnel: GW/JAC

Well Casing Volumes

Gal./Ft.				
	1 1/4" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1 1/2" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	mS/cm	Milisiemens per centimeter	VOC	Volatile Organic Compounds
°C	Degrees Celsius	s.u.	Standard units	umhos/cm	Micromhos per centimeter
ft	feet	NTU	Nephelometric Turbidity Units		
gpm	Gallons per minute	N/A	Not Applicable		
mg/L	Miligrams per liter	COC	Chain of Custody		

609-208-3157

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Low-Flow Groundwater Sampling Log

Project Number: NY003481.0006 Task: 00002 Well ID: B24MW-3
Date: 11-12-07 Sampled By: BWJC
Sampling Time: / Recorded By: BW
Weather: CLEAR 55° Coded Replicate No.: /

Instrument Identification
Water Quality Meter(s): / Serial #: /

Purging Information
Casing Material: /
Casing Diameter: /
Sounded Depth (ft bmp): /
Depth to Water (ft bmp): /
Purge Method: /
Screen Interval (ft bmp): Top 54 Bottom 74
Pump Intake Depth (ft bmp): /
Purge time Start: 3:10 Finish: 3:30

Field Parameter Measurements Taken During Purging

Time	Minutes Elapsed	Rate (mL/min)	Volume Purged	Temp (°C)	pH (SI Units)	Spec. Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft bmp)	Comments
3:10				14.8	5.33	561	189	5.91			
3:15				14.6	5.38	552	200	6.15			
3:20				15.9	5.30	582	206	6.39			
3:25				16.3	5.30	576	212	6.38			
3:30				16.4	5.31	572	217	6.37	28		
						52	= 0.047	mS/L			

Sample Condition Color: COLORLESS Odor: NONE Appearance: CLEAR

Sample Collection

Parameter:	Container:	No.	Preservative:
SEP COL			

PID Reading

Comments

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Water Sampling Log

Project: N-Grumman OU3 | Project No.: NY001464.0807.00003
Site Location: Bethpage, NY | Date: 7/11/07
Well No.: B24MW-3 | Replicate No.: NA | Weather: cloudy 82°F
Sampling Personnel: Williams Prezorski | Sampling Time: Begin 12:54 End 13:00

Purge Data

Measuring Point (describe)	TOC
Sounded Well Depth (ft bmp)	70
Depth to Water (ft bmp)	53.57
Depth to Packer (ft bmp)	/
Water Column in Well (ft)	16.43
Casing Diameter	2" (0.16)
Gallons in Well	2.63
	x3
Gallons Purged Prior to Sampling	8
Pump Intake Setting (ft bmp)	/
Packer Pressure (psi)	/
Pumping Rate (gpm)	.5
Evacuation Method	2" Rediflow Pump
Sampling Method	3 well volume
Purge Time	Begin 12:20pm End 12:57pm

Q=.5 t=16 lv=6

Field Parameters

	I	1V	2V	3V	4V	5V
Color	light tan	light tan	light tan	light tan	light tan	very light tan
Odor	None	None	None	None	None	None
Appearance	cloudy	cloudy	cloudy	cloudy	cloudy *	clear
pH (s.u.)	5.92	5.53	5.34	5.26	5.34	5.31
Conductivity (mS/cm) or (µmhos/cm) [1]	142.7	380	508	519	452	505
Temperature (°C)	19.6	21.0	19.2	18.7	19.6	19.2
DO (mg/L)	—	4.95	5.11	5.50	4.91	6.70
ORP (mV)	187	179	199	214	210	215
Turbidity (NTU)	309	337	232	71.3	139	43.6
Time	12:20	12:34	12:38	12:42	12:49	12:53
DTW (ft bmp)	—	—	—	—	—	—

Remarks: Pump set at 1.5' into water table. Drawdown & pump silt problems at 12:28pm → pump lowered approx 6' & rate increased to 1 gpm.
* Pump ~~turned~~ raised off at 4V. Well sounded at 69.50'

Parameter	Container	No.	Preservative
See COC			

PID Reading: 0 ppm

Well Casing Volumes

Gal./Ft.				
	1 1/4" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1 1/2" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

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Water Sampling Log

Project: N-Grumman OU3 Project No. NY001464.0607.00003
Site Location: Bethpage, NY Date: 7/12/07
Well No. BPMW-1 Replicate No. NA Weather: Clear 80°F
Sampling Personnel: Williams, Przorski Sampling Time: Begin ——— End ———

Purge Data

Measuring Point (describe)	TOC
Sounded Well Depth (ft bmp)	70
Depth to Water (ft bmp)	51.65
Depth to Packer (ft bmp)	—
Water Column in Well (ft)	18.35
Casing Diameter	2" (0.16)
Gallons in Well	2.94
Gallons Purged Prior to Sampling	x3 9
Pump Intake Setting (ft bmp)	—
Packer Pressure (psi)	—
Pumping Rate (gpm)	
Evacuation Method	2" Redi-flow pump
Sampling Method	3 well volume
Purge Time	Begin 12:32 pm End —

Field Parameters

Color:
Odor:
Appearance:

	I	1V	2V	3V
pH (s.u.)				
Conductivity (mS/cm) or (µmhos/cm) [1]				
Temperature (°C)				
DO (mg/L)				
ORP (mV)				
Turbidity (NTU)				
Time				
DTW (ft bmp)				

Remarks: Well sounded at 65.10
Pump set 2' into water table. Flow stopped after 20 seconds.
Pump lowered 5'. Again flow stopped after 20 seconds.

Parameter	Container	No.	Preservative
See COC			

PID Reading: High Humidity

Well Casing Volumes

Gal./Ft.				
	$1^{1/4}$" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	$1^{1/2}$" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

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Infrastructure, environment, facilities

Water Sampling Log

Project N-Grumman OU3 Project No. NY001464.0807.00003

Site Location Bethpage, NY Date 7/19/07

Well No. BCP MW-1 Replicate No. NA Weather Overcast 80°F

Sampling Personnel Prezorski Sampling Time: Begin 1726 End 1740

Purge Data

Measuring Point (describe)	TOC
Sounded Well Depth (ft bmp)	64.38
Depth to Water (ft bmp)	51.11
Depth to Packer (ft bmp)	/
Water Column in Well (ft)	13.27
Casing Diameter	2" (0.16)
Gallons in Well	2.12
Gallons Purged	x3
Prior to Sampling	7
Pump Intake	
Setting (ft bmp)	/
Packer Pressure (psi)	/
Pumping Rate (gpm)	/
Evacuation Method	Bailer
Sampling Method	3 well volume
Purge Time	Begin 1704 (1704) End 1723

Field Parameters

	I	1V	2V	3V
Color	colorless	tan	brown	tan
Odor	NON	NONE	NONE	NONE
Appearance	clear	turbid	turbid	turbid
pH (s.u.)	4.26	4.25	4.06	4.07
Conductivity (mS/cm) or	—	—	—	—
(µmhos/cm) [1]	125.6	131.4	142.6	133.2
Temperature (°C)	17.4	16.5	15.2	15.6
DO (mg/L)	3.24	3.13	4.01	2.86
ORP (mV)	425	412	415	393
Turbidity (NTU)	62.1	739	750	953
Time	1704	1710	1717	1723
DTW (ft bmp)	—	—	—	—

Remarks: Greater than 50 NTU

Parameter	Container	No.	Preservative
See COC			

PID Reading High Humidity

Well Casing Volumes

Gal./Ft.				
	$1^{1/4}$" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	$1^{1/2}$" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

1) Circle one unit type

ARCADIS G&M, Inc.

Low-Flow Groundwater Sampling Log

Project Number: NY001348.0806 Task: 00002 Well ID: BCP-MW-2
Date: 4/12/06 Sampled By: GW/AP
Sampling Time: 2:53 pm Recorded By: AP
Weather: clear 60s Coded Replicate No.: Rep04/06

Instrument Identification
Water Quality Meter(s): Serial #:

Purging Information
Casing Material: PVC Purge Method: Rediflow pump / Low Flow
Casing Diameter: 2" Screen Interval (ft bmp): Top 60 Bottom 75
Sounded Depth (ft bmp): 75 Pump Intake Depth (ft bmp):
Depth to Water (ft bmp): 54.52 Purge time Start: 2:15pm Finish: 2:50pm

Field Parameter Measurements Taken During Purging

Time	Minutes Elapsed	Rate (mL/min)	Volume Purged	Temp (°C)	pH (SI Units)	Spec. Cond. (mS/cm) (µS)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft bmp)	Comments
2:15	—	—	—	15.8	5.77	605	155	2.91	750	—	—
2:20	—	—	—	15.8	6.23	612	158	2.34	500	54.51	—
2:25	—	—	—	16.1	6.24	615	165	2.35	200	—	—
2:30	—	—	—	17.1	6.24	622	169	2.26	55	54.51	—
2:35	—	—	—	17.6	6.24	622	170	2.24	31	—	—
2:40	—	—	—	17.8	6.22	622	171	2.31	23	54.51	—
2:45	—	—	—	17.8	6.22	621	171	2:30	15	—	—
2:50	—	—	—	17.8	6.22	619	171	2.30	14	54.51	—
							S2- = 0.080				

Sample Condition Color: Odor: Appearance:
Sample Collection

Parameter:	Container:	No.	Preservative:
See COC			

PID Reading: At wellhead zero
Comments: Dust monitor reading 0 mg/m3 upwind & downwind
Clean well pump used

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Water Sampling Log

Project BCP-NGC Project No. M00134B.0806.00002

Site Location Bethpage, NY Date 1/15/07

Well No. BCP-MW-2 Replicate No. n/a Weather Cloudy/Rain ~40°F

Sampling Personnel JAC/PP Sampling Time: Begin 1315 End 1317

Purge Data

Measuring Point (describe)	TOC
Sounded Well Depth (ft bmp)	75.5
Depth to Water (ft bmp)	53.88
Depth to Packer (ft bmp)	—
Water Column in Well (ft)	21.62
Casing Diameter	2" D
Gallons in Well	3.5G
Gallons Purged	@ 13.5G > 3.5 =
Prior to Sampling	10.5G
Pump Intake	
Setting (ft bmp)	~5' above screen
Packer Pressure (psi)	—
Pumping Rate (gpm)	1
Evacuation Method	—
Sampling Method	Rediflo pump
Purge Time	Begin 1300 End 1312

Field Parameters

	I	1V	2V	3V
Color	Light tan	Light tan	Light tan	colorless
Odor	None	None	None	None
Appearance	turbid	turbid	turbid	cloudy
pH (s.u.)	5.58	5.59	5.61	5.62
Conductivity (~~mS/cm~~) or (µmhos/cm) [1]	— / 494	— / 425	— / 413	— / 407
Temperature (°C)	11.1	13.1	13.5	13.7
DO (mg/L)	3.24	2.33	2.26	2.52
ORP (mV)	185	196	202	205
Turbidity (NTU)	200	330	200	120
Time	1300	1304	1308	1312
DTW (ft bmp)			54.23	54.20

Remarks: *No PID because of Rain

Parameter	Container	No.	Preservative
Set COC			

PID Reading n/a

Well Casing Volumes

Gal./Ft.				
	1 1/4" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1 1/2" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

ARCADIS
Infrastructure, environment, facilities

Water Sampling Log

Project: N-Grumman OU3 | Project No.: NY001464.0807.00003
Site Location: Bethpage, NY | Date: 7/12/07
Well No.: BCPMW-2 | Replicate No.: NA | Weather: Clear 80°F
Sampling Personnel: Williams, Przorski | Sampling Time: Begin 11:47 | End 11:53 AM

Purge Data

Measuring Point (describe)	TOC
Sounded Well Depth (ft bmp)	75.5
Depth to Water (ft bmp)	53.06
Depth to Packer (ft bmp)	—
Water Column in Well (ft)	22.44
Casing Diameter	2" (0.16)
Gallons in Well	3.59
Gallons Purged Prior to Sampling	x3 11
Pump Intake Setting (ft bmp)	—
Packer Pressure (psi)	—
Pumping Rate (gpm)	.5
Evacuation Method	2" Rediflow pump
Sampling Method	3 well volume
Purge Time	Begin 10:39 AM End 11:45

q=.5 t=22 1V=8

Field Parameters

	I	1V	2V	3V	4V	5V
Color	Light tan	light tan	light tan	light tan	colorless	colorless
Odor	slight	slight	slight	slight	slight	slight
Appearance	turbid	turbid	turbid	turbid	cloudy	cloudy
pH (s.u.)	5.64	5.55	5.53	5.53	5.53	5.53
Conductivity (mS/cm)	—	—	—	—	—	—
or (μmhos/cm) 1)	398	392	389	385	383	380
Temperature (°C)	17.8	17.6	17.6	17.5	17.5	17.5
DO (mg/L)	2.28	2.30	2.35	2.09	2.50	2.12
ORP (mV)	153	183	203	220	231	242
Turbidity (NTU)	7500	827	521	295	181	91.4
Time	10:39	10:47	10:55	11:03	11:11	11:19
DTW (ft bmp)	—	—	—	—	—	—

Remarks: Well sounded at 74.0'
Pump set 19' off bottom of well
Pump lowered 4-5' prior to sampling

Parameter	Container	No.	Preservative
See COC			

PID Reading: High Humidity

Well Casing Volumes

Gal./Ft.			
1 1/4" = 0.06	2" = 0.16 (circled)	3" = 0.37	4" = 0.65
1 1/2" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

ARCADIS
Infrastructure, environment, facilities

Water Sampling Log

Project: N-Grumman 03 | Project No.: NY001464.0807.00003
Site Location: Bethpage, NY | Date: 7/12/07
Well No.: BCP MW-2 | Replicate No.: NA | Weather: Clear 80°F
Sampling Personnel: William Prezorski | Sampling Time: Begin 11:47 | End 11:53 AM

Purge Data

Measuring Point (describe)	
Sounded Well Depth (ft bmp)	
Depth to Water (ft bmp)	
Depth to Packer (ft bmp)	
Water Column in Well (ft)	
Casing Diameter	
Gallons in Well	
Gallons Purged Prior to Sampling	
Pump Intake Setting (ft bmp)	
Packer Pressure (psi)	
Pumping Rate (gpm)	
Evacuation Method	
Sampling Method	
Purge Time	Begin ____ End ____

Field Parameters

Color	colorless	colorless	colorless	—
Odor	slight	none	none	—
Appearance	cloudy	cloudy	cloudy	—
	6 ✓	7 ✓ ~~1~~	8 ✓ ~~2~~	~~3~~
pH (s.u.)	5.68	5.56	5.55	—
Conductivity (mS/cm) or	—	—	—	—
(µmhos/cm) [1]	380	378	376	—
Temperature (°C)	17.5	17.5	17.5	—
DO (mg/L)	2.47	2.11	1.94	—
ORP (mV)	247	251	255	—
Turbidity (NTU)	88.0	84.3	69.7	—
Time	11:27	11:35	11:43	—
DTW (ft bmp)	—	—	—	—

Remarks: See Page 1

Parameter	Container	No.	Preservative
See COC			

PID Reading: —

Well Casing Volumes

Gal./Ft.				
	1 1/4" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1 1/2" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

ARCADIS

Low-Flow Groundwater Sampling Log

Project Number: NY001348.0896 Task: 0.000 Well ID: BCP MW 4-1
Date: 1-12-09 Sampled By: GW JC
Sampling Time: Recorded By: GW
Weather: Coded Replicate No.:

Instrument Identification
Water Quality Meter(s): Serial #:

Purging Information
Casing Material: PVC Purge Method: 3WV / LOW FLOW
Casing Diameter: 4 Screen Interval (ft bmp): Top 45 Bottom 65
Sounded Depth (ft bmp): Pump Intake Depth (ft bmp):
Depth to Water (ft bmp): Purge time Start: 1:10 Finish: 1:30

Field Parameter Measurements Taken During Purging

Time	Minutes Elapsed	Rate (mL/min)	Volume Purged	Temp (°C)	pH (SI Units)	Spec. Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft bmp)	Comments
1:10				13.1	5.88	141	218	4.21			
1:15				13.1	5.92	141.2	224	4.61			
1:20				13.1	5.97	141.5	227	4.98			
1:25				13.1	5.94	141.8	230	5.32			
1:30				13.1	5.97	141.5	232	4.45			
									11		
						52-	= .006	MS/L			

Sample Condition Color: COLORLESS Odor: NONE Appearance: CLEAR
Sample Collection

Parameter:	Container:	No.	Preservative:

PID Reading
Comments DROPPED PUMP ~~5'~~ 5' INTO SCREEN AFTER PURGING 3WV

ARCADIS G&M, Inc.

Low-Flow Groundwater Sampling Log

Project Number: NY001348.0806 Task: 00002 Well ID: MW4-1
Date: 4/29/06 Sampled By: D. Zuck / G. Williams
Sampling Time: ≈1335 Recorded By: D. Zuck
Weather: Overcast + Rain Coded Replicate No.: MS/MSD

Instrument Identification
Water Quality Meter(s): S Serial #:

Purging Information
Casing Material: PVC Purge Method: Redi-Flo / Low flow
Casing Diameter: 4" Screen Interval (ft bmp): Top Bottom
Sounded Depth (ft bmp): ~~57.36~~ Pump Intake Depth (ft bmp):
Depth to Water (ft bmp): 57.36 Purge time Start: 1230 Finish: 1330

Field Parameter Measurements Taken During Purging

Time	Minutes Elapsed	Rate (mL/min)	Volume Purged	Temp (°C)	pH (SI Units)	Spec. Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft bmp)	Comments
1230	0	≈450		15.3	5.96	199.4	125	4.27		57.36	
1235	5			15.3	5.96	196.7	117	4.38			
1240	10			16.2	5.97	193.0	113	4.99			
1245	15			16.9	5.95	182.9	94	5.60		57.35	
1250	20			17.5	5.95	172.7	90	5.81			
1255	25			17.6	5.94	168.1	90	5.89			
1300	30			17.6	5.93	160.4	91	5.99		57.36	
1305	35			17.8	5.94	157.8	93	6.01			
1310	40			17.9	5.94	156.1	96	6.02			
1315	45			18.0	5.94	155.4	97	6.03		57.36	
1320	50			17.9	5.94	155.4	98	5.99			
1325	55			18.0	5.94	155.2	98	5.93			
1330	60			18.1	5.94	156.4	98	5.89	18.1	57.35	

Sample Condition Color: None Odor: None Appearance: Clear → Lt. Cloudy
Sample Collection
Parameter: See COC Container: No. Preservative:

PID Reading N/A (Rain)

Comments

ARCADIS G&M, Inc.

