CITY OF SURREY
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WATER SYSTEM ANNUAL REPORT

2011

WATER SYSTEM

ANNUAL REPORT

2011

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REPORT SUMMARY

In 2011 the City of Surrey purchased all the water that it supplied to City of Surrey residents from Metro Vancouver (i.e. the Greater Vancouver Water District). The City of Surrey's water distribution system is connected to the Metro Vancouver distribution system at the discharge points for six (6) Metro Vancouver water reservoirs and at eleven (11) Metro Vancouver connection chambers located throughout the City.

The City's piped water distribution system includes pipes with a total length of over 1,850 km and includes ten (10) pump stations.

Surrey's geography and development pattern is serviced with eight (8) different water pressure zones.

The City's maintenance program for its water system components includes a regular program of unidirectional water main flushing of all mains in the system at least once every five (5) years. This unidirectional approach to flushing ensures that water from non-flushed mains does not flow into recently flushed mains. The City's maintenance program combined with an ongoing program of pipe size upgrades and water supply controls by Metro Vancouver has eliminated the need for any abrasive, mechanical cleaning of the City's water mains.

Monitoring of the quality of the water within the City's water system is undertaken at fifty-one (51) water-sampling sites located strategically across the City. Weekly samples are collected by both City and Metro Vancouver staff. These samples are tested at Metro Vancouver's testing laboratory in Burnaby for such things as temperature, turbidity, chlorine residual, and bacteria.

In 2011 approximately 18% of the City's water operating and maintenance budget was spent on water quality-related work. Three thousand and eighty-one (3,081) water samples were analyzed with none of the samples indicating any presence of E-coli coliforms and all samples meeting the standards contained in the B.C. Drinking Water Protection Regulation (BCDWPR) and the Guidelines for Canadian Drinking Water Quality (GCDWQ). Audit samples taken in 2011 by the Fraser Health Authority throughout the system confirmed Metro Vancouver laboratory test results. This is consistent with previous years' results in relation water samples taken from the City's water system.

The City has established response procedures to deal with water quality issues and for pipe breaks. The procedures incorporate both agency notification and steps for physical repair. Integral to the response procedures are well-defined communication links between City, Metro Vancouver, and Fraser Health Authority (FHA) staff. The City has developed a response plan for major water emergencies which has been successfully tested in concert with other Metro Vancouver member municipalities.

As in previous years, water in sections of the distribution system has, from time to time, exhibited lower than desirable chlorine residual values. The City continues to work with Metro Vancouver staff and representatives of the Fraser Health Authority to review operational and/or maintenance procedures and to determine if improvements should be considered to address areas where lower than desirable chlorine residuals were revealed in water samples.

Where water sample test results revealed (through the use of heterotrophic plate counts, HPC) bacterial growth beyond acceptable limits, staff took action to flush the related sections of water main to address the problem. These areas of the distribution system also typically exhibit low chlorine residuals, low water demand and/or circulation restrictions.

Metro Vancouver's laboratory technicians perform quarterly tests on water within the City's system for disinfection by-products (Haloacetic Acids and Trihalomethanes), and semi-annual tests for pH and select metal concentrations. Sampling sites for these tests were selected in accordance with a monitoring and reporting plan established between the City and Metro Vancouver staff. The results of these tests demonstrated that water quality remained within acceptable levels, as recommended in the Guidelines for Canadian Drinking Water Quality.

Except for a few circumstances where fire hydrants were opened without authorization or were damaged in accidents, there were no incidences of tampering or vandalism with the City's water system in 2011. System security includes lighting, locks, and alarms at pump stations as well as back flow prevention check valves on service connections. The City also has a cross-connection program to guard against contaminants entering the system due to faulty connections. This is addressed in more detail in the following paragraph. All of these measures provide protection against tampering or vandalism.

The City monitors water service connections to commercial/industrial businesses on an on-going basis through a cross-connection control (CCC) program that includes a database of backflow prevention devices. In 2011, the number of backflow prevention assemblies registered with the City increased by 15% to a total of 7,741 assemblies as of December 31, 2011. The City's CCC program requires that the owner test the control device annually to confirm that it is working properly. In 2011, the City achieved over 97% compliance with this requirement, an increase of 2% in comparison to the previous year.

The City of Surrey remains diligent in maintaining its water distribution system to high quality standards, and in ensuring the delivery of high quality water to the City's residents and businesses.

WATER SYSTEM ANNUAL REPORT
for 2011

A. System Makeup

In 2011 the City of Surrey obtained all of its potable water from Metro Vancouver and its impounded reservoirs on the Capilano, Seymour, and Coquitlam Rivers. Metro Vancouver manages the impoundments, treats the water, and transports it to six storage reservoirs in the City. The reservoir water is then discharged into the City-owned distribution system. The City also has eleven source connections made directly to Metro Vancouver supply mains from the reservoirs. Metro Vancouver re-chlorinates all the supply water prior to it entering the City's distribution system.

The City's water distribution network, approximately 1,850 km long, incorporates water mains, water testing stations, pump stations, service connections, and water meters. The detailed breakdown of the current water main inventory is given in Table 1, "City of Surrey 2011 Water Main Inventory" (pg. 2).

The distribution system utilizes eight different pressure zones. The separation of zones is achieved by the combined use of pressure reducing stations, closed valves, check valves, and dead end pipe runs.

The City has a considerable number of dead end conditions created by the combined effects of pressure zone boundaries, cul-de-sacs, the extension of water mains into sparsely populated rural areas, and by the geographical constraints of ravines, creeks, foreshores, and floodplains. The exact number and classification of these conditions has not been tabulated. To enhance the water quality at the most adversely affected locations, City crews conduct regular flushing of the mains in addition to the annual unidirectional flushing program.

Table 1:
City of Surrey 2011 Water Main Inventory

Main Size (mm)	AC	CC	CI	CU	DI	GI	PE	PVC	PVCO	ST	Material Unknown	Total by Size (m)
25				107		309	1,298	24				**1,738**
50				173		2,801	2,152	3,840		37	8	**9,011**
75					163			104			64	**331**
100	9,908		12,572		58,066	20	23,830	11,263		420	29	**116,108**
125							925					**925**
150	41,702		68,294		315,078		6,862	92,651	105	483	13	**525,188**
200	21,024		22,302		172,692			305,378		787	312	**522,495**
250	172		3,571		62,622			70,950		169	15	**137,499**
300	13,145	2	16,524		233,952		171	101,150		2,165	108	**367,217**
350					41,513			1,429		668		**43,610**
400					40,517			36		872		**41,425**
450		8,633			36,260			356		283	7	**45,539**
500		3			7,614					41		**7,658**
525										4,977		**4,977**
600		8,982			8,950			10		3,666		**21,608**
750		304			2,454					4,192		**6,950**
900		33			840					367		**1,240**
1050										62		**62**
1200										84		**84**
Unknown												**519**
Total by Material (m)	**85,951**	**17,957**	**123,263**	**280**	**980,721**	**3,130**	**35,238**	**587,191**	**105**	**19,273**	**556**	

Total Main Length (m): 1,854,184

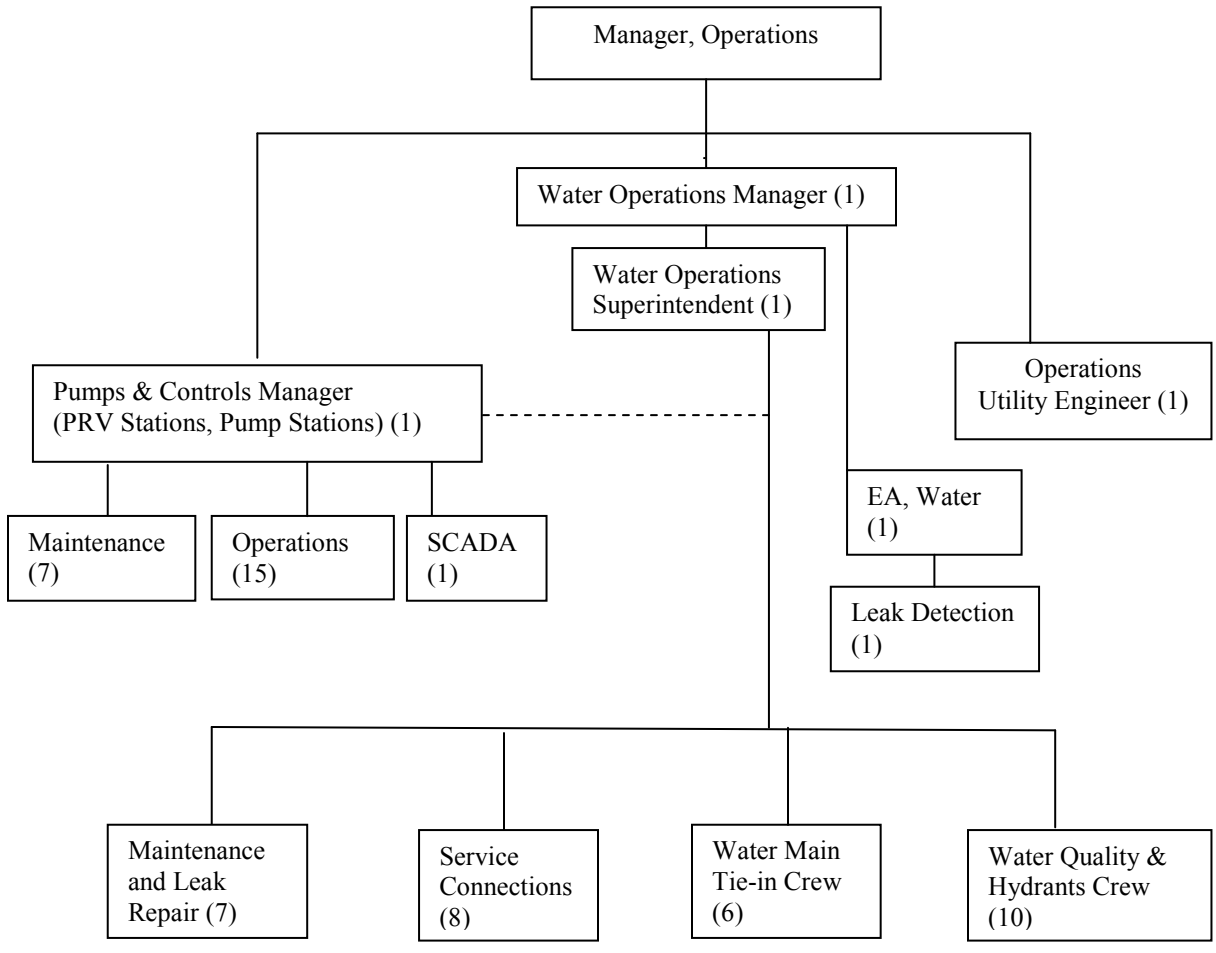
Pipe Material Legend	
AC	Asbestos-Cement
CC	Concrete Cylinder
CI	Cast Iron
CU	Copper
DI	Ductile Iron
GI	Galvanized Iron
PE	Polyethylene
PVC	Polyvinyl Chloride
PVCO	Biaxially Oriented Polyvinyl Chloride
ST	Steel

B. System Maintenance

The City of Surrey has a team of thirty-two personnel assigned specifically to the operation and maintenance of the underground pipe system, and utilizes the shared services of a Utility Engineer. An additional twenty-four personnel operate and maintain the City's pump stations and pressure reducing stations.

The maintenance organization structure is shown in Figure 1 (below).

Figure 1:
2011 City of Surrey
Water Works Operation & Maintenance Organizational Chart



(_) No. of assigned personnel

The duties and responsibilities of the various crews and staff members are as follows:

a) Water Services and Renewals Crew:
Install and renew services throughout the City

b) Maintenance & Leak Repair Crew:
Provide maintenance of services, mains, and appurtenances. Provide emergency repairs to the water system as required. Conduct both proactive and reactive leak detection work using acoustic leak detection equipment and other detection methods. Assist in accurately locating known leaks.

c) Water Main Tie-in Crew:
Provide construction of old main to new main tie-ins, monitoring of private contractor's tie-in construction, record keeping of tie-in details, chlorine residual testing prior to main activation, construction of new pressure reducing stations.

d) Water Quality & Hydrants Crew:
Provide scheduled and on-demand flushing of City mains, on-demand testing for chlorine residuals of City mains and new construction, water sampling collection for quality analysis, hydrant maintenance.

e) Pumps & Control Maintenance Crew:
Provide scheduled and emergency repairs and upkeep on the mechanical components of water pump stations, and pressure reducing stations.

f) Pumps & Control Operations Crew:
Provide daily operational and, as required, emergency adjustments to the mechanical and electrical controls on the water pump stations, and pressure reducing stations.

g) Pumps & Controls SCADA:
Provide monitoring of pump station operations, coordinate alarm responses with maintenance crews, assess and develop upgrade projects for more efficient pump stations.

h) Water Operations Superintendent:
Supervise and provide technical assistance to Operations Crews, provide input and technical assistance on distribution system expansions and upgrades.

i) Utility Engineer:
Provide technical assistance with water quality issues, water meters, and distribution system expansions.

j) Engineering Assistant (Water):
Provide technical and organizational assistance and support to Operations Crews and Management. Assist in work programming, data management, quality control and department planning.

C. Scheduled Maintenance

To maintain the quality of the water throughout the distribution system, the City has an annual unidirectional flushing program which aims to flush all mains at least once every five years. "On demand" flushing also occurs, as needed, in conjunction with water quality testing results, and with line repairs. Flushing removes stagnant water and sediment from the pipes in support of the drinking water quality objectives.

Figure 2, "Unidirectional Flushing Program" (pg. 6), shows the five major zones and sub-areas of the unidirectional flushing program. Each year's program originates near the discharge of a Metro Vancouver storage reservoir, and extends in a unidirectional pattern from there. This ensures that water from non-flushed mains does not flow into recently flushed mains. A reduction in crew availability resulted in a flushing area smaller than projected goals.

The scheduled flushing program is carried out during the low demand season of the year. All flushed water is treated with Sodium Thiosulphate to ensure compliance with Ministry of Environment guidelines for water entering streams.

The City does not carry out any abrasive cleaning, pigging, swabbing, etc. of the water system as neither quality assessments nor pipeline flow restrictions have justified such procedures. The City has, over the past thirty-five years, replaced and upgraded much of its earlier installed mains to meet current fire flow standards and pipe material specifications. In doing so, the City has avoided the need for more elaborate cleaning methods.

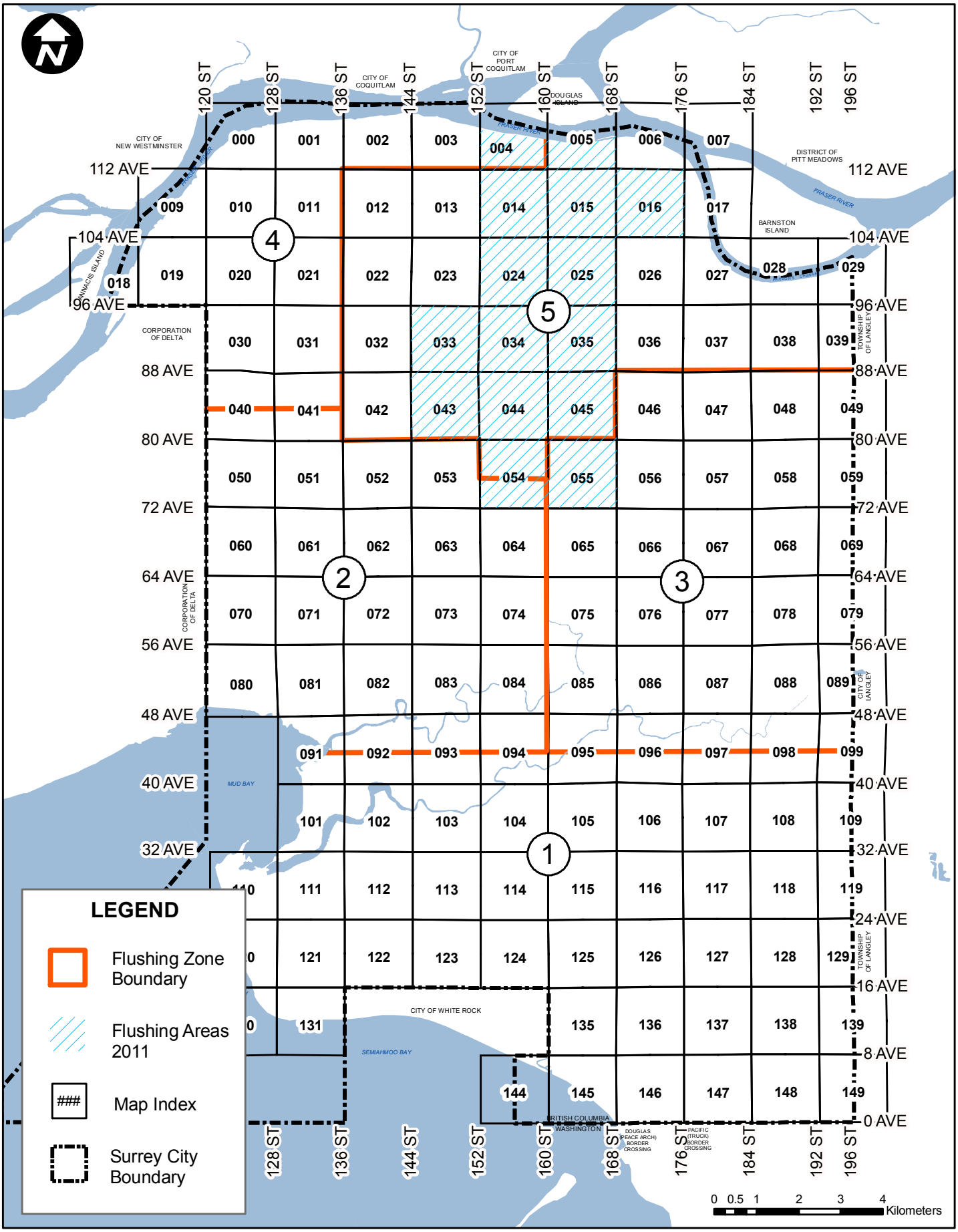


FIG 2: UNIDIRECTIONAL FLUSHING PROGRAM - 2011

CITY OF SURREY
WATER OPERATIONS

Printed: 28 February 2012

D. System Budget

A summary of activities and annual budgets related to water quality preservation is shown in Table 2 (below). These budgets represent approximately 18% of the City's annual Water Utility Operations & Maintenance budget. The remaining 82% is utilized for the operation and maintenance of the City's water valves, meters, and service connections, for the provision of related operational support services, and for electrical power for the water pump stations.

Table 2:
City of Surrey Water Distribution System
2011 and 2012 Water Quality Maintenance Budgets

Description	2011 Budget	2012 Budget
Main Line Repairs	$359,200	$371,000
Line Flushing (370 km/yr)	$235,600	$243,400
Hydrant Maint.	$425,200	$432,700
PRV Maint.	$256,300	$259,700
Pump Stations Maint. (10)	$407,600	$395,800
Water Quality Monitoring	$96,200	$83,900
TOTALS*	**$1,780,100**	**$1,786,500**

* Total Water Distribution System Operations & Maintenance Budget is:
$9,456,300 for Year 2011, and $9,630,300 for Year 2012

E. Water Sampling & Testing Program

The City of Surrey supplies safe drinking water to its customers under an Operating Permit issued by the Medical Health Officer of the Fraser Health Authority (FHA).

Fifty-one water sampling site locations are utilized to monitor the City's water quality. The sampling sites and their locations are displayed in Figure 3, "Water Sampling Sites Legend" (pg. 10) and Figure 4, "Water Sampling Sites" (pg. 11). Weekly water testing results for 2011 are included in Appendix 'A' of this report. The test samples are collected by City and Metro Vancouver staff, and the results analyzed in Metro Vancouver's laboratory. Metro Vancouver's laboratory is approved by the Provincial Health Officer for bacteriological analysis and is certified by the Canadian Association for Laboratory Accreditation (CALA) for the testing of general parameters, metals, trihalomethanes (THM's), total coliforms, and fecal coliforms.

In 2011 a total of 3081 water samples were tested, with a monthly maximum of 376, a monthly minimum of 189, and a monthly median of 253 samples being taken. This number of samples compares favourably with the B.C. Drinking Water Protection Regulation (BCDWPR) and the Guidelines for Canadian Drinking Water Quality (GCDWQ) recommendations of minimum numbers of monthly samples of 127 and 136, respectively. A summary of the number of samples taken at each sampling site is shown in Table 3, "Number of Year 2011 Water Test Samples" (pg. 12).

The City relies extensively on both the specific results and general trends of these weekly test results to ensure that conditions are not present, nor developing, which could pose a risk to our residents. Additional information about drinking water and those with weakened immune systems can be found in Appendix D of this report.

The City has not had to add any chemicals to the distribution system to offset any excesses in the bacterial or chemical quality of the water. Higher than preferred heterotrophic plate counts (HPC) at a sampling site are treated immediately by water main flushing carried out by City maintenance staff. High turbidity and/or E. coli coliform results, if any, are referred to the FHA directly by Metro Vancouver Laboratory.

There were no test samples in which the total coliform (T.coli) count exceeded the BCDWPR and the GCDWQ's recommended maximum limit of 10 total coliforms per 100 ml in a 30-day period. However, there were three samples with T.coli counts of 1 per 100 ml. Upon flushing and re-sampling, the T.coli counts returned to values of less than could be detected by Metro Vancouver's laboratory. There were no confirmed causes for the positive T.coli test results; a possible cause might have been unrelated contamination of the sampling bottles. There were no samples with positive E.coli counts.

Line flushing by City forces occurs on a demand basis whenever the HPC count exceeds 500 CFU/ml, and whenever any positive coliform count is detected.

Metro Vancouver's laboratory also tests the City water system for pH and disinfection by-products, Haloacetic acids (five) (HAA5), and Trihalomethanes (THM's). The detailed results of these tests along with a comparison of annual disinfection by-products in

graphical format are included in Appendix 'A' of this report. pH measurement was done at three of the test sampling sites. The recorded pH's had a median value of 7.2 with a maximum of 7.4, and a minimum of 7.0.

THM disinfection by-products were measured at seven of the test sampling sites. The results show the total THM's 2011 running average to be 32 parts per billion (ppb), which is less than the GCDWQ recommended acceptable concentration of 100 ppb.

HAA5 disinfection by-products were measured at six of the test sampling sites. The results show the total HAA5's 2011 running average to be 45 ppb which is less than the GCDWQ recommended acceptable concentration of 80 ppb.

In 2011 Metro Vancouver's laboratory tested for concentrations of copper, iron, lead, zinc, and other metals two times, at three of the stations. The measured concentrations of copper, iron, lead, and zinc were all less than the GCDWQ recommended maximum concentrations. The detailed results of these tests are included in Appendix 'A' of this report.

The City has 587 km of polyvinyl chloride mains in the distribution system. Metro Vancouver's laboratory examined four sampling sites for the presence of vinyl chlorides and determined the concentration of vinyl chlorides to be less than the laboratory's minimum detection limit of 0.5 ppb. The maximum acceptable concentration recommended by the GCDWQ is 2 ppb. The detailed results of these tests are included in Appendix 'A' of this report.

Due to the lack of supplied water contact with pesticides, herbicides, or parasites, the City has not tested for these substances or organisms.

In 2011 there were an estimated total of 210 maintenance crew responses to public concerns about water quality. This number equates to 1.8 water quality concern responses per 1,000 customers and is similar to the values in past years. Generally, odour and taste issues are resolved by main flushing, and/or promoting longer running of tap water before use by the concerned consumer.

Turbidity (cloudiness), odour, and taste complaints are typically received at a rate of two to four per week. These concerns are dealt with on an individual basis. Turbidity issues are typically the result of line flushing operations and do not usually require follow up action by our maintenance crews.

SITE NUMBER	LOCATION	SAMPLE BY
901	NW CORNER 180 ST & 92 AVE	METRO VANCOUVER
902	ACCROSS FROM 18995 87A AVE IN SCHOOL BULEVARD	METRO VANCOUVER
903	19287 98A AVE BY HYDRANT 4085	METRO VANCOUVER
904	E OF HYDRANT 4737 ON TRIGGS RD	METRO VANCOUVER
905	SE CORNER 170A ST & 102 AVE	METRO VANCOUVER
906	SE CORNER 161 ST & 102 AVE	METRO VANCOUVER
907	10796 155A ST ON 108 AVE. 30m E of 155A ST	METRO VANCOUVER
908	112 AVE & 159A ST ON NW CORNER	METRO VANCOUVER
909	14669 WELLINGTON DR. E P/L BY HYDRANT	METRO VANCOUVER
910	SW CORNER OF 115 AVE & BEDFORD DR	METRO VANCOUVER
911	12893 114A AVE	METRO VANCOUVER
912	10680 TIMBERLAND RD 1 BLK S OF PINE RD HYDRNT 6745	METRO VANCOUVER
913	11878 98A AVE. 7.6m W of E P/L	METRO VANCOUVER
914	SE CORNER OF 105 AVE & 132 ST	METRO VANCOUVER
915	WHALLEY PUMP STATION	METRO VANCOUVER
916	NE CORNER OF 97A AVE & 137 ST	METRO VANCOUVER
917	E OF P/L 13031 LANARK PL	METRO VANCOUVER
918	SW CORNER GLEN PL & LAUDER DR	METRO VANCOUVER
919	NW CORNER 92A AVE & 151 ST	METRO VANCOUVER
920	SE CORNER 162 ST & 90 AVE	METRO VANCOUVER
921	NE CORNER OF 170A ST & 80 AVE	METRO VANCOUVER
922	7768 155 ST NW P/L	METRO VANCOUVER
923	NE P/L 8241 120A ST	METRO VANCOUVER
924	S SIDE OF 74 AVE. 100m W/O 138 ST	METRO VANCOUVER
925	NE CORNER OF 62 AVE & 128 ST	SURREY
926	W P/L 12059 56 AVE	SURREY
927	NW CORNER OF 66 AVE & 148 ST	SURREY
928	W P/L 15349 OFF 57 AVE	SURREY
929	SE CORNER OF LOMBARD PL & 144A ST	SURREY
930	S OF 3031 139 ST	SURREY
931	SW CORNER OF 124 ST & 24 AVE	SURREY
932	BESIDE HYDRANT W SIDE OF 126A ST & 1463. S OF ROW	SURREY
933	ACROSS FROM 13341 15B AVE. S SIDE	SURREY
934	NE CORNER OF 146 ST & 16A AVE	SURREY
935	BESIDE MAIL BOX NW CORNER OF 11 AVE & 164 ST	SURREY
936	17195 0 AVE	SURREY
937	NE CORNER OF 21A AVE & 180 ST. B.S. HYDRO BOX	SURREY
938	SE CORNER OF 172 ST & 31 AVE	SURREY
939	SW CORNER OF 156 ST & 38 A AVE	SURREY
940	ACROSS 15909 24 AVE AT SOUTH WORKYARD	SURREY
941	SE CORNER OF 57A AVE & OLD MCLELLAN RD	SURREY
942	BEHIND 5963 176 ST IN LANE	SURREY
943	SE CORNER OF 54 AVE & 184 ST	SURREY
944	NE CORNER OF 60 AVE & 189 ST	SURREY
945	PRODUCTION BLVRD & 55 AVE	SURREY
946	SE CORNER 63A AVE & 195B ST	SURREY
947	NW CORNER 68 AVE & 192 ST	SURREY
948	NW CORNER 66 AVE & 172 ST	SURREY
949	SE CORNER 182 ST & 74 AVE	METRO VANCOUVER
951	NE CORNER 192 ST & 21 AVE	SURREY
952	WPL 19026 28 AVE	SURREY

Fig. 3: WATER SAMPLING SITES LEGEND

GIS SECTION

CITY OF SURREY

Source: G:\Mapping\GIS\Maps\Recurring\wtrMainSamplingSitesList_A.mxd
Cartographer: AW8 © City of Surrey Date Printed: June 12, 2009

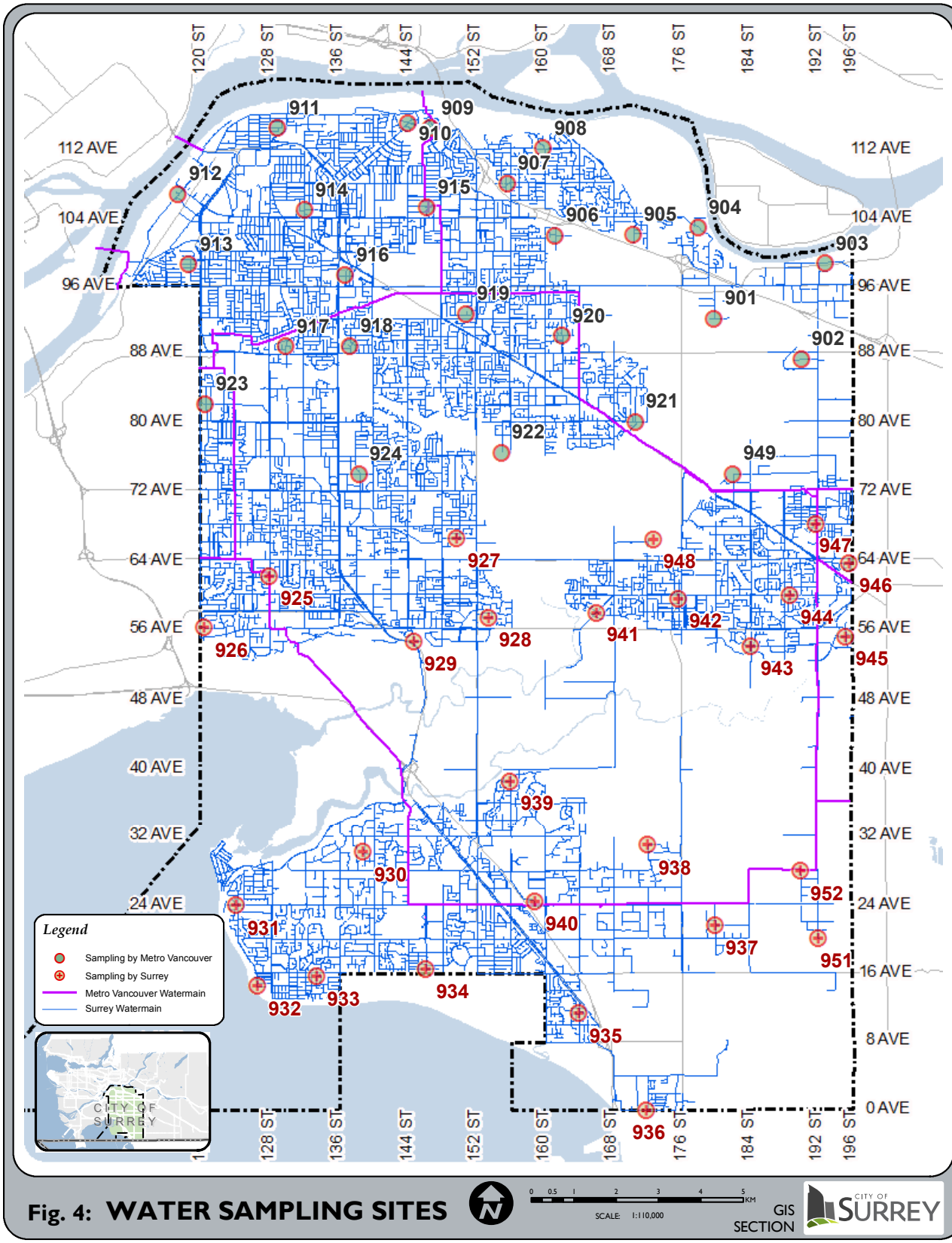


Fig. 4: WATER SAMPLING SITES

The data provided is compiled from various sources and IS NOT warranted as to its accuracy or sufficiency by the City of Surrey.
This information is provided for information and convenience purposes only. Lot sizes, legal descriptions and encumberances must be confirmed at the Land Title Office.

Source: G:\Mapping\GIS\Maps\Recurring\wtrMainSamplingSites_A.mxd
Cartographer: AW8 © City of Surrey Date Printed: June 4, 2009

Table 3: Number of Year 2011 Water Test Samples

SITE	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Station Total
901	6	5	6	5	6	5	0	5	5	6	6	5	60
902	6	5	7	6	6	5	5	5	4	6	6	6	67
903	6	5	7	6	5	4	5	5	4	7	6	6	66
904	6	5	7	5	6	4	5	5	4	6	6	5	64
905	6	5	7	5	6	4	0	5	4	6	6	5	59
906	4	3	8	4	6	7	4	5	6	8	4	6	65
907	6	6	7	5	6	4	5	5	4	6	6	5	65
908	6	5	7	5	6	4	5	5	4	6	6	4	63
909	10	7	11	4	7	5	4	5	4	8	5	7	77
910	9	7	11	5	7	5	3	5	4	8	4	8	76
911	9	7	11	5	7	5	4	5	4	8	3	8	76
912	9	7	11	6	6	5	4	5	4	8	4	8	77
913	8	7	11	5	7	5	4	5	4	8	4	8	76
914	9	7	11	5	6	5	4	5	4	8	4	8	76
915	9	7	11	5	7	4	5	6	4	9	4	7	78
916	9	7	11	5	6	5	5	5	4	8	4	8	77
917	9	6	11	4	7	5	4	5	4	8	4	8	75
918	9	4	11	5	7	5	5	5	4	9	4	8	76
919	4	3	9	4	6	7	4	5	8	9	4	6	69
920	5	6	9	4	6	7	4	5	6	8	4	6	70
921	5	6	9	4	6	7	4	5	6	8	4	6	70
922	5	6	9	4	6	7	4	5	6	8	4	6	70
923	8	8	11	5	6	5	4	5	4	9	4	8	77
924	4	6	9	4	6	7	4	5	6	10	4	6	71
925	4	3	6	4	4	5	4	4	5	4	4	4	51
926	4	3	6	4	4	5	4	4	5	4	4	4	51
927	4	3	6	4	4	5	4	4	5	4	4	4	51
928	4	3	6	4	4	5	4	4	5	4	4	4	51
929	4	3	6	4	4	5	4	4	5	4	4	4	51
930	4	4	5	4	4	5	3	5	2	4	4	4	48
931	4	4	5	3	4	5	3	5	2	4	4	4	47
932	4	4	5	4	4	5	3	5	2	4	4	4	48
933	4	4	5	4	4	5	3	5	2	4	4	4	48
934	4	4	5	4	4	5	3	5	2	4	4	4	48
935	4	4	5	5	4	5	3	5	2	4	4	4	49
936	4	4	5	4	4	5	3	5	2	4	4	4	48
937	4	4	5	4	4	5	3	5	2	4	4	4	48
938	4	4	5	4	3	5	3	5	2	4	4	4	47
939	4	4	5	4	4	5	3	5	4	4	4	4	50
940	4	4	5	4	4	5	3	5	4	4	4	4	50
941	4	3	6	4	4	5	4	4	5	4	4	4	51
942	4	3	6	4	4	5	4	4	5	4	4	4	51
943	4	4	5	4	4	5	3	5	4	4	4	4	50
944	4	3	6	4	4	5	4	4	5	4	4	4	51
945	4	3	6	4	4	5	4	4	5	4	4	4	51
946	4	3	7	4	4	5	4	4	5	4	4	4	52
947	4	3	6	4	4	5	4	4	5	4	4	4	51
948	4	3	6	4	4	5	4	4	5	4	4	4	51
949	9	6	11	6	7	8	4	7	6	8	9	6	87
951	4	4	5	4	4	5	3	5	4	4	4	4	50
952	4	4	5	4	4	5	3	5	4	4	4	4	50
Monthly Total	**280**	**238**	**376**	**225**	**260**	**264**	**189**	**246**	**215**	**297**	**223**	**268**	**3081**
Monthly Min.	**189**												
Monthly Max.	**376**												
Monthly Median	**253**												

F. Water Quality Response Notification

The City has developed, jointly with Metro Vancouver and its member municipalities, and with FHA, a notification procedure for situations affecting water quality. The City adheres to this procedure when line breaks occur or if a contamination condition is suspected. The City, through Metro Vancouver's testing laboratory, also notifies the FHA if any fecal coliform count is detected. This notification procedure is shown in Table 4 (below).

Table 4:
Water Quality Response Procedure

Situation	Notifying Agency	Agency Notified	Time Frame for Notification
Metro Vancouver E.Coli Positive Sample	Metro Vancouver	Metro Vancouver, MHO City of Surrey	Immediate
Municipal E.Coli Positive Sample	Laboratory[2] City of Surrey[3]	MHO (or delegate)	Immediate
Chemical Contamination – Metro Vancouver	Metro Vancouver	Metro Vancouver, MHO, City of Surrey[1]	Immediate
Chemical Contamination – City of Surrey	City of Surrey	MHO (or delegate)	Immediate
Turbidity> 5 NTU	Metro Vancouver	Metro Vancouver, MHO, and City of Surrey[1]	Immediate
Disinfection Failure – Source Water (Primary Disinfection)	Metro Vancouver	Metro Vancouver, MHO, and City of Surrey[1]	Immediate (As per DWPA)
Disinfection Failure – Rechlorination (Secondary Disinfection)	Metro Vancouver	Metro Vancouver, MHO, and City of Surrey[1]	Immediate, in any situation in which the BCSDWR or the GCDWQ may not be met.
Loss of Pressure Due to High Demand	City of Surrey	MHO (or delegate), Metro Vancouver	Immediate
Line Break – City of Surrey[4]	City of Surrey	MHO (or delegate)	As soon as possible
Line Break – Metro Vancouver[4]	Metro Vancouver	City of Surrey	Optional
Line Break – City of Surrey[5]	City of Surrey	MHO (or delegate)	Immediate
Line Break – Metro Vancouver[5]	Metro Vancouver	Metro Vancouver, MHO, City of Surrey[1]	Immediate

1. City of Surrey to notify Fraser Health Authority.
2. Laboratory to immediately notify the MHO, DWO (or FHA delegates) and the water supplier as per section 12(1) of the DWPA.
3. City of Surrey to immediately notify the MHO, DWO (or FHA delegates) as per section 12(2) of the DWPA.
4. With no suspected contamination.
5. With suspected contamination.

G. Water Quality Test Results

The bacteriological quality of the City's distributed water remains high as evidenced by sampling results related to both E.coli and total coliforms.

The pipe condition environment is closely monitored by base indicators (HPC counts, chlorine residual values, turbidity counts) and for trends that would indicate conditions are developing that could promote the growth of harmful bacteria. The GCDWQ recommends that re-sampling occur if samples contain more than 500 heterotrophic bacteria colonies (HPC) per milliliter. This recommendation is followed by the City, as well as flushing of the main adjacent to the affected sampling sites. Water stagnation and/or inadequate circulation in the City's mains are the likely causes for all of the results with greater than 500 HPC's.

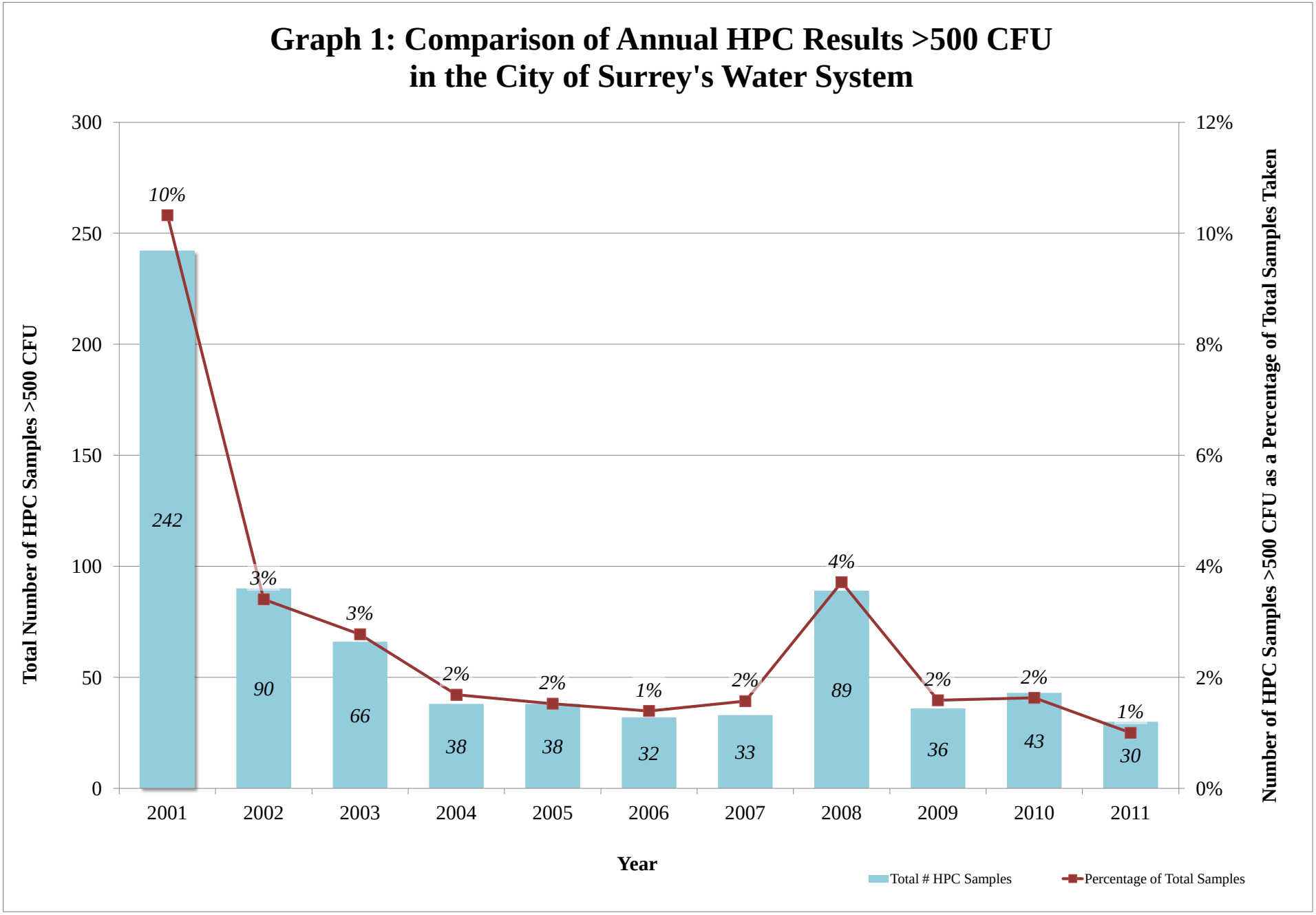
In 2011, 1% of the samples taken showed HPC's higher than 500 using a laboratory testing method incorporating a 5 day incubation period and a temperature of 28°C. Table 5, "Year 2001 to 2011 HPC Positive Samples Summary >500" (pg. 16), summarizes the incidents of HPC's greater than 500 for years from 2001 to 2011. These results are also displayed in graphical form in Graph 1, "Comparison of Annual HPC Results >500 CFU in the City of Surrey's Water System" (pg. 17).