Low-Flow Groundwater Sampling Log

Project Number: NY001348.0806 Task: 00002 Well ID: MW-4-1
Date: 10/4/06 Sampled By: P. Prezorski / C. Williams
Sampling Time: 4:40pm Recorded By: P. Prezorski
Weather: Coded Replicate No.: MS/MSD

Instrument Identification
Water Quality Meter(s): Serial #:

Purging Information
Casing Material: PVC Purge Method: Redi-flow Pump / Low flow
Casing Diameter: 4" Screen Interval (ft bmp): Top 45 Bottom 65
Sounded Depth (ft bmp): 72 Pump Intake Depth (ft bmp):
Depth to Water (ft bmp): 57.38 Purge time Start: 3:55pm Finish: 4:40pm

Field Parameter Measurements Taken During Purging

Time	Minutes Elapsed	Rate (mL/min)	Volume Purged	Temp (°C)	pH (SI Units)	Spec. Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft bmp)	Comments
3:55				14.0	5.93	140.4	-131	6.97			
4:00				14.6	5.93	139.6	-134	6.32		57.32	
4:05				16.0	5.92	138.9	-143	6.64			
4:10				16.6	5.92	139.4	-120	6.57		57.29	
4:15				16.7	5.92	140.8	-94	6.46			
4:20				16.8	5.93	146.3	-96	6.33		57.30	
4:25				16.9	5.94	150.1	-92	6.29			
4:30				16.9	5.94	161.2	-85	6.15		57.30	
4:35				16.9	5.95	165.3	-73	5.99			
4:40				17.0	5.95	167.9	-79	5.97	15	57.30	5.95 = pH

Sample Condition Color: colorless Odor: None Appearance: clear
Sample Collection

Parameter:	Container:	No.	Preservative:
See COC			

PID Reading: 0 ppm

Comments:

ARCADIS

Water Sampling Log

Project: N- Grumman OU3 | Project No.: NY001348.0806.00002 | Page: 1 of 1

Site Location: Bethpage, NY | Date: 10/4/06

Site/Well No.: MW-4-1 | Replicate No.: N/A

Weather: ✓ | Sampling Time: Begin 5:21 pm End 5:23pm

Evacuation Data

Measuring Point	T.o.C
Sounded Well Depth (ft bmp)	72
Depth to Water (ft bmp)	57.38
Depth to Packer (ft bmp)	✓
Water Column in Well (ft)	14.62
Casing Diameter	4" (.65)
Gallons in Well	9.5 x3
Gallons Pumped/Bailed Prior to Sampling	29
Sample Pump Intake Setting (ft bmp)	✓
Packer Pressure (psi)	✓
Pumping Rate (gpm)	1
Evacuation Method	Rediflow pump
Sampling Method	3 well volume
Purge Time	Begin 4:49 End 5:19pm

Field Parameters

		1	1V	2V	3V
Color		colorless	colorless	colorless	colorless
Odor		None	None	None	None
Appearance		clear	clear	clear	clear
pH (s.u.)		5.95	5.96	5.98	5.98
Conductivity ~~(mS/cm)~~ (µmhos/cm)		166.9	182.3	187.6	190.7
Temperature (°C)		15.6	14.9	14.2	14.2
DO (mg/L)		—	—	—	—
Turbidity (NTU)		✓	—	—	12
Time		4:49	4:59	5:09	5:19
DTW (ft bmp)		—	57.56	57.56	—

Remarks: Q=1 T=29 1V=10

Constituents Sampled: See COC | Sampling Personnel: P. Prezorski / G. Williams

Well Casing Volumes

Gal./Ft.				
	$1^{1/4}$" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	$1^{1/2}$" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	mS/cm	Milisiemens per centimeter	VOC	Volatile Organic Compounds
°C	Degrees Celsius	s.u.	Standard units	umhos/cm	Micromhos per centimeter
ft	feet	NTU	Nephelometric Turbidity Units		
gpm	Gallons per minute	N/A	Not Applicable		
mg/L	Miligrams per liter	COC	Chain of Custody		

ARCADIS

Water Sampling Log

Project NGC Project No. NY001948.0806.00002 Page 1 of 1

Site Location Bethpage, NY Date 11/9/06

Site/Well No. BCP-MW-4-1 Replicate No. REP-110906

Weather P/C ± 67° Sampling Time: Begin 12:17 End 12:20

Evacuation Data

Measuring Point	TOC
Sounded Well Depth (ft bmp)	70
Depth to Water (ft bmp)	57.06
Depth to Packer (ft bmp)	/
Water Column in Well (ft)	12.94
Casing Diameter	4" (.65)
Gallons in Well	8.41
Gallons Pumped/Bailed Prior to Sampling	~3 25.23
Sample Pump Intake Setting (ft bmp)	59'
Packer Pressure (psi)	/
Pumping Rate (gpm)	1 gpm
Evacuation Method	Redi flow
Sampling Method	" "
Purge Time	Begin 11:50 End 12:17

Field Parameters

	I	1V	2V	3V
Color	None	" "	" "	" "
Odor	trace	None	" "	" "
Appearance	Slt Turb.	Clear	" "	" "
pH (s.u.)	5.94	5.96	5.93	5.92
Conductivity (µS/cm)	188.2	192.0	364	369
ORP ~~(µmhos/cm)~~	116	120	123	112
Temperature (°C)	13.6	13.8	13.8	13.9
DO (mg/L)	5.30	4.85	4.15	4.27
Turbidity (NTU)	—	—	—	—
Time	11:50	11:59	12:08	12:17
DTW (ft bmp)	57.06	—	—	57.08

Remarks: Pump Left @ 59' Since it is in Screen.

Constituents Sampled: See COC Sampling Personnel: D. Zuck

Well Casing Volumes

Gal./Ft.	$1^{1/4}$" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	$1^{1/2}$" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	mS/cm	Milisiemens per centimeter	VOC	Volatile Organic Compounds
°C	Degrees Celsius	s.u.	Standard units	umhos/cm	Micromhos per centimeter
ft	feet	NTU	Nephelometric Turbidity Units		
gpm	Gallons per minute	N/A	Not Applicable		
mg/L	Miligrams per liter	COC	Chain of Custody		

ARCADIS

Water Sampling Log

Project NGC 043 Project No. NY000348.0806.2 Page 1 of 1

Site Location Bethpage NY Date 12/11/06

Site/Well No. BCPMW-4-1 Replicate No. REP 12-11-06

Weather P/C ≈ 50° Sampling Time: Begin 1448 End 1450

Evacuation Data

Measuring Point	TOC
Sounded Well Depth (ft bmp)	70.0
Depth to Water (ft bmp)	53.8
Depth to Packer (ft bmp)	—
Water Column in Well (ft)	16.2
Casing Diameter	4" (.65)
Gallons in Well	10.53
Gallons Pumped/Bailed Prior to Sampling	43 (32)
Sample Pump Intake Setting (ft bmp)	55'
Packer Pressure (psi)	—
Pumping Rate (gpm)	1 GPM
Evacuation Method	Redi Flo
Sampling Method	" "
Purge Time	Begin 1418 End 1448

Field Parameters

Color: Slight tint of Brown

Odor: trace → None

Appearance: Slt. turb

	1	1V	2V	3V
pH (s.u.)	6.37	6.24	6.29	6.34
Conductivity ~~(mS/cm)~~	—	—	—	—
(µmhos/cm)	87.5	92.2	112.0	113.5
Temperature (°C)	15.1	15.1	15.4	15.3
DO (mg/L)	—	—	—	—
Turbidity (NTU)	—	—	—	—
Time	14:18	14:28	1438	1448
DTW (ft bmp)	53.8	—	—	—

Remarks:

31
16.2
.65
1810
4820
10.53

Constituents Sampled: See COC Sampling Personnel: D. Zack / G. Willows

Well Casing Volumes

Gal./Ft.				
	$1^{1/4}$" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	$1^{1/2}$" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	mS/cm	Milisiemens per centimeter	VOC	Volatile Organic Compounds
°C	Degrees Celsius	s.u.	Standard units	umhos/cm	Micromhos per centimeter
ft	feet	NTU	Nephelometric Turbidity Units		
gpm	Gallons per minute	N/A	Not Applicable		
mg/L	Miligrams per liter	COC	Chain of Custody		

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Water Sampling Log

Project NGC - BCP Project No. NY001348.0806.00002 Page 1 of 1

Site Location Bethpage, NY Date 1/12/07

Site/Well No. BCPMW4-1 Replicate No. MS/MSD

Weather Cloudy, 45°F Sampling Time: Begin _____ End _____

Evacuation Data

Measuring Point	TOC
Sounded Well Depth (ft bmp)	~70'
Depth to Water (ft bmp)	56.48'
Depth to Packer (ft bmp)	—
Water Column in Well (ft)	13.52'
Casing Diameter	4" ID
Gallons in Well	(13.52 x .65) = 8.8G
Gallons Pumped/Bailed Prior to Sampling	(8.8 x 3) = 26.4G (27G)
Sample Pump Intake Setting (ft bmp)	15' From bottom
Packer Pressure (psi)	—
Pumping Rate (gpm)	1G/min
Evacuation Method	[redacted]
Sampling Method	Rediflo submersible pump
Purge Time	Begin 12:35 End _____

Field Parameters

	1	1V	2V	3V
Color				
Odor				
Appearance				
pH (s.u.)	5.92	5.89	5.81	5.83
Conductivity (mS/cm)	127.5	129.0	138.6	140.3
~~(µmhos/cm)~~				
Temperature (°C)	12.6	13.2	13.3	13.3
DO (mg/L)				
Turbidity (NTU)				
Time				
DTW (ft bmp)	56.48			

Remarks: PID = 0.0 ppm

Constituents Sampled: See COC Sampling Personnel: GW/JAC

Well Casing Volumes

Gal./Ft.				
	1 1/4" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1 1/2" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	mS/cm	Milisiemens per centimeter	VOC	Volatile Organic Compounds
°C	Degrees Celsius	s.u.	Standard units	umhos/cm	Micromhos per centimeter
ft	feet	NTU	Nephelometric Turbidity Units		
gpm	Gallons per minute	N/A	Not Applicable		
mg/L	Miligrams per liter	COC	Chain of Custody		

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Water Sampling Log

Project NGC-043 Project No. NY001464.0807.0016W Page 1 of 1

Site Location Date 2/14/07

Site/Well No. MW-4-1 Replicate No. Rep 021407

Weather Overcast 25° Sampling Time: Begin 2:20 End 3:22

Evacuation Data

Measuring Point	TOC
Sounded Well Depth (ft bmp)	70
Depth to Water (ft bmp)	56.50
Depth to Packer (ft bmp)	
Water Column in Well (ft)	13.5
Casing Diameter	4 (.65)
Gallons in Well	≈9
Gallons Pumped/Bailed Prior to Sampling	27
Sample Pump Intake Setting (ft bmp)	55
Packer Pressure (psi)	/
Pumping Rate (gpm)	1.5
Evacuation Method	Mod. Flo
Sampling Method	3WV
Purge Time	Begin 2:47 End 305

Field Parameters

Color: None

Odor: None

Appearance: Clear

	1	1V	2V	3V
pH (s.u.)	5.93	5.92	5.90	5.90
Conductivity ~~(mS/cm)~~	—	—	—	—
(µmhos/cm)	109.4	122.7	129.8	132.0
Temperature (°C)	10.3	13.0	13.2	13.2
DO (mg/L)	3.37	3.04	2.74	2.58
Turbidity (NTU)	52.1	26.1	13.2	8.57
Time	2:47	2:53	2:59	3:05
DTW (ft bmp)				

Remarks:

Constituents Sampled: See COC Sampling Personnel: DZ/GW

Well Casing Volumes

Gal./Ft.				
	$1^{1/4}$" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	$1^{1/2}$" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	mS/cm	Milisiemens per centimeter	VOC	Volatile Organic Compounds
°C	Degrees Celsius	s.u.	Standard units	umhos/cm	Micromhos per centimeter
ft	feet	NTU	Nephelometric Turbidity Units		
gpm	Gallons per minute	N/A	Not Applicable		
mg/L	Miligrams per liter	COC	Chain of Custody		

ARCADIS

Low-Flow Groundwater Sampling Log

Project Number: NY001464.0807 Task: 001.GW Well ID: MW-4-1
Date: 2/14/07 Sampled By: D. Zuck
Sampling Time: 3:20 Recorded By: D. Zuck
Weather: Lt Fz. Rain 29° Coded Replicate No.: Rep02 1407

Instrument Identification
Water Quality Meter(s): ✓ Serial #: ✓

Purging Information
Casing Material: PVC Purge Method: Radiflo/Low flow
Casing Diameter: 4" Screen Interval (ft bmp): Top _____ Bottom _____
Sounded Depth (ft bmp): 70 Pump Intake Depth (ft bmp): _____
Depth to Water (ft bmp): 56.5 Purge time Start: 3:10 Finish: 3:20

Field Parameter Measurements Taken During Purging

Time	Minutes Elapsed	Rate (mL/min)	Volume Purged	Temp (°C)	pH (SI Units)	Spec. Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft bmp)	Comments
3:10	0	500	0	11.0	5.86	162.9	169	3.06			
3:15	5	↓	3000	10.0	5.89	165.0	168	3.14			
3:20	10	↓	10000	10.2	5.90	164.0	163	3.22	8.06		

Sample Condition Color: None Odor: None Appearance: Clear
Sample Collection

Parameter:	Container:	No.	Preservative:
VOC 2000 ASV + Freon 12+22	40mL Vials	2+2	HCl

PID Reading ✓

Comments

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Infrastructure, environment, facilities

Water Sampling Log

Project: N-Grumman OU3 | Project No.: NY001464.0807.00003
Site Location: Bethpage, NY | Date: 4/18/07
Well No.: BP MW-4-1 | Replicate No.: N/A | Weather: Mostly cloudy 55°F
Sampling Personnel: Williams Prenarski | Sampling Time: Begin NA End NA

Purge Data

Measuring Point (describe)	TOC
Sounded Well Depth (ft bmp)	72
Depth to Water (ft bmp)	55.82
Depth to Packer (ft bmp)	/
Water Column in Well (ft)	16.18
Casing Diameter	4" (0.65)
Gallons in Well	10.5
Gallons Purged	x3
Prior to Sampling	32
Pump Intake	
Setting (ft bmp)	/
Packer Pressure (psi)	/
Pumping Rate (gpm)	2
Evacuation Method	Red. flow pump
Sampling Method	3 vol/ volume
Purge Time Begin	1418 End 1438

Field Parameters

	I	1V	2V	3V
Color	colorless	colorless	colorless	colorless
Odor	None	None	None	None
Appearance	cloudy	clear	clear	clear
pH (s.u.)	6.64	6.13	6.02	6.08
Conductivity (mS/cm) or (µmhos/cm) [1]	417	154.0	146.2	134.3
Temperature (°C)	14.0	15.1	15.0	15.2
DO (mg/L)	—	—	—	—
ORP (mV)	—	—	—	—
Turbidity (NTU)	—	—	—	—
Time	1420	1426	1432	1438
DTW (ft bmp)	—	—	—	—

Remarks: Q=2 T=16 1V=6

Parameter	Container	No.	Preservative
See COC			

PID Reading: 2ppm @ wellhead; Breathing Zone 0ppm

Well Casing Volumes

Gal./Ft.				
	1 1/4" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1 1/2" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

1) Circle one unit type

ARCADIS
Infrastructure, environment, facilities

Low-Flow Groundwater Sampling Log

Project	N-Grumman OU3				BCP
Project Number	NY001464.0807.0005	**Site Location**	Bethpage NY	**Well ID**	MW4-1
Date	4/18/07	**Sampled By**	Williams		
Sampling Time	1503	**Recorded By**	Prezorski		
Weather	Mostly cloudy 55°F	**Coded Replicate No.**	NA		

Instrument Identification

Water Quality Meter(s) _____ **Serial #** _____

Casing Material	PVC	**Purge Method**	Rediflow Pump/Low Flow		
Casing Diameter	4"	**Screen Interval (ft bmp)**	**Top** 45	**Bottom** 65	
Sounded Depth (ft bmp)	72	**Pump Intake Depth (ft bmp)**	—	—	
Depth to Water (ft bmp)	55.82	**Purge Time**	**Start** 1440	**Finish** 1500	

Field Parameter Measurements During Purging

Time	Minutes Elasped	Flow Rate (mL/min)	Volume Purged	Temp (°C)	pH (s.u.)	Conductivity (umhos or ~~mS/cm~~) 1)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft bmp)
1440		400		14.5	5.95	146.9	-310	5.96		
1445		400		14.2	5.91	156.1	-229	5.04		
1450		↓		15.5	5.90	154.0	-176	4.74		
1455		↓		16.1	5.90	142.6	-374	4.65	7.0	
1500		↓		16.4	5.88	138.9	-211	4.68		

Collected Sample Condition **Color** Colorless **Odor** None **Appearance** Clear

Parameter	Container	No.	Preservative
See COC			

PID Reading NA

Comments _____

1) Circle one unit type

ARCADIS
Infrastructure, environment, facilities

Water Sampling Log

Project: N-Grumman OU3 Project No.: NY001349.0807.00003 (1464 BP)
Site Location: Bethpage, NY Date: 5/23/07
Well No.: BPP MW4-1 Replicate No.: RP052307 Weather: Partly cloudy High of 75°F
Sampling Personnel: Williams Prezorski Sampling Time: Begin NA End NA