Approximately 12% of the water samples analyzed had free chlorine residual values less than the 0.1 mg/l considered optimum for the distribution system. This percentage is slightly higher than residual valves of the previous 3 years (11%, 11%, 8.5% respectively).

The City continues to closely monitor incidents of low chlorine residuals (<0.1 mg/L) and high HPC (>500 CFU/mls) to determine if there is any correlation between these results and certain system conditions such as maintenance work or underutilized water mains. Although no definite causes have been identified, areas with high HPC have been found to be limited to an area in the north and one location in the south of the City's distribution network. These areas have relatively poor circulation due to partial build-out conditions. Every effort is being made by the City to improve water quality including efforts at the planning level to loop the extremities and non-built out portions of the water infrastructure.

Table 5: Year 2001 to 2011 HPC Positive Samples Summary >500

Sampling Site	No. of Samples Tested											No. of HPC Results >500											% of Samples >500										
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
901	48	51	47	48	50	48	47	46	55	67	60	6	1	0	0	0	0	0	0	0	0	0	13%	2%	0%	0%	0%	0.0%	0%	0%	0%	0%	0%
902	48	51	50	46	55	49	44	47	59	69	67	4	1	6	4	4	6	1	0	0	0	3	8%	2%	12%	9%	7%	12%	2%	0%	0%	0%	4%
903	53	50	46	46	59	50	47	48	55	68	66	6	0	1	1	1	1	0	0	0	3	5	11%	0%	2%	2%	2%	2%	0%	0%	0%	4%	8%
904	48	52	44	44	53	46	38	48	53	67	64	2	1	0	0	0	0	0	0	0	0	0	4%	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%
905	49	52	44	47	53	47	41	46	59	68	59	0	2	0	0	0	0	0	1	0	0	4	0%	4%	0%	0%	0%	0%	0%	2%	0%	0%	7%
906	35	52	52	45	47	40	42	46	46	58	65	3	1	0	0	0	0	0	0	0	0	5	9%	2%	0%	0%	0%	0%	0%	0%	0%	0%	8%
907	48	51	47	45	49	46	44	47	56	68	65	0	1	0	0	0	0	0	0	0	0	0	0%	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%
908	34	56	47	46	57	47	43	48	57	68	63	9	5	0	1	1	0	0	1	0	0	6	26%	9%	0%	2%	2%	0%	0%	2%	0%	0%	10%
909	33	48	49	47	46	46	38	59	65	76	77	7	0	0	0	0	0	0	0	0	0	0	21%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
910	51	51	49	48	46	48	39	60	69	73	76	9	2	0	0	0	0	0	2	0	0	0	18%	4%	0%	0%	0%	0%	0%	3%	0%	0%	0%
911	51	55	47	51	47	42	43	60	62	77	76	15	18	4	8	8	0	2	0	0	0	0	29%	33%	9%	16%	17%	0%	5%	0%	0%	0%	0%
912	48	42	47	46	47	43	43	54	65	76	77	2	0	0	0	0	0	7	9	0	0	0	4%	0%	0%	0%	0%	0%	16%	17%	0%	0%	0%
913	52	48	45	48	44	45	40	53	64	77	76	7	1	0	0	0	0	1	0	0	0	0	13%	2%	0%	0%	0%	0%	3%	0%	0%	0%	0%
914	48	51	45	45	46	42	39	62	67	77	76	4	1	0	0	0	0	0	2	0	0	0	8%	2%	0%	0%	0%	0%	0%	3%	0%	0%	0%
915	50	57	50	47	47	54	44	64	66	78	78	0	0	0	0	0	0	0	0	0	0	0	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
916	31	30	25	48	44	40	41	55	63	78	77	19	0	1	0	0	0	0	0	0	0	0	61%	0%	4%	0%	0%	0%	0%	0%	0%	0%	0%
917	28	51	45	46	47	41	43	55	63	73	75	0	1	1	0	0	0	0	0	0	0	0	0%	2%	2%	0%	0%	0%	0%	0%	0%	0%	0%
918	50	49	45	45	49	50	39	55	64	77	76	7	4	5	0	0	0	0	0	0	0	0	14%	8%	11%	0%	0%	0%	0%	0%	0%	0%	0%
919	51	53	53	44	45	41	44	50	48	58	69	3	0	0	0	0	0	0	0	0	0	0	6%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
920	54	55	51	44	42	39	43	49	58	66	70	3	0	2	1	1	0	0	0	0	1	1	6%	0%	4%	2%	2%	0%	0%	0%	0%	2%	1%
921	46	45	47	43	46	45	44	52	57	67	70	0	0	0	0	0	1	0	0	0	0	1	0%	0%	0%	0%	0%	2%	0%	0%	0%	0%	1%
922	54	59	49	46	50	35	45	51	56	66	70	15	4	3	4	4	0	1	1	0	0	0	28%	7%	6%	9%	8%	0%	2%	2%	0%	0%	0%
923	48	50	49	46	43	40	39	57	65	78	77	1	0	0	0	0	0	0	1	0	0	0	2%	0%	0%	0%	0%	0%	0%	2%	0%	0%	0%
924	48	45	48	44	46	44	41	47	59	65	71	0	1	1	0	0	0	0	0	0	0	0	0%	2%	2%	0%	0%	0%	0%	0%	0%	0%	0%
925	47	37	46	44	51	45	49	47	49	52	51	5	0	0	0	0	0	1	0	0	0	0	11%	0%	0%	0%	0%	0%	2%	0%	0%	0%	0%
926	51	46	47	44	53	50	48	46	49	51	51	1	4	0	0	0	0	0	0	0	0	0	2%	9%	0%	0%	0%	0%	0%	0%	0%	0%	0%
927	52	46	46	44	50	50	49	44	47	51	51	4	0	0	0	0	0	0	0	0	0	0	8%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
928	51	45	47	44	51	49	48	48	45	51	51	0	1	6	1	1	0	0	1	0	0	0	0%	2%	13%	2%	2%	0%	0%	2%	0%	0%	0%
929	47	45	46	43	51	50	50	44	49	51	51	0	0	1	1	1	0	0	0	0	0	0	0%	0%	2%	2%	2%	0%	0%	0%	0%	0%	0%
930	54	50	51	45	45	47	41	47	47	52	48	7	0	0	0	0	0	0	0	0	7	2	13%	0%	0%	0%	0%	0%	0%	0%	0%	13%	4%
931	49	51	52	45	46	44	42	47	49	52	47	0	0	0	1	1	0	0	0	0	5	0	0%	0%	0%	2%	2%	0%	0%	0%	0%	10%	0%
932	50	51	52	45	46	47	42	47	48	52	48	0	0	0	0	0	5	0	1	0	1	0	0%	0%	0%	0%	0%	11%	0%	2%	0%	2%	0%
933	60	63	53	46	50	48	43	47	47	52	48	24	15	7	1	1	5	2	11	1	1	0	40%	24%	13%	2%	2%	10%	5%	23%	2%	2%	0%
934	25	53	52	44	58	48	40	47	48	51	48	0	3	4	3	3	1	2	5	2	2	0	0%	6%	8%	7%	5%	2%	5%	11%	4%	4%	0%
935	49	51	52	45	47	47	43	47	48	51	49	2	1	0	0	0	1	1	0	2	0	0	4%	2%	0%	0%	0%	2%	2%	0%	0%	0%	0%
936	48	52	52	44	48	48	43	48	47	51	48	6	1	1	3	3	3	5	3	2	1	0	13%	2%	2%	7%	6%	6%	12%	6%	4%	2%	0%
937	56	54	52	44	48	44	43	46	49	52	48	12	2	2	0	0	2	5	3	1	0	0	21%	4%	4%	0%	0%	5%	12%	7%	2%	0%	0%
938	51	53	52	45	48	44	44	47	49	51	47	10	3	4	0	0	0	0	0	0	0	0	20%	6%	8%	0%	0%	0%	0%	0%	0%	0%	0%
939	53	53	52	45	47	44	43	47	48	52	50	8	4	2	0	0	0	0	1	1	1	0	15%	8%	4%	0%	0%	0%	0%	2%	2%	2%	0%
940	51	53	53	46	48	40	44	47	48	39	50	4	3	1	0	0	3	1	7	2	2	0	8%	6%	2%	0%	0%	8%	2%	15%	4%	5%	0%
941	52	46	46	43	57	48	49	46	48	51	51	7	0	0	0	0	2	1	2	0	1	0	13%	0%	0%	0%	0%	4%	2%	4%	0%	2%	0%
942	26	47	46	45	52	50	47	45	48	51	51	0	0	0	0	0	1	1	0	0	0	0	0%	0%	0%	0%	0%	2%	2%	0%	0%	0%	0%
943	48	50	43	35	42	63	60	51	48	51	50	5	4	0	0	0	0	0	0	0	0	0	10%	8%	0%	0%	0%	0%	0%	0%	0%	0%	0%
944	51	45	46	44	51	47	47	46	48	51	51	0	0	1	1	1	1	0	0	0	0	0	0%	0%	2%	2%	2%	2%	0%	0%	0%	0%	0%
945	57	59	55	51	59	35	32	43	48	51	51	13	2	4	1	1	0	1	0	0	0	0	23%	3%	7%	2%	2%	0%	3%	0%	0%	0%	0%
946	53	46	47	45	51	52	47	45	47	51	52	7	0	1	2	2	0	0	0	0	0	0	13%	0%	2%	4%	4%	0%	0%	0%	0%	0%	0%
947	51	46	45	43	51	51	46	48	48	50	51	0	1	0	1	1	0	0	0	0	0	1	0%	2%	0%	2%	2%	0%	0%	0%	0%	0%	2%
948	50	48	46	43	53	51	46	46	46	51	51	5	2	6	4	4	0	1	1	0	3	1	10%	4%	13%	9%	8%	0%	2%	2%	0%	6%	2%
949	27	54	54	46	47	44	47	52	78	94	87	0	0	2	0	0	0	0	0	0	0	0	0%	0%	4%	0%	0%	0%	0%	0%	0%	0%	0%
951								43	43	51	50								27	24	14	0								63%	56%	27%	0%
952								48	48	51	50								10	1	1	1								21%	2%	2%	2%
AVERAGE																							10%	3%	3%	2%	2%	1%	2%	4%	2%	2%	**1%**
TOTALS	2315	2448	2354	2213	2408	2254	2144	2518	2748	3109	**3081**	242	90	66	38	38	32	33	89	36	43	**30**											


Graph 1: Comparison of Annual HPC Results >500 CFU in the City of Surrey's Water System
Total Number of HPC Samples >500 CFU
Number of HPC Samples >500 CFU as a Percentage of Total Samples Taken
300
250
200
150
100
50
0
12%
10%
8%
6%
4%
2%
0%
10%
3%
3%
2%
2%
1%
2%
4%
2%
2%
1%
242
90
66
38
38
32
33
89
36
43
30
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
Year
Total # HPC Samples
Percentage of Total Samples

H. Water System Security

A combination of measures are utilized to provide security for the distribution system. All pump stations utilize external security lighting and have locked access doors and/or ground hatches. All stations are also provided with intrusion alarms that are SCADA monitored. Security fencing is installed at those pump stations with highly visible access doors and/or ground hatches.

All new service connections installed since 1998 incorporate check valves as a component of the meter/meter setter installation.

Back flow controls on commercial/industrial businesses are monitored on an on-going basis through the City's cross-connection control (CCC) program. The program, administered by the City's Engineering Department, incorporates site inspection, testing, and annual certification of back-flow prevention devices. Program priorities are based on the hazard potential associated with each business.

In 2011, the number of backflow prevention assemblies registered with the City increased by 15% for a total of 7,741 assemblies as of December 31, 2011. The City's CCC program requires that the owner test the control device annually to confirm that it is working properly. In 2011, the City achieved over 97% compliance with this requirement, an increase of 2% in comparison to the previous year.

Except for the occasional unauthorized opening, theft of parts, or accident affecting fire hydrants, and a few instances of graffiti on fire hydrants, there were no incidents of vandalism to the City's water system in 2011.

I. Water Emergency Plan

As a component part of the City of Surrey Engineering Department Emergency Plan, the City has prepared a Water Continuity Plan (WCP). The testing of a draft WCP occurred in November 2007. This focused primarily on communications and was successfully carried out in concert with other Metro Vancouver member municipalities. This plan was updated in 2009 and submitted to the FHA.

The WCP follows the British Columbia Emergency Response Management System methodology. The WCP focuses on loss of Metro Vancouver water supply, water quality degradation, seismic hazards, and flooding. However, the response priorities, goals, and activities lend themselves to most other emergency situations. Utilization of the Operations Departments' Water Maintenance Crews, Pumps and Controls Crews, as well as Technical Planning staff, are included in the Engineering Department's Emergency Plan.

J. Water Main Break Procedure

Water main break repairs are made utilizing the following repair procedures. These procedures are based on the American Water Works Association (AWWA) Standards and Best Management Practices.(BMPs)

Step 1: Repairs Where No Groundwater Has Entered Into Water Main

(a) Locate the break. Manager to advise FHA Environmental Health Officer of situation if main is greater than 150 mm diameter. Advise affected customers of pending flow and pressure reductions (dependent on crew availability).

(b) Isolation valves shall be left open sufficiently to maintain positive pressure in the water main. The water main will have a positive outflow of water until the trench is excavated below the invert of the pipe.

(c) If it can be determined that no contaminants have entered the water main, disinfection is undertaken by swabbing the pipe and repair materials with a 6% chlorine solution. No bacterial tests are carried out.

(d) After repairs have been completed, the water main will be flushed.

(e) If positive pressure cannot be maintained, and further disinfection is required, continue with Step 2.

Step 2: Repairs Where Groundwater Contamination Of The Water Main Has Occurred

These are repairs where positive pressure cannot be maintained due to the nature of the break (i.e. a large section of pipe has blown out).

(a) Manager to advise FHA Environmental Health Officer of situation. Advise affected customers of pending flow and pressure reductions (dependent on crew availability).

(b) Isolation valves should be "cracked" open to maintain water in the main as close to the break as possible to prevent debris entering the main.

(c) Excavate below invert of the water main, and maintain groundwater to that level.

(d) Spray trench walls and floor with 6% chlorine solution.

(e) If material or groundwater has entered the pipe, it should be flushed out, if possible, by "cracking" open isolation valves at each end of the repair area. Advise adjacent customers to open and run outside hose bibs until water runs clear and to then repeat this procedure inside their homes/building.

(f) All water main and repair materials will be swabbed with 6% chlorine solution before installation.

(g) On completion of repairs, the water main will be flushed through an appropriate appurtenance which creates water flow of >2.5 ft/sec. Scour main until turbidity is <10 NTU

(h) On completion of flushing, a bacterial sample shall be taken as close to the repair area as possible, as well as a control sample from the flushing water source. FHA Environmental Health Officer will be notified of action taken.

(i) If samples are positive, further testing and flushing will be required and, following a review with FHA Environmental Health Officer, further chlorination may be required.

Step 3: E. coli Contamination of a Water Main

If E. coli contamination of a water main has occurred (e.g. a water main and sanitary sewer main are broken in a common trench):

a. The valves on either side of the contaminated section will be shut down.

b. Water Operations Manager and FHA Environmental Health Officer will be notified immediately. The Water Operations Manager in consultation with the FHA Environmental Health Officer will determine if a boil water advisory is warranted. If it is warranted, the Water Operations Manager will initiate the City's issuance of the Boil Water advisory.

c. The water main repairs will be completed as in Step 2.

d. The water main will be chlorinated at minimum 200 ppm for two hours. The chlorine residual, after the two hours retention time, will

not be less than 100 ppm, or the water main will have to be flushed and rechlorinated until it meets the minimum 100 ppm.

e. After completion of the chlorination, the water main must be flushed until the chlorine level is below 1 ppm. Individual water services should also be flushed to remove the chlorine level to less than 1 ppm. Bacterial samples will be taken from the isolated section of main and a central sample outside the isolated section.

f. The water main will be placed back in operation upon receipt of three negative sets of bacteriological results taken 24 hours apart, and with the approval of the FHA Medical Health Officer.

The City of Surrey Boil Water Advisory is shown on the page 22. It is a component part of the City's Water Quality Contingency Plan for a bacteriological contamination of the City's water.

For Release to Radio and Television Stations

CITY OF SURREY- BOIL WATER ADVISORY

Due to _____

The City of Surrey, advises the public that the water supply in the area below has become contaminated and may not be safe for human consumption. In order to ensure the safety of the water supply, all water must be boiled rapidly for at least one minute before being used for drinking, brushing teeth, washing food etc. The area involved is as follows:

From _____ Avenue

From _____Street  To _____ Street

To _____ Avenue

NOTES TO THE PERSON GIVING THE ADVISORY NOTICE

A. In the first line "Due To" indicate the reason for the advisory. e.g., "Due to the presence of E. Coli in the test results".

B. It may be necessary to give only very general locations at the beginning with more exact locations identified when more information becomes available, recognizing that it is preferable to overstate the size of the area involved.

Also,
Metro Vancouver should be notified immediately. During regular working days notify either Bob Jones at 604-451-6001 or pager 604-645-0593 or cell 604-230-8142, Judith Smith at 604-451-6004 or cell 604-250-5703, or, Drew Gibson at 604-451-6008, or cell 604-312-3585.

THE FRASER HEALTH AUTHORITY ENVIRONMENTAL HEALTH OFFICER SHOULD HAVE BEEN ALREADY CONSULTED (1-604-870-7900 regular office hours). Outside regular office hours call 604-527-4806.

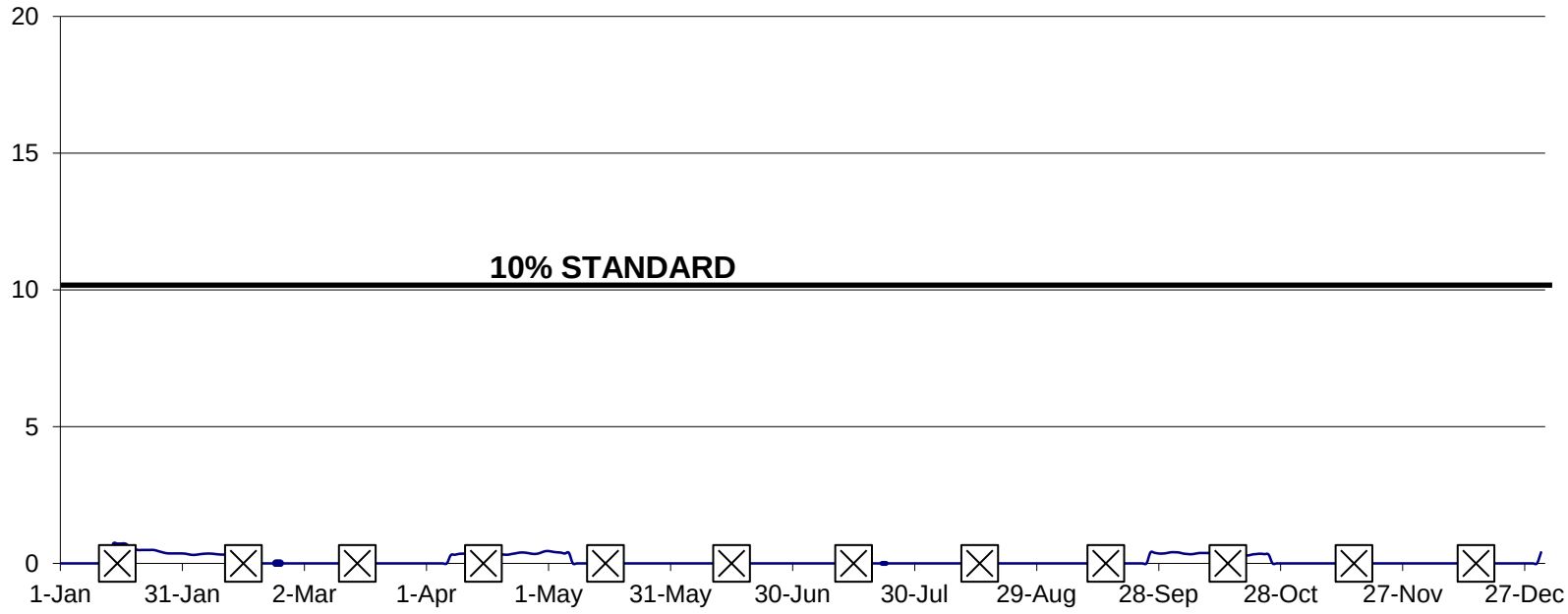
REMOVE THE BOIL WATER ADVISORY AFTER CONSULTATION WITH THE MEDICAL HEALTH OFFICER. Follow a similar notification procedure as the one used above.

APPENDIX 'A'

2011 Water Quality Laboratory Test Results

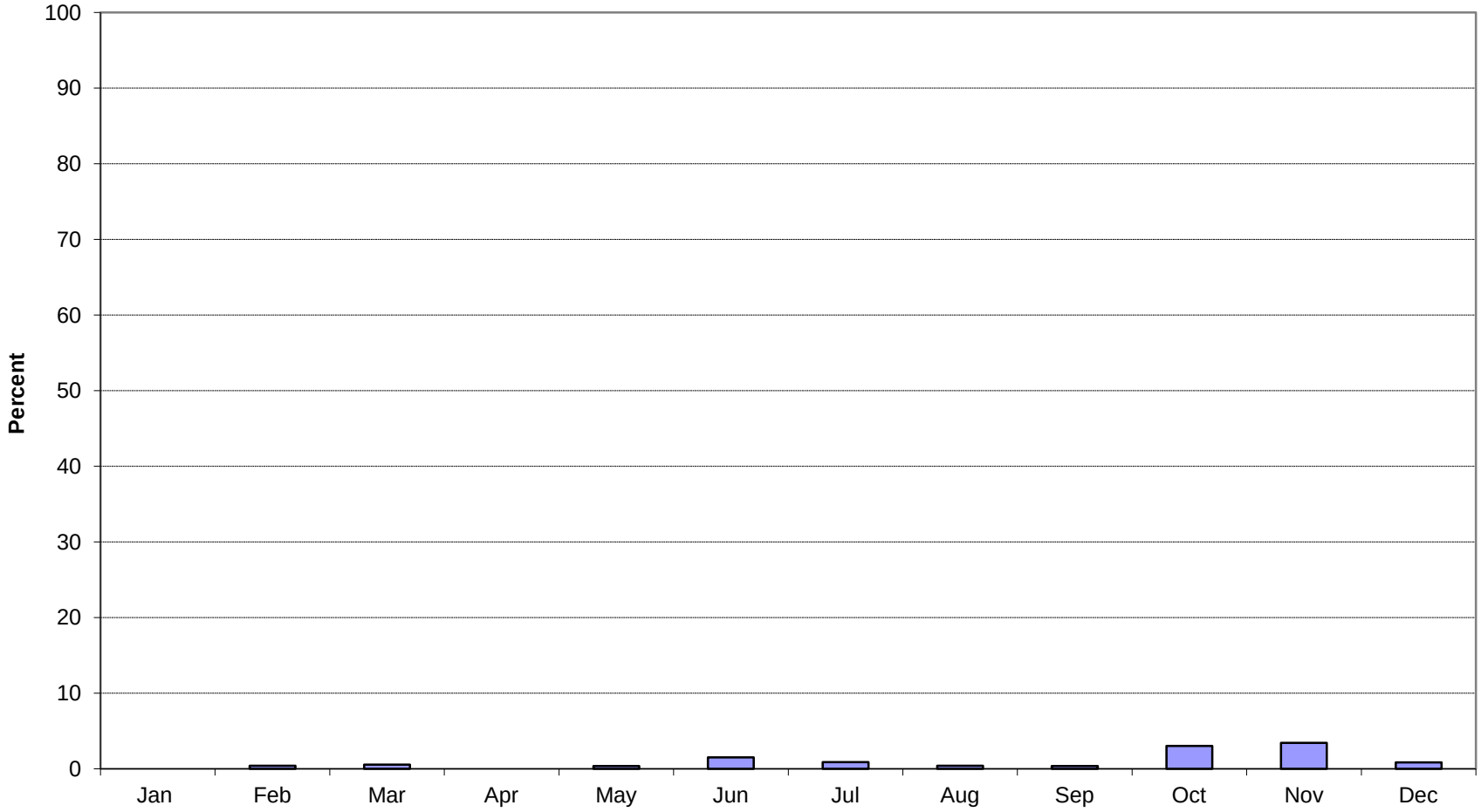
CITY OF SURREY - 2011

Results of Bacteriological Analyses of Potable Water Samples
Compliance With BC Drinking Water Protection Regulation



Analysis by Metro Vancouver Laboratory

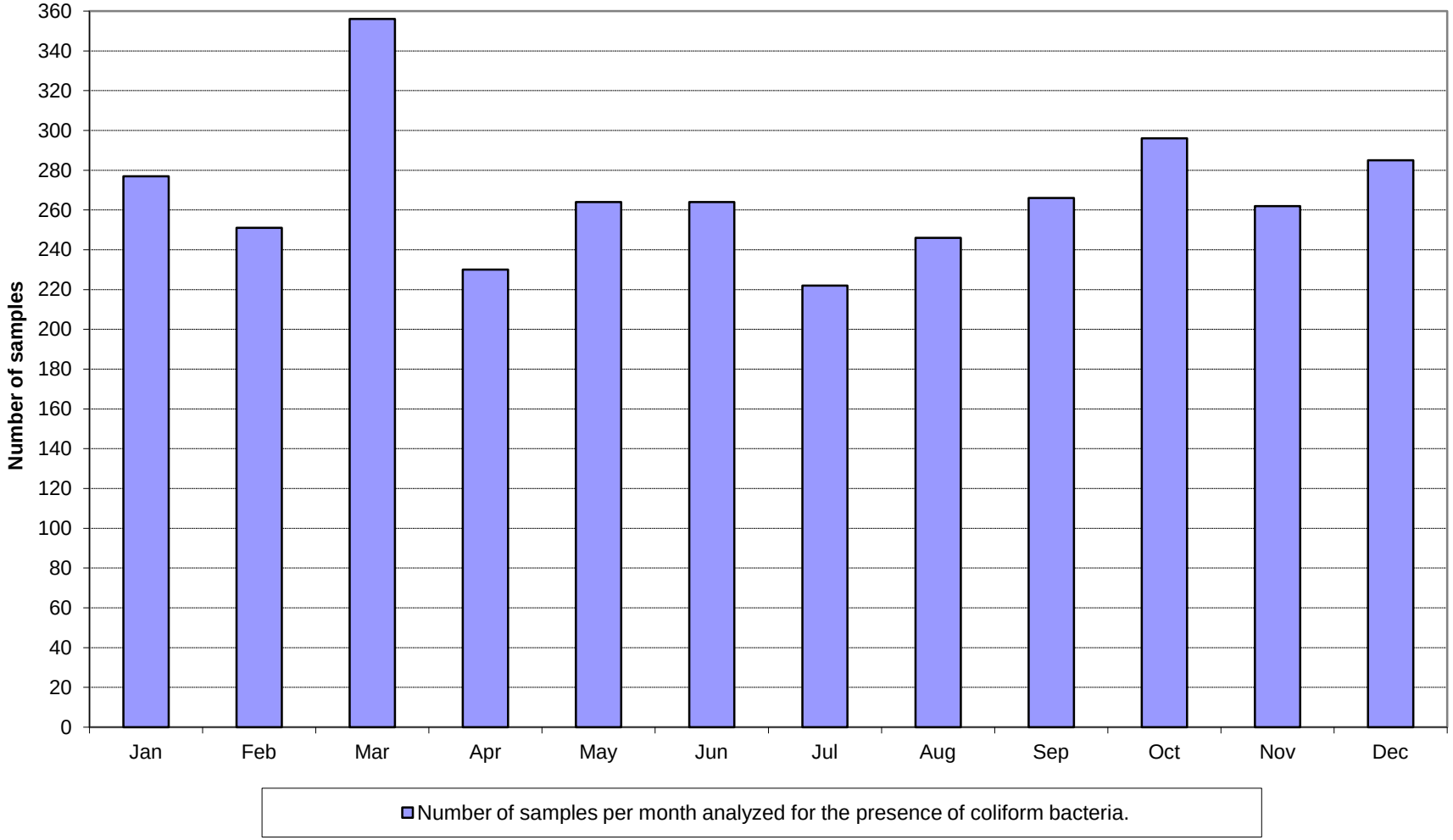
CITY OF SURREY - MONTHLY HPC COUNTS FOR 2011



Percent of samples per month containing greater than 500 CFU/mL of heterotrophic plate count (HPC) bacteria. High HPC levels are an indication of bacterial regrowth.

Analyses by GVRD Laboratory

CITY OF SURREY - 2011
Number of Monthly Samples Analyzed for Presence of Coliform Bacteria



Analysis by Metro Vancouver Laboratory

City of Surrey
2011 Disinfection By-products (THM, HAA) & pH Monitoring Results

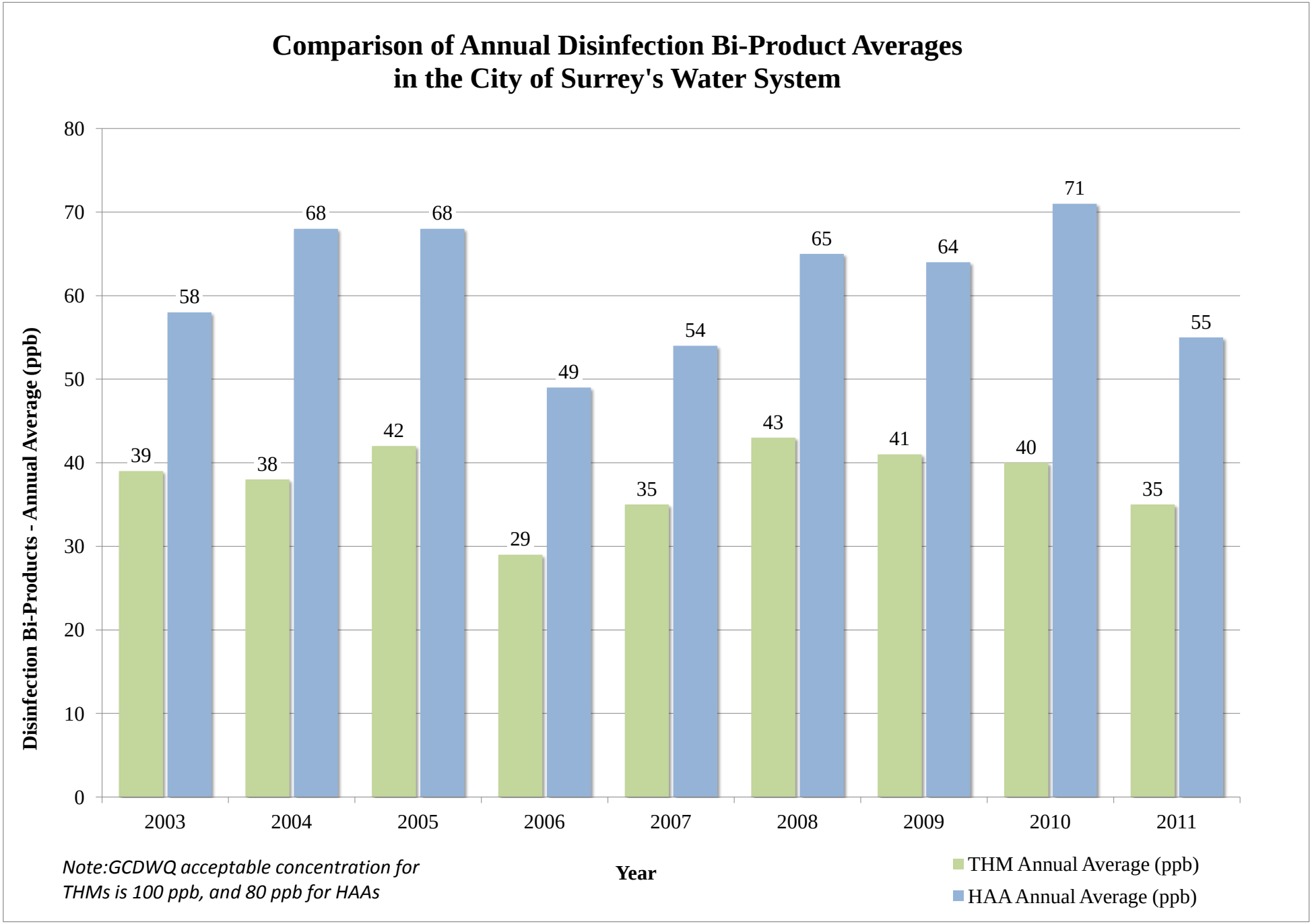
Sample Station ID	Sample Location	Date Sampled	THM (ppb)						HAA (ppb)						pH
			Bromodichloromethane	Bromoform	Chlorodibromomethane	Chloroform	**Total Trihalomethanes**		Dibromoacetic Acid	Dichloroacetic Acid	Monobromoacetic Acid	Monochloroacetic Acid	Trichloroacetic Acid	**Total Haloacetic Acid**	**pH, units pH**
SUR-902	18995 87A Ave.	2011-02-15	<1	<1	<1	23	23								
SUR-902	18995 87A Ave.	2011-05-10	<1	<1	<1	30	29.8		<0.5	8	<1	2	28	39.1	
SUR-902	18995 87A Ave.	2011-09-13	<1	<1	<1	19	19.4								
SUR-902	18995 87A Ave.	2011-11-14	<1	<1	<1	42	42								
SUR-922	7768 155 St.	2011-02-15	<1	<1	<1	24	24		<0.5	8	<1	<2	17	25	
SUR-922	7768 155 St.	2011-05-12	<1	<1	<1	30	30		<0.5	10	<1	2	20	31.4	
SUR-922	7768 155 St.	2011-09-14	<1	<1	<1	29	29		<0.5	8	<1	<2	24	31.6	
SUR-922	7768 155 St.	2011-11-15	<1	<1	<1	43	43		<0.5	8	<1	2	38	48.4	7.1
SUR-926	12059 56 Ave.	2011-02-17	<1	<1	<1	16	16		<0.5	6	<1	3	8	17	
SUR-926	12059 56 Ave.	2011-05-12	<1	<1	<1	25	25		<0.5	12	<1	12	12	36.4	
SUR-926	12059 56 Ave.	2011-09-15	<1	<1	<1	25	25		<0.5	7	<1	11	7	25.9	
SUR-926	12059 56 Ave.	2011-11-17	<1	<1	<1	29	29		<0.5	12	<1	8	17	37.3	
SUR-928	15349 57 Ave.	2011-02-17	<1	<1	<1	17	17		<0.5	5	<1	<2	4	9	
SUR-928	15349 57 Ave.	2011-05-12	<1	<1	<1	26	26		<0.5	12	<1	10	15	36.3	
SUR-928	15349 57 Ave.	2011-09-15	<1	<1	<1	28	28		<0.5	12	<1	12	6	30.8	
SUR-928	15349 57 Ave.	2011-11-17	<1	<1	<1	31	31		<0.5	13	<1	6	17	36.8	
SUR-930	SW Ent to Pkwy., S of 3031 139 St.	2011-02-16	<1	<1	<1	32	32		<0.5	10	<1	<2	26	36	
SUR-930	SW Ent to Pkwy., S of 3031 139 St.	2011-05-11	<1	<1	<1	40	40		<0.5	16	<1	4	36	56.2	
SUR-930	SW Ent to Pkwy., S of 3031 139 St.	2011-09-14	<1	<1	<1	26	26		<0.5	19	<1	31	34	84.4	
SUR-930	SW Ent to Pkwy., S of 3031 139 St.	2011-11-16	1	<1	<1	55	56		<0.5	7	<1	<2	72	78.3	7.4
SUR-931	124 St. & 24 Ave.	2011-02-16	<1	<1	<1	33	33		<0.5	6	<1	<2	26	32	
SUR-931	124 St. & 24 Ave.	2011-05-11	<1	<1	<1	40	41		<0.5	12	<1	3	34	49.4	
SUR-931	124 St. & 24 Ave.	2011-09-14	<1	<1	<1	31	31		<0.5	13	<1	3	30	45.6	
SUR-931	124 St. & 24 Ave.	2011-11-16	<1	<1	<1	50	50		<0.5	8	<1	6	62	76.1	
SUR-940	24 Ave., by south depot	2011-02-16	<1	<1	<1	28	28		<0.5	13	<1	4	23	41	
SUR-940	24 Ave., by south depot	2011-05-11	<1	<1	<1	35	35		<0.5	20	<1	13	30	62	
SUR-940	24 Ave., by south depot	2011-09-14	<1	<1	<1	32	32		<0.5	20	<1	6	30	56.2	
SUR-940	24 Ave., by south depot	2011-11-16	<1	<1	<1	45	45		<0.5	27	<1	13	57	97.1	7.0

Analysis by Metro Vancouver Laboratory

City of Surrey
2011 Disinfection By-products (THM, HAA) Running Quarterly Averages

Sample Station ID	Date Sampled	THM (ppb)						HAA (ppb)						
		Bromodichloromethane	Bromoform	Chlorodibromomethane	Chloroform	Total Trihalomethanes	**Total THM Quarterly Average**	Dibromoacetic Acid	Dichloroacetic Acid	Monobromoacetic Acid	Monochloroacetic Acid	Trichloroacetic Acid	Total Haloacetic Acid	**Total HAA Quarterly Average**
SUR-902	2010-05-19	<1	<1	<1	32	33								
SUR-902	2010-09-16	<1	<1	<1	24	24								
SUR-902	2010-11-23	1	<1	<1	38	39								
SUR-902	2011-02-15	<1	<1	<1	23	23	**30**							
SUR-902	2011-05-10	<1	<1	<1	30	29.8	**29**	<0.5	8	<1	2	28	39.1	
SUR-902	2011-09-13	<1	<1	<1	19	19.4	**28**							
SUR-902	2011-11-14	<1	<1	<1	42	42								
SUR-922	2010-05-18	<1	<1	<1	29	29		<0.5	11	<1	<2	30	40	
SUR-922	2010-09-13	1	<1	<1	28	29		<0.5	7	<1	2	23	32	
SUR-922	2010-11-22	<1	<1	<1	43	43		<0.5	11	<1	2	62	76	
SUR-922	2011-02-15	<1	<1	<1	24	24	**31**	<0.5	8	<1	<2	17	25	**43**
SUR-922	2011-05-12	<1	<1	<1	30	30	**31**	<0.5	10	<1	2	20	31.4	**41**
SUR-922	2011-09-14	<1	<1	<1	29	29	**31**	<0.5	8	<1	<2	24	31.6	**41**
SUR-922	2011-11-15	<1	<1	<1	43	43	**31**	<0.5	8	<1	2	38	48.4	**34**
SUR-926	2010-05-20	<1	<1	<1	59	59		<0.5	46	<1	8	51	105	
SUR-926	2010-09-16	1	<1	<1	28	29		<0.5	23	<1	10	32	64	
SUR-926	2010-11-25	<1	<1	<1	28	28		<0.5	18	<1	15	34	68	
SUR-926	2011-02-17	<1	<1	<1	16	16	**33**	<0.5	6	<1	3	8	17	**64**
SUR-926	2011-05-12	<1	<1	<1	25	25	**24**	<0.5	12	<1	12	12	36.4	**46**
SUR-926	2011-09-15	<1	<1	<1	25	25	**23**	<0.5	7	<1	11	7	25.9	**37**
SUR-926	2011-11-17	<1	<1	<1	29	29	**24**	<0.5	12	<1	8	17	37.3	**29**
SUR-928	2010-05-20	<1	<1	<1	65	65		<0.5	48	<1	9	52	109	
SUR-928	2010-09-16	1	<1	<1	26	27		<0.5	21	<1	6	29	56	
SUR-928	2010-11-25	<1	<1	<1	30	30		<0.5	15	<1	6	27	49	
SUR-928	2011-02-17	<1	<1	<1	17	17	**35**	<0.5	5	<1	<2	4	9	**56**
SUR-928	2011-05-12	<1	<1	<1	26	26	**25**	<0.5	12	<1	10	15	36.3	**38**
SUR-928	2011-09-15	<1	<1	<1	28	28	**25**	<0.5	12	<1	12	6	30.8	**31**
SUR-928	2011-11-17	<1	<1	<1	31	31	**25**	<0.5	13	<1	6	17	36.8	**28**
SUR-930	2010-05-19	<1	<1	<1	38	38		<0.5	19	<1	3	35	57	
SUR-930	2010-09-15	1	<1	<1	38	39		<0.5	24	<1	6	54	84	
SUR-930	2010-11-25	1	<1	<1	58	59		<0.5	14	<1	2	62	78	
SUR-930	2011-02-16	<1	<1	<1	32	32	**42**	<0.5	10	<1	<2	26	36	**64**
SUR-930	2011-05-11	<1	<1	<1	40	40	**43**	<0.5	16	<1	4	36	56.2	**64**
SUR-930	2011-09-14	<1	<1	<1	26	26	**39**	<0.5	19	<1	31	34	84.4	**64**
SUR-930	2011-11-16	1	<1	<1	55	56	**39**	<0.5	7	<1	<2	72	78.3	**64**
SUR-931	2010-05-19	<1	<1	<1	44	44		<0.5	21	<1	4	31	56	
SUR-931	2010-09-15	1	<1	<1	39	40		<0.5	23	<1	4	52	80	
SUR-931	2010-11-25	1	<1	<1	57	58		<0.5	8	<1	<2	61	69	
SUR-931	2011-02-16	<1	<1	<1	33	33	**44**	<0.5	6	<1	<2	26	32	**59**
SUR-931	2011-05-11	<1	<1	<1	40	41	**43**	<0.5	12	<1	3	34	49.4	**58**
SUR-931	2011-09-14	<1	<1	<1	31	31	**41**	<0.5	13	<1	3	30	45.6	**49**
SUR-931	2011-11-16	<1	<1	<1	50	50	**39**	<0.5	8	<1	6	62	76.1	**51**
SUR-940	2010-06-30	1	<1	<1	57	58		0.5	12	<1	<2	41	55	
SUR-940	2010-09-15	1	<1	<1	38	39		<0.5	24	<1	4	49	78	
SUR-940	2010-11-25	1	<1	<1	42	44		<0.5	29	<1	8	56	93	
SUR-940	2011-02-16	<1	<1	<1	28	28	**42**	<0.5	13	<1	4	23	41	**67**
SUR-940	2011-05-11	<1	<1	<1	35	35	**36**	<0.5	20	<1	13	30	62	**69**
SUR-940	2011-09-14	<1	<1	<1	32	32	**35**	<0.5	20	<1	6	30	56.2	**63**
SUR-940	2011-11-16	<1	<1	<1	45	45	**35**	<0.5	27	<1	13	57	97.1	**64**

Analysis by Metro Vancouver Laboratory


Comparison of Annual Disinfection Bi-Product Averages in the City of Surrey's Water System
Disinfection Bi-Products - Annual Average (ppb)
80
70
60
50
40
30
20
10
0
39
58
38
68
42
68
29
49
35
54
43
65
41
64
40
71
35
55
2003
2004
2005
2006
2007
2008
2009
2010
2011
Year
THM Annual Average (ppb)
HAA Annual Average (ppb)
Note:GCDWQ acceptable concentration for THMs is 100 ppb, and 80 ppb for HAAs

City of Surrey
2011 Semi-annual Metals Monitoring Results

Sample Station ID	Sample Station Location	Date & Time Sampled	Aluminum Total	Antimony Total	Arsenic Total	Barium Total	Cadmium Total	Calcium Total	Chromium Total	Cobalt Total	Copper Total	Iron Total	Lead Total	Magnesium Total	Manganese Total	Mercury Total	Molybdenum Total	Nickel Total	Potassium Total	Selenium Total	Silver Total	Sodium Total	Zinc Total
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SUR-922	7768 - 155 St.	2011-11-08 10:58	75	<0.5	<0.5	2.6	<0.2	1040	0.05	<0.5	2.1	64	<0.5	98	1.1	<0.05	<0.5	<0.5	106	<0.5	<0.5	5040	<3
SUR-928	15349 - 57 Ave.	2011-11-10 8:30	57	<0.5	<0.5	3.1	<0.2	2130	0.13	<0.5	2.4	44	<0.5	124	1.7	<0.05	<0.5	<0.5	135	<0.5	<0.5	3830	<3
SUR-931	124 St. & 24 Ave.	2011-11-09 8:35	76	<0.5	<0.5	2.9	<0.2	1330	0.06	<0.5	1.2	65	<0.5	73	1.1	<0.05	<0.5	<0.5	116	<0.5	<0.5	5500	<3

Analysis by Metro Vancouver Laboratory

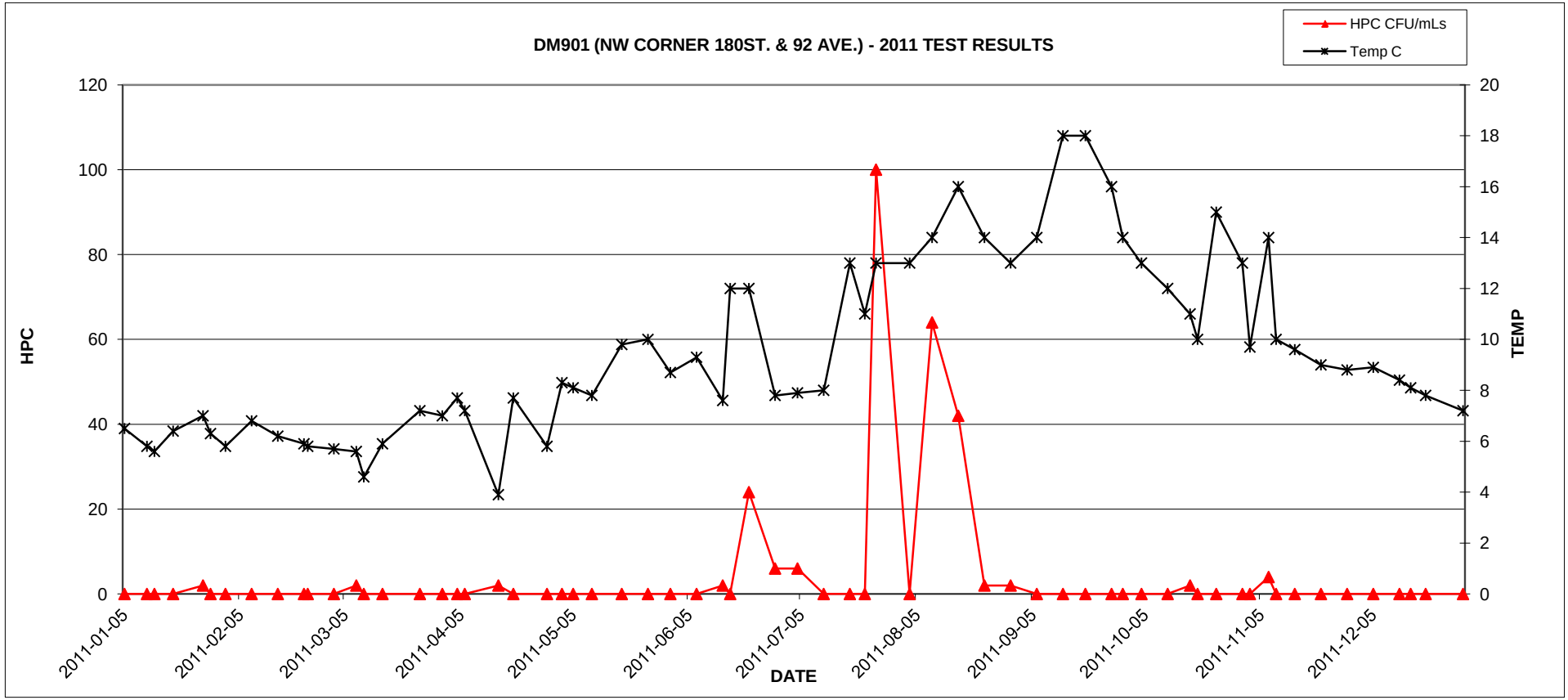
City of Surrey
2011 Vinyl Chloride Results

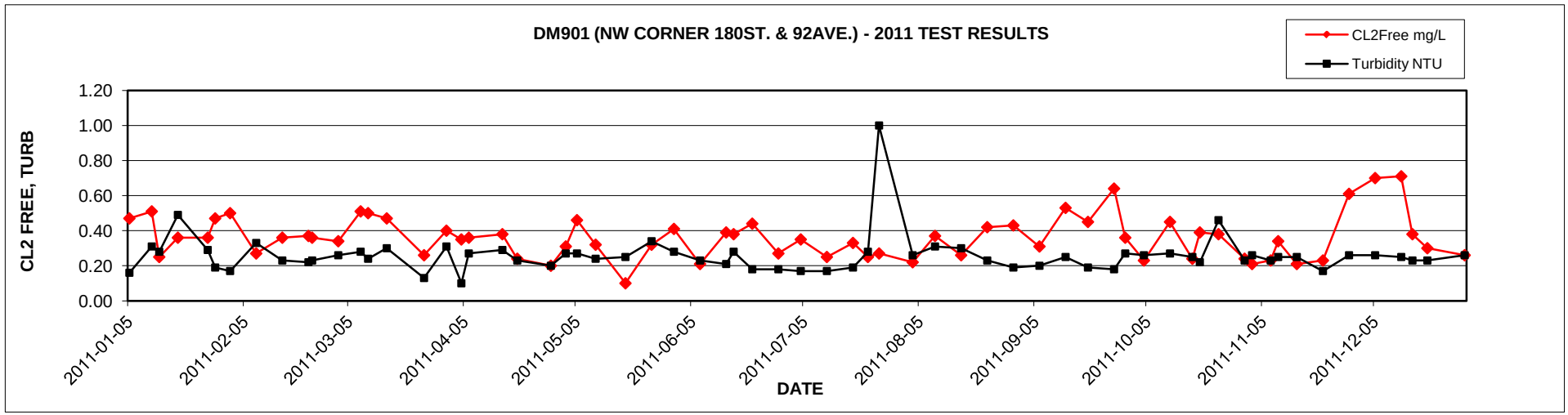
Sample Station ID	Sample Station Location	1st Half of 2011		2nd Half of 2011	
		Date Sampled	Vinyl Chloride µg/L	Date Sampled	Vinyl Chloride µg/L
901	180 St. & 92 Ave.	14-Jun-11	<0.5	31-Oct-11	<0.5
902	18995 87A Ave.	14-Jun-11	<0.5	31-Oct-11	<0.5
928	15349 57 Ave.	02-Jun-11	<0.5	3-Nov-11	<0.5
930	SW Ent to Pkwy, S of 3031 139 St.	01-Jun-11	<0.5	2-Nov-11	<0.5

Analysis for Vinyl Chloride was not done by Metro Vancouver Laboratory but by Maxxam Analyticals Inc.

2011 GVRD Laboratory Report - DM901 (NW CORNER 180ST. & 92 AVE.)

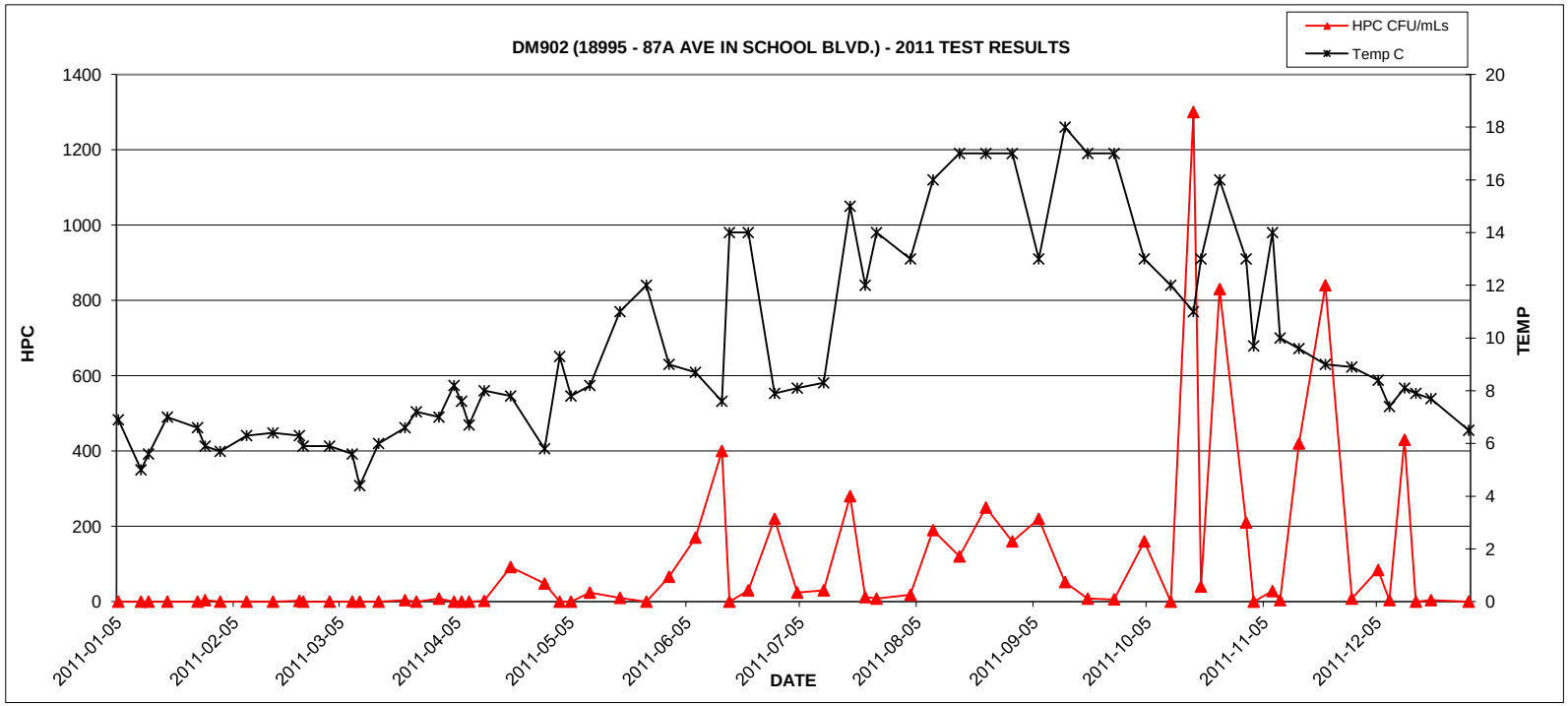
Date Collected	CL2Free mg/L	Ecoli MF/100mLs	HPC CFU/mLs	Tcoli MF/100mLs	Temp C	Turbidity NTU
05-Jan	0.47	<1	<2	<1	6.5	0.16
11-Jan	0.51	<1	<2	<1	5.8	0.31
13-Jan	0.25	<1	<2	<1	5.6	0.28
18-Jan	0.36	<1	<2	<1	6.4	0.49
26-Jan	0.36	<1	2	<1	7	0.29
28-Jan	0.47	<1	<2	<1	6.3	0.19
01-Feb	0.50	<1	<2	<1	5.8	0.17
08-Feb	0.27	<1	<2	<1	6.8	0.33
15-Feb	0.36	<1	<2	<1	6.2	0.23
22-Feb	0.37	<1	<2	<1	5.9	0.22
23-Feb	0.36	<1	<2	<1	5.8	0.23
02-Mar	0.34	<1	<2	<1	5.7	0.26
08-Mar	0.51	<1	2	<1	5.6	0.28
15-Mar	0.47	<1	<2	<1	5.9	0.30
10-Mar	0.50	<1	<2	<1	4.6	0.24
25-Mar	0.26	<1	<2	<1	7.2	0.13
31-Mar	0.40	<1	<2	<1	7	0.31
04-Apr	0.35	<1	<2	<1	7.7	0.10
06-Apr	0.36	<1	<2	<1	7.2	0.27
15-Apr	0.38	<1	2	<1	3.9	0.29
19-Apr	0.24	<1	<2	<1	7.7	0.23
28-Apr	0.20	<1	<2	<1	5.8	0.20
02-May	0.31	<1	<2	<1	8.3	0.27
05-May	0.46	<1	<2	<1	8.1	0.27
10-May	0.32	<1	<2	<1	7.8	0.24
18-May	0.10	<1	<2	<1	9.8	0.25
25-May	0.32	<1	<2	<1	10	0.34
31-May	0.41	<1	<2	<1	8.7	0.28
07-Jun	0.21	<1	<2	<1	9.3	0.23
14-Jun	0.39	<1	2	<1	7.6	0.21
16-Jun	0.38	<1	<2	<1	12	0.28
21-Jun	0.44	<1	24	<1	12	0.18
28-Jun	0.27	<1	6	<1	7.8	0.18
04-Jul	0.35	<1	6	<1	7.9	0.17
11-Jul	0.25	<1	<2	<1	8	0.17
18-Jul	0.33	<1	<2	<1	13	0.19
22-Jul	0.25	<1	<2	<1	11	0.28
25-Jul	0.27	<1	100	<1	13	1.00
03-Aug	0.22	<1	<2	<1	13	0.26
09-Aug	0.37	<1	64	<1	14	0.31
16-Aug	0.26	<1	42	<1	16	0.30
23-Aug	0.42	<1	2	<1	14	0.23
30-Aug	0.43	<1	2	<1	13	0.19
06-Sep	0.31	<1	<2	<1	14	0.20
13-Sep	0.53	<1	<2	<1	18	0.25
19-Sep	0.45	<1	<2	<1	18	0.19
26-Sep	0.64	<1	<2	<1	16	0.18
29-Sep	0.36	<1	<2	<1	14	0.27
04-Oct	0.23	<1	<2	<1	13	0.26
11-Oct	0.45	<1	<2	<1	12	0.27
17-Oct	0.24	<1	2	<1	11	0.25
19-Oct	0.39	<1	<2	<1	10	0.22
24-Oct	0.38	<1	<2	<1	15	0.46
31-Oct	0.24	<1	<2	<1	13	0.23
02-Nov	0.21	<1	<2	<1	9.7	0.26
07-Nov	0.23	<1	4	<1	14	0.23
09-Nov	0.34	<1	<2	<1	10	0.25
14-Nov	0.21	<1	<2	<1	9.6	0.25
21-Nov	0.23	<1	<2	<1	9	0.17
28-Nov	0.61	<1	<2	<1	8.8	0.26
05-Dec	0.70	<1	<2	<1	8.9	0.26
12-Dec	0.71	<1	<2	<1	8.4	0.25
15-Dec	0.38	<1	<2	<1	8.1	0.23
19-Dec	0.30	<1	<2	<1	7.8	0.23
29-Dec	0.26	<1	NA	<1	7.2	0.26

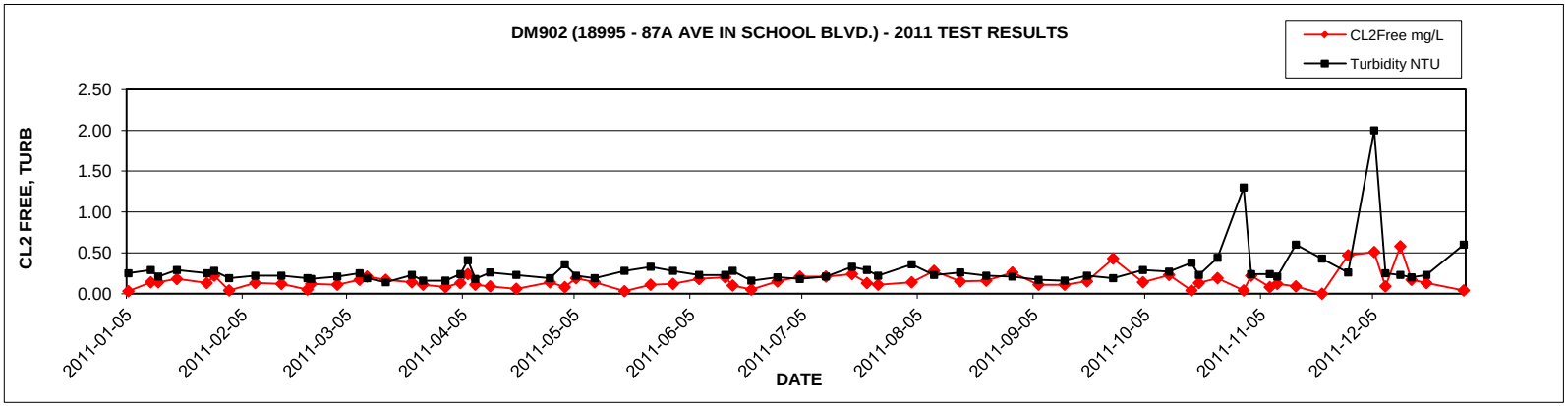

DM901 (NW CORNER 180ST. & 92 AVE.) - 2011 TEST RESULTS
HPC CFU/mLs
Temp C
HPC
TEMP
DATE
120
100
80
60
40
20
0
20
18
16
14
12
10
8
6
4
2
0
2011-01-05
2011-02-05
2011-03-05
2011-04-05
2011-05-05
2011-06-05
2011-07-05
2011-08-05
2011-09-05
2011-10-05
2011-11-05
2011-12-05


DM901 (NW CORNER 180ST. & 92AVE.) - 2011 TEST RESULTS
CL2Free mg/L
Turbidity NTU
CL2 FREE, TURB
DATE
1.20
1.00
0.80
0.60
0.40
0.20
0.00
2011-01-05
2011-02-05
2011-03-05
2011-04-05
2011-05-05
2011-06-05
2011-07-05
2011-08-05
2011-09-05
2011-10-05
2011-11-05
2011-12-05

2011 GVRD Laboratory Report - DM902 (18995 - 87A AVE IN SCHOOL BLVD.)

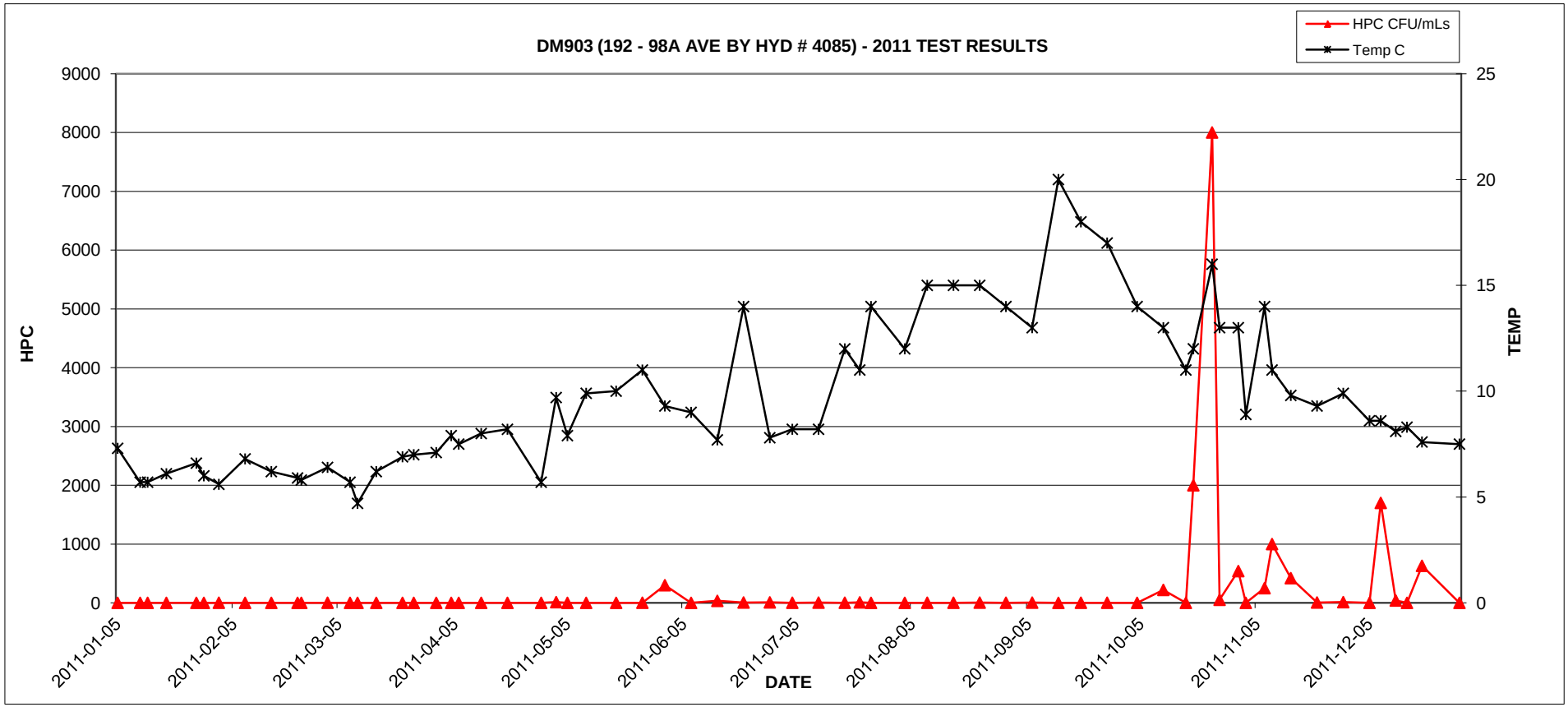
Date Collected	CL2Free mg/L	Ecoli MF/100mLs	HPC CFU/mLs	Tcoli MF/100mLs	Temp C	Turbidity NTU
05-Jan	0.03	<1	<2	<1	6.9	0.25
11-Jan	0.14	<1	<2	<1	5	0.29
13-Jan	0.14	<1	<2	<1	5.6	0.21
18-Jan	0.18	<1	<2	<1	7	0.29
26-Jan	0.13	<1	<2	<1	6.6	0.25
28-Jan	0.22	<1	4	<1	5.9	0.28
01-Feb	0.04	<1	<2	<1	5.7	0.19
08-Feb	0.13	<1	<2	<1	6.3	0.22
15-Feb	0.12	<1	<2	<1	6.4	0.22
22-Feb	0.05	<1	2	<1	6.3	0.19
23-Feb	0.12	<1	<2	<1	5.9	0.18
02-Mar	0.11	<1	<2	<1	5.9	0.21
08-Mar	0.17	<1	<2	<1	5.6	0.25
15-Mar	0.17	<1	<2	<1	6	0.14
10-Mar	0.21	<1	<2	<1	4.4	0.19
22-Mar	0.14	<1	4	<1	6.6	0.23
25-Mar	0.11	<1	<2	<1	7.2	0.16
31-Mar	0.08	<1	8	<1	7	0.16
04-Apr	0.13	<1	<2	<1	8.2	0.24
06-Apr	0.24	LA	<2	LA	7.6	0.41
08-Apr	0.11	<1	<2	<1	6.7	0.18
12-Apr	0.09	<1	2	<1	8	0.26
19-Apr	0.06	<1	92	<1	7.8	0.23
28-Apr	0.14	<1	48	<1	5.8	0.19
02-May	0.08	<1	<2	<1	9.3	0.36
05-May	0.19	<1	<2	<1	7.8	0.22
10-May	0.14	<1	24	<1	8.2	0.19
18-May	0.03	<1	10	<1	11	0.28
25-May	0.11	<1	<2	<1	12	0.33
31-May	0.12	<1	66	<1	9	0.28
07-Jun	0.18	<1	170	<1	8.7	0.23
14-Jun	0.20	<1	400	<1	7.6	0.23
16-Jun	0.10	<1	<2	<1	14	0.28
21-Jun	0.05	<1	30	<1	14	0.16
28-Jun	0.15	<1	220	<1	7.9	0.20
04-Jul	0.21	<1	24	<1	8.1	0.18
11-Jul	0.21	<1	30	<1	8.3	0.21
18-Jul	0.24	<1	280	<1	15	0.33
22-Jul	0.13	<1	12	<1	12	0.29
25-Jul	0.11	<1	8	<1	14	0.22
03-Aug	0.14	<1	18	<1	13	0.36
09-Aug	0.28	<1	190	<1	16	0.23
16-Aug	0.15	<1	120	<1	17	0.26
23-Aug	0.16	<1	250	<1	17	0.22
30-Aug	0.26	<1	160	<1	17	0.21
06-Sep	0.11	<1	220	<1	13	0.17
13-Sep	0.11	<1	52	<1	18	0.16
19-Sep	0.15	<1	8	<1	17	0.22
26-Sep	0.43	<1	6	<1	17	0.19
04-Oct	0.14	<1	160	<1	13	0.29
11-Oct	0.23	<1	<2	<1	12	0.27
17-Oct	0.04	<1	1300	<1	11	0.38
19-Oct	0.13	<1	40	<1	13	0.23
24-Oct	0.19	<1	830	<1	16	0.44
31-Oct	0.04	<1	210	<1	13	1.30
02-Nov	0.22	<1	<2	<1	9.7	0.24
07-Nov	0.08	<1	28	<1	14	0.24
09-Nov	0.12	<1	4	<1	10	0.21
14-Nov	0.09	<1	420	<1	9.6	0.60
21-Nov	<0.01	<1	840	<1	9	0.43
28-Nov	0.47	<1	8	<1	8.9	0.26
05-Dec	0.51	<1	84	<1	8.4	2.00
08-Dec	0.09	<1	4	<1	7.4	0.25
12-Dec	0.58	<1	430	<1	8.1	0.23
15-Dec	0.17	<1	<2	<1	7.9	0.20
19-Dec	0.13	<1	4	<1	7.7	0.23
29-Dec	0.04	<1	NA	<1	6.5	0.60

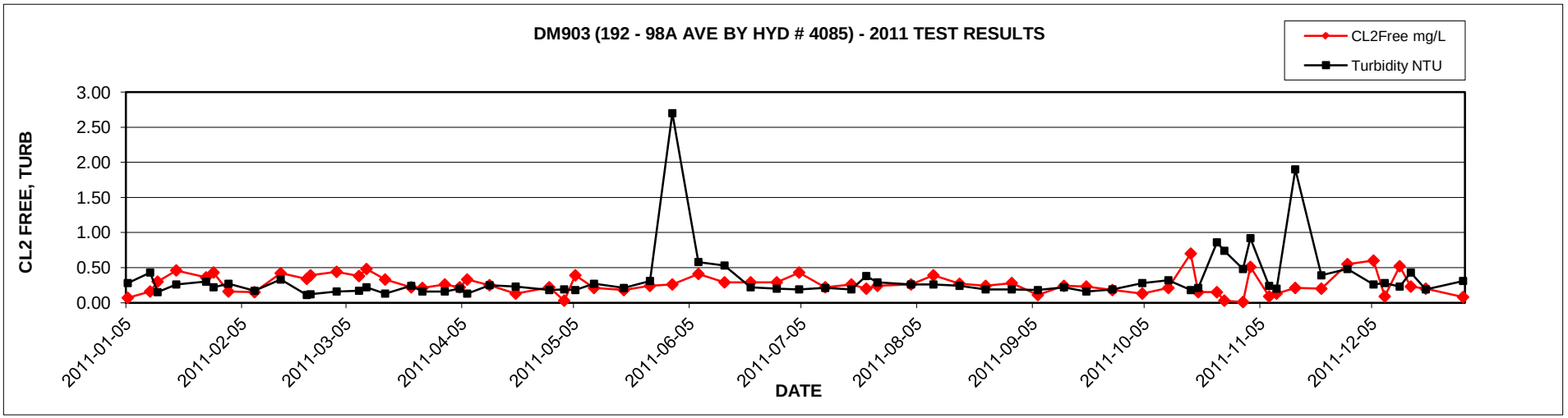

DM902 (18995 - 87A AVE IN SCHOOL BLVD.) - 2011 TEST RESULTS
HPC CFU/mLs
Temp C
HPC
TEMP
DATE
0
200
400
600
800
1000
1200
1400
0
2
4
6
8
10
12
14
16
18
20
2011-01-05
2011-02-05
2011-03-05
2011-04-05
2011-05-05
2011-06-05
2011-07-05
2011-08-05
2011-09-05
2011-10-05
2011-11-05
2011-12-05


DM902 (18995 - 87A AVE IN SCHOOL BLVD.) - 2011 TEST RESULTS
CL2Free mg/L
Turbidity NTU
CL2 FREE, TURB
DATE
0.00
0.50
1.00
1.50
2.00
2.50
2011-01-05
2011-02-05
2011-03-05
2011-04-05
2011-05-05
2011-06-05
2011-07-05
2011-08-05
2011-09-05
2011-10-05
2011-11-05
2011-12-05

2011 GVRD Laboratory Report - DM903 (192 - 98A AVE BY HYD # 4085)

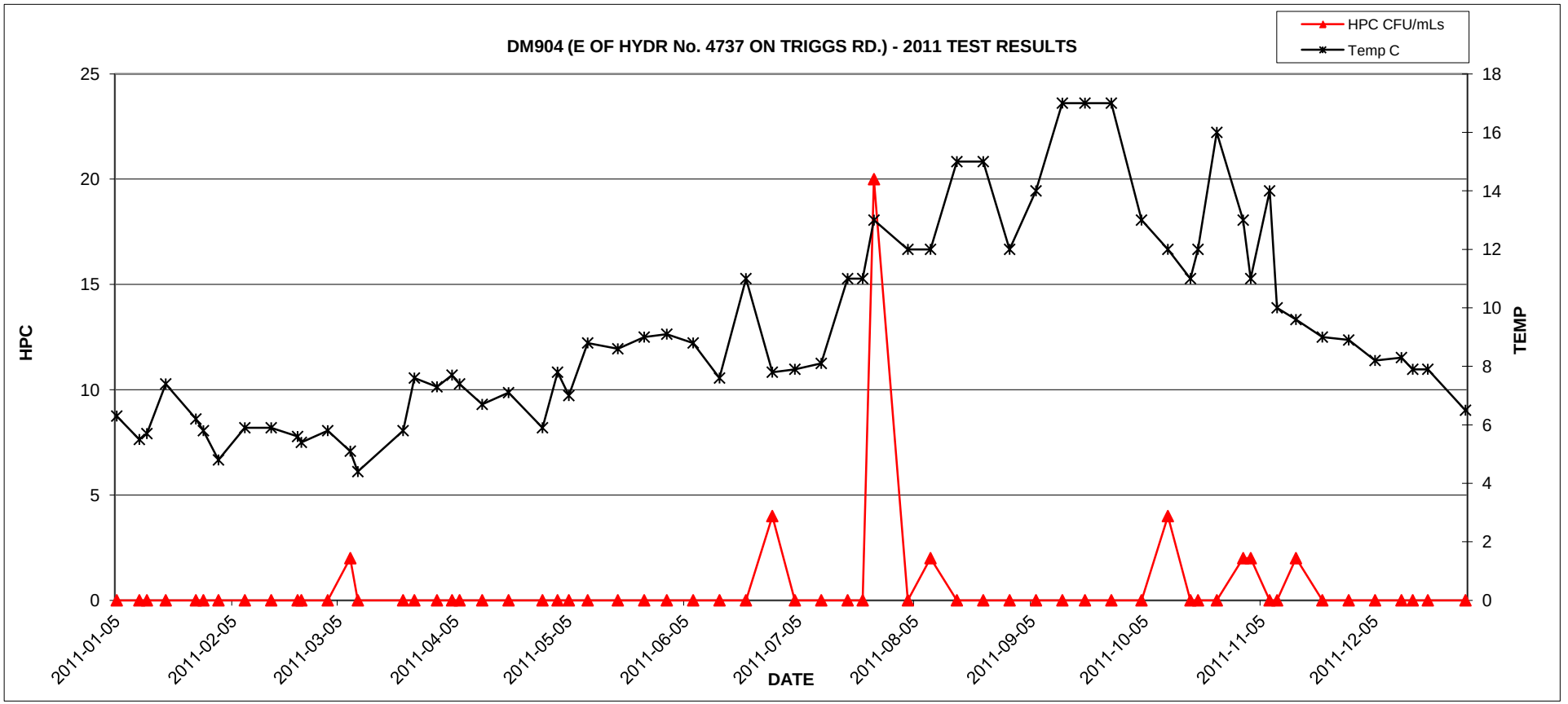
Date Collected	CL2Free mg/L	Ecoli MF/100mLs	HPC CFU/mLs	Tcoli MF/100mLs	Temp C	Turbidity NTU
05-Jan	0.07	<1	<2	<1	7.3	0.28
11-Jan	0.16	<1	<2	<1	5.7	0.43
13-Jan	0.30	<1	<2	<1	5.7	0.15
18-Jan	0.46	<1	<2	<1	6.1	0.26
26-Jan	0.36	<1	<2	<1	6.6	0.30
28-Jan	0.43	<1	<2	<1	6	0.22
01-Feb	0.16	<1	2	<1	5.6	0.27
08-Feb	0.15	<1	<2	<1	6.8	0.17
15-Feb	0.42	<1	<2	<1	6.2	0.33
22-Feb	0.34	<1	<2	<1	5.9	0.11
23-Feb	0.39	<1	<2	<1	5.8	0.12
02-Mar	0.44	<1	2	<1	6.4	0.16
08-Mar	0.38	<1	<2	<1	5.7	0.17
15-Mar	0.33	<1	<2	<1	6.2	0.13
10-Mar	0.48	<1	<2	<1	4.7	0.22
22-Mar	0.22	<1	<2	<1	6.9	0.24
25-Mar	0.21	<1	<2	<1	7	0.16
31-Mar	0.26	<1	<2	<1	7.1	0.16
04-Apr	0.22	<1	<2	<1	7.9	0.20
06-Apr	0.33	<1	<2	<1	7.5	0.13
12-Apr	0.25	<1	<2	<1	8	0.25
19-Apr	0.13	<1	<2	<1	8.2	0.23
28-Apr	0.22	<1	<2	<1	5.7	0.18
02-May	0.03	<1	12	<1	9.7	0.19
05-May	0.39	<1	<2	<1	7.9	0.18
10-May	0.21	<1	<2	<1	9.9	0.27
18-May	0.18	<1	<2	<1	10	0.21
25-May	0.24	<1	2	<1	11	0.31
31-May	0.26	<1	300	<1	9.3	2.70
07-Jun	0.41	<1	<2	<1	9	0.58
14-Jun	0.29	<1	34	<1	7.7	0.53
21-Jun	0.29	<1	6	<1	14	0.22
28-Jun	0.29	<1	8	<1	7.8	0.20
04-Jul	0.43	<1	2	<1	8.2	0.19
11-Jul	0.22	<1	4	<1	8.2	0.21
18-Jul	0.26	<1	2	<1	12	0.19
22-Jul	0.20	<1	8	<1	11	0.38
25-Jul	0.24	<1	<2	<1	14	0.29
03-Aug	0.26	<1	<2	<1	12	0.26
09-Aug	0.39	<1	2	<1	15	0.26
16-Aug	0.27	<1	2	<1	15	0.24
23-Aug	0.24	<1	4	<1	15	0.19
30-Aug	0.28	<1	2	<1	14	0.19
06-Sep	0.11	<1	4	<1	13	0.18
13-Sep	0.24	<1	<2	<1	20	0.22
19-Sep	0.23	<1	2	<1	18	0.16
26-Sep	0.18	<1	2	<1	17	0.19
04-Oct	0.13	<1	<2	<1	14	0.28
11-Oct	0.21	<1	220	<1	13	0.32
17-Oct	0.70	<1	>11000	<1	11	0.18
19-Oct	0.15	<1	2000	<1	12	0.21
24-Oct	0.15	<1	8000	<1	16	0.86
26-Oct	0.03	<1	52	<1	13	0.74
31-Oct	0.01	<1	540	<1	13	0.48
02-Nov	0.51	<1	<2	<1	8.9	0.92
07-Nov	0.09	<1	250	<1	14	0.24
09-Nov	0.13	<1	1000	<1	11	0.20
14-Nov	0.21	<1	420	<1	9.8	1.90
21-Nov	0.20	<1	6	<1	9.3	0.39
28-Nov	0.55	<1	12	<1	9.9	0.48
05-Dec	0.60	<1	<2	<1	8.6	0.26
08-Dec	0.09	<1	1700	<1	8.6	0.28
12-Dec	0.52	<1	40	<1	8.1	0.23
15-Dec	0.23	<1	<2	<1	8.3	0.43
19-Dec	0.20	<1	630	<1	7.6	0.19
29-Dec	0.08	<1	NA	<1	7.5	0.31