Purge Data

Measuring Point (describe)	TOC
Sounded Well Depth (ft bmp)	70
Depth to Water (ft bmp)	55.20
Depth to Packer (ft bmp)	—
Water Column in Well (ft)	14.8
Casing Diameter	4" (0.65)
Gallons in Well	9.62
Gallons Purged Prior to Sampling	x3 29
Pump Intake Setting (ft bmp)	—
Packer Pressure (psi)	—
Pumping Rate (gpm)	1
Evacuation Method	2" Rediflow pump
Sampling Method	3 well volume
Purge Time	Begin 11:39 AM End 12:11

Field Parameters

	I	1V	2V	3V
Color	colorless	colorless	colorless	colorless
Odor	None	None	None	None
Appearance	clear	clear	clear	clear
pH (s.u.)	6.54	6.50	6.24	6.21
Conductivity (mS/cm) or	—	—	—	—
(µmhos/cm) [1]	184.2	102.2	143.5	104.7
Temperature (°C)	17.0	16.2	17.1	16.4
DO (mg/L)	—	—	—	—
ORP (mV)	—	—	—	—
Turbidity (NTU)	35	8.2	7.6	9.2
Time	11:40	11:50	12:00	12:10
DTW (ft bmp)	—	—	—	—

Remarks: Q = 1 t = 29 1v = 10

Parameter	Container	No.	Preservative
See COC			

PID Reading: 5ppm at wellhead; 0ppm at breathing zone

Well Casing Volumes

Gal./Ft.			
1 1/4" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65 (circled)
1 1/2" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

1) Circle one unit type

ARCADIS
Infrastructure, environment, facilities

Low-Flow Groundwater Sampling Log

Project: N-Grumman 003
Project Number: NY001464.0807.00003
Site Location: Bethpage, NY
Well ID: BCP MW4-1
Date: 5/23/07
Sampled By: Prezorski / Williams
Sampling Time: 12:32 pm
Recorded By: Prezorski
Weather: Partly cloudy High of 75°F
Coded Replicate No.: Rep052307
Instrument Identification: /
Water Quality Meter(s): /
Serial #: /

Casing Material: TOC
Casing Diameter: 4"
Sounded Depth (ft bmp): 70
Depth to Water (ft bmp): 55.20
Purge Method: Low Flow / Redflow pump
Screen Interval (ft bmp): Top 45 Bottom 65
Pump Intake Depth (ft bmp): /
Purge Time: Start 12:14 pm Finish 12:30 pm

Field Parameter Measurements During Purging

Time	Minutes Elasped	Flow Rate (mL/min)	Volume Purged	Temp (°C)	pH (s.u.)	Conductivity (umhos or ~~mS/cm~~) 1)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft bmp)
12:15	~~300~~	300		19.5	5.98	129.3	244	5.27	—	—
12:20	~~500~~	500		19.2	5.74	130.6	230	5.03	29	—
12:25	~~500~~	500		18.5	5.67	128.5	207	5.22	13	55.27
12:30	~~500~~	500		18.7	5.67	123.5	206	5.10	12	—

Collected Sample Condition: Color Colorless Odor None Appearance Clear

Parameter	Container	No.	Preservative
See COC			

PID Reading: /

Comments: Purged 3 WV 1' into water table then lowered to mid screen & low flowed. See Low flow ~~sampling~~ sampling log 3 WV

1) Circle one unit type

ARCADIS
Infrastructure, environment, facilities

Water Sampling Log

Project: Grumman OU3 | Project No.: NY001464.0807.00003
Site Location: Bethpage, NY | Date: 7/10/07
Well No.: BCPMW4-1 | Replicate No.: NA | Weather: Clear 86°F
Sampling Personnel: Williams / Prezioski | Sampling Time: Begin 9:52 AM | End 10:04 AM

Purge Data

Measuring Point (describe)	TOC
Sounded Well Depth (ft bmp)	70
Depth to Water (ft bmp)	55.56
Depth to Packer (ft bmp)	/
Water Column in Well (ft)	14.44
Casing Diameter	4" (0.65)
Gallons in Well	9.386
Gallons Purged	x 3
Prior to Sampling	29
Pump Intake Setting (ft bmp)	/
Packer Pressure (psi)	/
Pumping Rate (gpm)	1
Evacuation Method	2" Redflow Pump
Sampling Method	3 WV
Purge Time	Begin 9:14 End 9:44 AM

Field Parameters

	I	1V	2V	3V
Color	colorless	colorless	colorless	colorless
Odor	None	None	None	none
Appearance	clear	clear	clear	clear
pH (s.u.)	6.22	5.38	5.40	5.40
Conductivity (mS/cm) or (µmhos/cm) [1]	112.2	91.6	90.9	89.6
Temperature (°C)	18.5	17.9	17.9	17.6
DO (mg/L)	—	6.27	7.63	5.43
ORP (mV)	—	211	225	240
Turbidity (NTU)	24.2	5.06	6.63	5.21
Time	9:14	9:24	9:34	9:44
DTW (ft bmp)	—	55.58	—	—

Remarks: Pump set 1' into water table
Pump lowered 1' prior to sampling.
Q=1 T=29 V=10
(Well sounded to TOC at 72.32')

Parameter	Container	No.	Preservative
See COC			

PID Reading: 0 ppm

Well Casing Volumes

Gal./Ft.				
	1 1/4" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1 1/2" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

ARCADIS G&M, Inc.

Low-Flow Groundwater Sampling Log

Project Number: 11Y0013446.0806 Task: 00002 Well ID: MW-4-2
Date: 8/29/06 Sampled By: D. Zack/O. Williams
Sampling Time: 1615 Recorded By: D. Zack
Weather: Overcast w/ Light Rain Coded Replicate No.: Rep 8-29-06

Instrument Identification
Water Quality Meter(s): / Serial #: /

Purging Information
Casing Material: PVC Purge Method: Rediflo/Low-flow
Casing Diameter: 4" Screen Interval (ft bmp): Top ____ Bottom ____
Sounded Depth (ft bmp): ~~57.95~~ Pump Intake Depth (ft bmp): ____
Depth to Water (ft bmp): 57.95 Purge time Start: 1510 Finish: 1610

Field Parameter Measurements Taken During Purging

Time	Minutes Elapsed	Rate (mL/min)	Volume Purged	Temp (°C)	pH (SI Units)	Spec. Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft bmp)	Comments
1510	0	≈450	1	15.6	5.81	376	96	1.43	1	57.95	
1515	5			15.3	5.77	384	95	1.25			
1520	10			16.2	5.75	370	96	1.40			
1525	15			16.6	5.74	362	99	2.50		59.90	water shut off
1530	20			16.2	5.70	353	101	2.76			
1535	25			16.3	5.70	353	102	2.90			
1540	30			16.3	5.70	352	102	2.71			
1545	35			16.3	5.70	351	103	2.95		59.96	
1550	40			16.3	5.69	351	104	3.05			
1555	45			16.3	5.70	350	105	3.03		58.96	
1600	50			16.3	5.68	352	105	3.02			
1605	55			16.3	5.69	353	105	3.01			
1610	60			16.3	5.71	355	105	2.89	7.30	57.97	

Sample Condition Color: None Odor: None Appearance: Clear
Sample Collection

Parameter:	Container:	No.	Preservative:
See COC			

PID Reading N/A (Rain)

Comments

ARCADIS G&M, Inc.

Low-Flow Groundwater Sampling Log

Project Number: NY001348.0806 Task: 00002 Well ID: MW-4-2
Date: 10/4/06 Sampled By: P. Prezorski / G Williams
Sampling Time: 2:55pm Recorded By: P. Prezorski
Weather: — Coded Replicate No.: Rep100406

Instrument Identification
Water Quality Meter(s): Serial #:

Purging Information
Casing Material: PVC Purge Method: Rediflow pump / low flow
Casing Diameter: 4" Screen Interval (ft bmp): Top 70 Bottom 85
Sounded Depth (ft bmp): 91 Pump Intake Depth (ft bmp):
Depth to Water (ft bmp): 58.18 Purge time Start: 2:00 pm Finish: 2:55pm

Field Parameter Measurements Taken During Purging

Time	Minutes Elapsed	Rate (mL/min)	Volume Purged	Temp (°C)	pH (SI Units)	Spec. Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft bmp)	Comments
2:00				14.2	5.54	539	-94	1.73			
2:05				15.3	5.54	539	-186	1.81		57.94	
2:10				15.7	5.63	535	-185	1.74			
2:15				16.3	5.63	528	-168	1.85		57.94	
2:20				16.6	5.62	516	-115	2.02			
2:25				16.7	5.61	504	-80	2.09			
2:30				16.8	5.66	493	-106	1.96		57.94	
2:35				17.0	5.67	489	-128	2.00			
2:40				17.0	5.67	489	-130	2.03		57.94	
2:45				17.1	5.67	485	-119	2.06			5.67=pH
2:50				17.0	5.67	481	-114	2.08		57.93	
2:55				17.0	5.67	477	-108	2.12	25		

Sample Condition Color: Colorless Odor: None Appearance: clear
Sample Collection

Parameter:	Container:	No.	Preservative:
See COC			

PID Reading: 0 ppm

Comments:

ARCADIS

Water Sampling Log

Project N-Grumman 003 Project No. NY001348.0806.00002 Page 1 of 1

Site Location Bethpage, NY Date 10/4/06

Site/Well No. MW-4-2 Replicate No. N/A

Weather / Sampling Time: Begin 3:40 pm End 3:43 pm

Evacuation Data

Measuring Point	TOC
Sounded Well Depth (ft bmp)	91
Depth to Water (ft bmp)	58.18
Depth to Packer (ft bmp)	/
Water Column in Well (ft)	32.82
Casing Diameter	4" (.65)
Gallons in Well	21.3
Gallons Pumped/Bailed	x 3
Prior to Sampling	64
Sample Pump Intake Setting (ft bmp)	/
Packer Pressure (psi)	—
Pumping Rate (gpm)	2
Evacuation Method	Redflow pump
Sampling Method	3 well volume
Purge Time	Begin 3:05 pm End 3:39 pm

Field Parameters

	1	1V	2V	3V
Color	Light Tan	Colorless	Colorless	Colorless
Odor	None	None	None	None
Appearance	clear	clear	clear	clear
pH (s.u.)	5.71	5.71	5.71	5.73
Conductivity (~~mS/cm~~)	—	—	—	—
(µmhos/cm)	468	477	475	469
Temperature (°C)	15.9	15.0	14.6	14.7
DO (mg/L)	—	—	—	—
Turbidity (NTU)	—	—	—	9.2
Time	3:06	3:17	3:28	3:39 pm
DTW (ft bmp)	—	58.04	58.04	58.04

Remarks: Q=2 T=32 1V=11

Constituents Sampled: See COC Sampling Personnel: P. Prezorski / G. Williams

Well Casing Volumes

Gal./Ft.				
	$1^{1/4}$" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	$1^{1/2}$" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	mS/cm	Milisiemens per centimeter	VOC	Volatile Organic Compounds
°C	Degrees Celsius	s.u.	Standard units	umhos/cm	Micromhos per centimeter
ft	feet	NTU	Nephelometric Turbidity Units		
gpm	Gallons per minute	N/A	Not Applicable		
mg/L	Miligrams per liter	COC	Chain of Custody		

ARCADIS

Water Sampling Log

Project NGC Project No. NY001348.0806.00002 Page 1 of 1

Site Location Bethpage, NY Date 11/4/06

Site/Well No. BCP-MW-4-2 Replicate No. N/A

Weather P/C ≈ 65° Sampling Time: Begin 11:14 End 11:15

Evacuation Data

Measuring Point	TOC
Sounded Well Depth (ft bmp)	88.5
Depth to Water (ft bmp)	57.74
Depth to Packer (ft bmp)	/
Water Column in Well (ft)	30.76
Casing Diameter	(4") X .65
Gallons in Well	19.99
Gallons Pumped/Bailed	x3
Prior to Sampling	60 gal
Sample Pump Intake Setting (ft bmp)	69'
Packer Pressure (psi)	/
Pumping Rate (gpm)	2 gpm
Evacuation Method	Redi flow
Sampling Method	Redi flow
Purge Time	Begin 10:44 End 11:14

Field Parameters

	I	1V	2V	3V
Color	Clear	"	"	"
Odor	None	"	"	"
Appearance	Clear	"	"	"
pH (s.u.)	5.67	5.72	5.72	~~5.72~~ 5.70
Conductivity ~~mS~~/cm)	630	566	552	560
ORP ~~(µmhos/cm)~~	102	109	112	112
Temperature (°C)	13.9	13.7	13.8	13.9
DO (mg/L)	—	2.48	2.57	2.88
Turbidity (NTU)	—	—	—	—
Time	10:44	10:54	11:04	11:14
DTW (ft bmp)	57.74	57.95	57.95	57.81

Remarks: Pump Put into Screen ≈ 74'

Constituents Sampled: See COC Sampling Personnel: G.W / D. Zack

Well Casing Volumes

Gal./Ft.				
	$1^{1/4}$" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	$1^{1/2}$" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	mS/cm	Milisiemens per centimeter	VOC	Volatile Organic Compounds
°C	Degrees Celsius	s.u.	Standard units	umhos/cm	Micromhos per centimeter
ft	feet	NTU	Nephelometric Turbidity Units		
gpm	Gallons per minute	N/A	Not Applicable		
mg/L	Miligrams per liter	COC	Chain of Custody		

ARCADIS

Water Sampling Log

Project NORTHROP-GRUMMAN Project No. NY 00.0348.0806.00002 Page 1 of 1

Site Location BETHPAGE NY Date 12-11-06

Site/Well No. BPMW-4-2 Replicate No. MS/MSD

Weather CLEAR 45° Sampling Time: Begin 1609 End /

Evacuation Data

Measuring Point	TOC
Sounded Well Depth (ft bmp)	88.5
Depth to Water (ft bmp)	57.45
Depth to Packer (ft bmp)	—
Water Column in Well (ft)	31.05
Casing Diameter	4 (0.65)
Gallons in Well	20.18
Gallons Pumped/Bailed	X 3
Prior to Sampling	61.00
Sample Pump Intake Setting (ft bmp)	/
Packer Pressure (psi)	/
Pumping Rate (gpm)	Q=1 T=60 10>20
Evacuation Method	Rodi Pro
Sampling Method	" "
Purge Time	Begin 1509 End 1607

Field Parameters

Color: None → Lt Brown

Odor: trace

Appearance: Clear

	1	1V	2V	3V
pH (s.u.)	6.14	6.19	6.16	6.16
Conductivity (~~mS/cm~~) (µmhos/cm)	362	353	196.5	349
Temperature (°C)	14.5	14.9	14.8	15.0
DO (mg/L)	—	—	—	—
Turbidity (NTU)	—	—	—	—
Time	1509	1529	1545 *	1607
DTW (ft bmp)	57.45			

* PUMPING SLIGHTLY FASTER FLOW 1 GPM

Remarks: PID 0.0

Constituents Sampled: See COC Sampling Personnel: GW DZ

Well Casing Volumes

Gal./Ft.				
	$1^{1/4}$" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	$1^{1/2}$" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	mS/cm	Milisiemens per centimeter	VOC	Volatile Organic Compounds
°C	Degrees Celsius	s.u.	Standard units	umhos/cm	Micromhos per centimeter
ft	feet	NTU	Nephelometric Turbidity Units		
gpm	Gallons per minute	N/A	Not Applicable		
mg/L	Miligrams per liter	COC	Chain of Custody		

ARCADIS

Low-Flow Groundwater Sampling Log

Project Number: ~~AW00~~1348 ~~0~~806 Task: ~~0002~~02 Well ID: BCP MW4-2

Date: 1-11-07 Sampled By: GW PP JL

Sampling Time: — Recorded By: GW

Weather: — Coded Replicate No.: —

Instrument Identification

Water Quality Meter(s): — Serial #: —

Purging Information

Casing Material:

Casing Diameter:

Sounded Depth (ft bmp): 88.5

Depth to Water (ft bmp): 57.45

Purge Method: 3 WV / Low flow [illegible]

Screen Interval (ft bmp): Top 68.5' bls Bottom 88.5' (+Sump)

Pump Intake Depth (ft bmp): —

Purge time Start: 5:00 Finish: 5:45

Field Parameter Measurements Taken During Purging

Time	Minutes Elapsed	Rate (mL/min)	Volume Purged	Temp (°C)	pH (SI Units)	Spec. Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft bmp)	Comments
I	5:00 Pm			11.1	6.44	250					
1V	5:08			12.1	6.27	249					
2V	5:16			13.1	6.25	256					
3V	5:24			12.7	6.25	254					
5	5:30			13.4	6.21	248	177	3.57			
	5:35			13.9	6.20	252	187	3.28			
	5:40			14.0	6.20	256	195	3.14			
	5:45			14.0	6.21	258	203	3.22	8.1		

Sample Condition Color: — Odor: — Appearance: —

Sample Collection

Parameter:	Container:	No.	Preservative:
See COC			

PID Reading

Comments

$S_2^- = 0.23$

88.5
-57.5
31.00
31
x .65
155
186
~~10~~
2015

Q = 2.5
T = ~~8~~ 24
1V = 8 min

60 GALLONS

ARCADIS

Low-Flow Groundwater Sampling Log

Project Number: NY001464.0907 Task: GW Well ID: MW-4-2
Date: 2/14/07 Sampled By: D. Zuck
Sampling Time: 15:05 Recorded By: D Zuck
Weather: Snow ≈ 28° Coded Replicate No.: N/A

Instrument Identification
Water Quality Meter(s): ✓ Serial #: ✓

Purging Information
Casing Material: PVC Purge Method: Rediflow/Low flow
Casing Diameter: 4" Screen Interval (ft bmp): Top _____ Bottom _____
Sounded Depth (ft bmp): 90 Pump Intake Depth (ft bmp): _____
Depth to Water (ft bmp): 57.05 Purge time Start: 4:55 Finish: 5:05

Field Parameter Measurements Taken During Purging

Time	Minutes Elapsed	Rate (mL/min)	Volume Purged	Temp (°C)	pH (SI Units)	Spec. Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft bmp)	Comments
4:55	0	500	0	11.9	5.07	240	182	3.15	—		
5:00	5	↓	2500	11.3	5.63	241	184	3.29	—		
5:05	10	↓	5000	12.1	5.64	239	193	3.20	7.28		