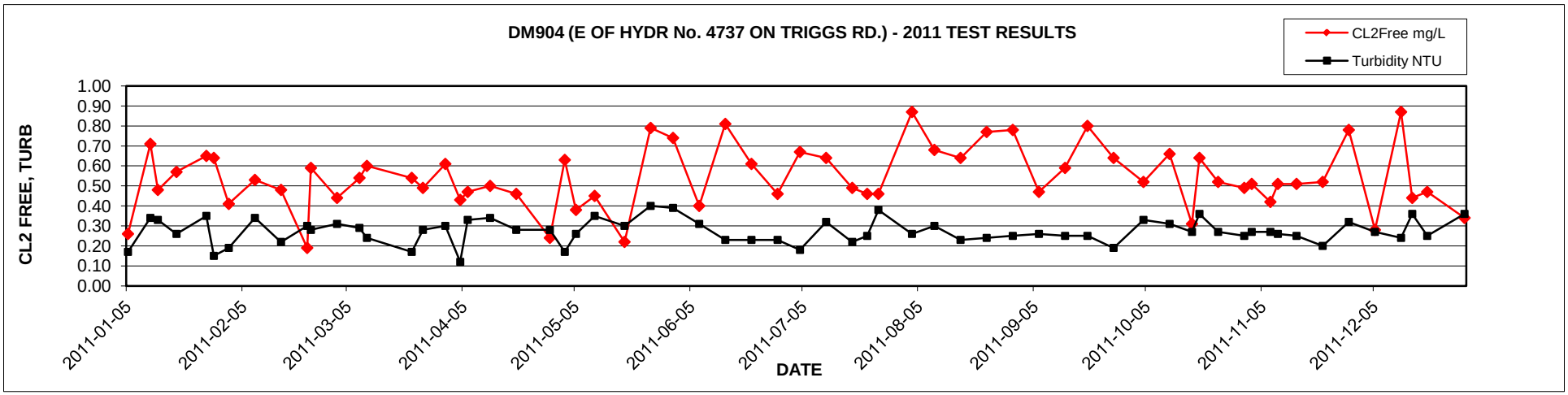

DM903 (192 - 98A AVE BY HYD # 4085) - 2011 TEST RESULTS
HPC CFU/mLs
Temp C
HPC
TEMP
DATE
9000
8000
7000
6000
5000
4000
3000
2000
1000
0
25
20
15
10
5
0
2011-01-05
2011-02-05
2011-03-05
2011-04-05
2011-05-05
2011-06-05
2011-07-05
2011-08-05
2011-09-05
2011-10-05
2011-11-05
2011-12-05


DM903 (192 - 98A AVE BY HYD # 4085) - 2011 TEST RESULTS
CL2Free mg/L
Turbidity NTU
CL2 FREE, TURB
DATE
3.00
2.50
2.00
1.50
1.00
0.50
0.00
2011-01-05
2011-02-05
2011-03-05
2011-04-05
2011-05-05
2011-06-05
2011-07-05
2011-08-05
2011-09-05
2011-10-05
2011-11-05
2011-12-05

2011 GVRD Laboratory Report - DM904 (E OF HYDR No. 4737 ON TRIGGS RD.)

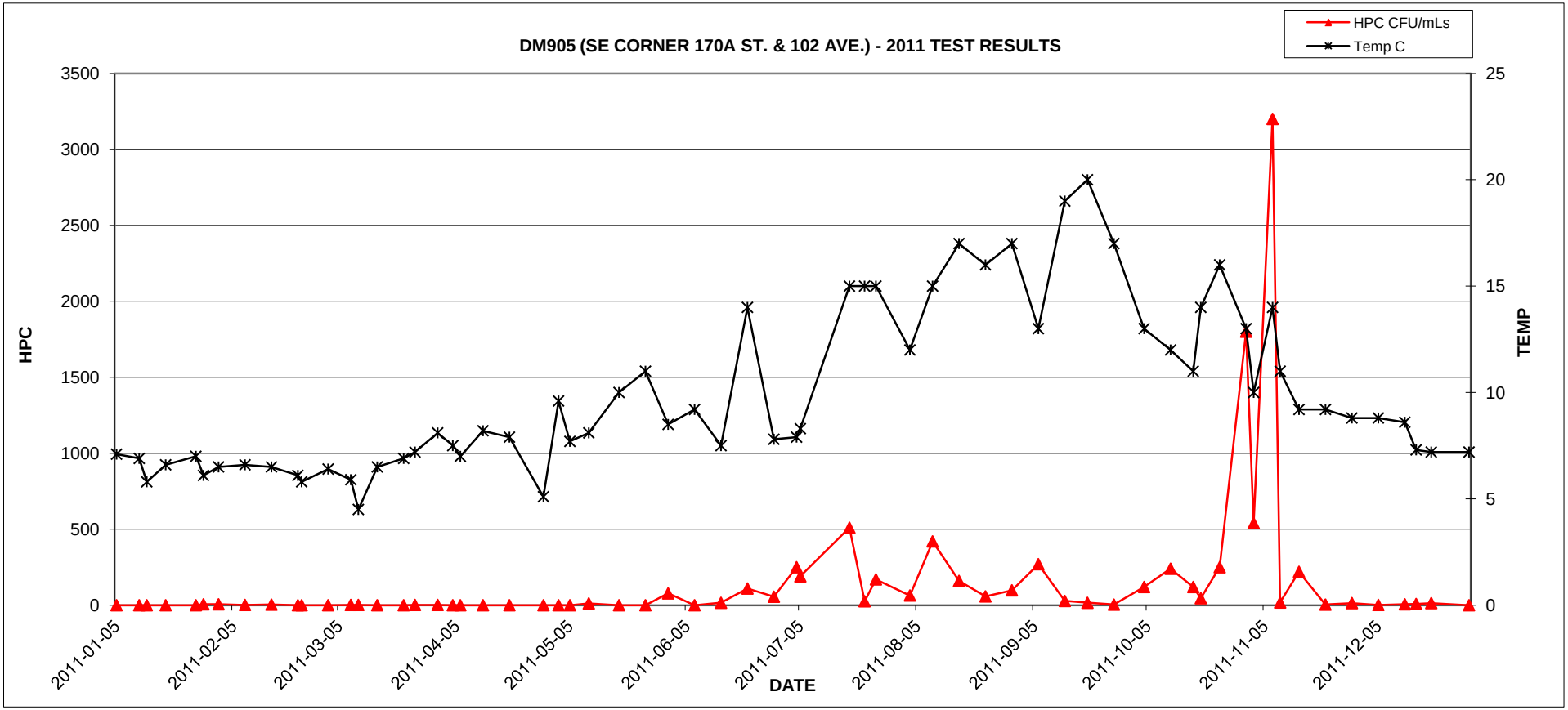
Date Collected	CL2Free mg/L	Ecoli MF/100mLs	HPC CFU/mLs	Tcoli MF/100mLs	Temp C	Turbidity NTU
05-Jan	0.26	<1	<2	<1	6.3	0.17
11-Jan	0.71	<1	<2	<1	5.5	0.34
13-Jan	0.48	<1	<2	<1	5.7	0.33
18-Jan	0.57	<1	<2	<1	7.4	0.26
26-Jan	0.65	<1	<2	<1	6.2	0.35
28-Jan	0.64	<1	<2	<1	5.8	0.15
01-Feb	0.41	<1	<2	<1	4.8	0.19
08-Feb	0.53	<1	<2	<1	5.9	0.34
15-Feb	0.48	<1	<2	<1	5.9	0.22
22-Feb	0.19	<1	<2	<1	5.6	0.30
23-Feb	0.59	<1	<2	<1	5.4	0.28
02-Mar	0.44	<1	<2	<1	5.8	0.31
08-Mar	0.54	<1	2	<1	5.1	0.29
	0.51	<1	<2	<1	5.7	0.14
10-Mar	0.60	<1	<2	<1	4.4	0.24
22-Mar	0.54	<1	<2	<1	5.8	0.17
25-Mar	0.49	<1	<2	<1	7.6	0.28
31-Mar	0.61	<1	<2	<1	7.3	0.30
04-Apr	0.43	<1	<2	<1	7.7	0.12
06-Apr	0.47	<1	<2	<1	7.4	0.33
12-Apr	0.50	<1	<2	<1	6.7	0.34
19-Apr	0.46	<1	<2	<1	7.1	0.28
28-Apr	0.24	<1	<2	<1	5.9	0.28
02-May	0.63	<1	<2	<1	7.8	0.17
05-May	0.38	<1	<2	<1	7	0.26
10-May	0.45	<1	<2	<1	8.8	0.35
18-May	0.22	<1	<2	<1	8.6	0.30
25-May	0.79	<1	<2	<1	9	0.40
31-May	0.74	<1	<2	<1	9.1	0.39
07-Jun	0.40	<1	<2	<1	8.8	0.31
14-Jun	0.81	<1	<2	<1	7.6	0.23
21-Jun	0.61	<1	<2	<1	11	0.23
28-Jun	0.46	<1	4	<1	7.8	0.23
04-Jul	0.67	<1	<2	<1	7.9	0.18
11-Jul	0.64	<1	<2	<1	8.1	0.32
18-Jul	0.49	<1	<2	<1	11	0.22
22-Jul	0.46	<1	<2	<1	11	0.25
25-Jul	0.46	<1	20	<1	13	0.38
03-Aug	0.87	<1	<2	<1	12	0.26
09-Aug	0.68	<1	2	<1	12	0.30
16-Aug	0.64	<1	<2	<1	15	0.23
23-Aug	0.77	<1	<2	<1	15	0.24
30-Aug	0.78	<1	<2	<1	12	0.25
06-Sep	0.47	<1	<2	<1	14	0.26
13-Sep	0.59	<1	<2	<1	17	0.25
19-Sep	0.80	<1	<2	<1	17	0.25
26-Sep	0.64	<1	<2	<1	17	0.19
04-Oct	0.52	<1	<2	<1	13	0.33
11-Oct	0.66	<1	4	<1	12	0.31
17-Oct	0.31	<1	<2	<1	11	0.27
19-Oct	0.64	<1	<2	<1	12	0.36
24-Oct	0.52	<1	<2	<1	16	0.27
31-Oct	0.49	<1	2	<1	13	0.25
02-Nov	0.51	<1	2	<1	11	0.27
07-Nov	0.42	<1	<2	<1	14	0.27
09-Nov	0.51	<1	<2	<1	10	0.26
14-Nov	0.51	<1	2	<1	9.6	0.25
21-Nov	0.52	<1	<2	<1	9	0.20
28-Nov	0.78	<1	<2	<1	8.9	0.32
05-Dec	0.28	<1	<2	<1	8.2	0.27
12-Dec	0.87	<1	<2	<1	8.3	0.24
15-Dec	0.44	<1	<2	<1	7.9	0.36
19-Dec	0.47	<1	<2	<1	7.9	0.25
29-Dec	0.34	<1	NA	<1	6.5	0.36

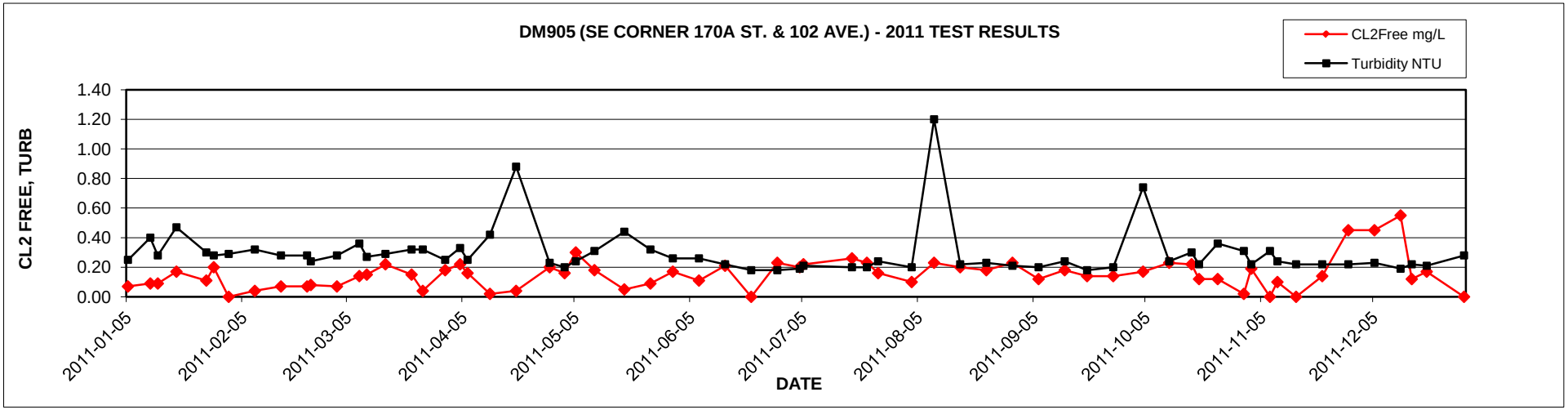

DM904 (E OF HYDR No. 4737 ON TRIGGS RD.) - 2011 TEST RESULTS
HPC CFU/mLs
Temp C
HPC
TEMP
DATE
0
5
10
15
20
25
0
2
4
6
8
10
12
14
16
18
2011-01-05
2011-02-05
2011-03-05
2011-04-05
2011-05-05
2011-06-05
2011-07-05
2011-08-05
2011-09-05
2011-10-05
2011-11-05
2011-12-05


DM904 (E OF HYDR No. 4737 ON TRIGGS RD.) - 2011 TEST RESULTS
CL2Free mg/L
Turbidity NTU
CL2 FREE, TURB
DATE
0.00
0.10
0.20
0.30
0.40
0.50
0.60
0.70
0.80
0.90
1.00
2011-01-05
2011-02-05
2011-03-05
2011-04-05
2011-05-05
2011-06-05
2011-07-05
2011-08-05
2011-09-05
2011-10-05
2011-11-05
2011-12-05

2011 GVRD Laboratory Report - DM905 (SE CORNER 170A ST. & 102 AVE.)

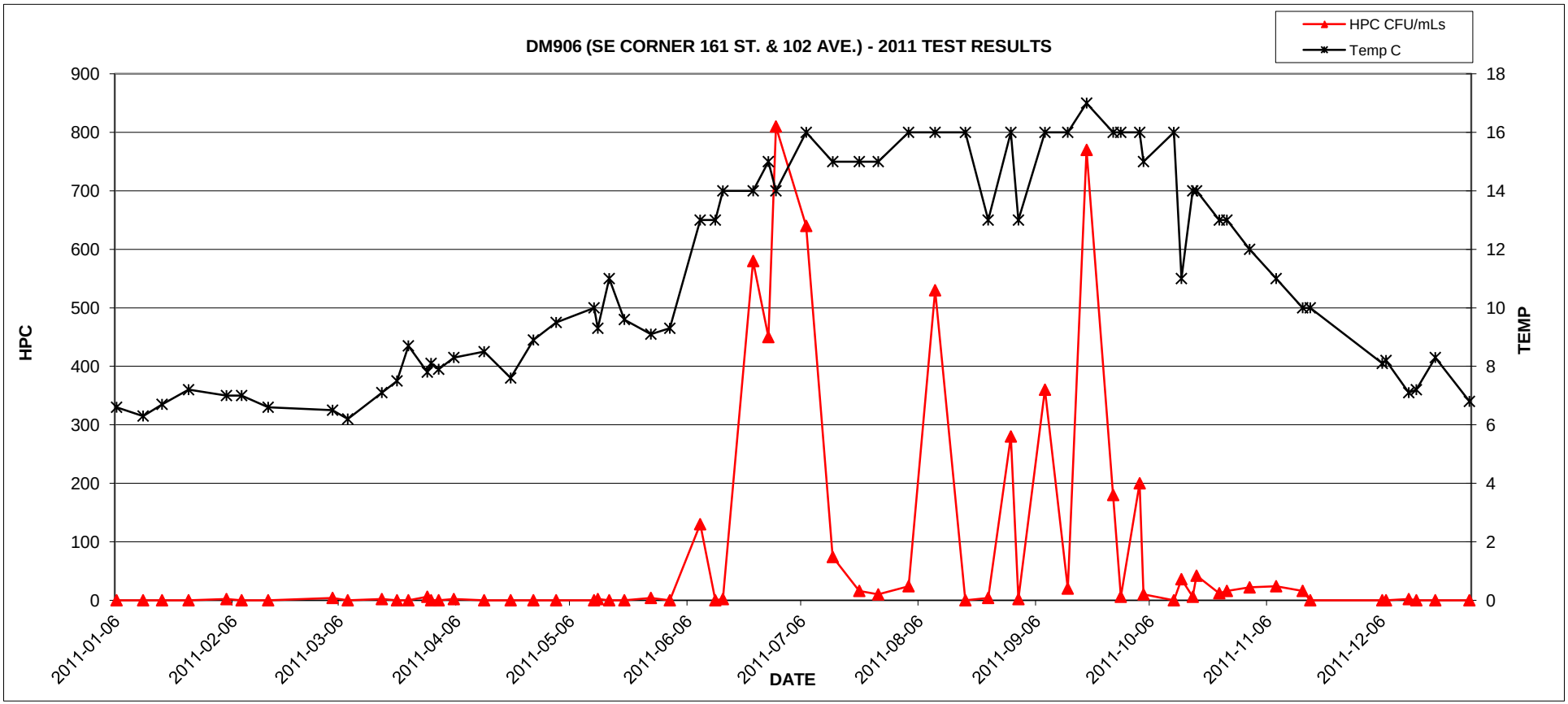
Date Collected	CL2Free mg/L	Ecoli MF/100mLs	HPC CFU/mLs	Tcoli MF/100mLs	Temp C	Turbidity NTU
05-Jan	0.07	<1	<2	<1	7.1	0.25
11-Jan	0.09	<1	<2	<1	6.9	0.40
13-Jan	0.09	<1	<2	<1	5.8	0.28
18-Jan	0.17	<1	<2	<1	6.6	0.47
26-Jan	0.11	<1	<2	<1	7	0.30
28-Jan	0.20	<1	6	<1	6.1	0.28
01-Feb	<0.01	<1	6	<1	6.5	0.29
08-Feb	0.04	<1	2	<1	6.6	0.32
15-Feb	0.07	<1	4	<1	6.5	0.28
22-Feb	0.07	<1	<2	<1	6.1	0.28
23-Feb	0.08	<1	<2	<1	5.8	0.24
02-Mar	0.07	<1	<2	<1	6.4	0.28
08-Mar	0.14	<1	2	<1	5.9	0.36
15-Mar	0.22	<1	<2	<1	6.5	0.29
10-Mar	0.15	<1	2	<1	4.5	0.27
22-Mar	0.15	<1	<2	<1	6.9	0.32
25-Mar	0.04	<1	2	<1	7.2	0.32
31-Mar	0.18	<1	2	<1	8.1	0.25
04-Apr	0.22	<1	<2	<1	7.5	0.33
06-Apr	0.16	<1	<2	<1	7	0.25
12-Apr	0.02	<1	<2	<1	8.2	0.42
19-Apr	0.04	<1	<2	<1	7.9	0.88
28-Apr	0.20	<1	<2	<1	5.1	0.23
02-May	0.16	<1	<2	<1	9.6	0.20
05-May	0.30	<1	<2	<1	7.7	0.24
10-May	0.18	<1	12	<1	8.1	0.31
18-May	0.05	<1	<2	<1	10	0.44
25-May	0.09	<1	<2	<1	11	0.32
31-May	0.17	<1	78	<1	8.5	0.26
07-Jun	0.11	<1	<2	<1	9.2	0.26
14-Jun	0.21	<1	16	<1	7.5	0.22
21-Jun	<0.01	<1	110	<1	14	0.18
28-Jun	0.23	<1	56	<1	7.8	0.18
04-Jul	0.20	<1	250	<1	7.9	0.19
05-Jul	0.22	<1	190	<1	8.3	0.21
18-Jul	0.26	<1	510	<1	15	0.20
22-Jul	0.23	<1	26	<1	15	0.20
25-Jul	0.16	<1	170	<1	15	0.24
03-Aug	0.10	<1	64	<1	12	0.20
09-Aug	0.23	<1	420	<1	15	1.20
16-Aug	0.20	<1	160	<1	17	0.22
23-Aug	0.18	<1	58	<1	16	0.23
30-Aug	0.23	<1	98	<1	17	0.21
06-Sep	0.12	<1	270	<1	13	0.20
13-Sep	0.18	<1	28	<1	19	0.24
19-Sep	0.14	<1	16	<1	20	0.18
26-Sep	0.14	<1	4	<1	17	0.20
04-Oct	0.17	<1	120	<1	13	0.74
11-Oct	0.23	<1	240	<1	12	0.24
17-Oct	0.22	<1	120	<1	11	0.30
19-Oct	0.12	<1	46	<1	14	0.22
24-Oct	0.12	<1	250	<1	16	0.36
31-Oct	0.02	<1	1800	<1	13	0.31
02-Nov	0.19	<1	540	<1	10	0.22
07-Nov	<0.01	<1	3200	<1	14	0.31
09-Nov	0.10	<1	18	<1	11	0.24
14-Nov	<0.01	<1	220	<1	9.2	0.22
21-Nov	0.14	<1	4	<1	9.2	0.22
28-Nov	0.45	<1	14	<1	8.8	0.22
05-Dec	0.45	<1	2	<1	8.8	0.23
12-Dec	0.55	<1	6	<1	8.6	0.19
15-Dec	0.12	<1	8	<1	7.3	0.22
19-Dec	0.17	<1	14	<1	7.2	0.21
29-Dec	<0.01	<1	NA	<1	7.2	0.28

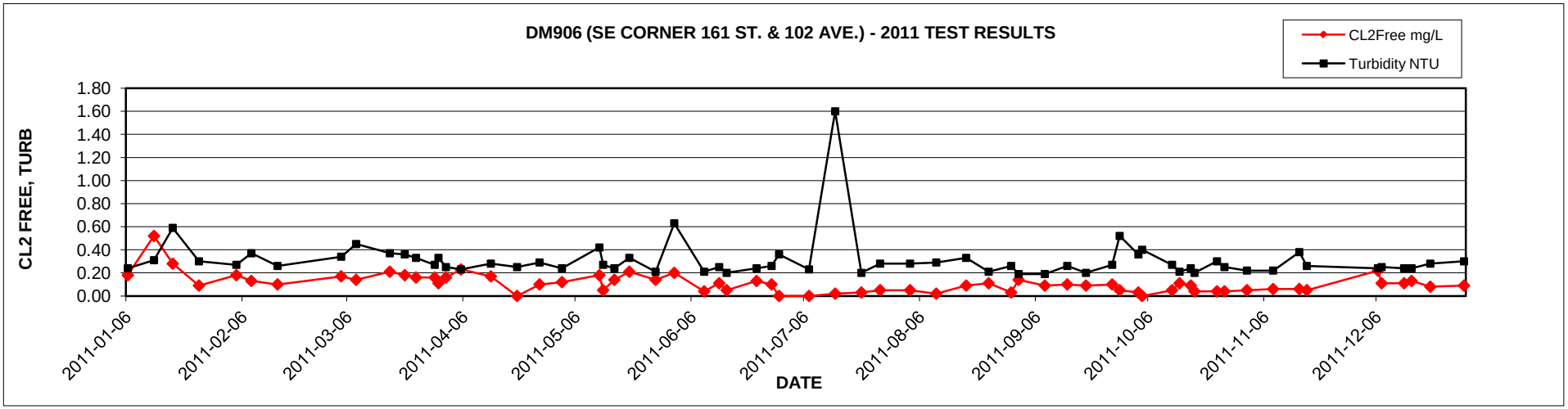

DM905 (SE CORNER 170A ST. & 102 AVE.) - 2011 TEST RESULTS
HPC CFU/mLs
Temp C
HPC
TEMP
DATE
3500
3000
2500
2000
1500
1000
500
0
25
20
15
10
5
0
2011-01-05
2011-02-05
2011-03-05
2011-04-05
2011-05-05
2011-06-05
2011-07-05
2011-08-05
2011-09-05
2011-10-05
2011-11-05
2011-12-05


DM905 (SE CORNER 170A ST. & 102 AVE.) - 2011 TEST RESULTS
CL2Free mg/L
Turbidity NTU
CL2 FREE, TURB
DATE
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
2011-01-05
2011-02-05
2011-03-05
2011-04-05
2011-05-05
2011-06-05
2011-07-05
2011-08-05
2011-09-05
2011-10-05
2011-11-05
2011-12-05

2011 GVRD Laboratory Report - DM906 (SE CORNER 161 ST. & 102 AVE.)

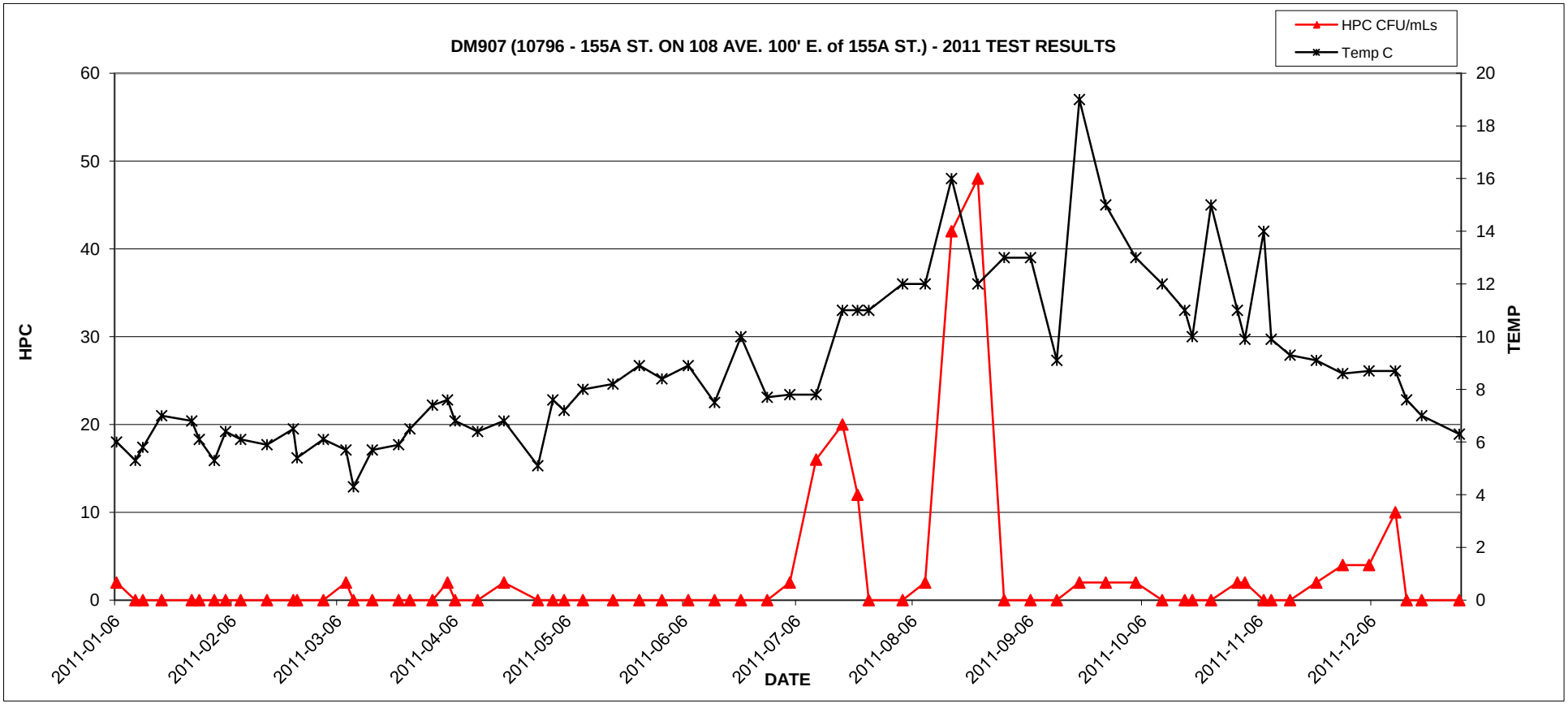
Date Collected	CL2Free mg/L	Ecoli MF/100mLs	HPC CFU/mLs	Tcoli MF/100mLs	Temp C	Turbidity NTU
06-Jan	0.18	<1	<2	<1	6.6	0.24
13-Jan	0.52	<1	<2	<1	6.3	0.31
18-Jan	0.28	<1	<2	<1	6.7	0.59
25-Jan	0.09	<1	<2	<1	7.2	0.30
04-Feb	0.18	<1	2	<1	7	0.27
08-Feb	0.13	<1	<2	<1	7	0.37
15-Feb	0.10	<1	<2	<1	6.6	0.26
04-Mar	0.17	<1	4	<1	6.5	0.34
08-Mar	0.14	<1	<2	<1	6.2	0.45
17-Mar	0.21	<1	2	<1	7.1	0.37
21-Mar	0.18	<1	<2	<1	7.5	0.36
24-Mar	0.16	<1	<2	<1	8.7	0.33
29-Mar	0.16	<1	6	<1	7.8	0.27
30-Mar	0.11	<1	<2	<1	8.1	0.33
01-Apr	0.16	<1	<2	<1	7.9	0.25
05-Apr	0.23	<1	2	<1	8.3	0.23
13-Apr	0.17	<1	<2	<1	8.5	0.28
20-Apr	<0.01	<1	<2	<1	7.6	0.25
26-Apr	0.10	<1	<2	<1	8.9	0.29
02-May	0.12	<1	<2	<1	9.5	0.24
13-May	0.05	<1	2	<1	9.3	0.27
12-May	0.18	<1	<2	<1	10	0.42
20-May	0.21	<1	<2	<1	9.6	0.33
16-May	0.14	<1	<2	<1	11	0.24
27-May	0.14	<1	4	<1	9.1	0.21
01-Jun	0.20	<1	<2	<1	9.3	0.63
09-Jun	0.04	<1	130	<1	13	0.21
13-Jun	0.11	<1	<2	<1	13	0.25
15-Jun	0.05	<1	2	<1	14	0.20
23-Jun	0.13	<1	580	<1	14	0.24
27-Jun	0.10	<1	450	<1	15	0.26
29-Jun	<0.01	<1	810	<1	14	0.36
07-Jul	<0.01	<1	640	<1	16	0.23
14-Jul	0.02	<1	74	<1	15	1.60
21-Jul	0.03	<1	16	<1	15	0.20
26-Jul	0.05	<1	10	<1	15	0.28
03-Aug	0.05	<1	24	<1	16	0.28
10-Aug	0.02	<1	530	<1	16	0.29
18-Aug	0.09	<1	<2	<1	16	0.33
24-Aug	0.11	<1	4	<1	13	0.21
30-Aug	0.03	<1	280	<1	16	0.26
01-Sep	0.14	<1	2	<1	13	0.19
08-Sep	0.09	<1	360	<1	16	0.19
14-Sep	0.10	<1	20	<1	16	0.26
19-Sep	0.09	<1	770	<1	17	0.20
26-Sep	0.10	<1	180	<1	16	0.27
28-Sep	0.05	<1	6	<1	16	0.52
03-Oct	0.03	<1	200	<1	16	0.36
04-Oct	<0.01	<1	10	<1	15	0.40
12-Oct	0.05	<1	<2	<1	16	0.27
14-Oct	0.11	<1	36	<1	11	0.21
17-Oct	0.09	<1	6	<1	14	0.24
18-Oct	0.04	<1	42	<1	14	0.20
24-Oct	0.04	<1	12	<1	13	0.30
26-Oct	0.04	<1	16	<1	13	0.25
01-Nov	0.05	<1	22	<1	12	0.22
08-Nov	0.06	<1	24	<1	11	0.22
15-Nov	0.06	<1	16	<1	10	0.38
17-Nov	0.05	<1	<2	<1	10	0.26
06-Dec	0.22	<1	<2	<1	8.1	0.24
07-Dec	0.11	<1	<2	<1	8.2	0.25
13-Dec	0.11	<1	2	<1	7.1	0.24
15-Dec	0.13	<1	<2	<1	7.2	0.24
20-Dec	0.08	<1	<2	<1	8.3	0.28
29-Dec	0.09	<1	NA	<1	6.8	0.30

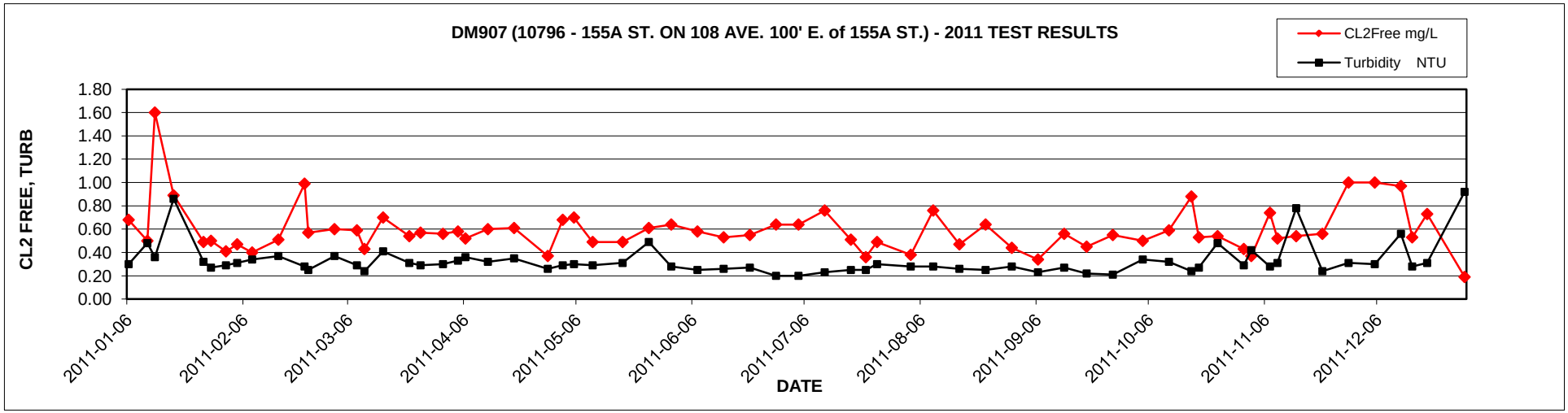

DM906 (SE CORNER 161 ST. & 102 AVE.) - 2011 TEST RESULTS
HPC CFU/mLs
Temp C
HPC
TEMP
DATE
900
800
700
600
500
400
300
200
100
0
18
16
14
12
10
8
6
4
2
0
2011-01-06
2011-02-06
2011-03-06
2011-04-06
2011-05-06
2011-06-06
2011-07-06
2011-08-06
2011-09-06
2011-10-06
2011-11-06
2011-12-06


DM906 (SE CORNER 161 ST. & 102 AVE.) - 2011 TEST RESULTS
CL2Free mg/L
Turbidity NTU
CL2 FREE, TURB
DATE
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
2011-01-06
2011-02-06
2011-03-06
2011-04-06
2011-05-06
2011-06-06
2011-07-06
2011-08-06
2011-09-06
2011-10-06
2011-11-06
2011-12-06

2011 GVRD Laboratory Report - DM907 (10796 - 155A ST. ON 108 AVE. 100' E. of 155A ST.)

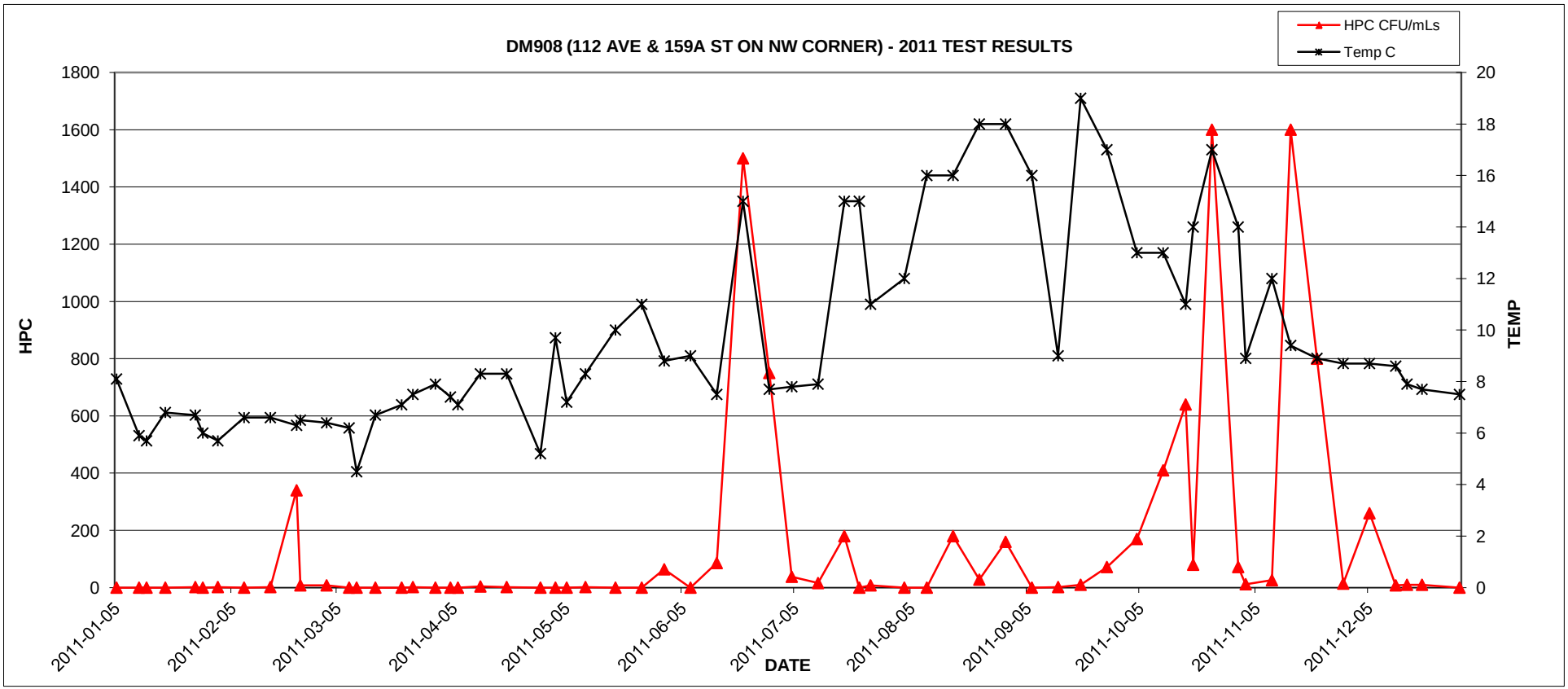
Date Collected	CL2Free mg/L	Ecoli MF/100mLs	HPC CFU/mLs	Tcoli MF/100mLs	Temp C	Turbidity NTU
06-Jan	0.68	<1	2	<1	6	0.30
11-Jan	0.50	<1	<2	<1	5.3	0.48
13-Jan	1.60	<1	<2	<1	5.8	0.36
18-Jan	0.89	<1	<2	<1	7	0.86
26-Jan	0.49	<1	<2	<1	6.8	0.32
28-Jan	0.50	<1	<2	<1	6.1	0.27
01-Feb	0.41	<1	<2	<1	5.3	0.29
04-Feb	0.47	<1	<2	<1	6.4	0.31
08-Feb	0.40	<1	<2	<1	6.1	0.34
15-Feb	0.51	<1	<2	<1	5.9	0.37
22-Feb	0.99	<1	<2	<1	6.5	0.28
23-Feb	0.57	<1	<2	<1	5.4	0.25
02-Mar	0.60	<1	<2	<1	6.1	0.37
08-Mar	0.59	<1	2	<1	5.7	0.29
15-Mar	0.70	<1	<2	<1	5.7	0.41
10-Mar	0.43	<1	<2	<1	4.3	0.24
22-Mar	0.54	<1	<2	<1	5.9	0.31
25-Mar	0.57	<1	<2	<1	6.5	0.29
31-Mar	0.56	<1	<2	<1	7.4	0.30
04-Apr	0.58	<1	2	<1	7.6	0.33
06-Apr	0.52	<1	<2	<1	6.8	0.36
12-Apr	0.60	<1	<2	<1	6.4	0.32
19-Apr	0.61	<1	2	<1	6.8	0.35
28-Apr	0.37	<1	<2	<1	5.1	0.26
02-May	0.68	<1	<2	<1	7.6	0.29
05-May	0.70	<1	<2	<1	7.2	0.30
10-May	0.49	<1	<2	<1	8	0.29
18-May	0.49	<1	<2	<1	8.2	0.31
25-May	0.61	<1	<2	<1	8.9	0.49
31-May	0.64	<1	<2	<1	8.4	0.28
07-Jun	0.58	<1	<2	<1	8.9	0.25
14-Jun	0.53	<1	<2	<1	7.5	0.26
21-Jun	0.55	<1	<2	<1	10	0.27
28-Jun	0.64	<1	<2	<1	7.7	0.20
04-Jul	0.64	<1	2	<1	7.8	0.20
11-Jul	0.76	<1	16	<1	7.8	0.23
18-Jul	0.51	<1	20	<1	11	0.25
22-Jul	0.36	<1	12	<1	11	0.25
25-Jul	0.49	<1	<2	<1	11	0.30
03-Aug	0.38	<1	<2	<1	12	0.28
09-Aug	0.76	<1	2	<1	12	0.28
16-Aug	0.47	<1	42	<1	16	0.26
23-Aug	0.64	<1	48	<1	12	0.25
30-Aug	0.44	<1	<2	<1	13	0.28
06-Sep	0.34	<1	<2	<1	13	0.23
13-Sep	0.56	<1	<2	<1	9.1	0.27
19-Sep	0.45	<1	2	<1	19	0.22
26-Sep	0.55	<1	2	<1	15	0.21
04-Oct	0.50	<1	2	<1	13	0.34
11-Oct	0.59	<1	<2	<1	12	0.32
17-Oct	0.88	<1	<2	<1	11	0.24
19-Oct	0.53	<1	<2	<1	10	0.27
24-Oct	0.54	<1	<2	<1	15	0.48
31-Oct	0.43	<1	2	<1	11	0.29
02-Nov	0.37	<1	2	<1	9.9	0.42
07-Nov	0.74	<1	<2	<1	14	0.28
09-Nov	0.52	<1	<2	<1	9.9	0.31
14-Nov	0.54	<1	<2	<1	9.3	0.78
21-Nov	0.56	<1	2	<1	9.1	0.24
28-Nov	1.00	<1	4	<1	8.6	0.31
05-Dec	1.00	<1	4	<1	8.7	0.30
12-Dec	0.97	<1	10	<1	8.7	0.56
15-Dec	0.53	<1	<2	<1	7.6	0.28
19-Dec	0.73	<1	<2	<1	7	0.31
29-Dec	0.19	<1	NA	<1	6.3	0.92

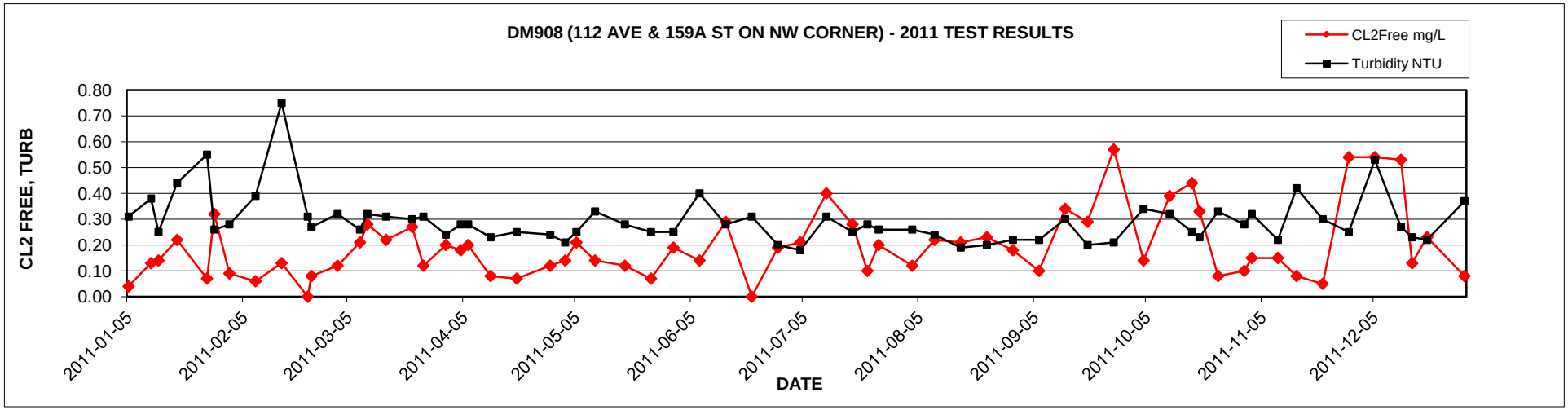

DM907 (10796 - 155A ST. ON 108 AVE. 100' E. of 155A ST.) - 2011 TEST RESULTS
HPC CFU/mLs
Temp C
HPC
TEMP
DATE
0
10
20
30
40
50
60
0
2
4
6
8
10
12
14
16
18
20
2011-01-06
2011-02-06
2011-03-06
2011-04-06
2011-05-06
2011-06-06
2011-07-06
2011-08-06
2011-09-06
2011-10-06
2011-11-06
2011-12-06


DM907 (10796 - 155A ST. ON 108 AVE. 100' E. of 155A ST.) - 2011 TEST RESULTS
CL2Free mg/L
Turbidity NTU
CL2 FREE, TURB
DATE
0.00
0.20
0.40
0.60
0.80
1.00
1.20
1.40
1.60
1.80
2011-01-06
2011-02-06
2011-03-06
2011-04-06
2011-05-06
2011-06-06
2011-07-06
2011-08-06
2011-09-06
2011-10-06
2011-11-06
2011-12-06

2011 GVRD Laboratory Report - DM908 (112 AVE & 159A ST ON NW CORNER)

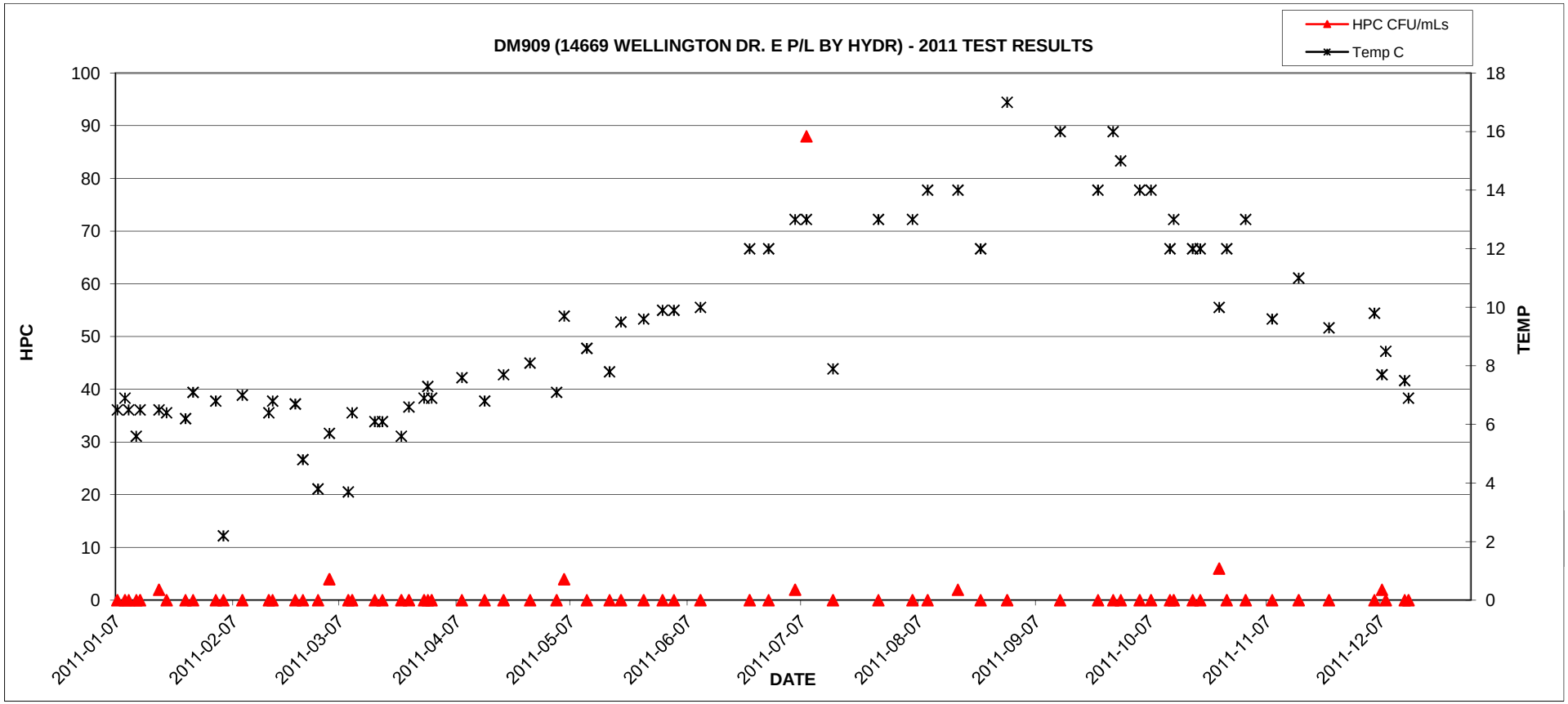
Date Collected	CL2Free mg/L	Ecoli MF/100mLs	HPC CFU/mLs	Tcoli MF/100mLs	Temp C	Turbidity NTU
05-Jan	0.04	<1	<2	<1	8.1	0.31
11-Jan	0.13	<1	<2	<1	5.9	0.38
13-Jan	0.14	<1	<2	<1	5.7	0.25
18-Jan	0.22	<1	<2	<1	6.8	0.44
26-Jan	0.07	<1	2	<1	6.7	0.55
28-Jan	0.32	<1	<2	<1	6	0.26
01-Feb	0.09	<1	2	<1	5.7	0.28
08-Feb	0.06	<1	<2	<1	6.6	0.39
15-Feb	0.13	<1	2	<1	6.6	0.75
22-Feb	<0.01	<1	340	<1	6.3	0.31
23-Feb	0.08	<1	8	<1	6.5	0.27
02-Mar	0.12	<1	8	<1	6.4	0.32
08-Mar	0.21	<1	<2	<1	6.2	0.26
15-Mar	0.22	<1	<2	<1	6.7	0.31
10-Mar	0.28	<1	<2	<1	4.5	0.32
22-Mar	0.27	<1	<2	<1	7.1	0.30
25-Mar	0.12	<1	2	<1	7.5	0.31
31-Mar	0.20	<1	<2	<1	7.9	0.24
04-Apr	0.18	<1	<2	<1	7.4	0.28
06-Apr	0.20	<1	<2	<1	7.1	0.28
12-Apr	0.08	<1	4	<1	8.3	0.23
19-Apr	0.07	<1	2	<1	8.3	0.25
28-Apr	0.12	<1	<2	<1	5.2	0.24
02-May	0.14	<1	<2	<1	9.7	0.21
05-May	0.21	<1	<2	<1	7.2	0.25
10-May	0.14	<1	2	<1	8.3	0.33
18-May	0.12	<1	<2	<1	10	0.28
25-May	0.07	<1	<2	<1	11	0.25
31-May	0.19	<1	64	<1	8.8	0.25
07-Jun	0.14	<1	<2	<1	9	0.40
14-Jun	0.29	<1	86	<1	7.5	0.28
21-Jun	<0.01	<1	1500	<1	15	0.31
28-Jun	0.19	<1	750	<1	7.7	0.20
04-Jul	0.21	<1	38	<1	7.8	0.18
11-Jul	0.40	<1	16	<1	7.9	0.31
18-Jul	0.28	<1	180	<1	15	0.25
22-Jul	0.10	<1	<2	<1	15	0.28
25-Jul	0.20	<1	8	<1	11	0.26
03-Aug	0.12	<1	<2	<1	12	0.26
09-Aug	0.22	<1	<2	<1	16	0.24
16-Aug	0.21	<1	180	<1	16	0.19
23-Aug	0.23	<1	28	<1	18	0.20
30-Aug	0.18	<1	160	<1	18	0.22
06-Sep	0.10	<1	<2	<1	16	0.22
13-Sep	0.34	<1	2	<1	9	0.30
19-Sep	0.29	<1	10	<1	19	0.20
26-Sep	0.57	<1	72	<1	17	0.21
04-Oct	0.14	<1	170	<1	13	0.34
11-Oct	0.39	<1	410	<1	13	0.32
17-Oct	0.44	<1	640	<1	11	0.25
19-Oct	0.33	<1	80	<1	14	0.23
24-Oct	0.08	<1	1600	<1	17	0.33
31-Oct	0.10	<1	72	<1	14	0.28
02-Nov	0.15	<1	12	<1	8.9	0.32
09-Nov	0.15	<1	26	<1	12	0.22
14-Nov	0.08	<1	1600	<1	9.4	0.42
21-Nov	0.05	<1	800	<1	8.9	0.30
28-Nov	0.54	<1	14	<1	8.7	0.25
05-Dec	0.54	<1	260	<1	8.7	0.53
12-Dec	0.53	<1	8	<1	8.6	0.27
15-Dec	0.13	<1	10	<1	7.9	0.23
19-Dec	0.23	<1	10	<1	7.7	0.22
29-Dec	0.08	<1	NA	<1	7.5	0.37

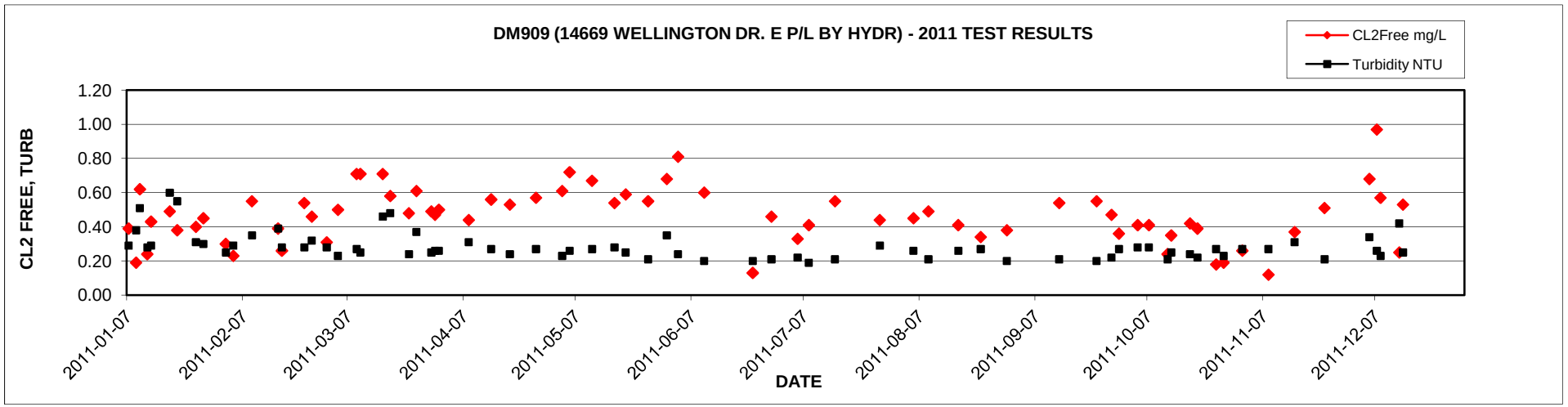

DM908 (112 AVE & 159A ST ON NW CORNER) - 2011 TEST RESULTS
HPC CFU/mLs
Temp C
HPC
TEMP
DATE
1800
1600
1400
1200
1000
800
600
400
200
0
20
18
16
14
12
10
8
6
4
2
0
2011-01-05
2011-02-05
2011-03-05
2011-04-05
2011-05-05
2011-06-05
2011-07-05
2011-08-05
2011-09-05
2011-10-05
2011-11-05
2011-12-05


DM908 (112 AVE & 159A ST ON NW CORNER) - 2011 TEST RESULTS
CL2Free mg/L
Turbidity NTU
CL2 FREE, TURB
DATE
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
2011-01-05
2011-02-05
2011-03-05
2011-04-05
2011-05-05
2011-06-05
2011-07-05
2011-08-05
2011-09-05
2011-10-05
2011-11-05
2011-12-05

2011 GVRD Laboratory Report - DM909 (14669 WELLINGTON DR. E P/L BY HYDR)

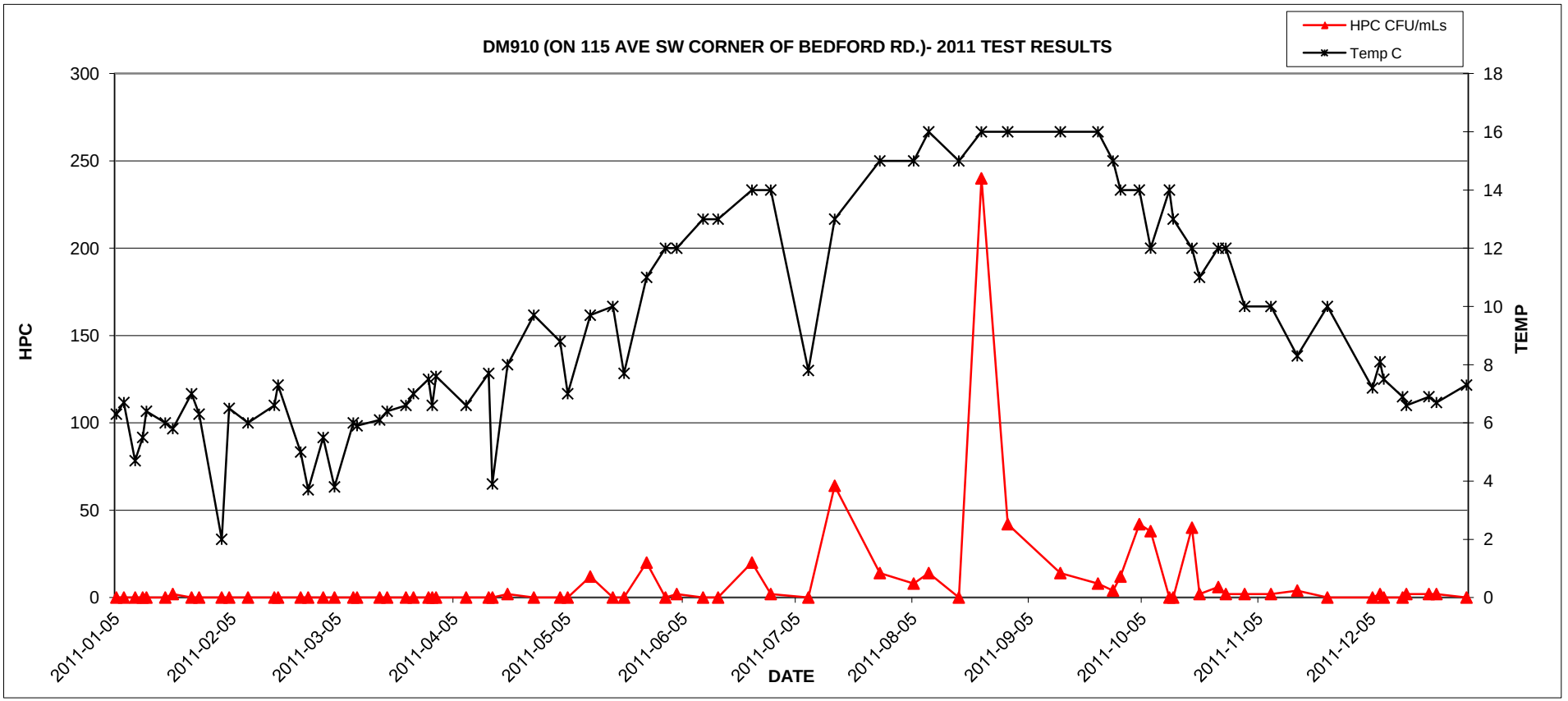
Date Collected	CL2Free mg/L	Ecoli MF/100mLs	HPC CFU/mLs	Tcoli MF/100mLs	Temp C	Turbidity NTU
05-Jan	0.35	<1	<2	<1	6.5	0.25
07-Jan	0.39	LA	<2	LA	6.9	0.29
09-Jan	0.19	<1	<2	<1	6.5	0.38
10-Jan	0.62	<1	<2	<1	5.6	0.51
12-Jan	0.24	<1	<2	<1	6.5	0.28
13-Jan	0.43	<1	2	<1	6.5	0.29
18-Jan	0.49	<1	<2	<1	6.4	0.60
20-Jan	0.38	<1	<2	<1	6.2	0.55
25-Jan	0.40	<1	<2	<1	7.1	0.31
27-Jan	0.45	<1	<2	<1	6.8	0.30
02-Feb	0.30	<1	<2	<1	2.2	0.25
04-Feb	0.23	<1	<2	<1	7	0.29
09-Feb	0.55	<1	<2	<1	6.4	0.35
16-Feb	0.39	<1	<2	<1	6.8	0.39
17-Feb	0.26	<1	<2	<1	6.7	0.28
23-Feb	0.54	<1	<2	<1	4.8	0.28
25-Feb	0.46	<1	<2	<1	3.8	0.32
01-Mar	0.31	<1	4	<1	5.7	0.28
04-Mar	0.50	<1	<2	<1	3.7	0.23
09-Mar	0.71	<1	<2	<1	6.1	0.27
16-Mar	0.71	<1	<2	<1	6.4	0.46
10-Mar	0.71	<1	<2	<1	6.1	0.25
18-Mar	0.58	<1	<2	<1	5.6	0.48
23-Mar	0.48	<1	<2	<1	6.6	0.24
25-Mar	0.61	<1	<2	<1	6.9	0.37
29-Mar	0.49	<1	<2	<1	7.3	0.25
30-Mar	0.47	<1	<2	<1	6.9	0.26
31-Mar	0.50	<1	<2	<1	7.6	0.26
08-Apr	0.44	<1	<2	<1	6.8	0.31
14-Apr	0.56	<1	<2	<1	7.7	0.27
19-Apr	0.53	<1	<2	<1	8.1	0.24
26-Apr	0.57	<1	4	<1	9.7	0.27
05-May	0.72	<1	<2	<1	7.1	0.26
03-May	0.61	<1	<2	<1	8.6	0.23
11-May	0.67	<1	<2	<1	9.5	0.27
20-May	0.59	<1	<2	<1	7.8	0.25
17-May	0.54	<1	<2	<1	9.6	0.28
26-May	0.55	<1	<2	<1	9.9	0.21
31-May	0.68	<1	<2	<1	9.9	0.35
03-Jun	0.81	<1	<2	<1	10	0.24
10-Jun	0.60	<1	<2	<1	12	0.20
00-Jan	0.41	<1	<1	<1	12	0.20
23-Jun	0.13	<1	<2	<1	12	0.20
28-Jun	0.46	<1	2	<1	13	0.21
05-Jul	0.33	<1	88	<1	13	0.22
08-Jul	0.41	<1	<2	<1	7.9	0.19
15-Jul	0.55	<1	<2	<1	13	0.21
27-Jul	0.44	<1	<2	<1	13	0.29
05-Aug	0.45	<1	<2	<1	14	0.26
09-Aug	0.49	<1	2	<1	14	0.21
17-Aug	0.41	<1	<2	<1	12	0.26
23-Aug	0.34	<1	<2	<1	17	0.27
30-Aug	0.38	<1	<2	<1	16	0.20
13-Sep	0.54	<1	<2	<1	14	0.21
23-Sep	0.55	<1	<2	<1	16	0.20
27-Sep	0.47	<1	<2	<1	15	0.22
29-Sep	0.36	<1	<2	<1	14	0.27
04-Oct	0.41	<1	<2	<1	14	0.28
07-Oct	0.41	<1	<2	<1	12	0.28
12-Oct	0.24	<1	<2	<1	13	0.21
13-Oct	0.35	<1	<2	<1	12	0.25
18-Oct	0.42	<1	<2	<1	12	0.24
20-Oct	0.39	<1	6	<1	10	0.22
25-Oct	0.18	<1	<2	<1	12	0.27
27-Oct	0.19	<1	<2	<1	13	0.23
01-Nov	0.26	<1	<2	<1	9.6	0.27
08-Nov	0.12	<1	<2	<1	11	0.27
15-Nov	0.37	<1	<2	<1	9.3	0.31
23-Nov	0.51	<1	<2	<1	9.8	0.21
05-Dec	0.68	<1	2	<1	7.7	0.34
07-Dec	0.97	<1	<2	<1	8.5	0.26
08-Dec	0.57	<1	<2	<1	7.5	0.23
13-Dec	0.25	<1	<2	<1	6.9	0.42
14-Dec	0.53	<1	<2	<1	7.1	0.25
20-Dec	0.50	<1	<2	<1	6.9	0.76
22-Dec	0.28	<1	<2	<1	6.9	0.22
30-Dec	0.28	<1	NA	<1	7.3	0.56

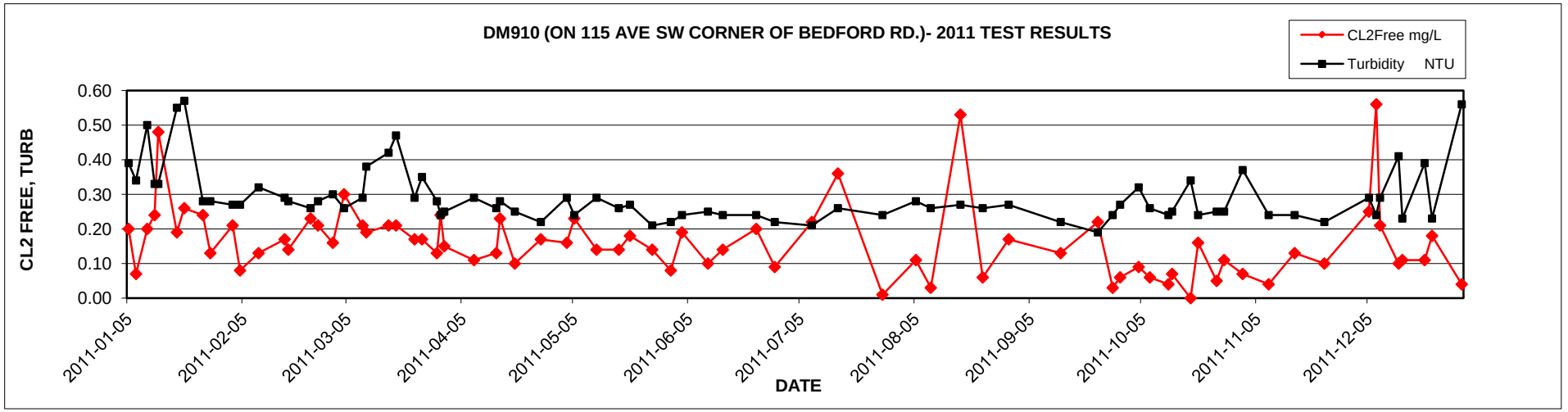

DM909 (14669 WELLINGTON DR. E P/L BY HYDR) - 2011 TEST RESULTS
HPC CFU/mLs
Temp C
HPC
TEMP
DATE
0
10
20
30
40
50
60
70
80
90
100
0
2
4
6
8
10
12
14
16
18
2011-01-07
2011-02-07
2011-03-07
2011-04-07
2011-05-07
2011-06-07
2011-07-07
2011-08-07
2011-09-07
2011-10-07
2011-11-07
2011-12-07


DM909 (14669 WELLINGTON DR. E P/L BY HYDR) - 2011 TEST RESULTS
CL2Free mg/L
Turbidity NTU
CL2 FREE, TURB
DATE
0.00
0.20
0.40
0.60
0.80
1.00
1.20
2011-01-07
2011-02-07
2011-03-07
2011-04-07
2011-05-07
2011-06-07
2011-07-07
2011-08-07
2011-09-07
2011-10-07
2011-11-07
2011-12-07

2011 GVRD Laboratory Report - DM910 (ON 115 AVE SW CORNER OF BEDFORD RD.)

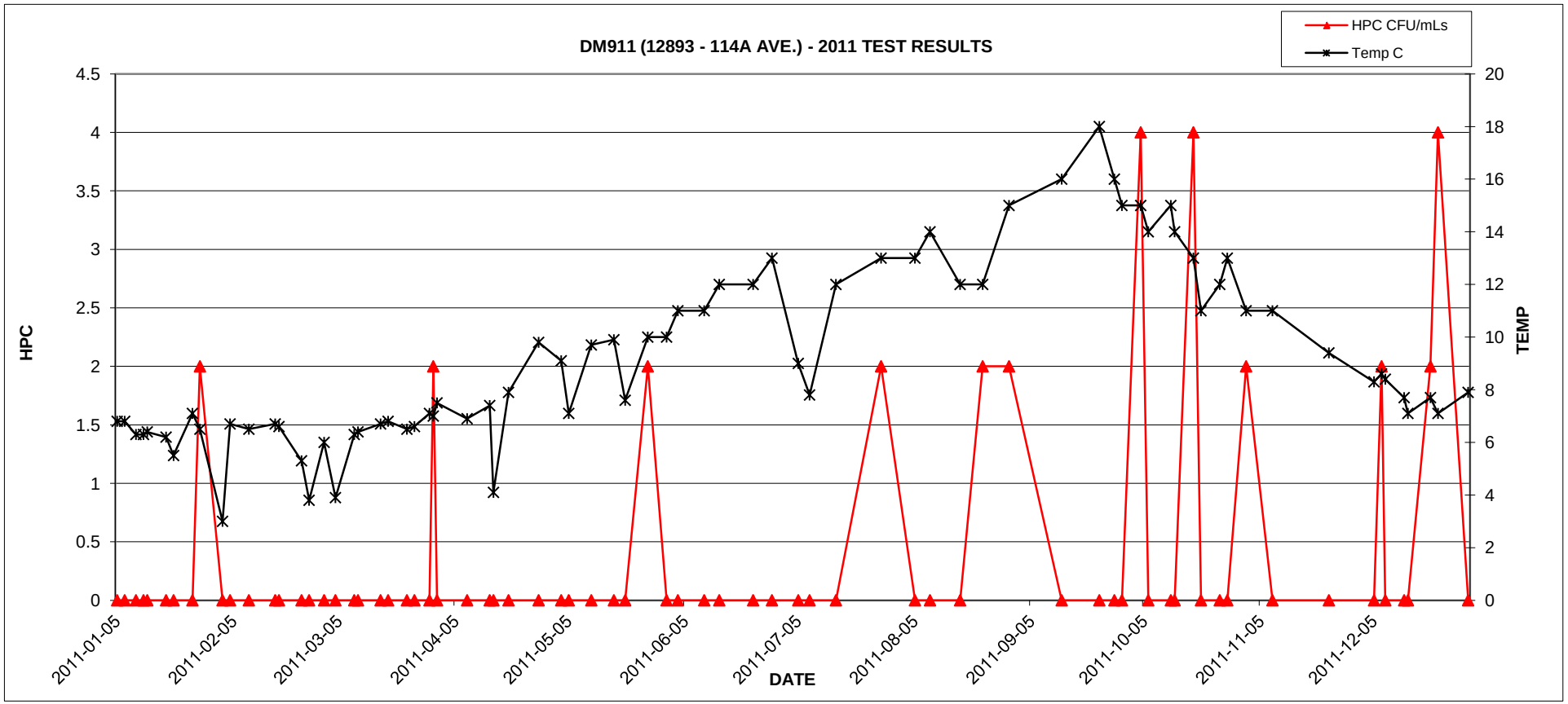
Date Collected	CL2Free mg/L	Ecoli MF/100mLs	HPC CFU/mLs	Tcoli MF/100mLs	Temp C	Turbidity NTU
05-Jan	0.20	<1	<2	<1	6.3	0.39
07-Jan	0.07	<1	<2	<1	6.7	0.34
10-Jan	0.20	<1	<2	<1	4.7	0.50
12-Jan	0.24	<1	<2	<1	5.5	0.33
13-Jan	0.48	<1	<2	<1	6.4	0.33
18-Jan	0.19	<1	<2	<1	6	0.55
20-Jan	0.26	<1	2	<1	5.8	0.57
25-Jan	0.24	<1	<2	<1	7	0.28
27-Jan	0.13	<1	<2	<1	6.3	0.28
02-Feb	0.21	<1	<2	<1	2	0.27
04-Feb	0.08	<1	<2	<1	6.5	0.27
09-Feb	0.13	<1	<2	<1	6	0.32
16-Feb	0.17	<1	<2	<1	6.6	0.29
17-Feb	0.14	<1	<2	<1	7.3	0.28
23-Feb	0.23	<1	<2	<1	5	0.26
25-Feb	0.21	<1	<2	<1	3.7	0.28
01-Mar	0.16	<1	<2	<1	5.5	0.30
04-Mar	0.30	<1	<2	<1	3.8	0.26
09-Mar	0.21	<1	<2	<1	6	0.29
16-Mar	0.21	<1	<2	<1	6.1	0.42
10-Mar	0.19	<1	<2	<1	5.9	0.38
18-Mar	0.21	<1	<2	<1	6.4	0.47
23-Mar	0.17	<1	<2	<1	6.6	0.29
25-Mar	0.17	<1	<2	<1	7	0.35
29-Mar	0.13	<1	<2	<1	7.5	0.28
30-Mar	0.24	<1	<2	<1	6.6	0.24
31-Mar	0.15	<1	<2	<1	7.6	0.25
08-Apr	0.11	<1	<2	<1	6.6	0.29
15-Apr	0.23	<1	<2	<1	3.9	0.28
14-Apr	0.13	<1	<2	<1	7.7	0.26
19-Apr	0.10	<1	2	<1	8	0.25
26-Apr	0.17	<1	<2	<1	9.7	0.22
05-May	0.23	<1	<2	<1	7	0.24
03-May	0.16	<1	<2	<1	8.8	0.29
11-May	0.14	<1	12	<1	9.7	0.29
20-May	0.18	<1	<2	<1	7.7	0.27
17-May	0.14	<1	<2	<1	10	0.26
26-May	0.14	<1	20	<1	11	0.21
31-May	0.08	<1	<2	<1	12	0.22
03-Jun	0.19	<1	2	<1	12	0.24
10-Jun	0.10	<1	<2	<1	13	0.25
14-Jun	0.14	<1	<2	<1	13	0.24
23-Jun	0.20	<1	20	<1	14	0.24
28-Jun	0.09	<1	2	<1	14	0.22
08-Jul	0.22	<1	<2	<1	7.8	0.21
15-Jul	0.36	<1	64	<1	13	0.26
27-Jul	0.01	<1	14	<1	15	0.24
05-Aug	0.11	<1	8	<1	15	0.28
09-Aug	0.03	<1	14	<1	16	0.26
17-Aug	0.53	<1	<2	<1	15	0.27
23-Aug	0.06	<1	240	<1	16	0.26
30-Aug	0.17	<1	42	<1	16	0.27
13-Sep	0.13	<1	14	<1	16	0.22
23-Sep	0.22	<1	8	<1	16	0.19
27-Sep	0.03	<1	4	<1	15	0.24
29-Sep	0.06	<1	12	<1	14	0.27
04-Oct	0.09	<1	42	<1	14	0.32
07-Oct	0.06	<1	38	<1	12	0.26
12-Oct	0.04	<1	<2	<1	14	0.24
13-Oct	0.07	<1	<2	<1	13	0.25
18-Oct	<0.01	<1	40	<1	12	0.34
20-Oct	0.16	<1	2	<1	11	0.24
25-Oct	0.05	<1	6	<1	12	0.25
27-Oct	0.11	<1	2	<1	12	0.25
01-Nov	0.07	<1	2	<1	10	0.37
08-Nov	0.04	<1	2	<1	10	0.24
15-Nov	0.13	<1	4	<1	8.3	0.24
23-Nov	0.10	<1	<2	<1	10	0.22
05-Dec	0.25	<1	<2	<1	7.2	0.29
07-Dec	0.56	<1	2	<1	8.1	0.24
08-Dec	0.21	<1	<2	<1	7.5	0.29
13-Dec	0.10	<1	<2	<1	6.9	0.41
14-Dec	0.11	<1	2	<1	6.6	0.23
20-Dec	0.11	<1	2	<1	6.9	0.39
22-Dec	0.18	<1	2	<1	6.7	0.23
30-Dec	0.04	<1	NA	<1	7.3	0.56

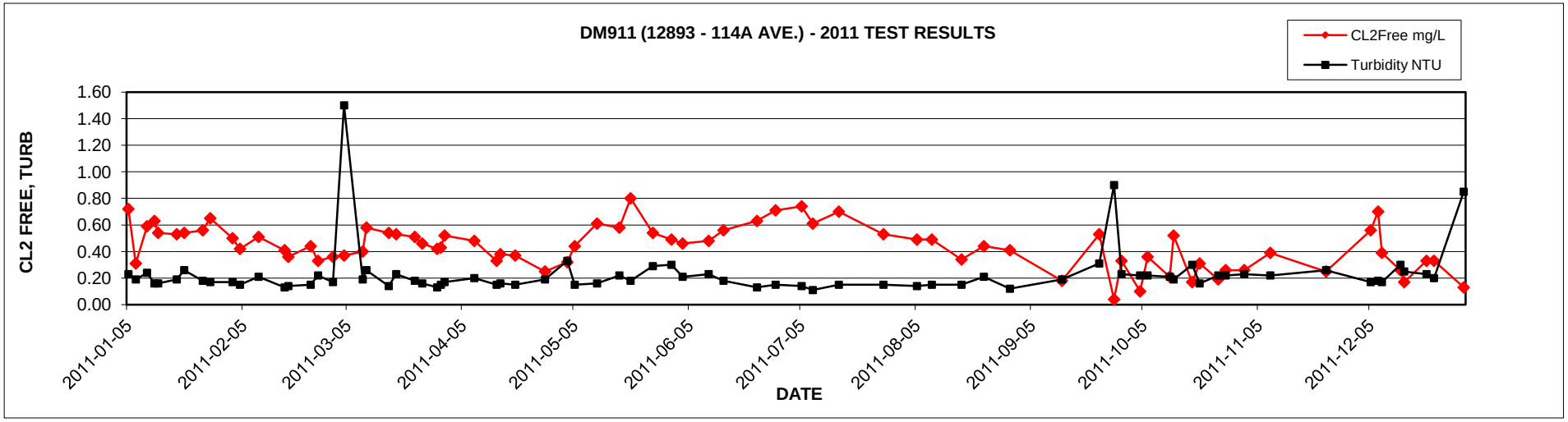

DM910 (ON 115 AVE SW CORNER OF BEDFORD RD.)- 2011 TEST RESULTS
HPC CFU/mLs
Temp C
HPC
TEMP
DATE
0
50
100
150
200
250
300
0
2
4
6
8
10
12
14
16
18
2011-01-05
2011-02-05
2011-03-05
2011-04-05
2011-05-05
2011-06-05
2011-07-05
2011-08-05
2011-09-05
2011-10-05
2011-11-05
2011-12-05


DM910 (ON 115 AVE SW CORNER OF BEDFORD RD.)- 2011 TEST RESULTS
CL2Free mg/L
Turbidity NTU
CL2 FREE, TURB
DATE
0.00
0.10
0.20
0.30
0.40
0.50
0.60
2011-01-05
2011-02-05
2011-03-05
2011-04-05
2011-05-05
2011-06-05
2011-07-05
2011-08-05
2011-09-05
2011-10-05
2011-11-05
2011-12-05

2011 GVRD Laboratory Report - DM911 (12893 - 114A AVE.)

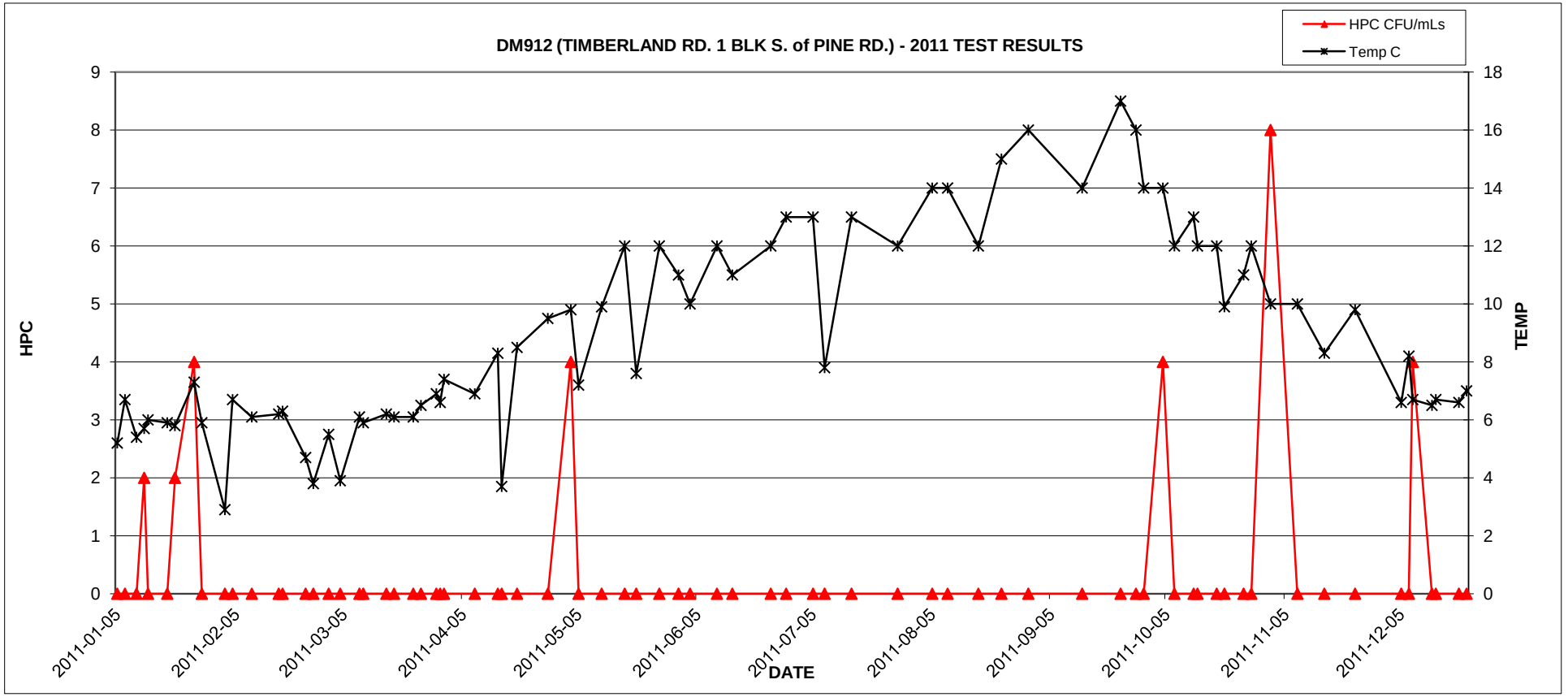
Date Collected	CL2Free mg/L	Ecoli MF/100mLs	HPC CFU/mLs	Tcoli MF/100mLs	Temp C	Turbidity NTU
05-Jan	0.72	<1	<2	<1	6.8	0.23
07-Jan	0.31	<1	<2	<1	6.8	0.19
10-Jan	0.59	<1	<2	<1	6.3	0.24
12-Jan	0.63	<1	<2	<1	6.3	0.16
13-Jan	0.54	<1	<2	<1	6.4	0.16
18-Jan	0.53	<1	<2	<1	6.2	0.19
20-Jan	0.54	<1	<2	<1	5.5	0.26
25-Jan	0.56	<1	<2	<1	7.1	0.18
27-Jan	0.65	<1	2	<1	6.5	0.17
02-Feb	0.50	<1	<2	<1	3	0.17
04-Feb	0.42	<1	<2	<1	6.7	0.15
09-Feb	0.51	<1	<2	<1	6.5	0.21
16-Feb	0.41	<1	<2	<1	6.7	0.13
17-Feb	0.36	<1	<2	<1	6.6	0.14
23-Feb	0.44	<1	<2	<1	5.3	0.15
25-Feb	0.33	<1	<2	<1	3.8	0.22
01-Mar	0.36	<1	<2	<1	6	0.17
04-Mar	0.37	<1	<2	<1	3.9	1.50
09-Mar	0.40	<1	<2	<1	6.3	0.19
16-Mar	0.54	<1	<2	<1	6.7	0.14
10-Mar	0.58	<1	<2	<1	6.4	0.26
18-Mar	0.53	<1	<2	<1	6.8	0.23
23-Mar	0.51	<1	<2	<1	6.5	0.18
25-Mar	0.46	<1	<2	<1	6.6	0.16
29-Mar	0.42	<1	<2	<1	7.1	0.13
30-Mar	0.43	<1	2	<1	7	0.15
31-Mar	0.52	<1	<2	<1	7.5	0.17
08-Apr	0.48	<1	<2	<1	6.9	0.20
15-Apr	0.38	<1	<2	<1	4.1	0.16
14-Apr	0.33	<1	<2	<1	7.4	0.15
19-Apr	0.37	<1	<2	<1	7.9	0.15
27-Apr	0.25	<1	<2	<1	9.8	0.19
05-May	0.44	<1	<2	<1	7.1	0.15
03-May	0.32	<1	<2	<1	9.1	0.33
11-May	0.61	<1	<2	<1	9.7	0.16
20-May	0.80	<1	<2	<1	7.6	0.18
17-May	0.58	<1	<2	<1	9.9	0.22
26-May	0.54	<1	2	<1	10	0.29
31-May	0.49	<1	<2	<1	10	0.30
03-Jun	0.46	<1	<2	<1	11	0.21
10-Jun	0.48	<1	<2	<1	11	0.23
14-Jun	0.56	<1	<2	<1	12	0.18
23-Jun	0.63	<1	<2	<1	12	0.13
28-Jun	0.71	<1	<2	<1	13	0.15
05-Jul	0.74	<1	<2	<1	9	0.14
08-Jul	0.61	<1	<2	<1	7.8	0.11
15-Jul	0.70	<1	<2	<1	12	0.15
27-Jul	0.53	<1	2	<1	13	0.15
05-Aug	0.49	<1	<2	<1	13	0.14
09-Aug	0.49	<1	<2	<1	14	0.15
17-Aug	0.34	<1	<2	<1	12	0.15
23-Aug	0.44	<1	2	<1	12	0.21
30-Aug	0.41	<1	2	<1	15	0.12
13-Sep	0.18	<1	<2	<1	16	0.19
23-Sep	0.53	<1	<2	<1	18	0.31
27-Sep	0.04	<1	<2	<1	16	0.90
29-Sep	0.33	<1	<2	<1	15	0.23
04-Oct	0.10	<1	4	<1	15	0.22
06-Oct	0.36	<1	<2	<1	14	0.22
12-Oct	0.21	<1	<2	<1	15	0.21
13-Oct	0.52	<1	<2	<1	14	0.19
18-Oct	0.17	<1	4	<1	13	0.30
20-Oct	0.31	<1	<2	<1	11	0.16
25-Oct	0.19	<1	<2	<1	12	0.22
27-Oct	0.26	<1	<2	<1	13	0.22
01-Nov	0.26	<1	2	<1	11	0.23
08-Nov	0.39	<1	<2	<1	11	0.22
23-Nov	0.25	<1	<2	<1	9.4	0.26
05-Dec	0.56	<1	<2	<1	8.3	0.17
07-Dec	0.70	<1	2	<1	8.6	0.18
08-Dec	0.39	<1	<2	<1	8.4	0.17
13-Dec	0.26	<1	<2	<1	7.7	0.30
14-Dec	0.17	<1	<2	<1	7.1	0.25
20-Dec	0.33	<1	2	<1	7.7	0.23
22-Dec	0.33	<1	4	<1	7.1	0.20
30-Dec	0.13	<1	NA	<1	7.9	0.85