Sample Condition Color: None Odor: None Appearance: clear
Sample Collection

Parameter:	Container:	No.	Preservative:
VOC 2000 ASP From 12 & 22	40mL Vials	2	HCl

PID Reading ✓

Comments

ARCADIS

Water Sampling Log

Project NGC-043 Project No. N600M64.0807.0016 W Page 1 of 1

Site Location Bethpage NY Date 2/14/07

Site/Well No. MW-4-2 Replicate No. N/A

Weather Snow ~24° Sampling Time: Begin 5:05 End 5:03

Evacuation Data

Measuring Point	TOC
Sounded Well Depth (ft bmp)	90
Depth to Water (ft bmp)	57.05
Depth to Packer (ft bmp)	—
Water Column in Well (ft)	32.95
Casing Diameter	4" (.65)
Gallons in Well	21.4
Gallons Pumped/Bailed Prior to Sampling	65
Sample Pump Intake Setting (ft bmp)	75'
Packer Pressure (psi)	—
Pumping Rate (gpm)	~~2~~ .2 gpm
Evacuation Method	Rediflo
Sampling Method	3V/LF
Purge Time	Begin 4:20 End 4:53

Field Parameters

	I	1V	2V	3V	4V	5V
Color	None	None	"	"		
Odor	trace	None	"	"		
Appearance	Murky	Clear	"	"		
pH (s.u.)	5.86	5.81	5.79	5.83		
Conductivity ~~(mS/cm)~~	—	—	—	—		
(µmhos/cm)	243	242	239	240		
Temperature (°C)	12.9	13.2	13.5	13.7		
DO (mg/L)	1.70	2.04	1.81	2.03		
Turbidity (NTU)	50.9	—	—	10.22		
Time	4:20	4:31	4:42	4:53		
DTW (ft bmp)	57.05	—	—	—		

Remarks:

Constituents Sampled: See COC Sampling Personnel: D. Zack / G. Williams

Well Casing Volumes

Gal./Ft.	1 1/4" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1 1/2" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	mS/cm	Milisiemens per centimeter	VOC	Volatile Organic Compounds
°C	Degrees Celsius	s.u.	Standard units	umhos/cm	Micromhos per centimeter
ft	feet	NTU	Nephelometric Turbidity Units		
gpm	Gallons per minute	N/A	Not Applicable		
mg/L	Miligrams per liter	COC	Chain of Custody		

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Infrastructure, environment, facilities

Low-Flow Groundwater Sampling Log

Project	N - Grumman 003			**Well ID**	BCP MW 4-2
Project Number	NY001464.0907.00003	**Site Location**	Bethpage, NY		
Date	4/18/07	**Sampled By**	Williams		
Sampling Time	1605	**Recorded By**	Prezorski		
Weather	Mostly cloudy 55°F	**Coded Replicate No.**	N/A		

Instrument Identification

Water Quality Meter(s) / **Serial #** /

Casing Material	PVC	**Purge Method**	Red. flow pump/ Low Flow		
Casing Diameter	4"	**Screen Interval (ft bmp)**	**Top** 70	**Bottom**	85
Sounded Depth (ft bmp)	91	**Pump Intake Depth (ft bmp)**	/		/
Depth to Water (ft bmp)	56.48	**Purge Time**	**Start** 1545	**Finish**	1605

Field Parameter Measurements During Purging

Time	Minutes Elasped	Flow Rate (mL/min)	Volume Purged	Temp (°C)	pH (s.u.)	Conductivity (umhos or ~~mS/cm~~)[1]	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft bmp)
1545		400		14.1	6.02	149.7	-261	6.36		
1550		↓		14.1	6.04	158.3	-187	3.87		
1555				14.3	5.96	170.3	-155	3.47		
1600		↓		14.5	5.75	174.2	-113	3.76	7.4	
1605				14.9	5.67	173.0	-133	3.36		

Collected Sample Condition **Color** colorless **Odor** slight **Appearance** clear

Parameter	Container	No.	Preservative
See COC			

PID Reading 0 ppm

Comments due to unexpected pumping rate, purged less than 3 volumes prior to low flow purge

1) Circle one unit type

ARCADIS
Infrastructure, environment, facilities

Water Sampling Log

Project N-Grumman OU3 Project No. NY001464.0807.00003

Site Location Bethpage, NY Date 4/18/07

Well No. BCP MW 4-2 Replicate No. N/A Weather Mostly cloudy 55°F

Sampling Personnel Williams/Prezorski Sampling Time: Begin NA End NA

Purge Data

Measuring Point (describe)	TOC
Sounded Well Depth (ft bmp)	91
Depth to Water (ft bmp)	56.48
Depth to Packer (ft bmp)	/
Water Column in Well (ft)	34.52
Casing Diameter	4" (.65)
Gallons in Well	22.44
Gallons Purged	x3
Prior to Sampling	68
Pump Intake Setting (ft bmp)	/
Packer Pressure (psi)	/
Pumping Rate (gpm)	~~.05~~ .2
Evacuation Method	Rediflow Pump
Sampling Method	3 well volume
Purge Time Begin	1514 End 1542

Field Parameters

	I	1V	2V	3V
Color	colorless	colorless	colorless	—
Odor	slight	slight	slight	—
Appearance	cloudy	clear	clear	—
pH (s.u.)	6.13	5.78	5.76	—
Conductivity (mS/cm) or	/	—	—	—
(µmhos/cm) 1)	173	195.6	197.0	—
Temperature (°C)	14.8	15.0	15.2	—
DO (mg/L)	—	—	—	—
ORP (mV)	—	—	—	—
Turbidity (NTU)	—	—	—	—
Time	1515	1527	1539	—
DTW (ft bmp)	—	—	—	—

Remarks: Q = ~~.05~~ .2 T = 34 1V = 12

Parameter	Container	No.	Preservative
See COC			

PID Reading 0 ppm

Well Casing Volumes

Gal./Ft.				
	$1^{1/4}$" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	$1^{1/2}$" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

1) Circle one unit type

ARCADIS
Infrastructure, environment, facilities

Water Sampling Log

Project: ~~N40~~ 08 N-Grumman OU3 Project No.: NY001464.0807.00003
Site Location: Bethpage, NY Date: 5/23/07
Well No.: BCPMW 4-2 Replicate No.: MS/MSD Weather: Partly cloudy 75°F
Sampling Personnel: Williams Przezorski Sampling Time: Begin NA End NA

Purge Data

Measuring Point (describe)	TOC
Sounded Well Depth (ft bmp)	88.5
Depth to Water (ft bmp)	55.83
Depth to Packer (ft bmp)	—
Water Column in Well (ft)	32.67
Casing Diameter	4" (0.65)
Gallons in Well	21.2
Gallons Purged Prior to Sampling	X3 64
Pump Intake Setting (ft bmp)	≈ 68.5
Packer Pressure (psi)	—
Pumping Rate (gpm)	2
Evacuation Method	2" Redi-flow pump
Sampling Method	3 well volume
Purge Time	Begin 12:55 End 1328

Field Parameters

	I	1V	2V	3V
Color	colorless	colorless	colorless	colorless
Odor	slight	slight	slight	slight
Appearance	clear	clear	clear	clear
pH (s.u.)	5.66	5.63	5.56	5.57
Conductivity (mS/cm) or	—	—	—	—
(µmhos/cm) [1]	189.0	181.1	181.5	186.8
Temperature (°C)	16.2	15.8	16.2	16.0
DO (mg/L)	—	—	—	—
ORP (mV)	—	—	—	—
Turbidity (NTU)	18	8.3	7.3	7.3
Time	12:55	1306	1317	1328
DTW (ft bmp)	—	56.03	—	—

Remarks: Q = 2 T = 64 1V = 11
Pump set top of screen (20' above bottom of well)

Parameter	Container	No.	Preservative
See OC			

PID Reading: 0 ppm at wellhead

Well Casing Volumes

Gal./Ft.				
	1 1/4" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1 1/2" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

1) Circle one unit type

ARCADIS
Infrastructure, environment, facilities

Low-Flow Groundwater Sampling Log

Project: N-Grumman 003
Project Number: NY001464.0807.00003
Site Location: Bethpage, NY
Well ID: BCP MW4-2
Date: 5/23/07
Sampled By: Williams / Prezorski
Sampling Time: 1347
Recorded By: Prezorski
Weather: Partly cloudy 75°F
Coded Replicate No.: MS/MSD

Instrument Identification
Water Quality Meter(s): /
Serial #: /

Casing Material: PVC
Casing Diameter: 4"
Sounded Depth (ft bmp): 88.5
Depth to Water (ft bmp): 55.83

Purge Method: Low Flow / Redi-flow pump (2")
Screen Interval (ft bmp): Top 68.5 Bottom 83.5
Pump Intake Depth (ft bmp): /
Purge Time: Start 1329 Finish 1345

Field Parameter Measurements During Purging

Time	Minutes Elasped	Flow Rate (mL/min)	Volume Purged	Temp (°C)	pH (s.u.)	Conductivity (umhos or mS/cm) 1)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft bmp)
1330	~~450~~ 00	450		18.9	5.61	174.3	220	3.07	16	
1335		450		18.3	5.51	176.3	224	2.44	9.9	
1340		450		18.6	5.46	175.6	222	2.46	7.9	
1345		450		19.0	5.48	177.5	220	2.27	7.7	55.81

Collected Sample Condition: Color colorless Odor slight Appearance clear

Parameter	Container	No.	Preservative
See COC			

PID Reading: 0 ppm at wellhead

Comments: Pump set mid screen

1) Circle one unit type

ARCADIS
Infrastructure, environment, facilities

Water Sampling Log

Project Grumman 003 Project No. NY001464.0807.00003

Site Location Bethpage, NY Date 7/10/07

Well No. BCP MW 4-2 Replicate No. NA Weather clear 86°F

Sampling Personnel Williams Prezioso Sampling Time: Begin 11:33 AM End 11:43 AM

Purge Data

Measuring Point (describe)	TOC
Sounded Well Depth (ft bmp)	88.5
Depth to Water (ft bmp)	56.10
Depth to Packer (ft bmp)	/
Water Column in Well (ft)	32.4
Casing Diameter	4" (0.65)
Gallons in Well	21.06
Gallons Purged	x3
Prior to Sampling	64
Pump Intake Setting (ft bmp)	/
Packer Pressure (psi)	/
Pumping Rate (gpm)	1
Evacuation Method	2" Redflow pump
Sampling Method	3WV
Purge Time	Begin 10:25 End 11:31

Field Parameters

	1	1V	2V	3V
Color	colorless	colorless	colorless	colorless
Odor	slight	slight	slight	slight
Appearance	clear	clear	clear	clear
pH (s.u.)	5.38	5.46	5.41	5.45
Conductivity (mS/cm) or (µmhos/cm) [1]	159.8	154.7	154.8	153.2
Temperature (°C)	19.2	18.4	18.8	19.4
DO (mg/L)	1.09	1.43	2.01	2.08
ORP (mV)	241	215	220	220
Turbidity (NTU)	19.8	8.55	6.86	2.56
Time	10:25	10:47	11:09	11:31
DTW (ft bmp)	~~10~~	—	—	—

Remarks: Pump set 10' above screen
Pump lowered prior to sampling
Q=1 T=64 1V=22

Parameter	Container	No.	Preservative
See COC			

PID Reading 0 ppm

Well Casing Volumes

Gal./Ft.				
	1 1/4" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1 1/2" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

ARCADIS

Water Sampling Log

Project NGC - BCP Project No. NY001348.0806.00002 Page 1 of 2

Site Location Bethpage, NY Date 1/10/08

Site/Well No. BCP MW-5-1 Replicate No. Rep011007

Weather P. Cloudy, 40°F Sampling Time: Begin 13:40 End 14:30

Evacuation Data

Measuring Point	TOC
Sounded Well Depth (ft bmp)	≈70'
Depth to Water (ft bmp)	56'
Depth to Packer (ft bmp)	—
Water Column in Well (ft)	14'
Casing Diameter	4"
Gallons in Well	(14 × 0.65) 9.1G
Gallons Pumped/Bailed Prior to Sampling	9.1 × 3 ≈ 27G
Sample Pump Intake Setting (ft bmp)	—
Packer Pressure (psi)	—
Pumping Rate (gpm)	1G/min
Evacuation Method	—
Sampling Method	Rediflo pump
Purge Time	Begin 13:50 End —

Field Parameters

Color: colorless

Odor: odorless

Appearance: clear

	1	1V	2V	3V
pH (s.u.)	6.13	6.09	5.65	5.65
Conductivity (mS/cm)	368	542	345	344
(~~umhos/cm~~)				
Temperature (°C)	11.4	12	12.5	12.3
DO (mg/L)				
Turbidity (NTU)				
Time ORP	[illegible]			
DTW (ft bmp)	56'			

Remarks: Sampling continued on low-flow log.

Constituents Sampled: See COC Sampling Personnel: GW/JAC

Well Casing Volumes

Gal./Ft.				
	1 1/4" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1 1/2" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	mS/cm	Milisiemens per centimeter	VOC	Volatile Organic Compounds
°C	Degrees Celsius	s.u.	Standard units	umhos/cm	Micromhos per centimeter
ft	feet	NTU	Nephelometric Turbidity Units		
gpm	Gallons per minute	N/A	Not Applicable		
mg/L	Miligrams per liter	COC	Chain of Custody		

pg. 2/2

ARCADIS

Low-Flow Groundwater Sampling Log

Project Number: NY001348-0806
Task: 0080.2
Well ID: BCPMW-5-1
Date: 1/10/07
Sampled By: GW/JAC
Sampling Time: 13:40
Recorded By: JAC
Weather: p.cloudy, 40°F
Coded Replicate No.: DEP011007

Instrument Identification
Water Quality Meter(s): —
Serial #: —

Purging Information
Casing Material: PVC
Purge Method: low flow/Pedi Flo
Casing Diameter: 4"
Screen Interval (ft bmp): Top 50 Bottom 65
Sounded Depth (ft bmp): 70'
Pump Intake Depth (ft bmp): 8' from bottom
Depth to Water (ft bmp): 56'
Purge time Start: 12:50 Finish: 13:40

Field Parameter Measurements Taken During Purging

Time	Minutes Elapsed	Rate (mL/min)	Volume Purged	Temp (°C)	pH (SI Units)	Spec. Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft bmp)	Comments
13:20	—			9.2	5.64	347	135	4.25	14	56.12	
13:25				10.7	5.69	346	131	3.48		—	
13:30				12.3	5.70	346	126	3.43		56.18	
13:35				12.4	5.72	340	125	3.17	18	—	
13:40				12.1	5.75	340	123	3.40	14	56.20	

Sample Condition Color: Colorless Odor: Odorless Appearance: Clear

Sample Collection

Parameter:	Container:	No.	Preservative:
See COC			

PID Reading

Comments: Switched to low flow at 13:20 from 3-well volume.

S_2^- = 0.003 mg/L

ARCADIS

Low-Flow Groundwater Sampling Log

Project Number: NY001464.0507 Task: 00.1 GW Well ID: MW-5-1
Date: 2/14/07 Sampled By: D Zuck
Sampling Time: 2:00 Recorded By: D. Zuck
Weather: Rain + Snow / 29° Coded Replicate No.: MS/MSD

Instrument Identification
Water Quality Meter(s): ✓ Serial #: ✓

Purging Information
Casing Material: PVC Purge Method: Redi flo / Low flow
Casing Diameter: 4" Screen Interval (ft bmp): Top _____ Bottom _____
Sounded Depth (ft bmp): 70 Pump Intake Depth (ft bmp): _____
Depth to Water (ft bmp): 55.30 Purge time Start: 1:50 Finish: 2:00

Field Parameter Measurements Taken During Purging

Time	Minutes Elapsed	Rate (mL/min)	Volume Purged	Temp (°C)	pH (SI Units)	Spec. Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft bmp)	Comments
0	1:50			7.4	5.81	389	90	2.99	—		
5	1:55			7.9	5.61	393	96	2.84	—		
10	2:00			9.5	5.64	346	87	2.53			

Sample Condition Color: Rust Odor: None Appearance: Clear

Sample Collection

Parameter:	Container:	No.	Preservative:
VOC 2000 ASP + Freon 12 + 22	40mL Vials	2	HCl

PID Reading ✓

Comments

ARCADIS

Water Sampling Log

Project NGC-043 Project No. NY001464.0807.001GW Page 1 of 1

Site Location Bethpage, NY Date 2/14/07

Site/Well No. MW-5-1 Replicate No. MS/MSD

Weather Rain + Sleet 32° Sampling Time: Begin 2:00 End 2:05

Evacuation Data

Measuring Point	TOC
Sounded Well Depth (ft bmp)	≈70
Depth to Water (ft bmp)	55.30
Depth to Packer (ft bmp)	/
Water Column in Well (ft)	15
Casing Diameter	4" (.65)
Gallons in Well	9.75
Gallons Pumped/Bailed Prior to Sampling	30
Sample Pump Intake Setting (ft bmp)	60
Packer Pressure (psi)	/
Pumping Rate (gpm)	2
Evacuation Method	Redi flo / 3V
Sampling Method	Low flow
Purge Time	Begin 1:30 End 2:00

Field Parameters

Color	None
Odor	trace
Appearance	Slight markers

	1	1V	2V	3V
pH (s.u.)	6.09	5.72	5.84	5.75
Conductivity ~~(mS/cm)~~	—	—	—	—
(µmhos/cm)	393	356	349	349
Temperature (°C)	11.1	12.5	13.0	12.8
DO (mg/L)	.66	1.30	1.46	1.59
Turbidity (NTU)	148	52.8	13.0	7.48
Time	1:30	1:35	1:40	1:45
DTW (ft bmp)	55.30	—	—	—

Remarks: DO cal. off reading

Constituents Sampled: See COC Sampling Personnel: G. Williams / D. Eyck

Well Casing Volumes

Gal./Ft.				
	1 1/4" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1 1/2" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	mS/cm	Milisiemens per centimeter	VOC	Volatile Organic Compounds
°C	Degrees Celsius	s.u.	Standard units	umhos/cm	Micromhos per centimeter
ft	feet	NTU	Nephelometric Turbidity Units		
gpm	Gallons per minute	N/A	Not Applicable		
mg/L	Miligrams per liter	COC	Chain of Custody		

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Infrastructure, environment, facilities

Water Sampling Log

Project: N-Grumman | Project No.: NY001464.0807.00003
Site Location: Bethpage, NY | Date: 4/19/07
Well No.: BCP MW 5-1 | Replicate No.: MS/MSD | Weather: Overcast 50's
Sampling Personnel: Williams Prezorski | Sampling Time: Begin NA End NA

Purge Data

Measuring Point (describe)	TOC
Sounded Well Depth (ft bmp)	70
Depth to Water (ft bmp)	54.27
Depth to Packer (ft bmp)	—
Water Column in Well (ft)	15.73
Casing Diameter	4" (0.65)
Gallons in Well	10.22 ~~15.73~~ ×3
Gallons Purged Prior to Sampling	31
Pump Intake Setting (ft bmp)	—
Packer Pressure (psi)	—
Pumping Rate (gpm)	2
Evacuation Method	Rediflow pump
Sampling Method	3 well volume
Purge Time	Begin 9:00 AM End 9:19 AM

Field Parameters

	I	1V	2V	3V
Color	~~tan~~	colorless	colorless	colorless
Odor	slight	slight	slight	Moderate
Appearance	turbid	clear	clear	clear
pH (s.u.)	6.27	5.80	5.63	5.57
Conductivity (~~mS/cm~~) or (µmhos/cm) [1]	714	568	559	558
Temperature (°C)	14.2	15.1	15.4	15.5
DO (mg/L)	—	—	—	—
ORP (mV)	—	—	—	—
Turbidity (NTU)	—	—	—	—
Time	9:00 AM	9:06 AM	9:12 AM	9:18 AM
DTW (ft bmp)	—	—	—	—

Remarks: Q=2 T=15.5 IV=6

Parameter	Container	No.	Preservative
See COC			

PID Reading: 43.6ppm at Wellhead. Breathing Zone 0ppm

Well Casing Volumes

Gal./Ft.				
	$1^{1/4}$" = 0.06	2" = 0.16	3" = 0.37	(4" = 0.65)
	$1^{1/2}$" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

1) Circle one unit type

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Infrastructure, environment, facilities

Low-Flow Groundwater Sampling Log

Project	N-Grumman OU3				
Project Number	NY001464.0807.00003	**Site Location**	Bethpage, NY	**Well ID**	BCPMW5-1
Date	4/19/07	**Sampled By**	Williams		
Sampling Time	9:36 AM	**Recorded By**	Prezorski		
Weather	Overcast 50s	**Coded Replicate No.**	MS/MSD		
Instrument Identification					
Water Quality Meter(s)		**Serial #**			
Casing Material	PVC	**Purge Method**	Low Flow / Rediflow pump		
Casing Diameter	4"	**Screen Interval (ft bmp)**	Top 50	Bottom 65	
Sounded Depth (ft bmp)	70	**Pump Intake Depth (ft bmp)**	—	—	
Depth to Water (ft bmp)	54.27	**Purge Time**	Start 9:21 AM	Finish 9:35 AM	

Field Parameter Measurements During Purging

Time	Minutes Elasped	Flow Rate (mL/min)	Volume Purged	Temp (°C)	pH (s.u.)	Conductivity (umhos or ~~mS/cm~~) 1)	ORP (mV)	DO ~~(mg/L)~~ %	Turbidity (NTU)	Depth to Water (ft bmp)
9:21 AM		400		14.9	5.61	550	-302	30.7		
9:25		↓		14.5	5.66	558	-261	26.0		
9:30		↓		13.7	5.58	555	-203	27.3		
9:35		↓		13.4	5.58	557	-217	23.3	13	

Collected Sample Condition Color colorless Odor Moderate Appearance None

Parameter	Container	No.	Preservative
See COC			

PID Reading 43.6 ppm at wellhead; Breathing Zone 0 ppm

Comments DO readings in %

1) Circle one unit type

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Low-Flow Groundwater Sampling Log

Project: N-Grumman OU3
Project Number: NY001464.0907.00003
Site Location: Bethpage, NY
Well ID: BCP MW5-1
Date: 5/24/07
Sampled By: Williams / Prezorski
Sampling Time: 11:23 AM
Recorded By: Prezorski
Weather: Clear, High of 80°F
Coded Replicate No.: N/A

Instrument Identification
Water Quality Meter(s): —
Serial #: —

Casing Material: PVC
Purge Method: Rediflow Pump / Low Low
Casing Diameter: 4"
Screen Interval (ft bmp): Top 50 Bottom 65
Sounded Depth (ft bmp): 70
Pump Intake Depth (ft bmp): —
Depth to Water (ft bmp): 55.12
Purge Time: Start 11:02 AM Finish 11:20 AM

Field Parameter Measurements During Purging

Time	Minutes Elasped	Flow Rate (mL/min)	Volume Purged	Temp (°C)	pH (s.u.)	Conductivity (umhos or ~~mS/cm~~) 1)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft bmp)
11:05 AM	—	500		20.1	6.06	445	78	2.54	85	53.52
11:10		500		21.2	6.10	460	66	2.08	80	—
11:15		500		22.8	6.08	464	77	1.75	75	53.72
11:20		500		23.9	6.01	462	81	1.75	55	—

Collected Sample Condition
Color: Colorless
Odor: Moderate
Appearance: Clear

Parameter	Container	No.	Preservative
See COC			

PID Reading: —

Comments: Pump set 3' into water table
Possible Cont on pump when pulled

1) Circle one unit type

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Infrastructure, environment, facilities

Water Sampling Log

Project N-Grumman Project No. NY001464.0807.00003
Site Location Bethpage NY Date 5/24/07
Well No. BCPMW 5-1 Replicate No. NA Weather clear, High of 80°F
Sampling Personnel Prezorski, Williams Sampling Time: Begin NA End NA

Purge Data

Measuring Point (describe)	TOC
Sounded Well Depth (ft bmp)	70
Depth to Water (ft bmp)	55.12
Depth to Packer (ft bmp)	/
Water Column in Well (ft)	14.88
Casing Diameter	4" (0.65)
Gallons in Well	9.7
Gallons Purged	x3
Prior to Sampling	30
Pump Intake	
Setting (ft bmp)	approx 56
Packer Pressure (psi)	—
Pumping Rate (gpm)	1
Evacuation Method	2" Rediflow pump
Sampling Method	3 well volume
Purge Time	Begin 10:26 End 10:56 AM

Field Parameters

	I	1V	2V	3V
Color	tan	colorless	colorless	colorless
Odor	slight	slight	Moderate	Moderate
Appearance	turbid	clear	clear	clear
pH (s.u.)	6.38	6.11	5.78	5.77
Conductivity (mS/cm) or	—	—	—	—
(µmhos/cm) 1)	569	487	468	457
Temperature (°C)	17.1	17.0	16.8	16.8
DO (mg/L)	—	—	—	—
ORP (mV)	—	—	—	—
Turbidity (NTU)	550	55	22	24
Time	10:26	10:36	10:46	10:56
DTW (ft bmp)	—	—	—	—

Remarks: Q=1 t=30 1V=10
Pump set 2' into water table

Parameter	Container	No.	Preservative
See COC			

PID Reading 44 ppm at well head; 0 ppm at Breathing Zone

Well Casing Volumes

Gal./Ft.				
	$1^{1/4}$" = 0.06	2" = 0.16	3" = 0.37	(4" = 0.65)
	$1^{1/2}$" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

1) Circle one unit type

ARCADIS
Infrastructure, environment, facilities

Water Sampling Log

Project: N-Grumman 003 | Project No.: NY001464.0807.00003
Site Location: Bethpage, NY | Date: 7-12-07
Well No.: BCPMW5-1 | Replicate No.: NA | Weather: clear 80°F
Sampling Personnel: Williams, Prezorski | Sampling Time: Begin 1535 End 1549

Purge Data

Measuring Point (describe)	TOC
Sounded Well Depth (ft bmp)	70
Depth to Water (ft bmp)	55.74
Depth to Packer (ft bmp)	/
Water Column in Well (ft)	14.26
Casing Diameter	4" (0.65)
Gallons in Well	9.3 x3
Gallons Purged Prior to Sampling	28
Pump Intake Setting (ft bmp)	/
Packer Pressure (psi)	/
Pumping Rate (gpm)	1
Evacuation Method	2" Red. flow pump
Sampling Method	3 well volume
Purge Time	Begin 1455 End 1527

Q=1 t=28 lv=10

Field Parameters

	I	1V	2V	3V
Color	tan	colorless	colorless	colorless
Odor	slight	slight	slight	slight
Appearance	turbid	clear	clear	clear
pH (s.u.)	6.03	6.00	6.53	5.87
Conductivity (mS/cm) or (µmhos/cm) [1]	427	396	425	401
Temperature (°C)	17.8	17.7	17.0	17.6
DO (mg/L)	.75	2.09	2.08	2.17
ORP (mV)	93	120	47	103
Turbidity (NTU)	559	30.6	15.6	12.2
Time	1455	1505	1515	1525
DTW (ft bmp)	/	/	/	/

Remarks: Pump set several feet into water table (for purge & sample)

Parameter	Container	No.	Preservative
See COC			

PID Reading: High Humidity

Well Casing Volumes

Gal./Ft.				
	$1^{1/4}$" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	$1^{1/2}$" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

ARCADIS
Infrastructure, environment, facilities

Low-Flow Groundwater Sampling Log

Project: N-Grumman 003
Project Number: NY001464.0807.00003
Site Location: Bethpage, NY
Well ID: BCP MW 6-2
Date: 5/24/07
Sampled By: Williams
Sampling Time: 12:23 pm
Recorded By: Prezorski
Weather: clear, High of 80°F
Coded Replicate No.: N/A

Instrument Identification
Water Quality Meter(s):
Serial #:

Casing Material: PVC
Purge Method: Retiflow pump / Low Flow
Casing Diameter: 4"
Screen Interval (ft bmp) Top: 135 Bottom: 145
Sounded Depth (ft bmp): 150
Pump Intake Depth (ft bmp):
Depth to Water (ft bmp): 51.74
Purge Time Start: 11:51 AM Finish: 12:18 pm

Field Parameter Measurements During Purging

Time	Minutes Elasped	Flow Rate (mL/min)	Volume Purged	Temp (°C)	pH (s.u.)	Conductivity (umhos or mS/cm) 1)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft bmp)
11:53	—	500		20.8	6.17	372	127	4.74	7200	—
11:55		500		20.2	5.91	397	136	4.99	720	51.82
1200		600		20.4	5.75	408	154	5.56	500	—
1205		900		20.5	5.73	408	160	5.69	170	51.83
12:10		900		20.6	5.65	411	174	5.79	90	—
12:15		900		20.7	5.62	409	181	5.89	50	51.83
12:18		900		—	—	—	—	—	32	—

Collected Sample Condition: Color: Colorless Odor: None Appearance: Clear

Parameter	Container	No.	Preservative
See COC			

PID Reading: Opposite Wellhead

Comments: Pump set at mid-screen

1) Circle one unit type

ARCADIS

Water Sampling Log

Project N-Grumman OU3 Project No. NY001464.0807.00003 Page 1 of 1

Site Location Bethpage, NY Date 4/19/07

Site/Well No. BCP MW6-2 Replicate No. N/A

Weather Mostly cloudy Sampling Time: Begin NA End NA

Evacuation Data

Measuring Point	TOC
Sounded Well Depth (ft bmp)	150
Depth to Water (ft bmp)	52.57
Depth to Packer (ft bmp)	—
Water Column in Well (ft)	97.43
Casing Diameter	4" (0.65)
Gallons in Well	63.3
Gallons Pumped/Bailed	x 3
Prior to Sampling	190
Sample Pump Intake Setting (ft bmp)	—
Packer Pressure (psi)	—
Pumping Rate (gpm)	3
Evacuation Method	Rediflow pump
Sampling Method	3 well volume
Purge Time Begin	1452 End 1558

Field Parameters

	1	1V	2V	3V
Color	Brown	Colorless	Colorless	Colorless
Odor	None	None	None	None
Appearance	turbid	clear	clear	clear
pH (s.u.)	5.52	5.66	5.57	5.59
Conductivity (~~mS/cm~~)	—	—	—	—
(µmhos/cm)	408	410	414	410
Temperature (°C)	16.2	16.6	17.0	16.9
DO (mg/L)	—	—	—	—
Turbidity (NTU)	—	—	—	—
Time	1452	1514	1536	1558
DTW (ft bmp)	—	—	—	—

Remarks: Q=3 T=64 1V=22

Constituents Sampled: See COC Sampling Personnel: Williams / Prezorski

Well Casing Volumes

Gal./Ft.				
	$1^{1/4}$" = 0.06	2" = 0.16	3" = 0.37	(4" = 0.65)
	$1^{1/2}$" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	mS/cm	Milisiemens per centimeter	VOC	Volatile Organic Compounds
°C	Degrees Celsius	s.u.	Standard units	umhos/cm	Micromhos per centimeter
ft	feet	NTU	Nephelometric Turbidity Units		
gpm	Gallons per minute	N/A	Not Applicable		
mg/L	Miligrams per liter	COC	Chain of Custody		

ARCADIS G&M, Inc.

Low-Flow Groundwater Sampling Log

Project Number: NY001464.0907 Task: 0003 Well ID: BCP MW-6-2

Date: 4/19/07 Sampled By: Williams

Sampling Time: 1616 Recorded By: Orezorski

Weather: Partly cloudy 50's Coded Replicate No.: NA

Instrument Identification

Water Quality Meter(s): — Serial #: —

Purging Information

Casing Material: PVC Purge Method: Redi-flow pump / Low flow

Casing Diameter: 4 Screen Interval (ft bmp): Top — Bottom —

Sounded Depth (ft bmp): — Pump Intake Depth (ft bmp): —

Depth to Water (ft bmp): — Purge time Start: 1559 Finish:

Field Parameter Measurements Taken During Purging

Time	Minutes Elapsed	Rate (mL/min)	Volume Purged	Temp (°C)	pH (SI Units)	Spec. Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft bmp)	Comments
1600		400		16.9	5.56	415	-53	—			
1605		↓		16.7	5.54	413	-15	—			
1610				16.6	5.54	411	-7	—			
1615				16.9	5.54	412	-11	—	9.5		

Sample Condition Color: colorless Odor: None Appearance: clear

Sample Collection

Parameter:	Container:	No.	Preservative:
See COC			

PID Reading —

Comments DO meter not working

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Infrastructure, environment, facilities

Water Sampling Log

Project: Grumman OU3 | Project No.: NY001464.0807.00003
Site Location: Bethpage, NY | Date: 7/10/07
Well No.: BCP MW 6-2 | Replicate No.: Rep07100 7 | Weather: clear 92°F
Sampling Personnel: Williams Prezorski | Sampling Time: Begin 1654 End 1720

Purge Data

Measuring Point (describe)	TOC
Sounded Well Depth (ft bmp)	150
Depth to Water (ft bmp)	52.13
Depth to Packer (ft bmp)	—
Water Column in Well (ft)	97.87
Casing Diameter	4" (0.65)
Gallons in Well	63.6 x3
Gallons Purged Prior to Sampling	191
Pump Intake Setting (ft bmp)	—
Packer Pressure (psi)	—
Pumping Rate (gpm)	2
Evacuation Method	2" Rediflow pump
Sampling Method	3 well volume
Purge Time	Begin 1510 End 1650

Field Parameters

	I	1V	2V	3V
Color	clear	colorless	colorless	colorless
Odor	None	None	None	None
Appearance	cloudy	clear	clear	clear
pH (s.u.)	5.00	5.27	5.31	5.44
Conductivity (mS/cm) or (µmhos/cm) [1]	182.1	190.2	188.7	190.7
Temperature (°C)	19.3	20.2	19.3	—
DO (mg/L)	5.42	5.92	5.66	5.89
ORP (mV)	246	243	262	243
Turbidity (NTU)	130	29.0	9.28	8.23
Time	1510	1542	1614	1646
DTW (ft bmp)	—	—	—	—

Remarks: Well BCP MW 6-2. Pump set 10' above screen
Q=2 T=955 W=32
Pump lowered prior to sampling

Parameter	Container	No.	Preservative
See COC			

PID Reading: 0 ppm

Well Casing Volumes

Gal./Ft.				
	1 1/4" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1 1/2" = 0.09'	2-½" = 0.26	3-½" = 0.50	6" = 1.47

ARCADIS
Infrastructure, environment, facilities

Water Sampling Log

Project: N-Grumman OU3 | Project No.: N00146Y.0807.00003
Site Location: Bethpage NY | Date: 7/11/07
Well No.: BCPMW7-1 | Replicate No.: NA | Weather: cloudy 83°F
Sampling Personnel: Williams Prezorski | Sampling Time: Begin 1456 End 1504

Purge Data

Measuring Point (describe)	TOC
Sounded Well Depth (ft bmp)	105
Depth to Water (ft bmp)	51.81
Depth to Packer (ft bmp)	/
Water Column in Well (ft)	53.19
Casing Diameter	4" (0.65)
Gallons in Well	34.6
Gallons Purged	x3
Prior to Sampling	104
Pump Intake Setting (ft bmp)	/
Packer Pressure (psi)	/
Pumping Rate (gpm)	2
Evacuation Method	2" Redi-flow pump
Sampling Method	3 vol volume
Purge Time	Begin 1358 End 1452

Field Parameters

	I	1V	2V	3V
Color	colorless	colorless	colorless	colorless
Odor	None	None	None	None
Appearance	clear	clear	clear	clear
pH (s.u.)	5.69	5.37	5.32	5.21
Conductivity (mS/cm) or (µmhos/cm) [1]	193.4	393	402	407
Temperature (°C)	18.7	18.4	18.2	18.4
DO (mg/L)	5.61	5.50	5.26	5.19
ORP (mV)	229	257	270	279
Turbidity (NTU)	5.61	2.82	2.34	1.30
Time	1359	1416	1434	1452
DTW (ft bmp)	/	/	/	/

Remarks: Pump set at 10' above screen
Q=2 +/- 52 1V = 18
Pump ~~caused~~ lowered prior to sampling