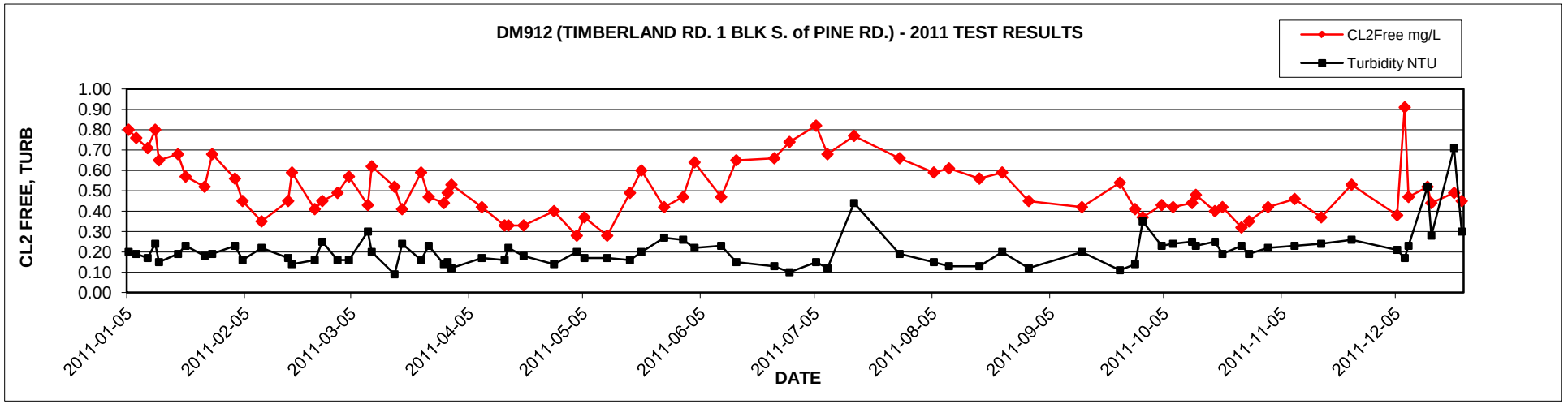

DM911 (12893 - 114A AVE.) - 2011 TEST RESULTS
HPC CFU/mLs
Temp C
HPC
TEMP
DATE
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
20
18
16
14
12
10
8
6
4
2
0
2011-01-05
2011-02-05
2011-03-05
2011-04-05
2011-05-05
2011-06-05
2011-07-05
2011-08-05
2011-09-05
2011-10-05
2011-11-05
2011-12-05


DM911 (12893 - 114A AVE.) - 2011 TEST RESULTS
CL2Free mg/L
Turbidity NTU
CL2 FREE, TURB
DATE
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
2011-01-05
2011-02-05
2011-03-05
2011-04-05
2011-05-05
2011-06-05
2011-07-05
2011-08-05
2011-09-05
2011-10-05
2011-11-05
2011-12-05

2011 GVRD Laboratory Report - DM912 (TIMBERLAND RD. 1 BLK S. of PINE RD.)

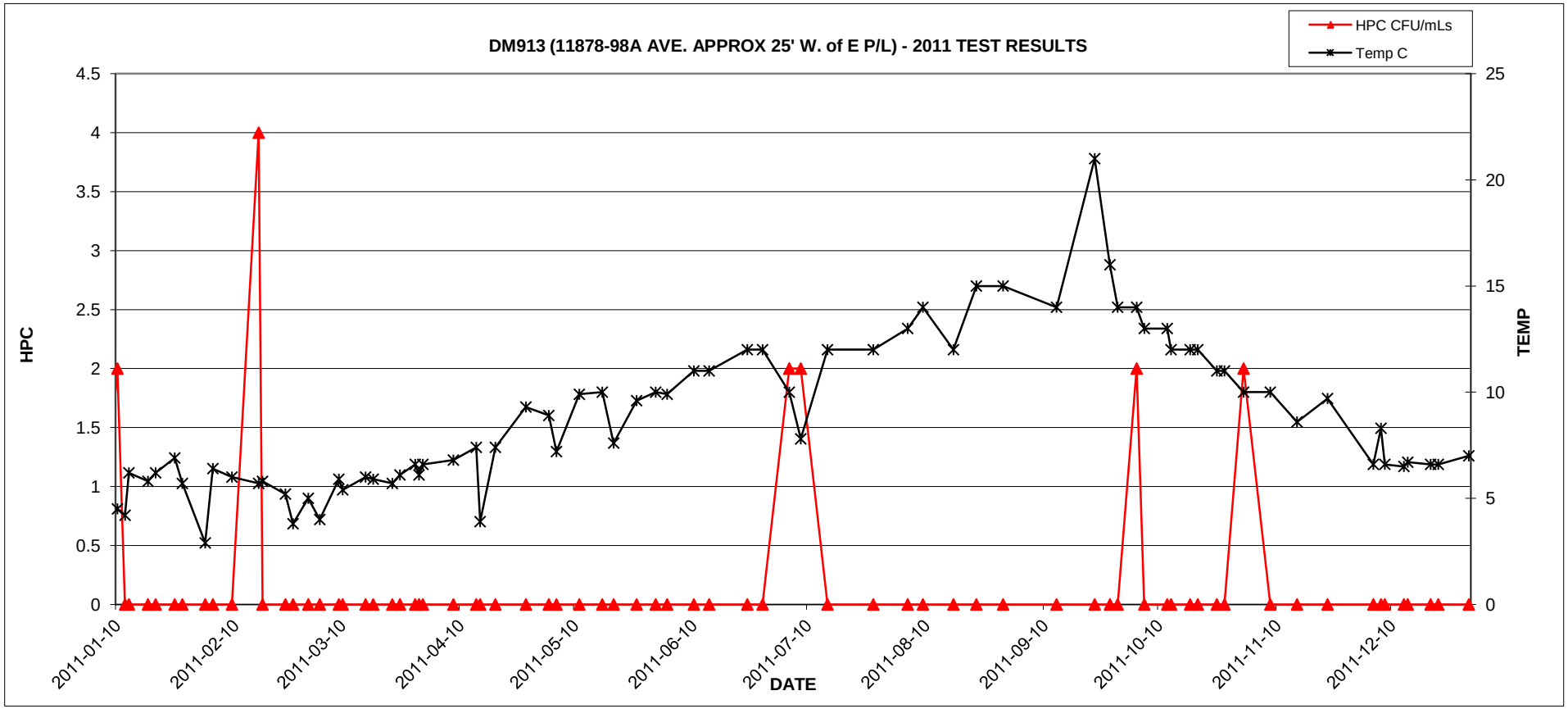
Date Collected	CL2Free mg/L	Ecoli MF/100mLs	HPC CFU/mLs	Tcoli MF/100mLs	Temp C	Turbidity NTU
05-Jan	0.80	<1	<2	<1	5.2	0.20
07-Jan	0.76	<1	<2	<1	6.7	0.19
10-Jan	0.71	<1	<2	<1	5.4	0.17
12-Jan	0.80	<1	2	<1	5.7	0.24
13-Jan	0.65	<1	<2	<1	6	0.15
18-Jan	0.68	<1	<2	<1	5.9	0.19
20-Jan	0.57	<1	2	<1	5.8	0.23
25-Jan	0.52	<1	4	<1	7.3	0.18
27-Jan	0.68	<1	<2	<1	5.9	0.19
02-Feb	0.56	<1	<2	<1	2.9	0.23
04-Feb	0.45	<1	<2	<1	6.7	0.16
09-Feb	0.35	<1	<2	<1	6.1	0.22
16-Feb	0.45	<1	<2	<1	6.2	0.17
17-Feb	0.59	<1	<2	<1	6.3	0.14
23-Feb	0.41	<1	<2	<1	4.7	0.16
25-Feb	0.45	<1	<2	<1	3.8	0.25
01-Mar	0.49	<1	<2	<1	5.5	0.16
04-Mar	0.57	<1	<2	<1	3.9	0.16
09-Mar	0.43	<1	<2	<1	6.1	0.30
16-Mar	0.52	<1	<2	<1	6.2	0.09
10-Mar	0.62	<1	<2	<1	5.9	0.20
18-Mar	0.41	<1	<2	<1	6.1	0.24
23-Mar	0.59	<1	<2	<1	6.1	0.16
25-Mar	0.47	<1	<2	<1	6.5	0.23
29-Mar	0.44	<1	<2	<1	6.9	0.14
30-Mar	0.49	<1	<2	<1	6.6	0.15
31-Mar	0.53	<1	<2	<1	7.4	0.12
08-Apr	0.42	<1	<2	<1	6.9	0.17
15-Apr	0.33	<1	<2	<1	3.7	0.22
14-Apr	0.33	<1	<2	<1	8.3	0.16
19-Apr	0.33	<1	<2	<1	8.5	0.18
27-Apr	0.40	<1	<2	<1	9.5	0.14
05-May	0.37	<1	<2	<1	7.2	0.17
03-May	0.28	<1	4	<1	9.8	0.20
11-May	0.28	<1	<2	<1	9.9	0.17
20-May	0.60	<1	<2	<1	7.6	0.20
17-May	0.49	<1	<2	<1	12	0.16
26-May	0.42	<1	<2	<1	12	0.27
31-May	0.47	<1	<1	<1	11	0.26
03-Jun	0.64	<1	<2	<1	10	0.22
10-Jun	0.47	<1	<2	<1	12	0.23
14-Jun	0.65	<1	<2	<1	11	0.15
24-Jun	0.66	<1	<2	<1	12	0.13
28-Jun	0.74	<1	<2	<1	13	0.10
05-Jul	0.82	<1	<2	<1	13	0.15
08-Jul	0.68	<1	<2	<1	7.8	0.12
15-Jul	0.77	<1	<2	<1	13	0.44
27-Jul	0.66	<1	<2	<1	12	0.19
05-Aug	0.59	<1	<2	<1	14	0.15
09-Aug	0.61	<1	<2	<1	14	0.13
17-Aug	0.56	<1	<2	<1	12	0.13
23-Aug	0.59	<1	<2	<1	15	0.20
30-Aug	0.45	<1	<2	<1	16	0.12
13-Sep	0.42	<1	<2	<1	14	0.20
23-Sep	0.54	<1	<2	<1	17	0.11
27-Sep	0.41	<1	<2	<1	16	0.14
29-Sep	0.37	<1	<2	<1	14	0.35
04-Oct	0.43	<1	4	<1	14	0.23
07-Oct	0.42	<1	<2	<1	12	0.24
12-Oct	0.44	<1	<2	<1	13	0.25
13-Oct	0.48	<1	<2	<1	12	0.23
18-Oct	0.40	<1	<2	<1	12	0.25
20-Oct	0.42	<1	<2	<1	9.9	0.19
25-Oct	0.32	<1	<2	<1	11	0.23
27-Oct	0.35	<1	<2	<1	12	0.19
01-Nov	0.42	<1	8	<1	10	0.22
08-Nov	0.46	<1	<2	<1	10	0.23
15-Nov	0.37	<1	<2	<1	8.3	0.24
23-Nov	0.53	<1	<2	<1	9.8	0.26
05-Dec	0.38	<1	<2	<1	6.6	0.21
07-Dec	0.91	<1	<2	<1	8.2	0.17
08-Dec	0.47	<1	4	<1	6.7	0.23
13-Dec	0.52	<1	<2	<1	6.5	0.52
14-Dec	0.44	<1	<2	<1	6.7	0.28
20-Dec	0.49	<1	<2	<1	6.6	0.71
22-Dec	0.45	<1	<2	<1	7	0.30
30-Dec	0.43	<1	NA	<1	7	0.68

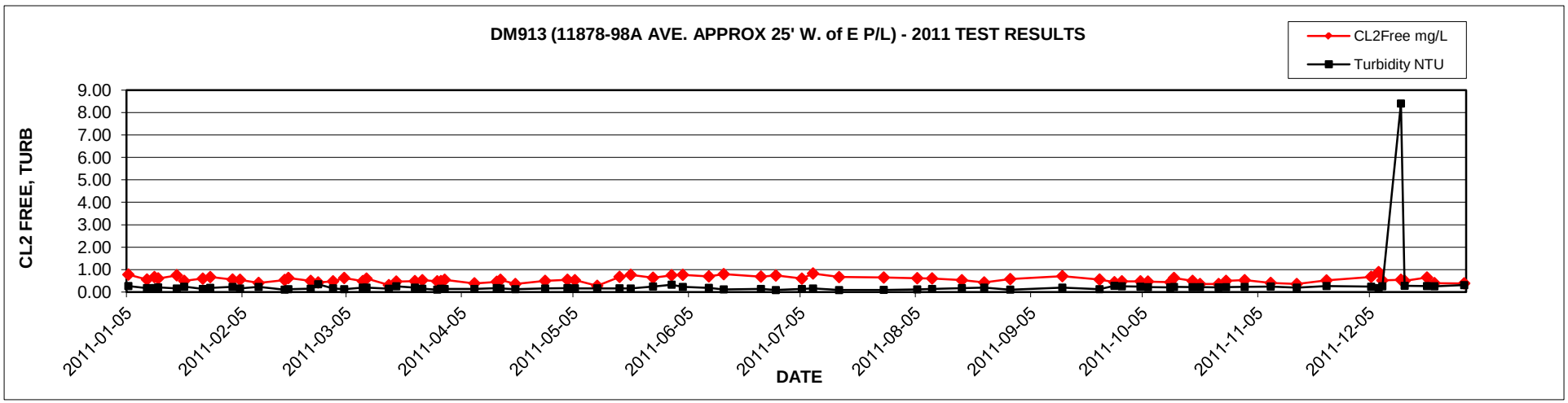

DM912 (TIMBERLAND RD. 1 BLK S. of PINE RD.) - 2011 TEST RESULTS
HPC CFU/mLs
Temp C
HPC
TEMP
DATE
0
1
2
3
4
5
6
7
8
9
0
2
4
6
8
10
12
14
16
18
2011-01-05
2011-02-05
2011-03-05
2011-04-05
2011-05-05
2011-06-05
2011-07-05
2011-08-05
2011-09-05
2011-10-05
2011-11-05
2011-12-05


DM912 (TIMBERLAND RD. 1 BLK S. of PINE RD.) - 2011 TEST RESULTS
CL2Free mg/L
Turbidity NTU
CL2 FREE, TURB
DATE
0.00
0.10
0.20
0.30
0.40
0.50
0.60
0.70
0.80
0.90
1.00
2011-01-05
2011-02-05
2011-03-05
2011-04-05
2011-05-05
2011-06-05
2011-07-05
2011-08-05
2011-09-05
2011-10-05
2011-11-05
2011-12-05

2011 GVRD Laboratory Report - DM913 (11878-98A AVE. APPROX 25' W. of E P/L)

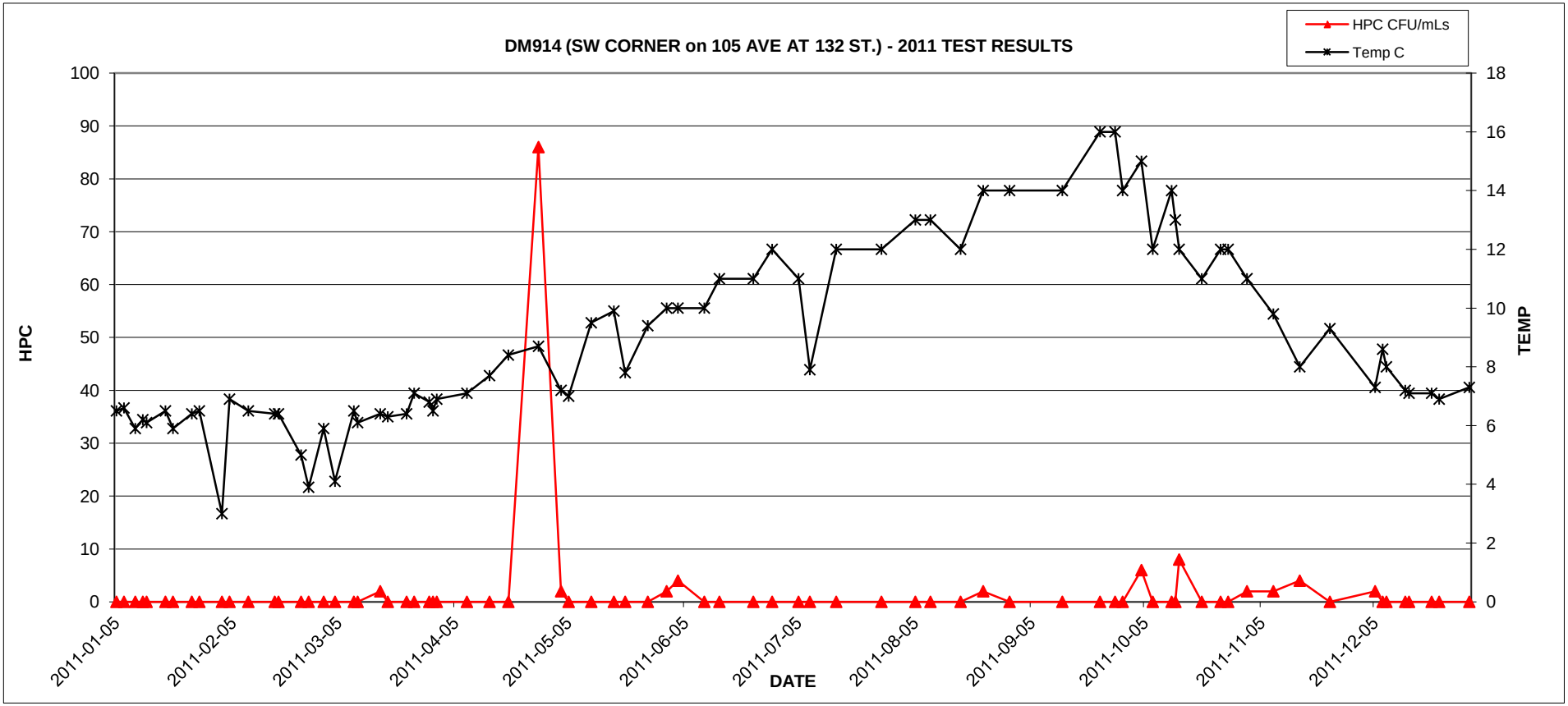
Date Collected	CL2Free mg/L	Ecoli MF/100mLs	HPC CFU/mLs	Tcoli MF/100mLs	Temp C	Turbidity NTU
05-Jan	0.78	<1	<2	<1	4.6	0.27
10-Jan	0.56	<1	2	<1	4.5	0.18
12-Jan	0.67	<1	<2	<1	4.2	0.18
13-Jan	0.61	<1	<2	<1	6.2	0.21
18-Jan	0.75	<1	<2	<1	5.8	0.16
20-Jan	0.50	<1	<2	<1	6.2	0.24
25-Jan	0.60	<1	<2	<1	6.9	0.14
27-Jan	0.67	<1	<2	<1	5.7	0.19
02-Feb	0.56	<1	<2	<1	2.9	0.23
04-Feb	0.55	<1	<2	<1	6.4	0.16
09-Feb	0.41	<1	<2	<1	6	0.23
16-Feb	0.54	<1	4	<1	5.7	0.11
17-Feb	0.63	<1	<2	<1	5.8	0.13
23-Feb	0.50	<1	<2	<1	5.2	0.15
25-Feb	0.43	<1	<2	<1	3.8	0.35
01-Mar	0.48	<1	<2	<1	5	0.17
04-Mar	0.63	<1	<2	<1	4	0.13
09-Mar	0.49	<1	<2	<1	5.9	0.20
16-Mar	0.31	<1	<2	<1	6	0.15
10-Mar	0.60	<1	<2	<1	5.4	0.20
18-Mar	0.47	<1	<2	<1	5.9	0.26
23-Mar	0.49	<1	<2	<1	5.7	0.20
25-Mar	0.53	<1	<2	<1	6.1	0.15
29-Mar	0.48	<1	<2	<1	6.6	0.11
30-Mar	0.49	<1	<2	<1	6.1	0.15
31-Mar	0.55	<1	<2	<1	6.6	0.14
08-Apr	0.39	<1	<2	<1	6.8	0.14
15-Apr	0.55	<1	<2	<1	3.9	0.16
14-Apr	0.46	<1	<2	<1	7.4	0.18
19-Apr	0.36	<1	<2	<1	7.4	0.13
27-Apr	0.50	<1	<2	<1	9.3	0.16
05-May	0.53	<1	<2	<1	7.2	0.17
03-May	0.55	<1	<2	<1	8.9	0.18
11-May	0.28	<1	<2	<1	9.9	0.17
20-May	0.77	<1	<2	<1	7.6	0.16
17-May	0.68	<1	<2	<1	10	0.17
26-May	0.64	<1	<2	<1	9.6	0.25
31-May	0.75	<1	<2	<1	10	0.33
03-Jun	0.77	<1	<2	<1	9.9	0.23
10-Jun	0.70	<1	<2	<1	11	0.19
14-Jun	0.80	<1	<2	<1	11	0.12
24-Jun	0.69	<1	<2	<1	12	0.14
28-Jun	0.74	<1	<2	<1	12	0.09
05-Jul	0.60	<1	2	<1	10	0.14
08-Jul	0.83	<1	2	<1	7.8	0.16
15-Jul	0.67	<1	<2	<1	12	0.09
27-Jul	0.65	<1	<2	<1	12	0.10
05-Aug	0.62	<1	<2	<1	13	0.12
09-Aug	0.61	<1	<2	<1	14	0.14
17-Aug	0.53	<1	<2	<1	12	0.18
23-Aug	0.43	<1	<2	<1	15	0.20
30-Aug	0.58	<1	<2	<1	15	0.11
13-Sep	0.71	<1	<2	<1	14	0.20
23-Sep	0.56	<1	<2	<1	21	0.13
27-Sep	0.44	<1	<2	<1	16	0.28
29-Sep	0.48	<1	<2	<1	14	0.26
04-Oct	0.48	<1	2	<1	14	0.24
06-Oct	0.47	<1	<2	<1	13	0.22
12-Oct	0.44	<1	<2	<1	13	0.21
13-Oct	0.63	<1	<2	<1	12	0.23
18-Oct	0.50	<1	<2	<1	12	0.22
20-Oct	0.36	<1	<2	<1	12	0.22
25-Oct	0.36	<1	<2	<1	11	0.21
27-Oct	0.50	<1	<2	<1	11	0.22
01-Nov	0.53	<1	2	<1	10	0.23
08-Nov	0.41	<1	<2	<1	10	0.25
15-Nov	0.36	<1	<2	<1	8.6	0.20
23-Nov	0.52	<1	<2	<1	9.7	0.27
05-Dec	0.68	<1	<2	<1	6.6	0.24
07-Dec	0.89	<1	<2	<1	8.3	0.18
08-Dec	0.52	<1	<2	<1	6.6	0.26
13-Dec	0.55	<1	<2	<1	6.5	8.40
14-Dec	0.50	<1	<2	<1	6.7	0.28
20-Dec	0.65	<1	<2	<1	6.6	0.27
22-Dec	0.40	<1	<2	<1	6.6	0.26
30-Dec	0.39	<1	NA	<1	7	0.31

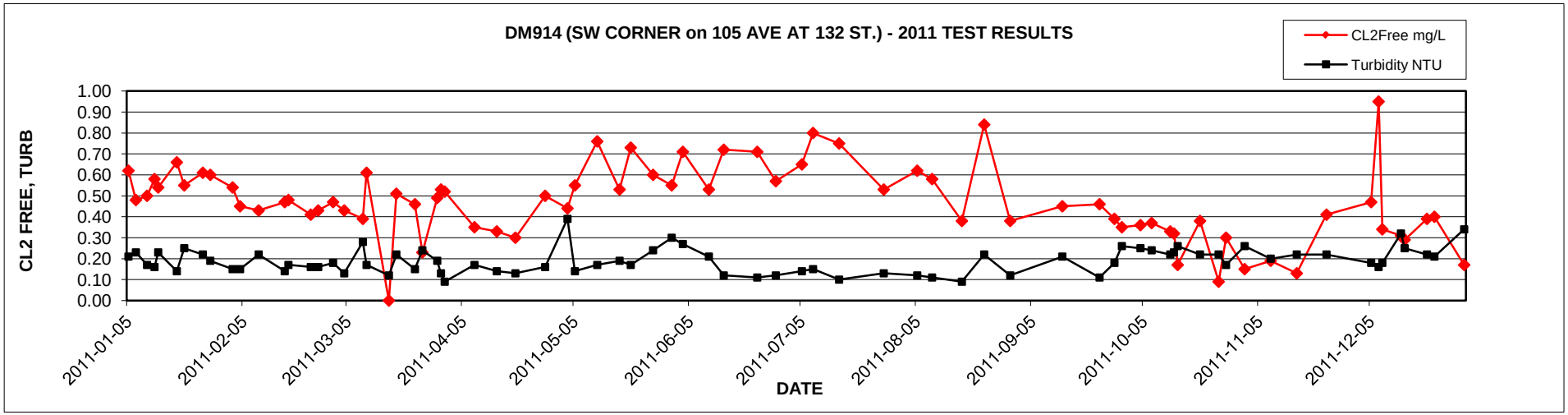

DM913 (11878-98A AVE. APPROX 25' W. of E P/L) - 2011 TEST RESULTS
HPC CFU/mLs
Temp C
HPC
TEMP
DATE
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
25
20
15
10
5
0
2011-01-10
2011-02-10
2011-03-10
2011-04-10
2011-05-10
2011-06-10
2011-07-10
2011-08-10
2011-09-10
2011-10-10
2011-11-10
2011-12-10


DM913 (11878-98A AVE. APPROX 25' W. of E P/L) - 2011 TEST RESULTS
CL2Free mg/L
Turbidity NTU
CL2 FREE, TURB
DATE
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
2011-01-05
2011-02-05
2011-03-05
2011-04-05
2011-05-05
2011-06-05
2011-07-05
2011-08-05
2011-09-05
2011-10-05
2011-11-05
2011-12-05

2011 GVRD Laboratory Report - DM914 (SW CORNER on 105 AVE AT 132 ST.)

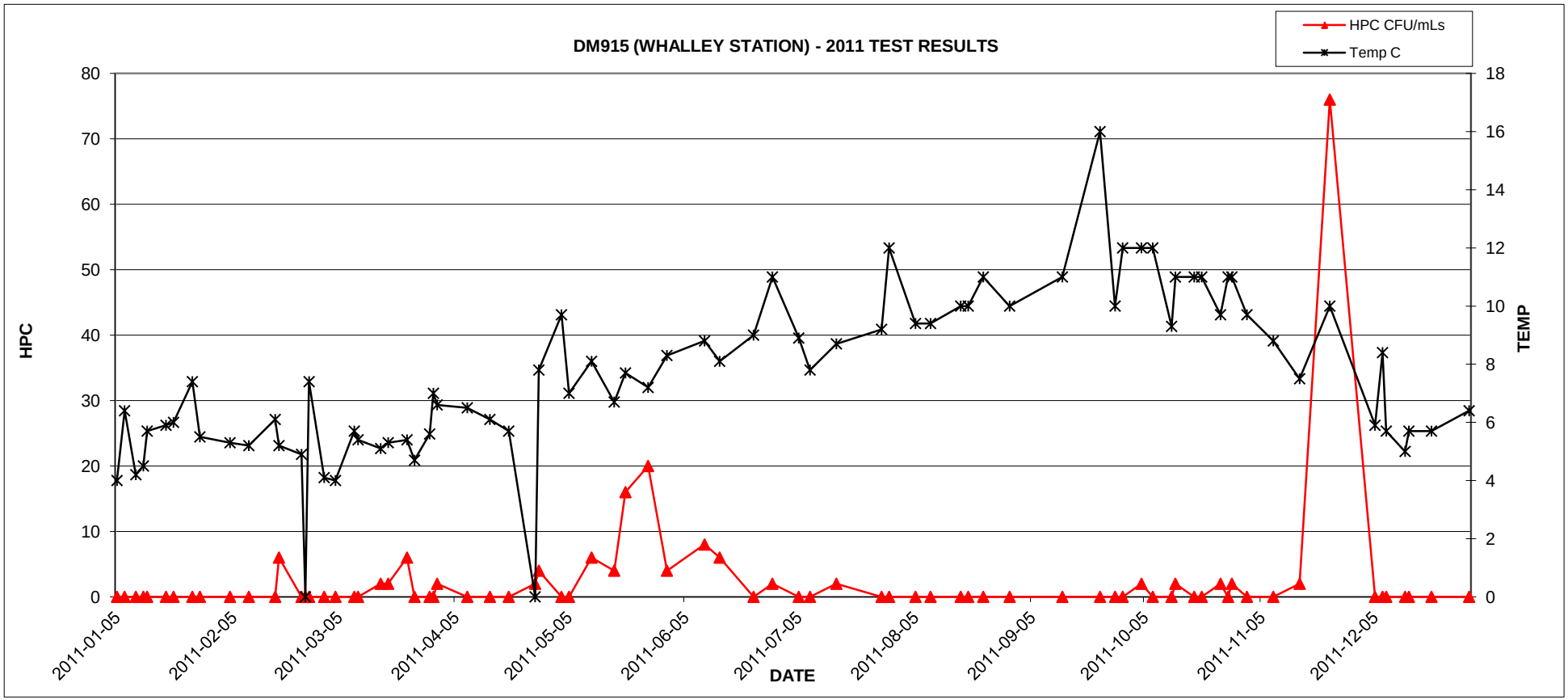
Date Collected	CL2Free mg/L	Ecoli MF/100mLs	HPC CFU/mLs	Tcoli MF/100mLs	Temp C	Turbidity NTU
05-Jan	0.62	<1	<2	<1	6.5	0.21
07-Jan	0.48	<1	<2	<1	6.6	0.23
10-Jan	0.50	<1	<2	<1	5.9	0.17
12-Jan	0.58	<1	<2	<1	6.2	0.16
13-Jan	0.54	<1	<2	<1	6.1	0.23
18-Jan	0.66	<1	<2	<1	6.5	0.14
20-Jan	0.55	<1	<2	<1	5.9	0.25
25-Jan	0.61	<1	<2	<1	6.4	0.22
27-Jan	0.60	<1	<2	<1	6.5	0.19
02-Feb	0.54	<1	<2	<1	3	0.15
04-Feb	0.45	<1	<2	<1	6.9	0.15
09-Feb	0.43	<1	<2	<1	6.5	0.22
16-Feb	0.47	<1	<2	<1	6.4	0.14
17-Feb	0.48	<1	<2	<1	6.4	0.17
23-Feb	0.41	<1	<2	<1	5	0.16
25-Feb	0.43	<1	<2	<1	3.9	0.16
01-Mar	0.47	<1	<2	<1	5.9	0.18
04-Mar	0.43	<1	<2	<1	4.1	0.13
09-Mar	0.39	<1	<2	<1	6.5	0.28
16-Mar	LA	<1	2	<1	6.4	0.12
10-Mar	0.61	<1	<2	<1	6.1	0.17
18-Mar	0.51	<1	<2	<1	6.3	0.22
23-Mar	0.46	<1	<2	<1	6.4	0.15
25-Mar	0.23	<1	<2	<1	7.1	0.24
29-Mar	0.49	<1	<2	<1	6.8	0.19
30-Mar	0.53	<1	<2	<1	6.5	0.13
31-Mar	0.52	<1	<2	<1	6.9	0.09
08-Apr	0.35	<1	<2	<1	7.1	0.17
14-Apr	0.33	<1	<2	<1	7.7	0.14
19-Apr	0.30	<1	<2	<1	8.4	0.13
27-Apr	0.50	<1	86	<1	8.7	0.16
05-May	0.55	<1	<2	<1	7	0.14
03-May	0.44	<1	2	<1	7.2	0.39
11-May	0.76	<1	<2	<1	9.5	0.17
20-May	0.73	<1	LA	<1	7.8	0.17
17-May	0.53	<1	<2	<1	9.9	0.19
26-May	0.60	<1	<2	<1	9.4	0.24
31-May	0.55	<1	2	<1	10	0.30
03-Jun	0.71	<1	4	<1	10	0.27
10-Jun	0.53	<1	<2	<1	10	0.21
14-Jun	0.72	<1	<2	<1	11	0.12
23-Jun	0.71	<1	<2	<1	11	0.11
28-Jun	0.57	<1	<2	<1	12	0.12
05-Jul	0.65	<1	<2	<1	11	0.14
08-Jul	0.80	<1	<2	<1	7.9	0.15
15-Jul	0.75	<1	<2	<1	12	0.10
27-Jul	0.53	<1	<2	<1	12	0.13
05-Aug	0.62	<1	<2	<1	13	0.12
09-Aug	0.58	<1	<2	<1	13	0.11
17-Aug	0.38	<1	<2	<1	12	0.09
23-Aug	0.84	<1	2	<1	14	0.22
30-Aug	0.38	<1	<2	<1	14	0.12
13-Sep	0.45	<1	<2	<1	14	0.21
23-Sep	0.46	<1	<2	<1	16	0.11
27-Sep	0.39	<1	<2	<1	16	0.18
29-Sep	0.35	<1	<2	<1	14	0.26
04-Oct	0.36	<1	6	<1	15	0.25
07-Oct	0.37	<1	<2	<1	12	0.24
12-Oct	0.33	<1	<2	<1	14	0.22
13-Oct	0.32	<1	<2	<1	13	0.23
14-Oct	0.17	<1	8	<1	12	0.26
20-Oct	0.38	<1	<2	<1	11	0.22
25-Oct	0.09	<1	<2	<1	12	0.22
27-Oct	0.30	<1	<2	<1	12	0.17
01-Nov	0.15	<1	2	<1	11	0.26
08-Nov	0.19	<1	2	<1	9.8	0.20
15-Nov	0.13	<1	4	<1	8	0.22
23-Nov	0.41	<1	<2	<1	9.3	0.22
05-Dec	0.47	<1	2	<1	7.3	0.18
07-Dec	0.95	<1	<2	<1	8.6	0.16
08-Dec	0.34	<1	<2	<1	8	0.18
13-Dec	0.31	<1	<2	<1	7.2	0.32
14-Dec	0.29	<1	<2	<1	7.1	0.25
20-Dec	0.39	<1	<2	<1	7.1	0.22
22-Dec	0.40	<1	<2	<1	6.9	0.21
30-Dec	0.17	<1	NA	<1	7.3	0.34

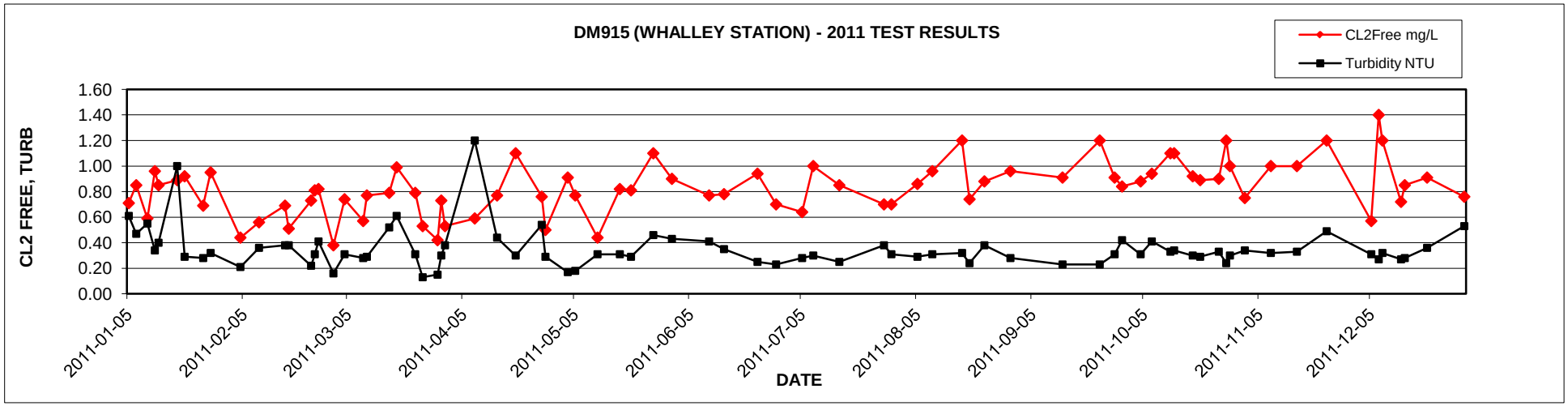

DM914 (SW CORNER on 105 AVE AT 132 ST.) - 2011 TEST RESULTS
HPC CFU/mLs
Temp C
HPC
TEMP
DATE
100
90
80
70
60
50
40
30
20
10
0
18
16
14
12
10
8
6
4
2
0
2011-01-05
2011-02-05
2011-03-05
2011-04-05
2011-05-05
2011-06-05
2011-07-05
2011-08-05
2011-09-05
2011-10-05
2011-11-05
2011-12-05


DM914 (SW CORNER on 105 AVE AT 132 ST.) - 2011 TEST RESULTS
CL2Free mg/L
Turbidity NTU
CL2 FREE, TURB
DATE
1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
2011-01-05
2011-02-05
2011-03-05
2011-04-05
2011-05-05
2011-06-05
2011-07-05
2011-08-05
2011-09-05
2011-10-05
2011-11-05
2011-12-05