Parameter	Container	No.	Preservative
See COC			

PID Reading: High Humidity

Well Casing Volumes

Gal./Ft.				
	1 1/4" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1 1/2" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

ARCADIS
Infrastructure, environment, facilities

Low-Flow Groundwater Sampling Log

Project: N Grumman OU3
Project Number: NY001164.0807.00003
Site Location: Bethpage, NY
Well ID: BCP MW4-3
Date: 4/19/07
Sampled By: Williams
Sampling Time: 1346
Recorded By: Prezorski
Weather: overcast 55°F
Coded Replicate No.: Rep 041907

Instrument Identification
Water Quality Meter(s):
Serial #:

Casing Material: PVC
Purge Method: Redflow pump / Low Flow
Casing Diameter: 4"
Screen Interval (ft bmp): Top 115 Bottom 125
Sounded Depth (ft bmp): 130
Pump Intake Depth (ft bmp): —
Depth to Water (ft bmp): 56.26
Purge Time: Start 1328 Finish 1345

Field Parameter Measurements During Purging

Time	Minutes Elasped	Flow Rate (mL/min)	Volume Purged	Temp (°C)	pH (s.u.)	Conductivity (umhos or mS/cm) 1)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft bmp)
1328				15.7	5.18	149.1	—	7.16		
1335		350		15.7	5.19	145.8	-65	5.91		
1340		350		15.3	5.20	145.8	-38	5.73		
1345		350		15.1	5.23	146.1	-32	6.00	36	

Collected Sample Condition: Color Colorless Odor None Appearance clear

Parameter	Container	No.	Preservative
See COC			

PID Reading: 1.2 ppm wellhead, breathing zone 0ppm

Comments:

1) Circle one unit type

ARCADIS
Infrastructure, environment, facilities

Water Sampling Log

Project: N-Grumman OU3 | Project No.: NY001164.0807.00003
Site Location: Bethpage, NY | Date: 4/19/07
Well No.: BGP-MW4-3 | Replicate No.: Rp041907 | Weather: Overcast 55°F
Sampling Personnel: Prezorski, Williams | Sampling Time: Begin NA End NA

Purge Data

Measuring Point (describe)	TOC
Sounded Well Depth (ft bmp)	130
Depth to Water (ft bmp)	56.26
Depth to Packer (ft bmp)	—
Water Column in Well (ft)	73.74
Casing Diameter	4" (0.65)
Gallons in Well	47.9
Gallons Purged	x3
Prior to Sampling	144
Pump Intake	
Setting (ft bmp)	—
Packer Pressure (psi)	—
Pumping Rate (gpm)	3
Evacuation Method	Redflow pump
Sampling Method	3 well volume
Purge Time	Begin 12:39 End 1327 pm

Field Parameters

	I	1V	2V	3V
Color	Brown	Colorless	Colorless	Colorless
Odor	Slight	none	None	None
Appearance	Turbid	clear	clear	clear
pH (s.u.)	5.91	5.45	5.22	5.18
Conductivity (~~mS/cm~~) or	—	—	—	
(µmhos/cm) [1]	151.4	147.3	146.0	146.9
Temperature (°C)	15.0	15.2	15.8	15.7
DO (mg/L)	—	—	—	—
ORP (mV)	—	—	—	—
Turbidity (NTU)	—	—	—	—
Time	12:39	12:55	1311	1327
DTW (ft bmp)	—	—	—	—

Remarks: Q=3 T=48 1V=16

Parameter	Container	No.	Preservative
See COC			

PID Reading: 1.2 ppm at wellhead, Breathing zone 0ppm

Well Casing Volumes

Gal./Ft.				
	1 1/4" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1 1/2" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

1) Circle one unit type

ARCADIS
Infrastructure, environment, facilities

Water Sampling Log

Project: Grumman OU3 | Project No.: NY001464.0807.00003
Site Location: Bethpage, NY | Date: 7/10/07
Well No.: BCP MW 4-3 | Replicate No.: N/A | Weather: clear 91°F
Sampling Personnel: Williams/Rozorski | Sampling Time: Begin 1408 End 1419

Purge Data

Measuring Point (describe)	TOC
Sounded Well Depth (ft bmp)	135
Depth to Water (ft bmp)	55.89
Depth to Packer (ft bmp)	/
Water Column in Well (ft)	79.11
Casing Diameter	4" (0.65)
Gallons in Well	51.42
Gallons Purged	x3
Prior to Sampling	155
Pump Intake Setting (ft bmp)	/
Packer Pressure (psi)	/
Pumping Rate (gpm)	2
Evacuation Method	2" Redflow Pump
Sampling Method	3 Well volume
Purge Time	Begin 1250 End 1408

Field Parameters

	I	1V	2V	3V
Color	colorless	colorless	colorless	colorless
Odor	None	None	None	None
Appearance	cloudy	clear	clear	clear
pH (s.u.)	5.98	5.01	4.91	4.83
Conductivity (mS/cm) or	/	/	/	/
(µmhos/cm) [1]	116.9	116.1	114.0	114.2
Temperature (°C)	19.2	19.0	18.3	19.1
DO (mg/L)	6.85	6.62	6.24	6.09
ORP (mV)	219	258	282	291
Turbidity (NTU)	441	146	36.0	13.9
Time	12:50	1316	1342	1408
DTW (ft bmp)	—	—	/	/

Remarks: Pump placed above screen.
Prior to Sampling pump lowered 8'
Q=2 T=77.5 DO=2.6
No cap on well, plastic bag over well casing

Parameter	Container	No.	Preservative
See COC			

PID Reading: 0 ppm

Well Casing Volumes

Gal./Ft.				
	1 1/4" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1 1/2" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

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Low-Flow Groundwater Sampling Log

Project	N - Grumman OU3				
Project Number	NY001464.0807.00003	**Site Location**	Bethpage, NY	**Well ID**	BCPMW4-3
Date	9-18-07	**Sampled By**	Williams		
Sampling Time	1326	**Recorded By**	Prezorski		
Weather	clear 65°F	**Coded Replicate No.**	NA		

Instrument Identification

Water Quality Meter(s) _____ **Serial #** _____

Casing Material	PVC	**Purge Method**	Redflow Pump/Low Flow		
Casing Diameter	4"	**Screen Interval (ft bmp)**	**Top** 115	**Bottom**	125
Sounded Depth (ft bmp)	135	**Pump Intake Depth (ft bmp)**			
Depth to Water (ft bmp)	55.79	**Purge Time**	**Start** 1312	**Finish**	1326

Field Parameter Measurements During Purging

Time	Minutes Elasped	Flow Rate (mL/min)	Volume Purged	Temp (°C)	pH (s.u.)	Conductivity (umhos or ~~mS/cm~~)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft bmp)
1315		450		16.8	5.19	256	285	6.22		
1320		450		16.7	5.19	259	279	5.62	18.6	55.79
1325		450		17.0	5.20	257	279	5.59	16.2	

Collected Sample Condition **Color** Colorless **Odor** None **Appearance** clear

Parameter	Container	No.	Preservative
See COC			

PID Reading _____

Comments _____

1) Circle one unit type

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Water Sampling Log

Project: N Grumman OU3 | Project No.: NY001464.0807.00003
Site Location: Bethpage, NY | Date: 9-18-07
Well No.: BCPMW 4-3 | Replicate No.: NA | Weather: clear, 65°F
Sampling Personnel: Williams & Prezorski | Sampling Time: Begin ____ End ____

Purge Data

Measuring Point (describe)	TOC
Sounded Well Depth (ft bmp)	135
Depth to Water (ft bmp)	55.79
Depth to Packer (ft bmp)	—
Water Column in Well (ft)	79.21
Casing Diameter	4" (0.65)
Gallons in Well	51.49
Gallons Purged	x3
Prior to Sampling	155
Pump Intake Setting (ft bmp)	*
Packer Pressure (psi)	—
Pumping Rate (gpm)	2
Evacuation Method	Redi-flow pump
Sampling Method	—
Purge Time	Begin 1147 End 1305

Field Parameters

	I	1V	2V	3V
Color	colorless	colorless	colorless	colorless
Odor	slight	slight	slight	slight
Appearance	cloudy	clear	clear	clear
pH (s.u.)	5.81	5.58	5.19	5.18
Conductivity (mS/cm) or (µmhos/cm) 1)	459	300	264	258
Temperature (°C)	16.1	16.4	16.3	16.6
DO (mg/L)	6.41	5.41	5.66	5.94
ORP (mV)	168	188	224	277
Turbidity (NTU)	148	6.91	4.00	3.13
Time	1147	1213	1239	1305
DTW (ft bmp)	~~1147~~	~~—~~	—	—

Remarks: * Pump set above screen. Pump lowered prior to low flow sampling
Q = 2 t = 155 TV = 26
Installed well cap

Parameter	Container	No.	Preservative
See COC			

PID Reading: No cap on well (Bag over TOC)

Well Casing Volumes

Gal./Ft.				
	1 1/4" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1 1/2" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

1) Circle one unit type

ARCADIS GERAGHTY & MILLER

HN-405

Water Sampling Log

Project: Northcop Grumman | Project No. NY001348.0806.0002 | Page 1 of ___

Site Location: Bethpage, NY | Date 4/13/06

Site/Well No. HN-405 | Replicate No. N/A | Code No. ___

Weather: Clear 70° | Sampling Time: Begin 11:30 End 12:10 pm

Evacuation Data

Measuring Point	TOC
MP Elevation (ft)	/
Land Surface Elevation (ft)	
Sounded Well Depth (ft bmp)	59
Depth to Water (ft bmp)	47.65
Water-Level Elevation (ft)	/
Water Column in Well (ft)	11.35
Casing Diameter/Type	4" (0.65)
Gallons in Well	7.4 x 3
Gallons Pumped/Bailed Prior to Sampling	22 G
Sample Pump Intake Setting (ft bmp)	/
Purge Time	begin ___ end ___
Pumping Rate (gpm)	Q = 1 gpm T = 22 min
Evacuation Method	Peristaltic pump

Field Parameters

	I:	1C	2C	3 ✓
Color	Colorless	colorless	colorless	Colorless
Odor	odorless	odorless	odorless	odorless
Appearance	none	none	none	none
pH (s.u.)	4.97	5.24	5.31	5.31
Conductivity ~~(mS/cm)~~ (µmhos/cm)	152.9	157.0	177.5	194.6
Turbidity (NTU)	—	—	—	(10)
Temperature (°C)	16.6	16.6	16.7	16.7
Dissolved Oxygen (mg/L)	—	—	—	—
~~Salinity (%)~~ Time	11:34	11:42	11:48	11:55
Sampling Method	3 well volume			
Remarks	Ant colony in well borehole. PID=0.0 @ BH			

Constituents Sampled	Container Description	Number	Preservative
See COC			

Sampling Personnel: SAC | PP

Well Casing Volumes

Gal./Ft.				
	1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	ml	milliliter	NTU	Nephelometric Turbidity Units
°C	Degrees Celsius	mS/cm	Milisiemens per centimeter	PVC	Polyvinyl chloride
ft	feet	msl	mean sea-level	s.u.	Standard units
gpm	Gallons per minute	N/A	Not Applicable	umhos/cm	Micromhos per centimeter
mg/L	Miligrams per liter	NR	Not Recorded	VOC	Volatile Organic Compounds

ARCADIS G&M, Inc.

Low-Flow Groundwater Sampling Log

Project Number: NY001348.0006 Task: 0002 Well ID: HN-40I
Date: 4/13/06 Sampled By: Scherlin / P Prezorski
Sampling Time: 12:40 - 13:45 Recorded By: Scherlin
Weather: Clear, 70° Coded Replicate No.: MS/MSD

Instrument Identification
Water Quality Meter(s): / Serial #: /

Purging Information
Casing Material: PVC Purge Method: Rediflo pump / low flow
Casing Diameter: 4" Screen Interval (ft bmp): Top 108 Bottom 118
Sounded Depth (ft bmp): 118 Pump Intake Depth (ft bmp): 113
Depth to Water (ft bmp): 47.38' Purge time Start: 12:40 Finish: 13:45

Field Parameter Measurements Taken During Purging

Time	Minutes Elapsed	Rate (mL/min)	Volume Purged	Temp (°C)	pH (SI Units)	Spec. Cond. mS (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft bmp)	Comments
12:40	—	—	—	17.6	5.58	240	302	6.05	/	47.38	
12:45				17.3	5.52	238	290	5.41			
12:50				17.6	5.52	241	282	5.57		47.41	
12:55				18.1	5.49	237	272	5.34			
13:00				18.4	5.49	233	263	5.30		47.41	
13:05				18.5	5.49	231	255	5.20			
13:10				18.7	5.47	229	251	5.18		47.41	
13:15				18.9	5.47	227	246	5.13			
13:20				18.7	5.47	227	244	5.24		47.41	DO=5.24
13:25				18.5	5.47	227	242	5.08	8.4		
13:30				18.9	5.47	227	241	4.99	6.6	47.41	
13:35				18.5	5.47	226	240	5.20	6.2		
13:40				18.5	5.47	224	238	4.99	5.5	47.41	ORP=238

Sample Condition Color: Colorless Odor: odorless Appearance: Clear
Sample Collection

Parameter:	Container:	No.	Preservative:
See COC			

PID Reading 0.0 ppm

Comments

ARCADIS G&M, Inc.

Low-Flow Groundwater Sampling Log

Project Number: NY001318.0806. Task: 0002 Well ID: HN-42D
Date: 4/13/06 Sampled By: Scherlin/Pierzchski
Sampling Time: 16:35 Recorded By: Scherlin
Weather: clear, 70° Coded Replicate No.: N/A

Instrument Identification
Water Quality Meter(s): ✓ Serial #: ✓

Purging Information
Casing Material: PVC Purge Method: Redi-Flo pump / low flow
Casing Diameter: 4" Screen Interval (ft bmp): Top 100 Bottom 110
Sounded Depth (ft bmp): 110 Pump Intake Depth (ft bmp): 105
Depth to Water (ft bmp): 48.89 Purge time Start: 15:40 Finish: 16:35

Field Parameter Measurements Taken During Purging

Time	Minutes Elapsed	Rate (mL/min)	Volume Purged	Temp (°C)	pH (SI Units)	Spec. Cond. ~~mS/cm~~ (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft bmp)	Comments
15:40	✓	✓	✓	17.4	11.00	238	38	4.84	✓	48.89	
15:45				17.2	11.01	215	32	4.32			
15:50				17.7	10.97	173.9	30	4.54		48.95	
15:55				18.3	10.96	165.7	27	4.47			
16:00				18.5	10.94	164.6	26	4.50		48.95	
16:05				18.5	10.91	169.8	26	4.53			
16:10				18.4	10.89	171.5	25	4.57		48.95	
16:15				18.2	10.87	145.2	26	4.44			
16:20				18.1	10.92	181.6	27	4.45		48.95	
16:25				18.1	10.77	180.1	28	4.20	15		
16:30				18.3	10.73	182.7	30	4.29	17	48.95	

Sample Condition Color: Colorless Odor: odorless Appearance: Clear
Sample Collection

Parameter:	Container:	No.	Preservative:
See COC			

PID Reading 0.0 ppm

Comments

ARCADIS GERAGHTY & MILLER

Water Sampling Log

Project	Northrop Grumman	Project No.	NY001348.0806.00002	Page	1 of 1
Site Location	Bethpage, NY			Date	4/13/06
Site/Well No.	HN-42S	Replicate No.	N/A	Code No.	—
Weather	Partly Cloudy, 60°F	Sampling Time:	Begin 17:20	End	17:40

Evacuation Data	
Measuring Point	TOC
MP Elevation (ft)	—
Land Surface Elevation (ft)	—
Sounded Well Depth (ft bmp)	60.00
Depth to Water (ft bmp)	50.58
Water-Level Elevation (ft)	~~50.58~~
Water Column in Well (ft)	9.42
Casing Diameter/Type	4" (0.65)
Gallons in Well	6.12G ×3
Gallons Pumped/Bailed Prior to Sampling	18.37G
Sample Pump Intake Setting (ft bmp)	—
Purge Time	begin 17:20 end 17:40
Pumping Rate (gpm)	Q = 1 T = 18
Evacuation Method	Rediflo pump

Field Parameters	I	1V	2V	3V
Color	Colorless	Colorless	Colorless	Colorless
Odor	odorless	odorless	odorless	odorless
Appearance	clear	clear	clear	clear
pH (s.u.)	5.85	5.76	5.74	5.69
Conductivity (~~mS/cm~~)	—	—	—	—
(~~umhos/cm~~) mS/cm	635	665	678	678
Turbidity (NTU)	—	—	—	3.9
Temperature (°C)	16.7	16.7	16.9	17.0
Dissolved Oxygen (mg/L)	—	—	—	—
~~Salinity (%)~~ Time	17:20	17:26	17:32	17:38

Sampling Method: 3 well volume

Remarks: PID=0.0 @ BH

Constituents Sampled	Container Description	Number	Preservative
See COC			

Sampling Personnel: Scherlin / P Przezaski

Well Casing Volumes

Gal./Ft.	1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	ml	milliliter	NTU	Nephelometric Turbidity Units
°C	Degrees Celsius	mS/cm	Milisiemens per centimeter	PVC	Polyvinyl chloride
ft	feet	msl	mean sea-level	s.u.	Standard units
gpm	Gallons per minute	N/A	Not Applicable	umhos/cm	Micromhos per centimeter
mg/L	Miligrams per liter	NR	Not Recorded	VOC	Volatile Organic Compounds

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Water Sampling Log

Project NGC-OU-3 Project No. NY001348.0806.00002 Page 1 of 1

Site Location Rathpage Community Park Date 06/13/06

Site/Well No. PZ-1 (F-8PZ) Replicate No. PZ-100

Weather Sunny, 80°F Sampling Time: Begin 12:00 End 13:30

Evacuation Data

Measuring Point	Top of Casing
Sounded Well Depth (ft bmp)	43 ft
Depth to Water (ft bmp)	28.10 ft
Depth to Packer (ft bmp)	NA
Water Column in Well (ft)	14.9 ft
Casing Diameter	2"
Gallons in Well	NA
Gallons Pumped/Bailed Prior to Sampling	1 Bailer Volume = (.25gal)
Sample Pump Intake Setting (ft bmp)	Na
Packer Pressure (psi)	NA
Pumping Rate (gpm)	NA
Evacuation Method	Bailer
Sampling Method	Bailer
Purge Time Begin	NA End NA

Field Parameters

	2nd Bailer			
Color	Brown			
Odor	None			
Appearance	Turbid, silty			
pH (s.u.)	6.14			
Conductivity (mS/cm)	49.2			
(µmhos/cm)				
Temperature (°C)	14.6			
DO (mg/L)	NA			
Turbidity (NTU)	>200			
Time	12:40			
DTW (ft bmp)	28.45*			28.30**

* After first bailer full removed from PZ-1
** Measured after last bailer taken for sample parameters

Remarks: Sampled per instructions for Piezometer in OU-3 work plan. No product found initially or after 1st bailer full was removed (measured from 28.1 ft below toc to 42.0 ft). Field Blank taken off bailer for all field blank Parameters. See COC for sample parameters.

Constituents Sampled: See COC Sampling Personnel: John Corral / Jen Cherlin

Well Casing Volumes

Gal./Ft.				
	1 1/4" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1 1/2" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	mS/cm	Milisiemens per centimeter	VOC	Volatile Organic Compounds
°C	Degrees Celsius	s.u.	Standard units	umhos/cm	Micromhos per centimeter
ft	feet	NTU	Nephelometric Turbidity Units		
gpm	Gallons per minute	N/A	Not Applicable		
mg/L	Miligrams per liter	COC	Chain of Custody		

Note; To insure a blind replicate & Duplicate sample for PZ-1 was labeled PZ-100 instead of REP061306.

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Water Sampling Log

Project: NGC 043 | Project No.: NY001346.0806.2 | Page 1 of 1

Site Location: Bethpage NY | Date: 12/11/06

Site/Well No.: FS-PZ | Replicate No.: N/A | Code No.: /

Weather: P/C ≈50° | Sampling Time: Begin / End /

Evacuation Data

Measuring Point	TOC
MP Elevation (ft)	
Land Surface Elevation (ft)	
Sounded Well Depth (ft bmp)	
Depth to Water (ft bmp)	
Water-Level Elevation (ft)	
Water Column in Well (ft)	
Casing Diameter/Type	
Gallons in Well	
Gallons Pumped/Bailed Prior to Sampling	
Sample Pump Intake Setting (ft bmp)	
Purge Time	begin ____ end ____
Pumping Rate (gpm)	
Evacuation Method	Bailer

Field Parameters

Color	Lt Brown
Odor	Sl/Sl A
Appearance	Turbid
pH (s.u.)	7.26
Conductivity ~~(mS/cm)~~	—
(µmhos/cm)	73.5
Turbidity (NTU)	/
Temperature (°C)	16.8
Dissolved Oxygen (mg/L)	/
Salinity (%)	/
Sampling Method	Bailer
Remarks	PID: 0.0

Constituents Sampled	Container Description	Number	Preservative
See COC			

Sampling Personnel: D. Zack / O. Williams

Well Casing Volumes

Gal./Ft.				
	1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

below measuring point	ml	milliliter	NTU	Nephelometric Turbidity Units
Degrees Celsius	mS/cm	Milisiemens per centimeter	PVC	Polyvinyl chloride
et	msl	mean sea-level	s.u.	Standard units
ons per minute	N/A	Not Applicable	umhos/cm	Micromhos per centimeter
ms per liter	NR	Not Recorded	VOC	Volatile Organic Compounds

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Page 1 of ___

Water Sampling Log

Project Northrop - Bethpage | Project No. NY001464.08.07.00003

Site Location Bethpage, NY | Date 7-12-07

Well No. F8-P2 | Replicate No. NA | Weather 80°F clear

Sampling Personnel G. Williams | Sampling Time: Begin ____ End ____

Purge Data

Measuring Point (describe)	TOC
Sounded Well Depth (ft bmp)	42.35
Depth to Water (ft bmp)	33.04
Depth to Packer (ft bmp)	9.31
Water Column in Well (ft)	
Casing Diameter	2" (0.16)
Gallons in Well	1.38
Gallons Purged Prior to Sampling	4
Pump Intake Setting (ft bmp)	/
Packer Pressure (psi)	/
Pumping Rate (gpm)	/
Evacuation Method	Bailer
Sampling Method	/
Purge Time Begin ____ End ____	

Field Parameters

Color: ____

Odor: ____

Appearance: ____

	I	1V	2V	3V
pH (s.u.)	6.93	6.87		
Conductivity (mS/cm) or	/	—		
(µmhos/cm) [1]	569	574		
Temperature (°C)	17.9	17.8		
DO (mg/L)	6.80	7.66		
ORP (mV)	56	135		
Turbidity (NTU)				
Time				
DTW (ft bmp)	—	—		

Remarks: Not sampled
well dry prior to 2V

Parameter	Container	No.	Preservative

PID Reading: ~

Well Casing Volumes

Gal./Ft.				
	$1^{1/4}$" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	$1^{1/2}$" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

ARCADIS
Infrastructure, environment, facilities

Water Sampling Log

Project N- Grumman 003 Project No. NY001464.0807.00003

Site Location Bethpage NY Date 7/13/07

Well No. F-8 R2 Replicate No. NA Weather clear, 80s F

Sampling Personnel Zack / Prezorski Sampling Time: Begin 10:22 AM End 10:40 AM

Purge Data

Measuring Point (describe)	TOC
Sounded Well Depth (ft bmp)	42.75
Depth to Water (ft bmp)	34.50
Depth to Packer (ft bmp)	/
Water Column in Well (ft)	
Casing Diameter	2"
Gallons in Well	
Gallons Purged Prior to Sampling	
Pump Intake Setting (ft bmp)	/
Packer Pressure (psi)	/
Pumping Rate (gpm)	/
Evacuation Method	
Sampling Method	Bailer
Purge Time Begin — End —	

Field Parameters

	I	1V	2V	3V
Color				
Odor				
Appearance				
pH (s.u.)				
Conductivity (mS/cm) or (µmhos/cm) [1]				
Temperature (°C)				
DO (mg/L)				
ORP (mV)				
Turbidity (NTU)				
Time				
DTW (ft bmp)				

Remarks: Grab Sample

Parameter	Container	No.	Preservative
See COC			

PID Reading PID not working well

Well Casing Volumes

Gal./Ft.				
	$1^{1/4}$" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	$1^{1/2}$" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

ARCADIS GERAGHTY & MILLER

Water Sampling Log

Project: NGC 003 | Project No.: NY001348.0806.2 | Page: 1 of 1

Site Location: Bethpage NY | Date: 12/11/00

Site/Well No.: H3-PZ | Replicate No.: N/A | Code No.: /

Weather: P/C ≈50° | Sampling Time: Begin / End /

Evacuation Data

Measuring Point	TOC
MP Elevation (ft)	—
Land Surface Elevation (ft)	—
Sounded Well Depth (ft bmp)	50.00
Depth to Water (ft bmp)	48.17
Water-Level Elevation (ft)	41
Water Column in Well (ft)	1.83
Casing Diameter/Type	4.16
Gallons in Well	1098 (.2928) .1830 x3
Gallons Pumped/Bailed Prior to Sampling	.2928 .88
Sample Pump Intake Setting (ft bmp)	/
Purge Time	begin ____ end ____
Pumping Rate (gpm)	/
Evacuation Method	Bailer

Field Parameters

Color	LT BROWN
Odor	Slight
Appearance	turbid
pH (s.u.)	7.10
Conductivity (mS/cm)	—
(µmhos/cm)	854
Turbidity (NTU)	—
Temperature (°C)	15.8
Dissolved Oxygen (mg/L)	—
Salinity (%)	—
Sampling Method	Bailer
Remarks	PID 3.9

Constituents Sampled	Container Description	Number	Preservative
See COC			

Sampling Personnel: D. Zack / G. Williams

Well Casing Volumes

Gal./Ft.				
	1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	ml	milliliter	NTU	Nephelometric Turbidity Units
°C	Degrees Celsius	mS/cm	Milisiemens per centimeter	PVC	Polyvinyl chloride
ft	feet	msl	mean sea-level	s.u.	Standard units
gpm	Gallons per minute	N/A	Not Applicable	umhos/cm	Micromhos per centimeter
mg/L	Miligrams per liter	NR	Not Recorded	VOC	Volatile Organic Compounds

ARCADIS

Low-Flow Groundwater Sampling Log

Project Number: M0013418.0806
Date: 1/11/07
Sampling Time: —
Weather: P. Cloudy / 40°F

Task: 00002
Sampled By: GW / JAC
Recorded By: JAC
Coded Replicate No.: —
Well ID: H-3 PZ

Instrument Identification
Water Quality Meter(s): —
Serial #: —

Purging Information
Casing Material: PVC
Casing Diameter: 2"
Sounded Depth (ft bmp): ~50
Depth to Water (ft bmp): 48.68

Purge Method: Low flow / Rediflo
Screen Interval (ft bmp): Top 38 Bottom 48
Pump Intake Depth (ft bmp): 1 inch off bottom
Purge time Start: Finish:

Field Parameter Measurements Taken During Purging

Time	Minutes Elapsed	Rate (mL/min)	Volume Purged	Temp (°C)	pH (SI Units)	Spec. Cond. uS/cm (~~mS/cm~~)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft bmp)	SULFIDE Comments
1st Pumping				11.2	7.06	629	-56	1.69	>1000	?	OVERRANGE
		SAMPLED		METALS,		PERCHLORATE,	TDS	160.2			
2nd PUMPING											

Sample Condition Color: — Odor: — Appearance: —

Sample Collection

Parameter:	Container:	No.	Preservative:
See COC			

PID Reading: ~0.0 ppm

Comments: PUMPED AND TOOK ~~INITIAL~~ PARAMETERS, STARTED FILLING BOTTLES SHUT OFF AFTER ~2.5 LITERS SAMPLED. LET RECOVER ~10 MIN TOOK SULFIDE READING DURING RECOVERY

ARCADIS

Water Sampling Log

Project NG-C-043 Project No. NY001464.0807.00166 Page 1 of 1

Site Location Bethpage, NY Date 2/14/07

Site/Well No. PZ-H-3 Replicate No. N/A

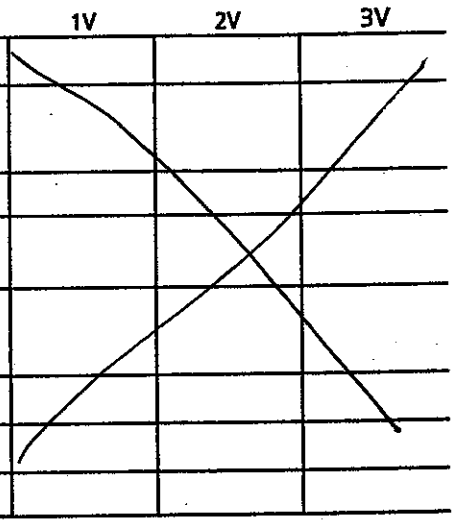
Weather Rain/sleet 29° Sampling Time: Begin 2:20 End —

Evacuation Data

Measuring Point	TOC
Sounded Well Depth (ft bmp)	
Depth to Water (ft bmp)	
Depth to Packer (ft bmp)	
Water Column in Well (ft)	
Casing Diameter	
Gallons in Well	
Gallons Pumped/Bailed Prior to Sampling	
Sample Pump Intake Setting (ft bmp)	
Packer Pressure (psi)	
Pumping Rate (gpm)	
Evacuation Method	
Sampling Method	
Purge Time	Begin End

Field Parameters

	1	1V	2V	3V
Color	Lt Brn			
Odor	Sor			
Appearance	turbid			
pH (s.u.)	6.54			
Conductivity (mS/cm)	—			
Conductivity (µmhos/cm)	523			
Temperature (°C)	9.4			
DO (mg/L)	.63			
Turbidity (NTU)	24.9			
Time	2:20			
DTW (ft bmp)				



Remarks: Grab Sample

Constituents Sampled: See COC Sampling Personnel: GV/DZ

Well Casing Volumes

Gal./Ft.				
	$1^{1/4}$" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	$1^{1/2}$" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	mS/cm	Milisiemens per centimeter	VOC	Volatile Organic Compounds
°C	Degrees Celsius	s.u.	Standard units	umhos/cm	Micromhos per centimeter
ft	feet	NTU	Nephelometric Turbidity Units		
gpm	Gallons per minute	N/A	Not Applicable		
mg/L	Miligrams per liter	COC	Chain of Custody		

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Water Sampling Log

Project NORTHROP (GRUM MAW) Project No. NY001464.0802.00003

Site Location Bethpage, NY Date 7-12-07

Well No. H-3 P2 Replicate No. NA Weather 80° F clear

Sampling Personnel Williams Sampling Time: Begin ____ End ____

Purge Data

Measuring Point (describe)	TOC
Sounded Well Depth (ft bmp)	53.10
Depth to Water (ft bmp)	50.99
Depth to Packer (ft bmp)	____
Water Column in Well (ft)	2.11
Casing Diameter	2" (0.16)
Gallons in Well	.336
Gallons Purged	X3
Prior to Sampling	1 GALLON
Pump Intake	
Setting (ft bmp)	____
Packer Pressure (psi)	____
Pumping Rate (gpm)	____
Evacuation Method	Bailer
Sampling Method	____
Purge Time	Begin 1515 End ____

Field Parameters

	I	1V	2V	3V
Color	Colorless	Brown		
Odor	Slight	None		
Appearance	Clear	Turbid		
pH (s.u.)	5.72	6.10		
Conductivity (mS/cm) or	____	____		
(µmhos/cm) [1]	~~1000~~ 186	629		
Temperature (°C)	18.8	16.7		
DO (mg/L)	2.00	.73		
ORP (mV)	-4	-12		
Turbidity (NTU)	24.8	7500		
Time	15:15	15:17		
DTW (ft bmp)	____	____		

Remarks: Not sampled.
well dry prior to 2V

Parameter	Container	No.	Preservative

PID Reading ____

Well Casing Volumes

Gal./Ft.				
	$1^{1/4}$" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	$1^{1/2}$" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

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Infrastructure, environment, facilities

Water Sampling Log

Project N- Grumman OU3 Project No. NY001464.0807.00003

Site Location Bethpage, NY Date 7/13/07

Well No. H-3 -PZ Replicate No. NA Weather clear, 80s F

Sampling Personnel DZ/PP Sampling Time: Begin _____ End _____

Truck

Purge Data

Measuring Point (describe) TOC

Sounded Well Depth (ft bmp) ~~54.80~~ 53.60

Depth to Water (ft bmp) 52.45

Depth to Packer (ft bmp) /

Water Column in Well (ft) _____

Casing Diameter 2"

Gallons in Well _____

Gallons Purged

Prior to Sampling _____

Pump Intake

Setting (ft bmp) /

Packer Pressure (psi) /

Pumping Rate (gpm) /

Evacuation Method _____

Sampling Method Bailer

Purge Time Begin / End /

Field Parameters

Color _____

Odor _____

Appearance _____

	I	1V	2V	3V
pH (s.u.)				
Conductivity (mS/cm) or (µmhos/cm) [1]				
Temperature (°C)				
DO (mg/L)				
ORP (mV)				
Turbidity (NTU)				
Time				
DTW (ft bmp)				

Remarks: Grab Sample

Parameter	Container	No.	Preservative
See COC			

PID Reading PID not working well

Well Casing Volumes

Gal./Ft.				
	1 1/4" = 0.06	~~2" = 0.16~~	3" = 0.37	4" = 0.65
	1 1/2" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

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Water Sampling Log

Project: N- Grumman OU3 | Project No.: NY001464.0002.00003
Site Location: Bethpage, NY | Date: 7/16/07
Well No.: H-3 P2 | Replicate No.: NA | Weather: 80's F

Sampling Personnel: Prezorski | Sampling Time: Begin 1437 | End 2:14pm (1440)

Purge Data

Measuring Point (describe)
Sounded Well Depth (ft bmp)
Depth to Water (ft bmp)
Depth to Packer (ft bmp)
Water Column in Well (ft)
Casing Diameter
Gallons in Well
Gallons Purged
Prior to Sampling
Pump Intake
Setting (ft bmp)
Packer Pressure (psi)
Pumping Rate (gpm)
Evacuation Method
Sampling Method: Bailer
Purge Time: Begin ____ End ____

Field Parameters

	1	1V	2V	3V
Color				
Odor				
Appearance				
pH (s.u.)				
Conductivity (mS/cm) or (µmhos/cm) [1]				
Temperature (°C)				
DO (mg/L)				
ORP (mV)				
Turbidity (NTU)				
Time				
DTW (ft bmp)				

Remarks: Grab Sample
Bailer ¼ Full

Parameter	Container	No.	Preservative
Perchlorate	250 ml plastic		HNO3

PID Reading: ____

Well Casing Volumes

Gal./Ft.				
	1 1/4" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1 1/2" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

1) Circle one unit type

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Water Sampling Log

Project N- Grumman OU3 Project No. NY001464.0807.00003

Site Location Bethpage, NY Date 7/24/07

Well No. H-3 P2 Replicate No. NA Weather Fair, 80°F

Sampling Personnel Williams Prezorski Sampling Time: Begin 11:57pm End 12:10pm

Purge Data

Measuring Point (describe)	TOC
Sounded Well Depth (ft bmp)	
Depth to Water (ft bmp)	50.30
Depth to Packer (ft bmp)	
Water Column in Well (ft)	
Casing Diameter	
Gallons in Well	
Gallons Purged Prior to Sampling	
Pump Intake Setting (ft bmp)	
Packer Pressure (psi)	
Pumping Rate (gpm)	
Evacuation Method	
Sampling Method	
Purge Time	Begin ____ End ____

Field Parameters

	I	1V	2V	3V
Color				
Odor				
Appearance				
pH (s.u.)				
Conductivity (mS/cm) or (µmhos/cm) [1]				
Temperature (°C)				
DO (mg/L)				
ORP (mV)				
Turbidity (NTU)				
Time				
DTW (ft bmp)				

Remarks: Grab Sample, See Parameter sampled below. Then well dry. No dissolved sample sent to lab.