2011 GVRD Laboratory Report - DM915 (WHALLEY STATION)

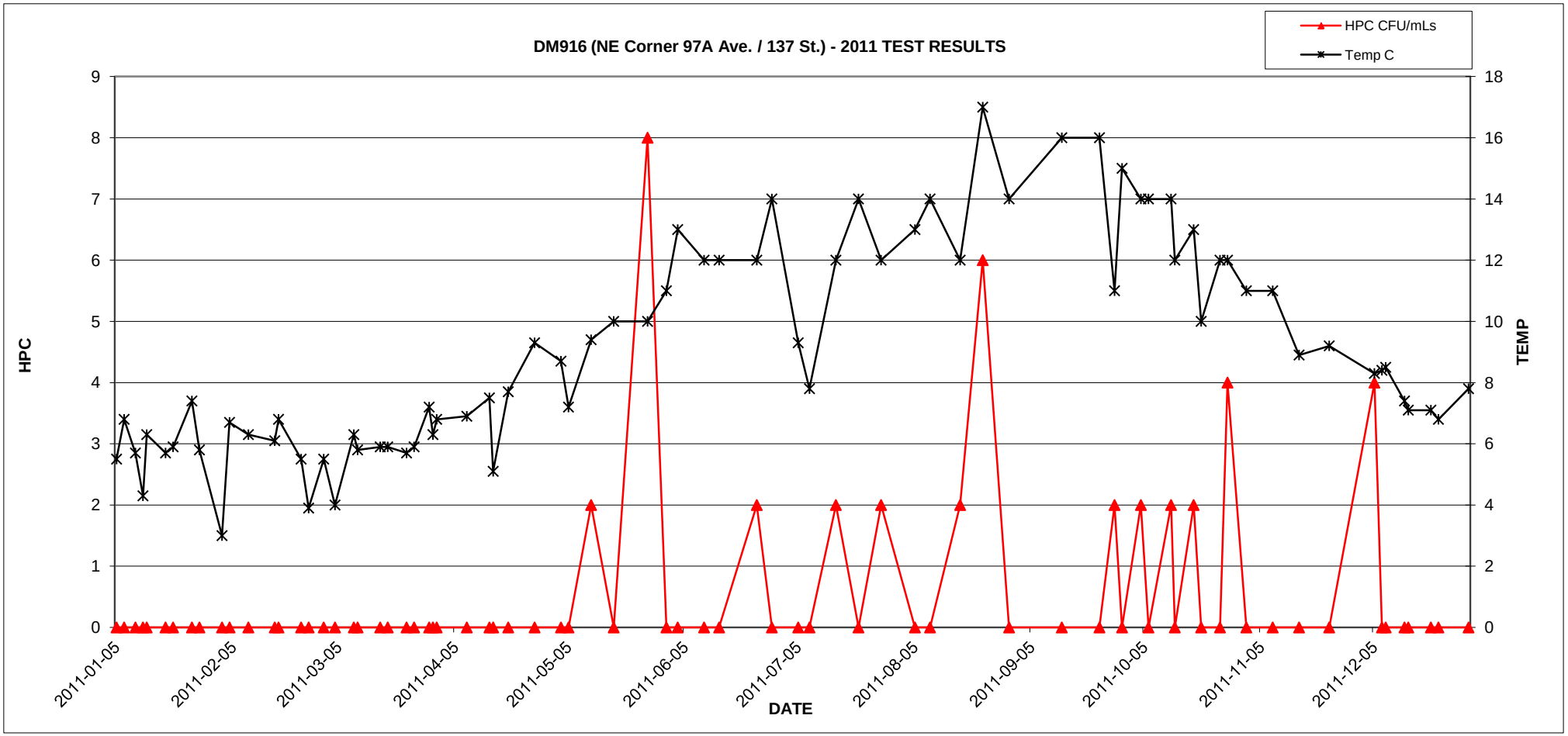
Date Collected	CL2Free mg/L	Ecoli MF/100mLs	HPC CFU/mLs	Tcoli MF/100mLs	Temp C	Turbidity NTU
05-Jan	0.71	<1	<2	<1	4	0.61
07-Jan	0.85	<1	<2	<1	6.4	0.47
10-Jan	0.59	<1	<2	<1	4.2	0.55
12-Jan	0.96	<1	<2	<1	4.5	0.34
13-Jan	0.85	<1	<2	<1	5.7	0.40
18-Jan	0.89	<1	<2	<1	5.9	1.00
20-Jan	0.92	<1	<2	<1	6	0.29
25-Jan	0.69	<1	<2	<1	7.4	0.28
27-Jan	0.95	<1	<2	<1	5.5	0.32
04-Feb	0.44	<1	<2	<1	5.3	0.21
09-Feb	0.56	<1	<2	<1	5.2	0.36
16-Feb	0.69	<1	<2	<1	6.1	0.38
17-Feb	0.51	<1	6	<1	5.2	0.38
23-Feb	0.73	<1	<2	<1	4.9	0.22
24-Feb	0.81	<1	<2	<1	LA	0.31
25-Feb	0.82	<1	<2	<1	7.4	0.41
01-Mar	0.38	<1	<2	<1	4.1	0.16
04-Mar	0.74	<1	<2	<1	4	0.31
09-Mar	0.57	<1	<2	<1	5.7	0.28
16-Mar	0.79	<1	2	<1	5.1	0.52
10-Mar	0.77	<1	<2	<1	5.4	0.29
18-Mar	0.99	<1	2	<1	5.3	0.61
23-Mar	0.79	<1	6	<1	5.4	0.31
25-Mar	0.53	<1	<2	<1	4.7	0.13
29-Mar	0.42	<1	<2	<1	5.6	0.15
30-Mar	0.73	<1	<2	<1	7	0.30
31-Mar	0.53	LA	2	LA	6.6	0.38
08-Apr	0.59	<1	<2	<1	6.5	1.20
14-Apr	0.77	<1	<2	<1	6.1	0.44
19-Apr	1.10	<1	<2	<1	5.7	0.30
26-Apr	0.76	<1	2	<1	LA	0.54
27-Apr	0.50	<1	4	<1	7.8	0.29
05-May	0.77	<1	<2	<1	7	0.18
03-May	0.91	<1	<2	<1	9.7	0.17
11-May	0.44	<1	6	<1	8.1	0.31
20-May	0.81	<1	16	<1	7.7	0.29
17-May	0.82	<1	4	<1	6.7	0.31
26-May	1.10	<1	20	<1	7.2	0.46
31-May	0.90	<1	4	<1	8.3	0.43
10-Jun	0.77	<1	8	<1	8.8	0.41
14-Jun	0.78	<1	6	<1	8.1	0.35
23-Jun	0.94	<1	<2	<1	9	0.25
28-Jun	0.70	<1	2	<1	11	0.23
05-Jul	0.64	<1	<2	<1	8.9	0.28
08-Jul	1.00	<1	<2	<1	7.8	0.30
15-Jul	0.85	<1	2	<1	8.7	0.25
27-Jul	0.70	<1	<2	<1	9.2	0.38
29-Jul	0.70	<1	<2	<1	12	0.31
05-Aug	0.86	<1	<2	<1	9.4	0.29
09-Aug	0.96	<1	<2	<1	9.4	0.31
17-Aug	1.20	LA	<2	LA	10	0.32
19-Aug	0.74	<1	<2	<1	10	0.24
23-Aug	0.88	<1	<2	<1	11	0.38
30-Aug	0.96	<1	<2	<1	10	0.28
13-Sep	0.91	<1	<2	<1	11	0.23
23-Sep	1.20	<1	<2	<1	16	0.23
27-Sep	0.91	<1	<2	<1	10	0.31
29-Sep	0.84	<1	<2	<1	12	0.42
04-Oct	0.88	<1	2	<1	12	0.31
07-Oct	0.94	<1	<2	<1	12	0.41
12-Oct	1.10	<1	<2	<1	9.3	0.33
13-Oct	1.10	<1	2	<1	11	0.34
18-Oct	0.92	<1	<2	<1	11	0.30
20-Oct	0.89	<1	<2	<1	11	0.29
25-Oct	0.90	<1	2	<1	9.7	0.33
27-Oct	1.20	<1	<2	<1	11	0.24
28-Oct	1.00	<1	2	<1	11	0.30
01-Nov	0.75	<1	<2	<1	9.7	0.34
08-Nov	1.00	<1	<2	<1	8.8	0.32
15-Nov	1.00	<1	2	<1	7.5	0.33
23-Nov	1.20	<1	76	<1	10	0.49
05-Dec	0.57	<1	<2	<1	5.9	0.31
07-Dec	1.40	<1	<2	<1	8.4	0.27
08-Dec	1.20	<1	<2	<1	5.7	0.32
13-Dec	0.72	<1	<2	<1	5	0.27
14-Dec	0.85	<1	<2	<1	5.7	0.28
20-Dec	0.91	<1	<2	<1	5.7	0.36
30-Dec	0.76	<1	NA	<1	6.4	0.53

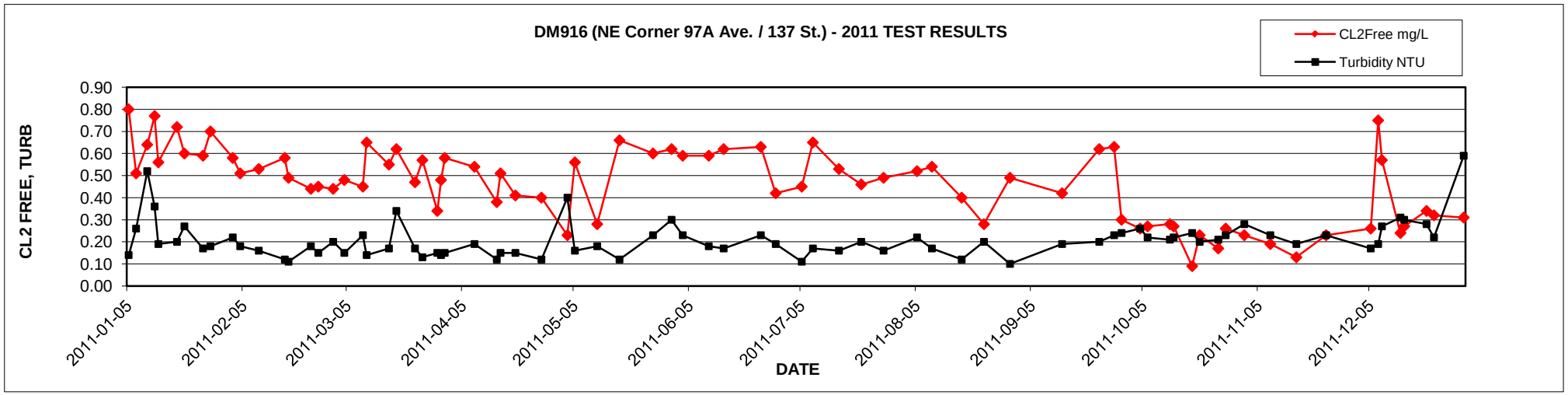

DM915 (WHALLEY STATION) - 2011 TEST RESULTS
HPC CFU/mLs
Temp C
HPC
TEMP
DATE
0
10
20
30
40
50
60
70
80
0
2
4
6
8
10
12
14
16
18
2011-01-05
2011-02-05
2011-03-05
2011-04-05
2011-05-05
2011-06-05
2011-07-05
2011-08-05
2011-09-05
2011-10-05
2011-11-05
2011-12-05


DM915 (WHALLEY STATION) - 2011 TEST RESULTS
CL2Free mg/L
Turbidity NTU
CL2 FREE, TURB
DATE
0.00
0.20
0.40
0.60
0.80
1.00
1.20
1.40
1.60
2011-01-05
2011-02-05
2011-03-05
2011-04-05
2011-05-05
2011-06-05
2011-07-05
2011-08-05
2011-09-05
2011-10-05
2011-11-05
2011-12-05

2011 GVRD Laboratory Report - DM916 (NE Corner 97A Ave. / 137 St.)

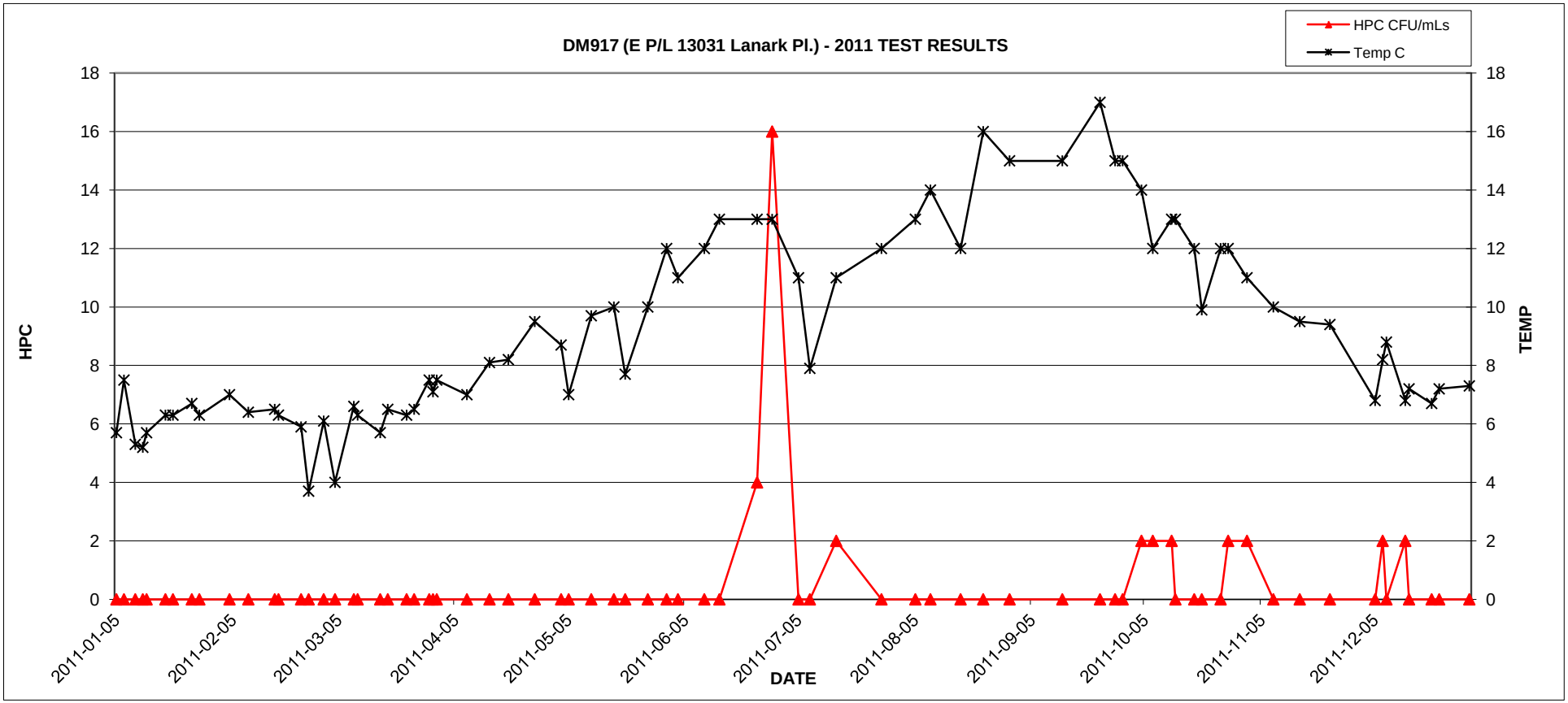
Date Collected	CL2Free mg/L	Ecoli MF/100mLs	HPC CFU/mLs	Tcoli MF/100mLs	Temp C	Turbidity NTU
05-Jan	0.80	<1	<2	<1	5.5	0.14
07-Jan	0.51	<1	<2	<1	6.8	0.26
10-Jan	0.64	<1	<2	<1	5.7	0.52
12-Jan	0.77	<1	<2	<1	4.3	0.36
13-Jan	0.56	<1	<2	<1	6.3	0.19
18-Jan	0.72	<1	<2	<1	5.7	0.20
20-Jan	0.60	<1	<2	<1	5.9	0.27
25-Jan	0.59	<1	<2	<1	7.4	0.17
27-Jan	0.70	<1	<2	<1	5.8	0.18
02-Feb	0.58	<1	<2	<1	3	0.22
04-Feb	0.51	<1	<2	<1	6.7	0.18
09-Feb	0.53	<1	<2	<1	6.3	0.16
16-Feb	0.58	<1	<2	<1	6.1	0.12
17-Feb	0.49	<1	<2	<1	6.8	0.11
23-Feb	0.44	<1	<2	<1	5.5	0.18
25-Feb	0.45	<1	<2	<1	3.9	0.15
01-Mar	0.44	<1	<2	<1	5.5	0.20
04-Mar	0.48	<1	<2	<1	4	0.15
09-Mar	0.45	<1	<2	<1	6.3	0.23
16-Mar	0.55	<1	<2	<1	5.9	0.17
10-Mar	0.65	<1	<2	<1	5.8	0.14
18-Mar	0.62	<1	<2	<1	5.9	0.34
23-Mar	0.47	<1	<2	<1	5.7	0.17
25-Mar	0.57	<1	<2	<1	5.9	0.13
29-Mar	0.34	<1	<2	<1	7.2	0.15
30-Mar	0.48	<1	<2	<1	6.3	0.14
31-Mar	0.58	<1	<2	<1	6.8	0.15
08-Apr	0.54	<1	<2	<1	6.9	0.19
15-Apr	0.51	<1	<2	<1	5.1	0.15
14-Apr	0.38	<1	<2	<1	7.5	0.12
19-Apr	0.41	<1	<2	<1	7.7	0.15
26-Apr	0.40	<1	<2	<1	9.3	0.12
05-May	0.56	<1	<2	<1	7.2	0.16
03-May	0.23	<1	<2	<1	8.7	0.40
11-May	0.28	<1	2	<1	9.4	0.18
17-May	0.66	<1	<2	<1	10	0.12
26-May	0.60	<1	8	<1	10	0.23
31-May	0.62	<1	<2	<1	11	0.30
03-Jun	0.59	<1	<2	<1	13	0.23
10-Jun	0.59	<1	<2	<1	12	0.18
14-Jun	0.62	<1	<2	<1	12	0.17
24-Jun	0.63	<1	2	<1	12	0.23
28-Jun	0.42	<1	<2	<1	14	0.19
05-Jul	0.45	<1	<2	<1	9.3	0.11
08-Jul	0.65	<1	<2	<1	7.8	0.17
15-Jul	0.53	<1	2	<1	12	0.16
21-Jul	0.46	<1	<2	<1	14	0.20
27-Jul	0.49	<1	2	<1	12	0.16
05-Aug	0.52	<1	<2	<1	13	0.22
09-Aug	0.54	<1	<2	<1	14	0.17
17-Aug	0.40	<1	2	<1	12	0.12
23-Aug	0.28	<1	6	<1	17	0.20
30-Aug	0.49	<1	<2	<1	14	0.10
13-Sep	0.42	<1	<2	<1	16	0.19
23-Sep	0.62	<1	<2	<1	16	0.20
27-Sep	0.63	<1	2	<1	11	0.23
29-Sep	0.30	<1	LA	<1	15	0.24
04-Oct	0.26	<1	2	<1	14	0.26
06-Oct	0.27	<1	<2	<1	14	0.22
12-Oct	0.28	<1	2	<1	14	0.21
13-Oct	0.27	<1	<2	<1	12	0.22
18-Oct	0.09	<1	2	<1	13	0.24
20-Oct	0.23	<1	<2	<1	10	0.20
25-Oct	0.17	<1	<2	<1	12	0.21
27-Oct	0.26	<1	4	<1	12	0.23
01-Nov	0.23	<1	<2	<1	11	0.28
08-Nov	0.19	<1	<2	<1	11	0.23
15-Nov	0.13	<1	<2	<1	8.9	0.19
23-Nov	0.23	<1	<2	<1	9.2	0.23
05-Dec	0.26	<1	4	<1	8.3	0.17
07-Dec	0.75	<1	<2	<1	8.4	0.19
08-Dec	0.57	<1	<2	<1	8.5	0.27
13-Dec	0.24	<1	<2	<1	7.4	0.31
14-Dec	0.27	<1	<2	<1	7.1	0.30
20-Dec	0.34	<1	<2	<1	7.1	0.28
22-Dec	0.32	<1	<2	<1	6.8	0.22
30-Dec	0.31	<1	NA	<1	7.8	0.59

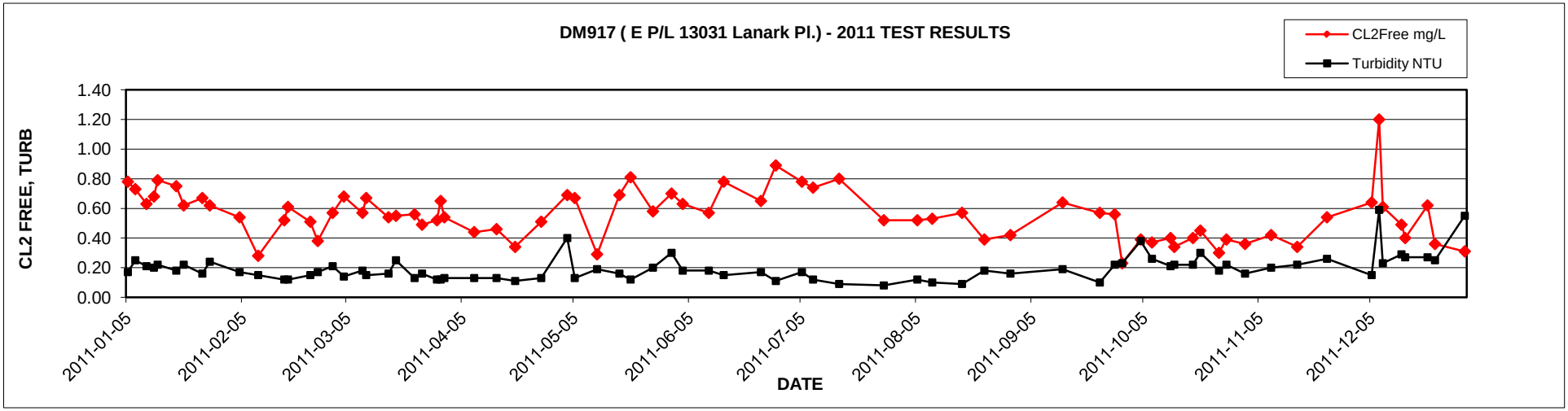

DM916 (NE Corner 97A Ave. / 137 St.) - 2011 TEST RESULTS
HPC CFU/mLs
Temp C
HPC
TEMP
DATE
0
1
2
3
4
5
6
7
8
9
0
2
4
6
8
10
12
14
16
18
2011-01-05
2011-02-05
2011-03-05
2011-04-05
2011-05-05
2011-06-05
2011-07-05
2011-08-05
2011-09-05
2011-10-05
2011-11-05
2011-12-05


DM916 (NE Corner 97A Ave. / 137 St.) - 2011 TEST RESULTS
CL2Free mg/L
Turbidity NTU
CL2 FREE, TURB
DATE
0.00
0.10
0.20
0.30
0.40
0.50
0.60
0.70
0.80
0.90
2011-01-05
2011-02-05
2011-03-05
2011-04-05
2011-05-05
2011-06-05
2011-07-05
2011-08-05
2011-09-05
2011-10-05
2011-11-05
2011-12-05

2011 GVRD Laboratory Report - DM917 (E P/L 13031 Lanark Pl.)

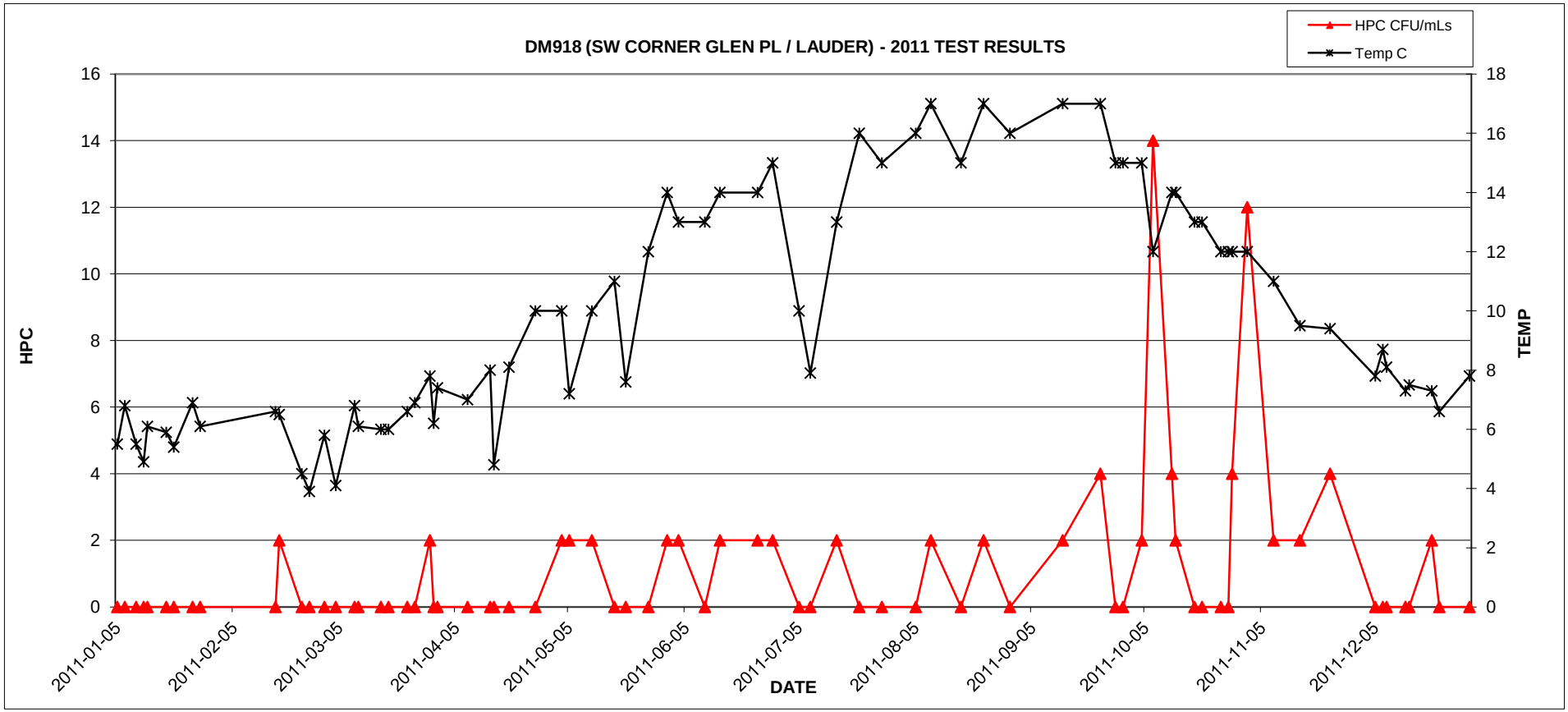
Date Collected	CL2Free mg/L	Ecoli MF/100mLs	HPC CFU/mLs	Tcoli MF/100mLs	Temp C	Turbidity NTU
05-Jan	0.78	<1	<2	<1	5.7	0.17
07-Jan	0.73	<1	<2	<1	7.5	0.25
10-Jan	0.63	<1	<2	<1	5.3	0.21
12-Jan	0.68	<1	<2	<1	5.2	0.20
13-Jan	0.79	<1	<2	<1	5.7	0.22
18-Jan	0.75	<1	<2	<1	6.3	0.18
20-Jan	0.62	<1	<2	<1	6.3	0.22
25-Jan	0.67	<1	<2	<1	6.7	0.16
27-Jan	0.62	<1	<2	<1	6.3	0.24
04-Feb	0.54	<1	<2	<1	7	0.17
09-Feb	0.28	<1	<2	<1	6.4	0.15
16-Feb	0.52	<1	<2	<1	6.5	0.12
17-Feb	0.61	<1	<2	<1	6.3	0.12
23-Feb	0.51	<1	<2	<1	5.9	0.15
25-Feb	0.38	<1	<2	<1	3.7	0.17
01-Mar	0.57	<1	<2	<1	6.1	0.21
04-Mar	0.68	<1	<2	<1	4	0.14
09-Mar	0.57	<1	<2	<1	6.6	0.18
16-Mar	0.54	<1	<2	<1	5.7	0.16
10-Mar	0.67	<1	<2	<1	6.3	0.15
18-Mar	0.55	<1	<2	<1	6.5	0.25
23-Mar	0.56	<1	<2	<1	6.3	0.13
25-Mar	0.49	<1	<2	<1	6.5	0.16
29-Mar	0.52	<1	<2	<1	7.5	0.12
30-Mar	0.65	<1	<2	<1	7.1	0.12
31-Mar	0.54	<1	<2	<1	7.5	0.13
08-Apr	0.44	<1	<2	<1	7	0.13
14-Apr	0.46	<1	<2	<1	8.1	0.13
19-Apr	0.34	<1	<2	<1	8.2	0.11
26-Apr	0.51	<1	<2	<1	9.5	0.13
05-May	0.67	<1	<2	<1	7	0.13
03-May	0.69	<1	<2	<1	8.7	0.40
11-May	0.29	<1	<2	<1	9.7	0.19
20-May	0.81	<1	<2	<1	7.7	0.12
17-May	0.69	<1	<2	<1	10	0.16
26-May	0.58	<1	<2	<1	10	0.20
31-May	0.70	<1	<2	<1	12	0.30
03-Jun	0.63	<1	<2	<1	11	0.18
10-Jun	0.57	<1	<2	<1	12	0.18
14-Jun	0.78	<1	<2	<1	13	0.15
24-Jun	0.65	<1	4	<1	13	0.17
28-Jun	0.89	<1	16	<1	13	0.11
05-Jul	0.78	<1	<2	<1	11	0.17
08-Jul	0.74	<1	<2	<1	7.9	0.12
15-Jul	0.80	<1	2	<1	11	0.09
27-Jul	0.52	<1	<2	<1	12	0.08
05-Aug	0.52	<1	<2	<1	13	0.12
09-Aug	0.53	<1	<2	<1	14	0.10
17-Aug	0.57	<1	<2	<1	12	0.09
23-Aug	0.39	<1	<2	<1	16	0.18
30-Aug	0.42	<1	<2	<1	15	0.16
13-Sep	0.64	<1	<2	<1	15	0.19
23-Sep	0.57	<1	<2	<1	17	0.10
27-Sep	0.56	<1	<2	<1	15	0.22
29-Sep	0.23	<1	<2	<1	15	0.23
04-Oct	0.39	<1	2	<1	14	0.38
07-Oct	0.37	<1	2	<1	12	0.26
12-Oct	0.40	<1	2	<1	13	0.21
13-Oct	0.34	<1	<2	<1	13	0.22
18-Oct	0.40	<1	<2	<1	12	0.22
20-Oct	0.45	<1	<2	<1	9.9	0.30
25-Oct	0.30	<1	<2	<1	12	0.18
27-Oct	0.39	<1	2	<1	12	0.22
01-Nov	0.36	<1	2	<1	11	0.16
08-Nov	0.42	<1	<2	<1	10	0.20
15-Nov	0.34	<1	<2	<1	9.5	0.22
23-Nov	0.54	<1	<2	<1	9.4	0.26
05-Dec	0.64	<1	<2	<1	6.8	0.15
07-Dec	1.20	<1	2	<1	8.2	0.59
08-Dec	0.61	<1	<2	<1	8.8	0.23
13-Dec	0.49	<1	2	<1	6.8	0.29
14-Dec	0.40	<1	<2	<1	7.2	0.27
20-Dec	0.62	<1	<2	<1	6.7	0.27
22-Dec	0.36	<1	<2	<1	7.2	0.25
30-Dec	0.31	<1	NA	<1	7.3	0.55

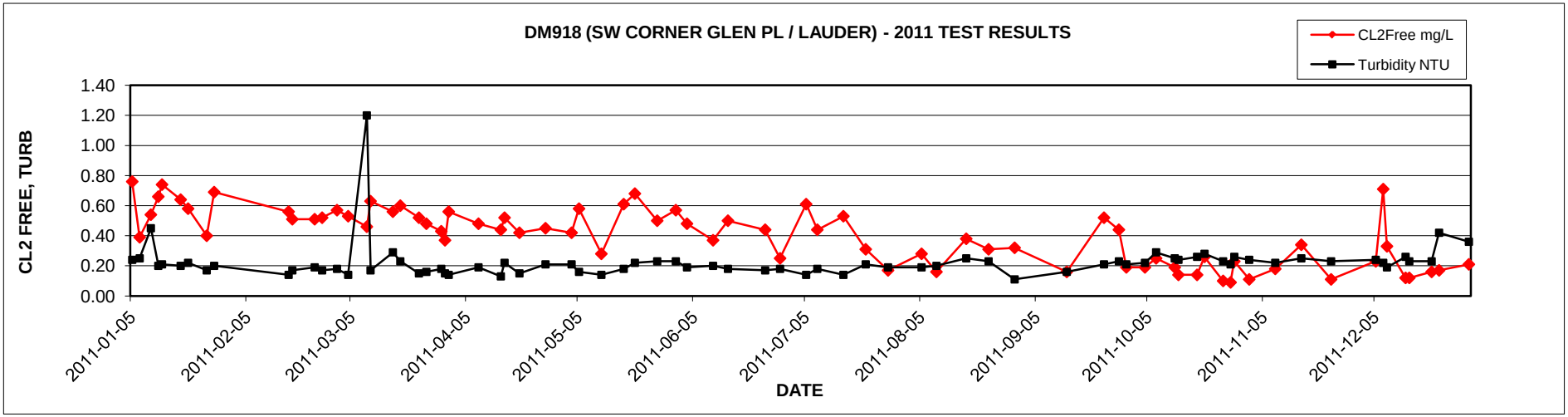

DM917 (E P/L 13031 Lanark Pl.) - 2011 TEST RESULTS
HPC CFU/mLs
Temp C
HPC
TEMP
DATE
0
2
4
6
8
10
12
14
16
18
2011-01-05
2011-02-05
2011-03-05
2011-04-05
2011-05-05
2011-06-05
2011-07-05
2011-08-05
2011-09-05
2011-10-05
2011-11-05
2011-12-05


DM917 (E P/L 13031 Lanark Pl.) - 2011 TEST RESULTS
CL2Free mg/L
Turbidity NTU
CL2 FREE, TURB
DATE
0.00
0.20
0.40
0.60
0.80
1.00
1.20
1.40
2011-01-05
2011-02-05
2011-03-05
2011-04-05
2011-05-05
2011-06-05
2011-07-05
2011-08-05
2011-09-05
2011-10-05
2011-11-05
2011-12-05

2011 GVRD Laboratory Report - DM918 (SW CORNER GLEN PL / LAUDER)

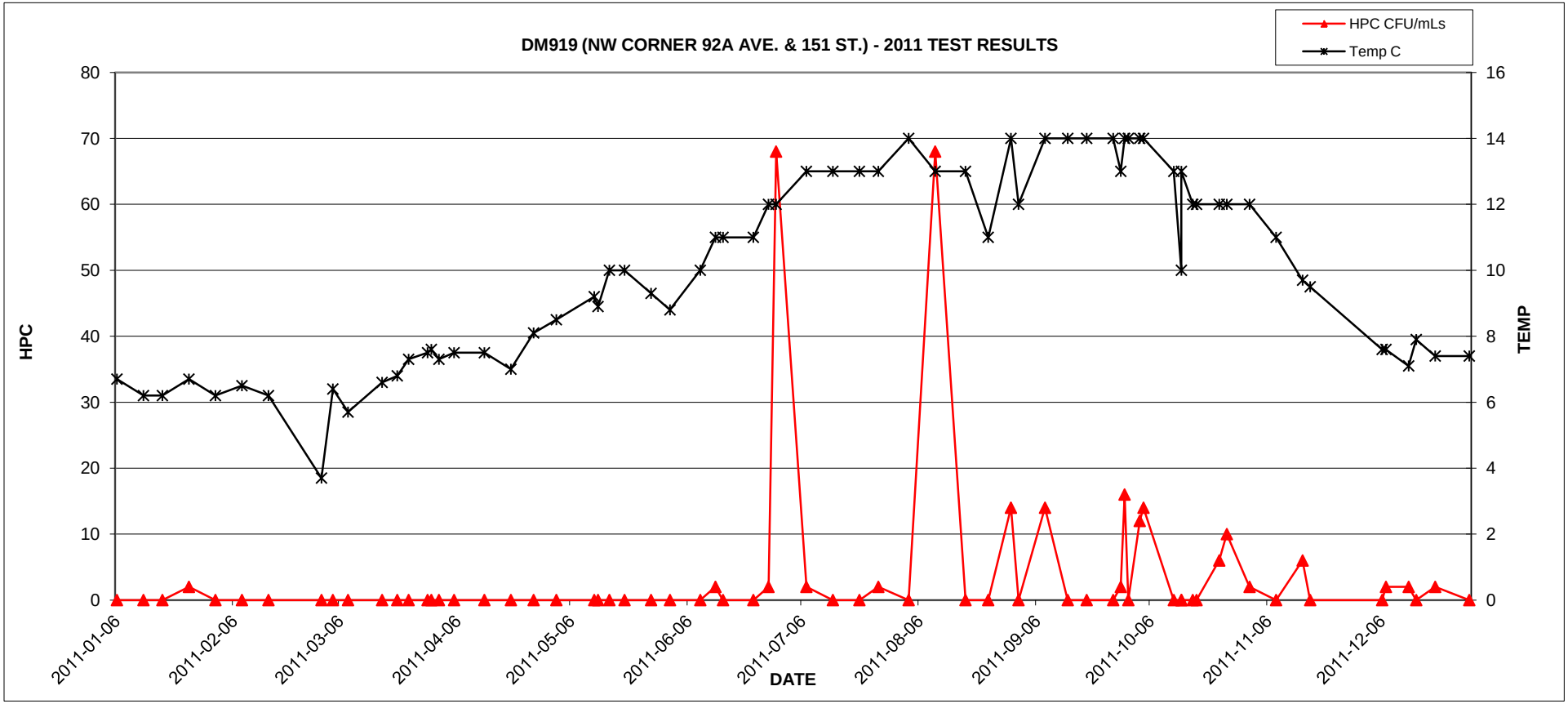
Date Collected	CL2Free mg/L	Ecoli MF/100mLs	HPC CFU/mLs	Tcoli MF/100mLs	Temp C	Turbidity NTU
05-Jan	0.76	<1	<2	<1	5.5	0.24
07-Jan	0.39	<1	<2	<1	6.8	0.25
10-Jan	0.54	<1	<2	<1	5.5	0.45
12-Jan	0.66	<1	<2	<1	4.9	0.20
13-Jan	0.74	<1	<2	<1	6.1	0.21
18-Jan	0.64	<1	<2	<1	5.9	0.20
20-Jan	0.58	<1	<2	<1	5.4	0.22
25-Jan	0.40	<1	<2	<1	6.9	0.17
27-Jan	0.69	<1	<2	<1	6.1	0.20
16-Feb	0.56	<1	<2	<1	6.6	0.14
17-Feb	0.51	<1	2	<1	6.5	0.17
23-Feb	0.51	<1	<2	<1	4.5	0.19
25-Feb	0.52	<1	<2	<1	3.9	0.17
01-Mar	0.57	<1	<2	<1	5.8	0.18
04-Mar	0.53	<1	<2	<1	4.1	0.14
09-Mar	0.46	<1	<2	<1	6.8	1.20
16-Mar	0.56	<1	<2	<1	6	0.29
10-Mar	0.63	<1	<2	<1	6.1	0.17
18-Mar	0.60	<1	<2	<1	6	0.23
23-Mar	0.52	<1	<2	<1	6.6	0.15
25-Mar	0.48	<1	<2	<1	6.9	0.16
29-Mar	0.43	<1	2	<1	7.8	0.18
30-Mar	0.37	<1	<2	<1	6.2	0.15
31-Mar	0.56	<1	<2	<1	7.4	0.14
08-Apr	0.48	<1	<2	<1	7	0.19
15-Apr	0.52	<1	<2	<1	4.8	0.22
14-Apr	0.44	<1	<2	<1	8	0.13
19-Apr	0.42	<1	<2	<1	8.1	0.15
26-Apr	0.45	<1	<2	<1	10	0.21
05-May	0.58	<1	2	<1	7.2	0.16
03-May	0.42	<1	2	<1	10	0.21
11-May	0.28	<1	2	<1	10	0.14
20-May	0.68	<1	<2	<1	7.6	0.22
17-May	0.61	<1	<2	<1	11	0.18
26-May	0.50	<1	<2	<1	12	0.23
31-May	0.57	<1	2	<1	14	0.23
03-Jun	0.48	<1	2	<1	13	0.19
10-Jun	0.37	<1	<2	<1	13	0.20
14-Jun	0.50	<1	2	<1	14	0.18
24-Jun	0.44	<1	2	<1	14	0.17
28-Jun	0.25	<1	2	<1	15	0.18
05-Jul	0.61	<1	<2	<1	10	0.14
08-Jul	0.44	<1	<2	<1	7.9	0.18
15-Jul	0.53	<1	2	<1	13	0.14
21-Jul	0.31	<1	<2	<1	16	0.21
27-Jul	0.17	<1	<2	<1	15	0.19
05-Aug	0.28	<1	<2	<1	16	0.19
09-Aug	0.16	<1	2	<1	17	0.20
17-Aug	0.38	<1	<2	<1	15	0.25
23-Aug	0.31	<1	2	<1	17	0.23
30-Aug	0.32	<1	<2	<1	16	0.11
13-Sep	0.16	<1	2	<1	17	0.16
23-Sep	0.52	<1	4	<1	17	0.21
27-Sep	0.44	<1	<2	<1	15	0.23
29-Sep	0.19	<1	LA	<1	15	0.21
04-Oct	0.19	<1	2	<1	15	0.22
07-Oct	0.25	<1	14	<1	12	0.29
12-Oct	0.19	<1	4	<1	14	0.25
13-Oct	0.14	<1	2	<1	14	0.24
18-Oct	0.14	<1	<2	<1	13	0.26
20-Oct	0.26	<1	<2	<1	13	0.28
25-Oct	0.10	<1	<2	<1	12	0.23
27-Oct	0.09	<1	<2	<1	12	0.21
28-Oct	0.23	<1	4	<1	12	0.26
01-Nov	0.11	<1	12	<1	12	0.24
08-Nov	0.18	<1	2	<1	11	0.22
15-Nov	0.34	<1	2	<1	9.5	0.25
23-Nov	0.11	<1	4	<1	9.4	0.23
05-Dec	0.23	<1	<2	<1	7.8	0.24
07-Dec	0.71	<1	<2	<1	8.7	0.22
08-Dec	0.33	<1	<2	<1	8.1	0.19
13-Dec	0.12	<1	<2	<1	7.3	0.26
14-Dec	0.12	<1	<2	<1	7.5	0.23
20-Dec	0.16	<1	2	<1	7.3	0.23
22-Dec	0.17	<1	<2	<1	6.6	0.42
30-Dec	0.21	<1	NA	<1	7.8	0.36