Parameter	Container	No.	Preservative
SVOCs	1 Liter Amber glass	1	Unp
Total Metals	500ml plastic	1	HNO3
Cr+6	125 ml plastic	1	Unp
Pesticides, PCBs	1 Liter Amber glass	1	Unp

PID Reading

Well Casing Volumes

Gal./Ft.				
	1 1/4" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1 1/2" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

1) Circle one unit type

ARCADIS

Water Sampling Log

Project NORTHROP-GRUMMAN Project No. M00134B.0806.00002 Page 1 of 1

Site Location NORTHROP PARK Date 12/11/06

Site/Well No. H-7PZ Replicate No. N/A

Weather P/C ≈ 50° Sampling Time: Begin — End —

Evacuation Data

Measuring Point	TOC
Sounded Well Depth (ft bmp)	
Depth to Water (ft bmp)	
Depth to Packer (ft bmp)	
Water Column in Well (ft)	
Casing Diameter	
Gallons in Well	
Gallons Pumped/Bailed Prior to Sampling	
Sample Pump Intake Setting (ft bmp)	
Packer Pressure (psi)	
Pumping Rate (gpm)	
Evacuation Method	
Sampling Method	Bailer
Purge Time	Begin — End —

Field Parameters

	1	1V	2V	3V
Color	BROWN			
Odor	NONE			
Appearance	VERY TURBID			
pH (s.u.)				6.95
Conductivity (~~mS/cm~~)				/
(µmhos/cm)				168.8
Temperature (°C)				14.8
DO (mg/L)				/
Turbidity (NTU)				/
Time				/
DTW (ft bmp)				

Remarks: PULLED 2.5 GALLONS BEFORE SAMPLE

Constituents Sampled: See COC Sampling Personnel: GW

Well Casing Volumes

Gal./Ft.				
	$1^{1/4}$" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	$1^{1/2}$" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	mS/cm	Milisiemens per centimeter	VOC	Volatile Organic Compounds
°C	Degrees Celsius	s.u.	Standard units	umhos/cm	Micromhos per centimeter
ft	feet	NTU	Nephelometric Turbidity Units		
gpm	Gallons per minute	N/A	Not Applicable		
mg/L	Miligrams per liter	COC	Chain of Custody		

ARCADIS

Low-Flow Groundwater Sampling Log

Project Number: NY001348.0806 Task: 0009.2 Well ID: H-7 PZ
Date: 11/1/07 Sampled By: GW/JAC/RP
Sampling Time: Recorded By: JAC
Weather: P. Cloudy/40°F Coded Replicate No.:

Instrument Identification
Water Quality Meter(s): Serial #:

Purging Information
Casing Material: PVC Purge Method: Low Flow/ Peri Pump
Casing Diameter: 2" Screen Interval (ft bmp): Top 39 Bottom 49
Sounded Depth (ft bmp): 51 Pump Intake Depth (ft bmp): Intake off bottom
Depth to Water (ft bmp): 45.87 Purge time Start: 15:40 Finish:

Field Parameter Measurements Taken During Purging

Time	Minutes Elapsed	Rate (mL/min)	Volume Purged	Temp (°C)	pH (SI Units)	Spec. Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft bmp)	Comments
15:40				11.3	7.13	.321	18	1.51		45.87	
15:45				10.7	6.39	.275	55	1.35			
15:50				9.4	6.80	.267	99	1.22			
15:55											
16:00											

Sample Condition Color: Odor: Appearance:
Sample Collection

Parameter:	Container:	No.	Preservative:
See COC			

PID Reading 0.0 ppm

Comments

52' = overrange

ARCADIS

Water Sampling Log

Project NGC-043 Project No. NY001464.0807.00006-W Page 1 of 1

Site Location Batavia NY. Date 2/14/07

Site/Well No. DZ-H-7 Replicate No. N/A

Weather Lt Rain 30° Sampling Time: Begin 2:30 End —

Evacuation Data

Measuring Point TOC

Sounded Well Depth (ft bmp) —

Depth to Water (ft bmp) —

Depth to Packer (ft bmp) —

Water Column in Well (ft) —

Casing Diameter —

Gallons in Well —

Gallons Pumped/Bailed Prior to Sampling —

Sample Pump Intake Setting (ft bmp) —

Packer Pressure (psi) —

Pumping Rate (gpm) —

Evacuation Method —

Sampling Method —

Purge Time Begin — End —

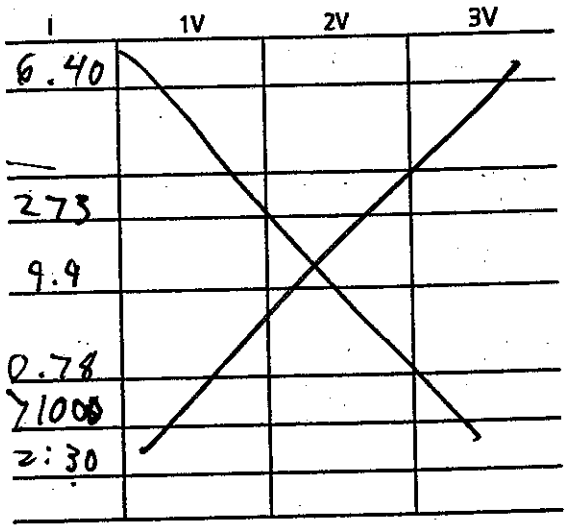
Field Parameters

Color Brown

Odor Some

Appearance turbid

	I	1V	2V	3V
pH (s.u.)	6.40			
Conductivity (mS/cm)	—			
Conductivity (µmhos/cm)	273			
Temperature (°C)	9.9			
DO (mg/L)	0.78			
Turbidity (NTU)	>1000			
Time	2:30			
DTW (ft bmp)				



Remarks: Grab Sample

Constituents Sampled: See COC Sampling Personnel: GW/DZ

Well Casing Volumes

Gal./Ft.				
	1 1/4" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1 1/2" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	mS/cm	Milisiemens per centimeter	VOC	Volatile Organic Compounds
°C	Degrees Celsius	s.u.	Standard units	umhos/cm	Micromhos per centimeter
ft	feet	NTU	Nephelometric Turbidity Units		
gpm	Gallons per minute	N/A	Not Applicable		
mg/L	Miligrams per liter	COC	Chain of Custody		

ARCADIS
Infrastructure, environment, facilities

Water Sampling Log

Project: N-Grumman OU2 | Project No.: NY001464.0607.00003
Site Location: Bethpage, NY | Date: 7-12-07
Well No.: H-7 P2 | Replicate No.: NA | Weather: 80°F clear
Sampling Personnel: Prezorski | Sampling Time: Begin: — End: —

Purge Data

Measuring Point (describe)	TOC
Sounded Well Depth (ft bmp)	51
Depth to Water (ft bmp)	46.60
Depth to Packer (ft bmp)	—
Water Column in Well (ft)	4.4
Casing Diameter	2" (0.16)
Gallons in Well	.7 x 3
Gallons Purged Prior to Sampling	2.1
Pump Intake Setting (ft bmp)	—
Packer Pressure (psi)	—
Pumping Rate (gpm)	—
Evacuation Method	Bailer
Sampling Method	3 well volume
Purge Time	Begin 1632 End 1648

Field Parameters

	I	1V	2V	3V
Color	colorless	Brown	Brown	Brown
Odor	None	None	None	Moderate
Appearance	clear	turbid	turbid	turbid
pH (s.u.)	5.97	6.28	6.22	6.24
Conductivity (mS/cm) or (µmhos/cm) [1]	162.9	148.5	145.0	144.0
Temperature (°C)	20.9	18.0	16.7	16.3
DO (mg/L)	2.42	2.65	2.91	2.97
ORP (mV)	55	43	33	32
Turbidity (NTU)	*49.5	2500	7500	>500
Time	1634	1641	1645	1648
DTW (ft bmp)	—	—	—	—

Remarks: Full Bailer in well. Not sampled. Well dry after filling VOC vials.

Parameter	Container	No.	Preservative
See COC			

PID Reading: High Humidity

Well Casing Volumes

Gal./Ft.				
	1 1/4" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1 1/2" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

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Water Sampling Log

Project: N- Grumman OU3 | Project No.: NY001464.0007.00003
Site Location: Bethpage, NY | Date: 7/13/07
Well No.: H-7 P2 | Replicate No.: NA | Weather: clear, 80s F
Sampling Personnel: Zuck | Sampling Time: Begin _____ End _____

Purge Data

Measuring Point (describe)	TOC
Sounded Well Depth (ft bmp)	52.10
Depth to Water (ft bmp)	46.73
Depth to Packer (ft bmp)	
Water Column in Well (ft)	
Casing Diameter	2"
Gallons in Well	
Gallons Purged Prior to Sampling	
Pump Intake Setting (ft bmp)	
Packer Pressure (psi)	
Pumping Rate (gpm)	
Evacuation Method	
Sampling Method	Bailer
Purge Time	Begin ____ End ____

Field Parameters

	I	1V	2V	3V
Color				
Odor				
Appearance				
pH (s.u.)				
Conductivity (mS/cm) or (µmhos/cm) 1)				
Temperature (°C)				
DO (mg/L)				
ORP (mV)				
Turbidity (NTU)				
Time				
DTW (ft bmp)				

Remarks: Grab sample

Parameter	Container	No.	Preservative
See COC			

PID Reading: PID not working well

Well Casing Volumes

Gal./Ft.				
	1 1/4" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1 1/2" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

1) Circle one unit type

ARCADIS GERAGHTY & MILLER

Water Sampling Log

Project: NGC 043 | Project No.: NY001344.0806.2 | Page 1 of 1

Site Location: Bethpage NY | Date: 12/11/06

Site/Well No.: PZ-I 4 | Replicate No.: N/A | Code No.: ✓

Weather: P/C ≈50° | Sampling Time: Begin 11:30 End 11:40

Evacuation Data

Measuring Point	TOC
MP Elevation (ft)	✓
Land Surface Elevation (ft)	✓
Sounded Well Depth (ft bmp)	50.00
Depth to Water (ft bmp)	46.16
Water-Level Elevation (ft)	✓
Water Column in Well (ft)	13.84
Casing Diameter/Type	2"
Gallons in Well	
Gallons Pumped/Bailed Prior to Sampling	2→3v
Sample Pump Intake Setting (ft bmp)	Bailed
Purge Time	begin ✓ end ✓
Pumping Rate (gpm)	✓
Evacuation Method	Bailer

Field Parameters

Color	Lt Brown
Odor	trace
Appearance	turbid
pH (s.u.)	6.43
Conductivity ~~(mS/cm)~~	✓
(µmhos/cm)	755
Turbidity (NTU)	>500
Temperature (°C)	12.8
Dissolved Oxygen (mg/L)	✓
Salinity (%)	✓
Sampling Method	Bailer
Remarks	PID: 9.4 ppm

Constituents Sampled	Container Description	Number	Preservative
See COC			

Sampling Personnel: D. Zude / G. Williams

Well Casing Volumes

Gal./Ft.				
	1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	ml	milliliter	NTU	Nephelometric Turbidity Units
°C	Degrees Celsius	mS/cm	Milisiemens per centimeter	PVC	Polyvinyl chloride
ft	feet	msl	mean sea-level	s.u.	Standard units
gpm	Gallons per minute	N/A	Not Applicable	umhos/cm	Micromhos per centimeter
mg/L	Miligrams per liter	NR	Not Recorded	VOC	Volatile Organic Compounds

ARCADIS

Water Sampling Log

Project NGC-BCP Project No. 4Y001348.0806.00002 Page 1 of 1

Site Location Bethpage, NY Date 1/10/07

Site/Well No. E-4PZ Replicate No. —

Weather _____ Sampling Time: Begin _____ End _____

Evacuation Data

Measuring Point	TOC
Sounded Well Depth (ft bmp)	~59'
Depth to Water (ft bmp)	46.24
Depth to Packer (ft bmp)	
Water Column in Well (ft)	3.76
Casing Diameter	2"
Gallons in Well	(3.76 x 0.16) 0.6 G
Gallons Pumped/Bailed Prior to Sampling	(0.6 x 3) 1.8G
Sample Pump Intake Setting (ft bmp)	—
Packer Pressure (psi)	—
Pumping Rate (gpm)	
Evacuation Method	PERISTALTIC
Sampling Method	PERISTALTIC
Purge Time	Begin _____ End _____

Field Parameters

	I	1V	2V	3V
Color				
Odor				
Appearance				
pH (s.u.)	6.27			
Conductivity (~~mS/cm~~) (µmhos/cm)	637			
Temperature (°C)	11.7			
DO (mg/L)				
Turbidity (NTU)				
Time				
DTW (ft bmp)				

52 = 1582

Remarks: Sampling Continued on low-flow log. PUMPED ABOUT 1 GALLON OUT DRIED OUT LET RECOVER AND PUMPED AGAIN RAN FOR 30 SECONDS

Constituents Sampled: See COC Sampling Personnel: GW/JAC

Well Casing Volumes

Gal./Ft.				
	$1^{1/4}$" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	$1^{1/2}$" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	mS/cm	Milisiemens per centimeter	VOC	Volatile Organic Compounds
°C	Degrees Celsius	s.u.	Standard units	umhos/cm	Micromhos per centimeter
ft	feet	NTU	Nephelometric Turbidity Units		
gpm	Gallons per minute	N/A	Not Applicable		
mg/L	Miligrams per liter	COC	Chain of Custody		

ARCADIS

Water Sampling Log

Project NGC-043 Project No. NY001464.0807.0016W Page 1 of 1

Site Location Bethpage, NY Date 2/14/07

Site/Well No. PZ-I-4 Replicate No. N/A

Weather Rain/sleet 29° Sampling Time: Begin 2:00 End ✓

Evacuation Data

Measuring Point TOC

Sounded Well Depth (ft bmp)

Depth to Water (ft bmp)

Depth to Packer (ft bmp)

Water Column in Well (ft)

Casing Diameter

Gallons in Well

Gallons Pumped/Bailed Prior to Sampling

Sample Pump Intake Setting (ft bmp)

Packer Pressure (psi)

Pumping Rate (gpm)

Evacuation Method

Sampling Method

Purge Time Begin 1:58 End 200

Field Parameters

Color Lt Brown

Odor trace ⇒ Some

Appearance turbid

	1	1V	2V	3V
pH (s.u.)	6.44			
Conductivity (~~mS/cm~~)	—			
Conductivity (µmhos/cm)	460			
Temperature (°C)	11.5			
DO (mg/L)	.83			
Turbidity (NTU)				
Time	2:00			
DTW (ft bmp)				

Remarks: grab sample

Constituents Sampled: See COC Sampling Personnel: G. Williams

Well Casing Volumes

Gal./Ft.				
	1 1/4" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1 1/2" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	mS/cm	Milisiemens per centimeter	VOC	Volatile Organic Compounds
°C	Degrees Celsius	s.u.	Standard units	umhos/cm	Micromhos per centimeter
ft	feet	NTU	Nephelometric Turbidity Units		
gpm	Gallons per minute	N/A	Not Applicable		
mg/L	Miligrams per liter	COC	Chain of Custody		

ARCADIS
Infrastructure, environment, facilities

Water Sampling Log

Project N-Grumman OU3 Project No. NY001464.0807.00003

Site Location Bethpage, NY Date 7-12-07

Well No. OB ~~1~~ 4PZ Replicate No. NA Weather 90°F clear

Sampling Personnel Williams Sampling Time: Begin ~~/~~ End ~~/~~

Purge Data

Measuring Point (describe)	TOC
Sounded Well Depth (ft bmp)	~~/~~
Depth to Water (ft bmp)	46.79
Depth to ~~Packer~~ Product (ft bmp)	46.60
Water Column in Well (ft)	~~/~~
Casing Diameter (Product Difficulties LNAPL)	.19
Gallons in Well	
Gallons Purged	
Prior to Sampling	
Pump Intake	
Setting (ft bmp)	
Packer Pressure (psi)	
Pumping Rate (gpm)	
Evacuation Method	
Sampling Method	
Purge Time	Begin ____ End ____

Field Parameters

	I	1V	2V	3V
Color				
Odor				
Appearance				
pH (s.u.)				
Conductivity (mS/cm) or (µmhos/cm) [1]				
Temperature (°C)				
DO (mg/L)				
ORP (mV)				
Turbidity (NTU)				
Time				
DTW (ft bmp)				

Remarks: I-4 PZ
Not sampled
Product in well

Parameter	Container	No.	Preservative

PID Reading

Well Casing Volumes

Gal./Ft.				
	$1^{1/4}$" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	$1^{1/2}$" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

ARCADIS
Infrastructure, environment, facilities

Water Sampling Log

Project: N. Grumman 003 | Project No.: NY001464.0807.00003
Site Location: Bethpage, NY | Date: 7/24/07
Well No.: I-4 P2 | Replicate No.: NA | Weather: fair 80°F

Sampling Personnel: Williams | Sampling Time: Begin 12:13 pm | End

Purge Data

Measuring Point (describe)
Sounded Well Depth (ft bmp)
Depth to Water (ft bmp)
Depth to Packer (ft bmp)
Water Column in Well (ft)
Casing Diameter
Gallons in Well
Gallons Purged
Prior to Sampling
Pump Intake
Setting (ft bmp)
Packer Pressure (psi)
Pumping Rate (gpm)
Evacuation Method
Sampling Method
Purge Time — Begin ____ End ____

Field Parameters

Color
Odor
Appearance

	I	1V	2V	3V
pH (s.u.)				
Conductivity (mS/cm) or (µmhos/cm) [1]				
Temperature (°C)				
DO (mg/L)				
ORP (mV)				
Turbidity (NTU)				
Time				
DTW (ft bmp)				

Remarks: Grab sample of product off bailer

Parameter	Container	No.	Preservative
See COC			

PID Reading: ____

Well Casing Volumes

Gal./Ft.				
	$1^{1/4}$" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	$1^{1/2}$" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

1) Circle one unit type

Figure F-4
Piezometer I-4-PZ
Perched Water Elevation vs. Time
Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York