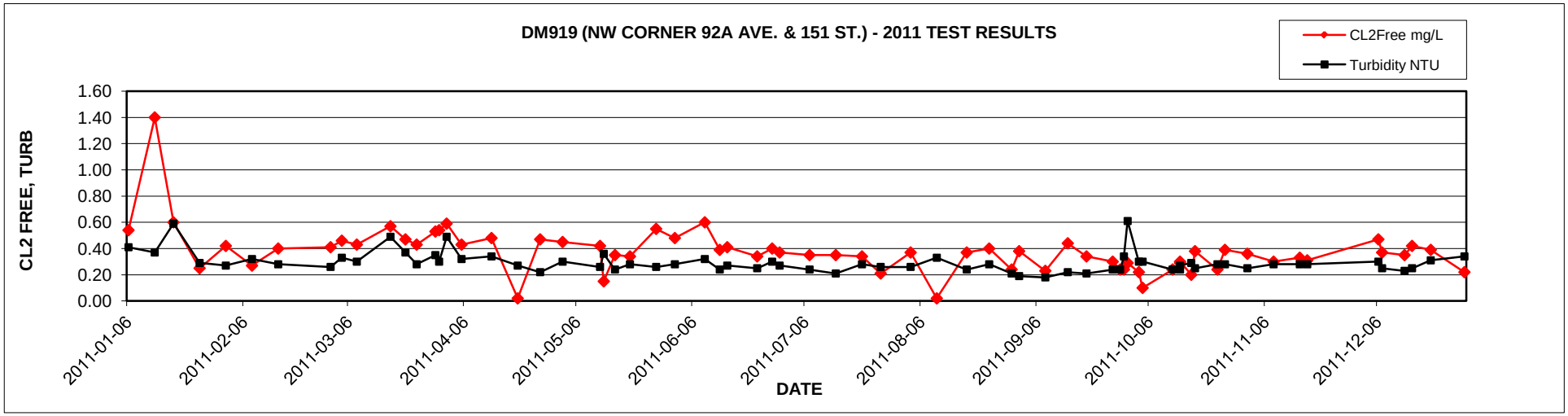

DM918 (SW CORNER GLEN PL / LAUDER) - 2011 TEST RESULTS
HPC CFU/mLs
Temp C
HPC
TEMP
DATE
0
2
4
6
8
10
12
14
16
18
2011-01-05
2011-02-05
2011-03-05
2011-04-05
2011-05-05
2011-06-05
2011-07-05
2011-08-05
2011-09-05
2011-10-05
2011-11-05
2011-12-05


DM918 (SW CORNER GLEN PL / LAUDER) - 2011 TEST RESULTS
CL2Free mg/L
Turbidity NTU
CL2 FREE, TURB
DATE
0.00
0.20
0.40
0.60
0.80
1.00
1.20
1.40
2011-01-05
2011-02-05
2011-03-05
2011-04-05
2011-05-05
2011-06-05
2011-07-05
2011-08-05
2011-09-05
2011-10-05
2011-11-05
2011-12-05

2011 GVRD Laboratory Report - DM919 (NW CORNER 92A AVE. & 151 ST.)

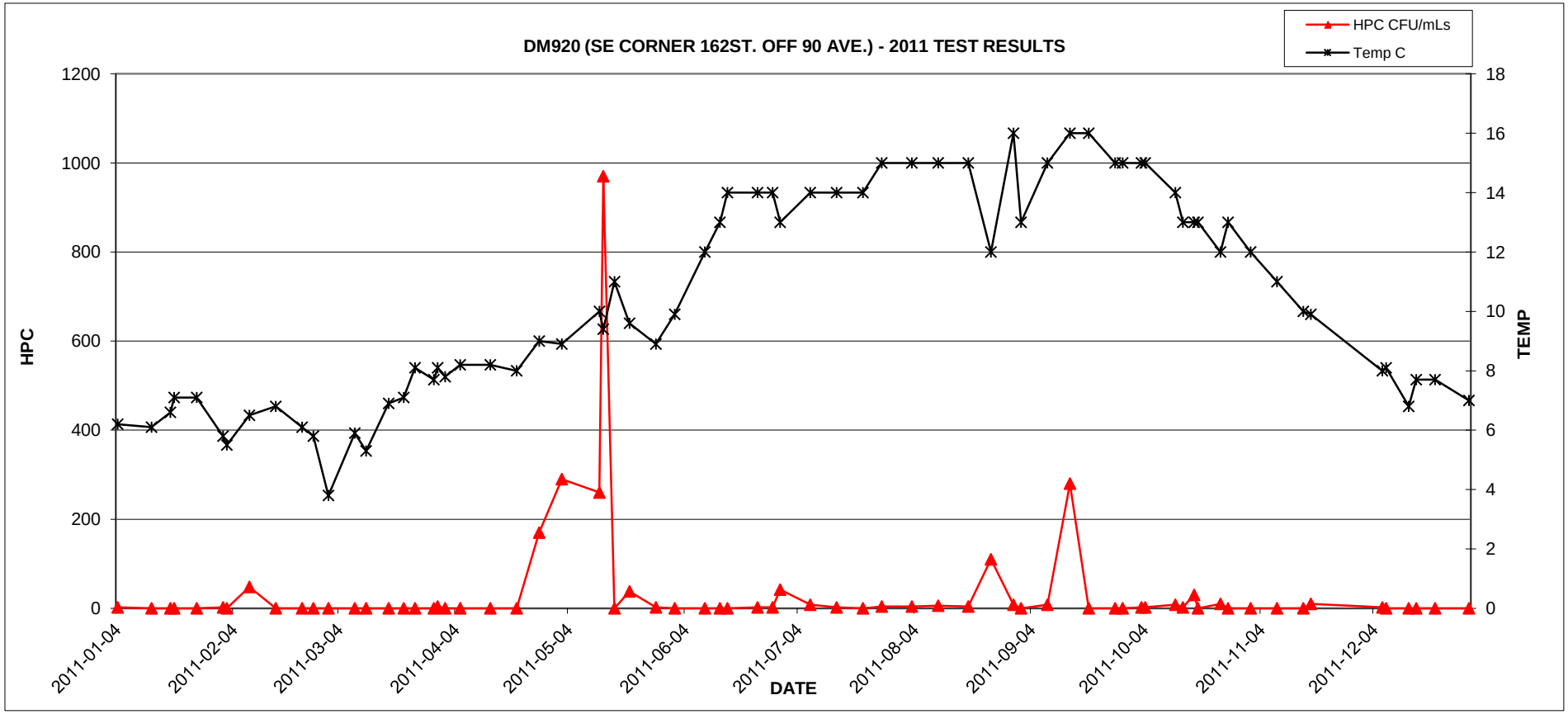
Date Collected	CL2Free mg/L	Ecoli MF/100mLs	HPC CFU/mLs	Tcoli MF/100mLs	Temp C	Turbidity NTU
06-Jan	0.54	<1	<2	<1	6.7	0.41
13-Jan	1.40	<1	<2	<1	6.2	0.37
18-Jan	0.60	<1	<2	<1	6.2	0.59
25-Jan	0.25	<1	2	<1	6.7	0.29
01-Feb	0.42	<1	<2	<1	6.2	0.27
08-Feb	0.27	<1	<2	<1	6.5	0.32
15-Feb	0.40	<1	<2	<1	6.2	0.28
01-Mar	0.41	<1	<2	<1	3.7	0.26
04-Mar	0.46	<1	<2	<1	6.4	0.33
08-Mar	0.43	<1	<2	<1	5.7	0.30
17-Mar	0.57	<1	<2	<1	6.6	0.49
21-Mar	0.47	<1	<2	<1	6.8	0.37
24-Mar	0.43	<1	<2	<1	7.3	0.28
29-Mar	0.53	<1	<2	<1	7.5	0.35
30-Mar	0.54	<1	<2	<1	7.6	0.30
01-Apr	0.59	<1	<2	<1	7.3	0.49
05-Apr	0.43	<1	<2	<1	7.5	0.32
13-Apr	0.48	<1	<2	<1	7.5	0.34
20-Apr	0.02	<1	<2	<1	7	0.27
26-Apr	0.47	<1	<2	<1	8.1	0.22
02-May	0.45	<1	<2	<1	8.5	0.30
13-May	0.15	<1	<2	<1	8.9	0.36
12-May	0.42	<1	<2	<1	9.2	0.26
20-May	0.34	<1	<2	<1	10	0.28
16-May	0.35	<1	<2	<1	10	0.24
27-May	0.55	<1	<2	<1	9.3	0.26
01-Jun	0.48	<1	<2	<1	8.8	0.28
09-Jun	0.60	<1	<2	<1	10	0.32
13-Jun	0.39	<1	2	<1	11	0.24
15-Jun	0.41	<1	<2	<1	11	0.27
23-Jun	0.34	<1	<2	<1	11	0.25
27-Jun	0.40	<1	2	<1	12	0.30
29-Jun	0.37	<1	68	<1	12	0.27
07-Jul	0.35	<1	2	<1	13	0.24
14-Jul	0.35	<1	<2	<1	13	0.21
21-Jul	0.34	<1	<2	<1	13	0.28
26-Jul	0.21	<1	2	<1	13	0.26
03-Aug	0.37	<1	<2	<1	14	0.26
10-Aug	0.02	<1	68	<1	13	0.33
18-Aug	0.37	<1	<2	<1	13	0.24
24-Aug	0.40	<1	<2	<1	11	0.28
30-Aug	0.24	<1	14	<1	14	0.21
01-Sep	0.38	<1	<2	<1	12	0.19
08-Sep	0.23	<1	14	<1	14	0.18
14-Sep	0.44	<1	<2	<1	14	0.22
19-Sep	0.34	<1	<2	<1	14	0.21
26-Sep	0.30	<1	<2	1	14	0.24
28-Sep	0.24	<1	2	<1	13	0.24
29-Sep	0.24	<1	16	<1	14	0.34
30-Sep	0.29	<1	<2	<1	14	0.61
03-Oct	0.22	<1	12	<1	14	0.30
04-Oct	0.10	<1	14	<1	14	0.30
12-Oct	0.24	<1	<2	<1	13	0.24
14-Oct	0.29	<1	<2	<1	10	0.24
14-Oct	0.30	<1	<2	<1	13	0.27
17-Oct	0.20	<1	<2	<1	12	0.29
18-Oct	0.38	<1	<2	<1	12	0.25
24-Oct	0.24	<1	6	<1	12	0.28
26-Oct	0.39	<1	10	<1	12	0.28
01-Nov	0.36	<1	2	<1	12	0.25
08-Nov	0.30	<1	<2	<1	11	0.28
15-Nov	0.33	<1	6	<1	9.7	0.28
17-Nov	0.31	<1	<2	<1	9.5	0.28
06-Dec	0.47	<1	<2	<1	7.6	0.30
07-Dec	0.37	<1	2	<1	7.6	0.25
13-Dec	0.35	<1	2	<1	7.1	0.23
15-Dec	0.42	<1	<2	<1	7.9	0.25
20-Dec	0.39	<1	2	<1	7.4	0.31
29-Dec	0.22	<1	NA	<1	7.4	0.34

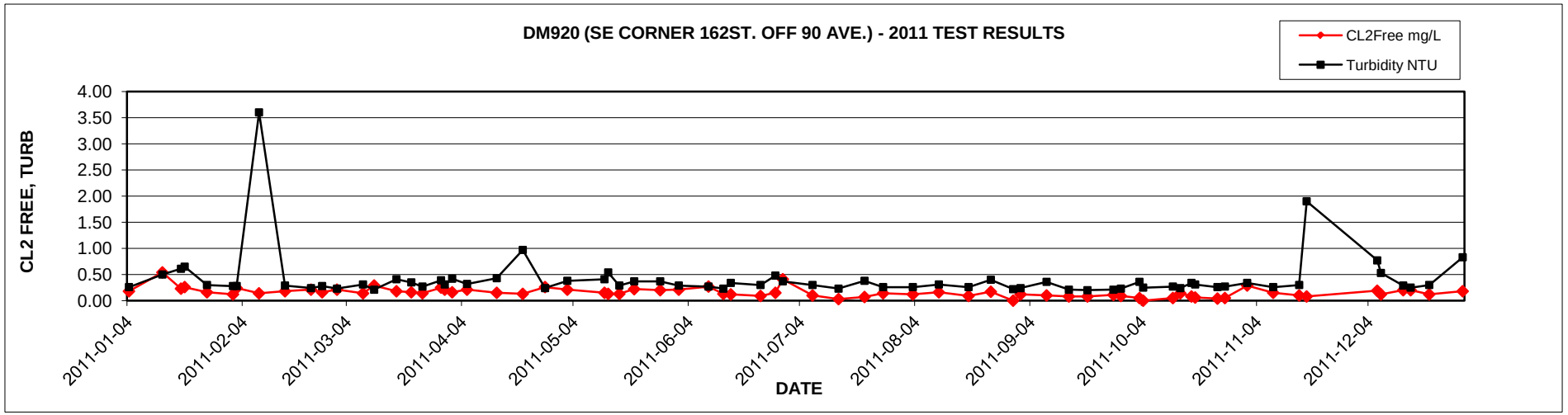

DM919 (NW CORNER 92A AVE. & 151 ST.) - 2011 TEST RESULTS
HPC CFU/mLs
Temp C
HPC
TEMP
DATE
0
10
20
30
40
50
60
70
80
0
2
4
6
8
10
12
14
16
2011-01-06
2011-02-06
2011-03-06
2011-04-06
2011-05-06
2011-06-06
2011-07-06
2011-08-06
2011-09-06
2011-10-06
2011-11-06
2011-12-06


DM919 (NW CORNER 92A AVE. & 151 ST.) - 2011 TEST RESULTS
CL2Free mg/L
Turbidity NTU
CL2 FREE, TURB
DATE
0.00
0.20
0.40
0.60
0.80
1.00
1.20
1.40
1.60
2011-01-06
2011-02-06
2011-03-06
2011-04-06
2011-05-06
2011-06-06
2011-07-06
2011-08-06
2011-09-06
2011-10-06
2011-11-06
2011-12-06

2011 GVRD Laboratory Report - DM920 (SE CORNER 162ST. OFF 90 AVE.)

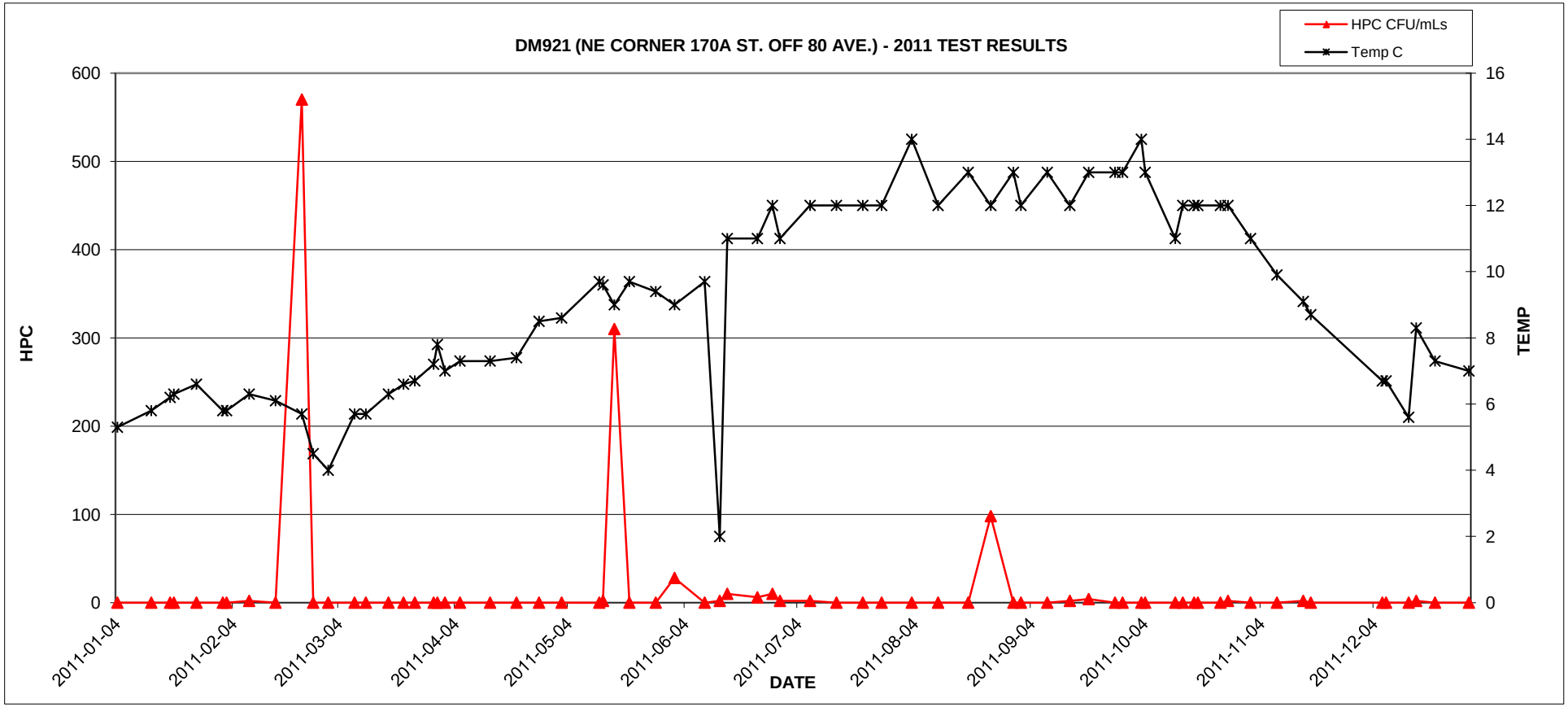
Date Collected	CL2Free mg/L	Ecoli MF/100mLs	HPC CFU/mLs	Tcoli MF/100mLs	Temp C	Turbidity NTU
04-Jan	0.18	<1	2	<1	6.2	0.26
13-Jan	0.54	<1	<2	<1	6.1	0.50
18-Jan	0.23	<1	<2	<1	6.6	0.61
19-Jan	0.26	<1	<2	<1	7.1	0.65
25-Jan	0.16	<1	<2	<1	7.1	0.30
01-Feb	0.12	<1	2	<1	5.8	0.28
02-Feb	0.24	<1	<2	<1	5.5	0.28
08-Feb	0.14	<1	48	<1	6.5	3.60
15-Feb	0.18	<1	<2	<1	6.8	0.29
22-Feb	0.21	<1	<2	<1	6.1	0.24
25-Feb	0.16	<1	<2	<1	5.8	0.28
01-Mar	0.21	<1	<2	<1	3.8	0.23
08-Mar	0.14	<1	<2	<1	5.9	0.31
11-Mar	0.29	<1	<2	<1	5.3	0.21
17-Mar	0.18	<1	<2	<1	6.9	0.41
21-Mar	0.16	<1	<2	<1	7.1	0.35
24-Mar	0.14	<1	<2	<1	8.1	0.27
29-Mar	0.25	<1	<2	<1	7.7	0.39
30-Mar	0.21	<1	4	<1	8.1	0.31
01-Apr	0.16	<1	<2	<1	7.8	0.42
05-Apr	0.21	<1	<2	<1	8.2	0.32
13-Apr	0.15	<1	<2	<1	8.2	0.43
20-Apr	0.13	<1	<2	<1	8	0.97
26-Apr	0.26	<1	170	<1	9	0.24
02-May	0.21	<1	290	<1	8.9	0.38
13-May	0.13	<1	970	<1	9.4	0.54
12-May	0.15	<1	260	<1	10	0.41
20-May	0.22	<1	38	<1	9.6	0.37
16-May	0.13	<1	<2	<1	11	0.29
27-May	0.20	<1	2	<1	8.9	0.37
01-Jun	0.21	<1	<2	<1	9.9	0.29
09-Jun	0.27	<1	<2	<1	12	0.27
13-Jun	0.13	<1	<2	<1	13	0.23
15-Jun	0.12	<1	<2	<1	14	0.34
23-Jun	0.09	<1	2	<1	14	0.30
27-Jun	0.15	<1	2	<1	14	0.48
29-Jun	0.41	<1	42	<1	13	0.37
07-Jul	0.10	<1	8	<1	14	0.30
14-Jul	0.03	<1	2	<1	14	0.23
21-Jul	0.07	<1	<2	<1	14	0.38
26-Jul	0.14	<1	4	<1	15	0.26
03-Aug	0.12	<1	4	<1	15	0.26
10-Aug	0.16	<1	6	<1	15	0.31
18-Aug	0.09	<1	4	<1	15	0.26
24-Aug	0.17	<1	110	<1	12	0.40
30-Aug	<0.01	<1	8	<1	16	0.22
01-Sep	0.12	<1	<2	<1	13	0.24
08-Sep	0.10	<1	8	<1	15	0.36
14-Sep	0.08	<1	280	<1	16	0.21
19-Sep	0.08	<1	<2	<1	16	0.20
26-Sep	0.11	<1	<2	<1	15	0.21
28-Sep	0.09	<1	<2	<1	15	0.23
03-Oct	0.05	<1	2	<1	15	0.36
04-Oct	<0.01	<1	2	<1	15	0.25
12-Oct	0.05	<1	8	<1	14	0.27
14-Oct	0.14	<1	2	<1	13	0.24
17-Oct	0.08	<1	30	<1	13	0.34
18-Oct	0.06	<1	<2	<1	13	0.31
24-Oct	0.04	<1	10	<1	12	0.26
26-Oct	0.05	<1	<2	<1	13	0.27
01-Nov	0.29	<1	<2	<1	12	0.34
08-Nov	0.15	<1	<2	<1	11	0.26
15-Nov	0.10	<1	<2	<1	10	0.30
17-Nov	0.08	<1	10	<1	9.9	1.90
06-Dec	0.19	<1	2	<1	8	0.77
07-Dec	0.12	<1	<2	<1	8.1	0.53
13-Dec	0.20	<1	<2	<1	6.8	0.29
15-Dec	0.20	<1	<2	<1	7.7	0.25
20-Dec	0.12	<1	<2	<1	7.7	0.30
29-Dec	0.18	<1	NA	<1	7	0.83

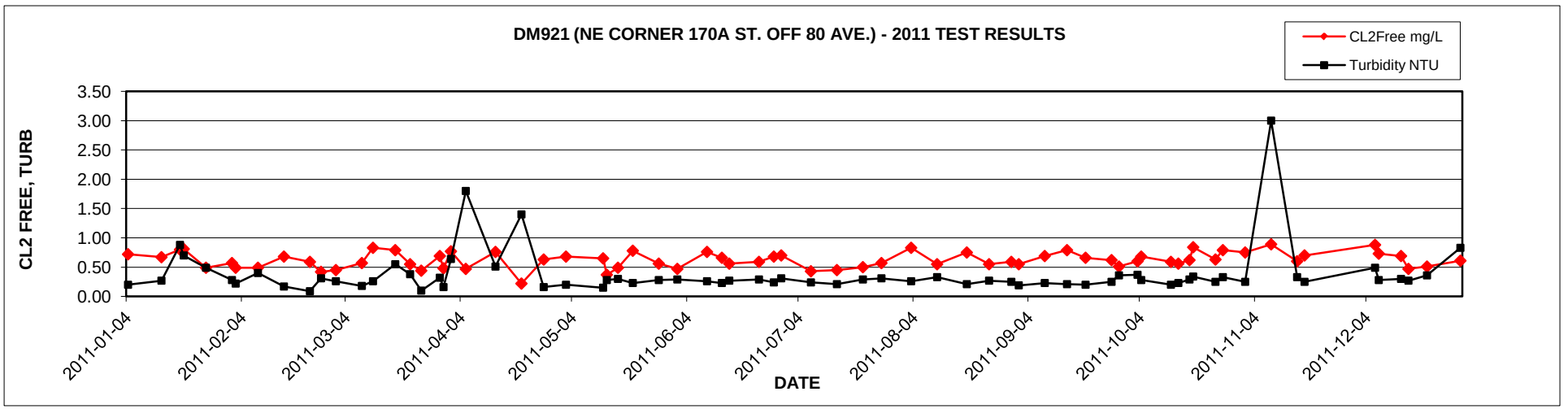

DM920 (SE CORNER 162ST. OFF 90 AVE.) - 2011 TEST RESULTS
HPC CFU/mLs
Temp C
HPC
TEMP
DATE
0
200
400
600
800
1000
1200
0
2
4
6
8
10
12
14
16
18
2011-01-04
2011-02-04
2011-03-04
2011-04-04
2011-05-04
2011-06-04
2011-07-04
2011-08-04
2011-09-04
2011-10-04
2011-11-04
2011-12-04


DM920 (SE CORNER 162ST. OFF 90 AVE.) - 2011 TEST RESULTS
CL2Free mg/L
Turbidity NTU
CL2 FREE, TURB
DATE
0.00
0.50
1.00
1.50
2.00
2.50
3.00
3.50
4.00
2011-01-04
2011-02-04
2011-03-04
2011-04-04
2011-05-04
2011-06-04
2011-07-04
2011-08-04
2011-09-04
2011-10-04
2011-11-04
2011-12-04

2011 GVRD Laboratory Report - DM921 (NE CORNER 170A ST. OFF 80 AVE.)

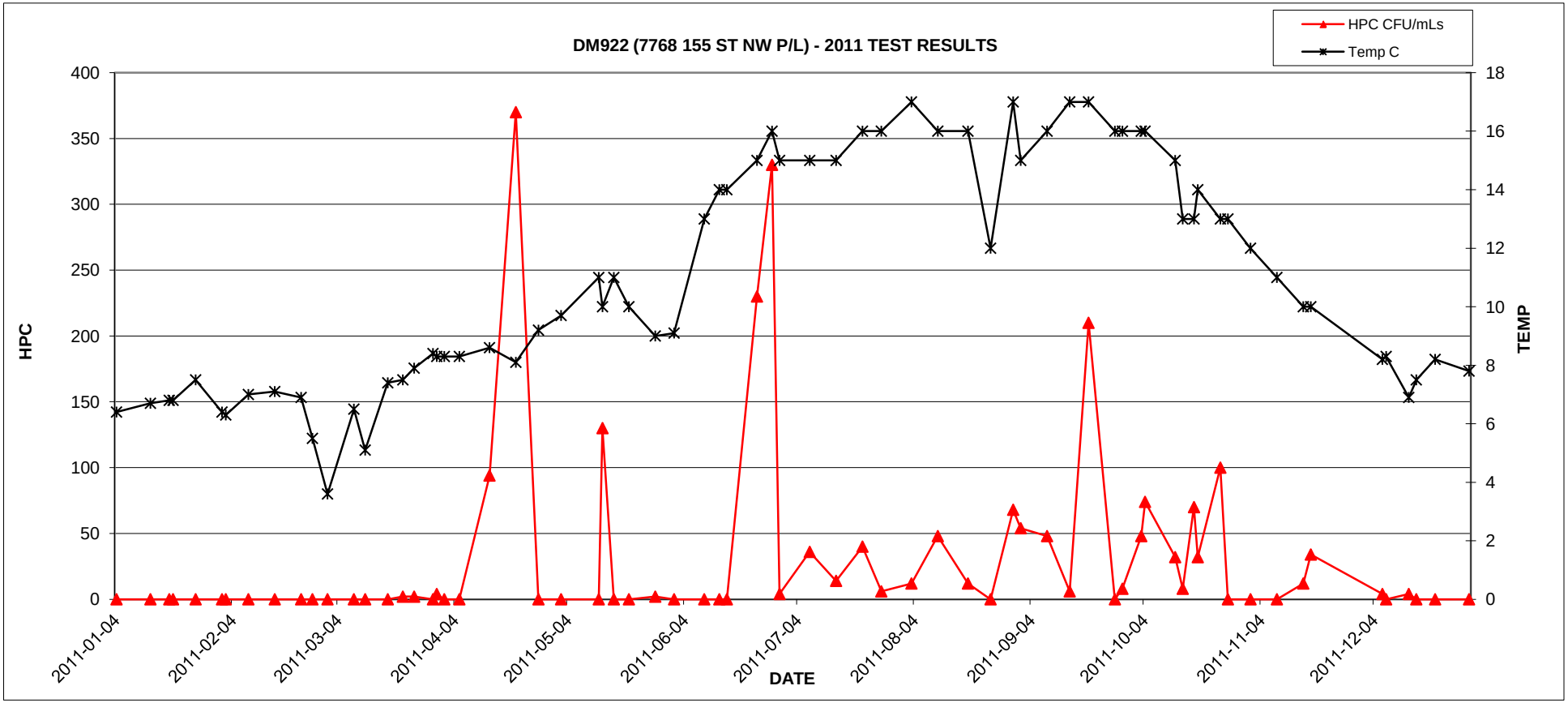
Date Collected	CL2Free mg/L	Ecoli MF/100mLs	HPC CFU/mLs	Tcoli MF/100mLs	Temp C	Turbidity NTU
04-Jan	0.72	<1	<2	<1	5.3	0.20
13-Jan	0.67	<1	<2	<1	5.8	0.27
18-Jan	0.80	<1	<2	<1	6.2	0.88
19-Jan	0.81	<1	<2	<1	6.3	0.70
25-Jan	0.49	<1	<2	<1	6.6	0.49
01-Feb	0.57	<1	<2	<1	5.8	0.28
02-Feb	0.49	<1	<2	<1	5.8	0.22
08-Feb	0.49	<1	2	<1	6.3	0.40
15-Feb	0.68	<1	<2	<1	6.1	0.17
22-Feb	0.59	<1	570	<1	5.7	0.09
25-Feb	0.42	<1	<2	<1	4.5	0.31
01-Mar	0.45	<1	<2	<1	4	0.26
08-Mar	0.57	<1	<2	<1	5.7	0.18
11-Mar	0.83	<1	<2	<1	5.7	0.26
17-Mar	0.79	<1	<2	<1	6.3	0.55
21-Mar	0.55	<1	<2	<1	6.6	0.38
24-Mar	0.44	<1	<2	<1	6.7	0.10
29-Mar	0.69	<1	<2	<1	7.2	0.32
30-Mar	0.48	<1	<2	<1	7.8	0.16
01-Apr	0.77	<1	<2	<1	7	0.64
05-Apr	0.47	<1	<2	<1	7.3	1.80
13-Apr	0.76	<1	<2	<1	7.3	0.51
20-Apr	0.22	<1	<2	<1	7.4	1.40
26-Apr	0.63	<1	<2	<1	8.5	0.16
02-May	0.68	<1	<2	<1	8.6	0.20
13-May	0.37	<1	2	<1	9.6	0.28
12-May	0.65	<1	<2	<1	9.7	0.15
20-May	0.78	<1	<2	<1	9.7	0.23
16-May	0.49	<1	310	<1	9	0.30
27-May	0.56	<1	<2	<1	9.4	0.28
01-Jun	0.47	<1	28	<1	9	0.29
09-Jun	0.76	<1	<2	<1	9.7	0.26
13-Jun	0.66	<1	2	<1	2	0.23
15-Jun	0.56	<1	10	<1	11	0.27
23-Jun	0.59	<1	6	<1	11	0.29
27-Jun	0.68	<1	10	<1	12	0.24
29-Jun	0.70	<1	2	<1	11	0.31
07-Jul	0.43	<1	2	<1	12	0.24
14-Jul	0.45	<1	<2	<1	12	0.21
21-Jul	0.50	<1	<2	<1	12	0.29
26-Jul	0.57	<1	<2	<1	12	0.31
03-Aug	0.83	<1	<2	<1	14	0.26
10-Aug	0.55	<1	<2	<1	12	0.33
18-Aug	0.75	<1	<2	<1	13	0.21
24-Aug	0.55	<1	98	<1	12	0.27
30-Aug	0.59	<1	<2	<1	13	0.25
01-Sep	0.55	<1	<2	<1	12	0.19
08-Sep	0.69	<1	<2	<1	13	0.23
14-Sep	0.79	<1	2	<1	12	0.21
19-Sep	0.66	<1	4	<1	13	0.20
26-Sep	0.62	<1	<2	<1	13	0.25
28-Sep	0.51	<1	<2	<1	13	0.36
03-Oct	0.60	<1	<2	<1	14	0.37
04-Oct	0.68	<1	<2	<1	13	0.28
12-Oct	0.59	<1	<2	<1	11	0.20
14-Oct	0.56	<1	<2	<1	12	0.23
17-Oct	0.62	<1	<2	<1	12	0.29
18-Oct	0.84	<1	<2	<1	12	0.34
24-Oct	0.63	<1	<2	<1	12	0.25
26-Oct	0.79	<1	2	<1	12	0.33
01-Nov	0.75	<1	<2	<1	11	0.25
08-Nov	0.89	<1	<2	<1	9.9	3.00
15-Nov	0.60	<1	2	<1	9.1	0.33
17-Nov	0.70	<1	<2	<1	8.7	0.25
06-Dec	0.88	<1	<2	<1	6.7	0.49
07-Dec	0.73	<1	<2	<1	6.7	0.28
13-Dec	0.69	<1	<2	<1	5.6	0.30
15-Dec	0.47	<1	2	<1	8.3	0.27
20-Dec	0.51	<1	<2	<1	7.3	0.36
29-Dec	0.61	<1	NA	<1	7	0.83

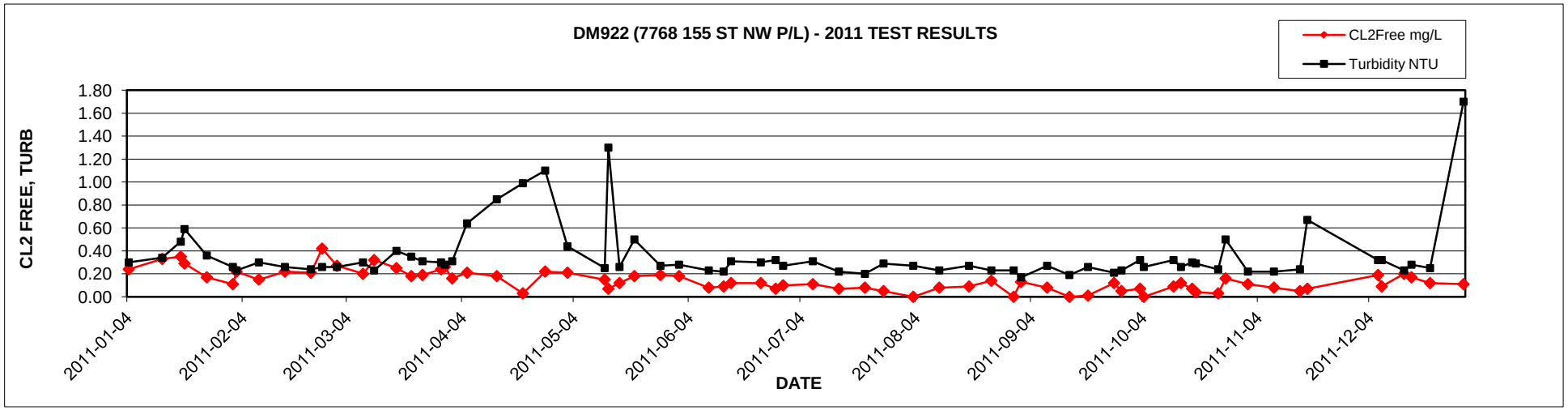

DM921 (NE CORNER 170A ST. OFF 80 AVE.) - 2011 TEST RESULTS
HPC CFU/mLs
Temp C
HPC
TEMP
DATE
600
500
400
300
200
100
0
16
14
12
10
8
6
4
2
0
2011-01-04
2011-02-04
2011-03-04
2011-04-04
2011-05-04
2011-06-04
2011-07-04
2011-08-04
2011-09-04
2011-10-04
2011-11-04
2011-12-04


DM921 (NE CORNER 170A ST. OFF 80 AVE.) - 2011 TEST RESULTS
CL2Free mg/L
Turbidity NTU
CL2 FREE, TURB
DATE
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
2011-01-04
2011-02-04
2011-03-04
2011-04-04
2011-05-04
2011-06-04
2011-07-04
2011-08-04
2011-09-04
2011-10-04
2011-11-04
2011-12-04

2011 GVRD Laboratory Report - DM922 (7768 155 ST NW P/L)

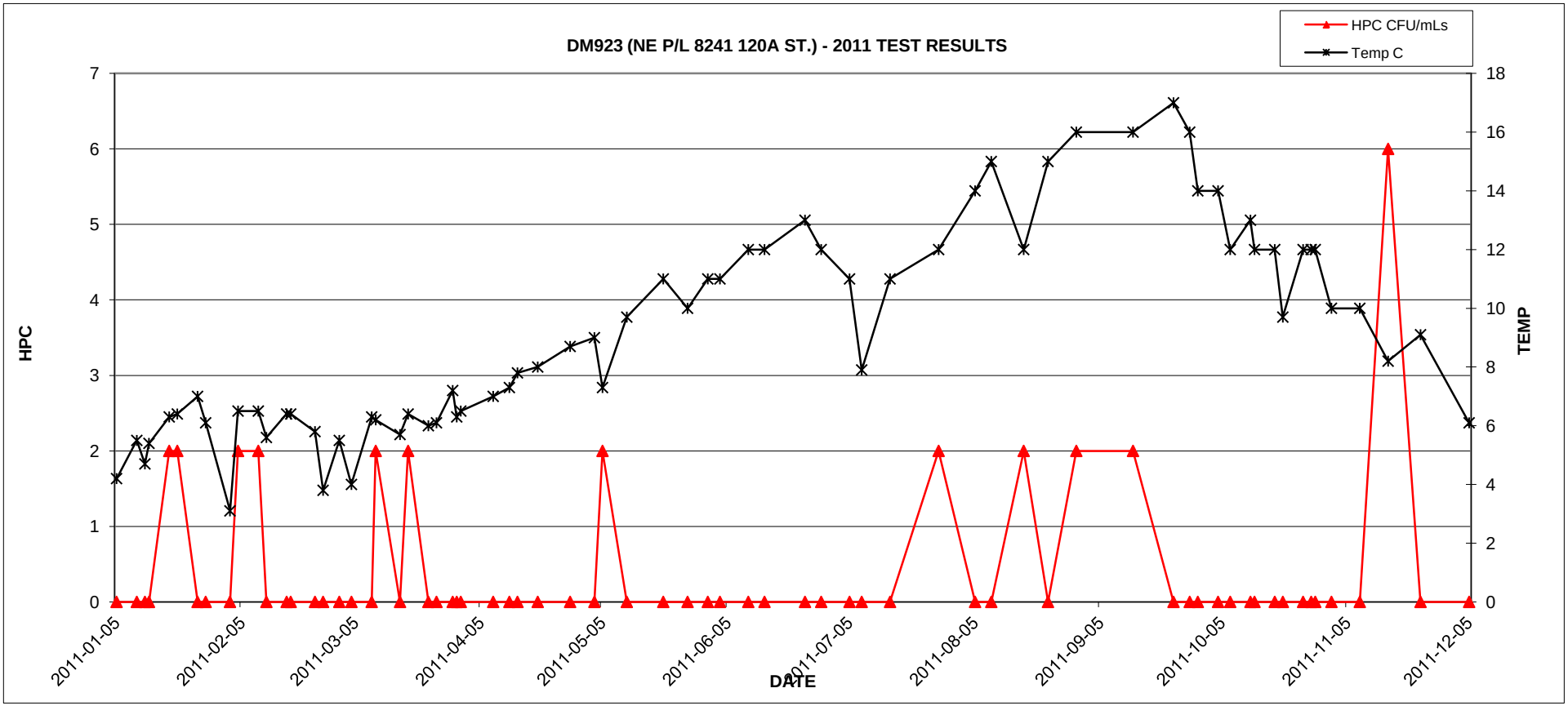
Date Collected	CL2Free mg/L	Ecoli MF/100mLs	HPC CFU/mLs	Tcoli MF/100mLs	Temp C	Turbidity NTU
04-Jan	0.24	<1	<2	<1	6.4	0.30
13-Jan	0.33	<1	<2	<1	6.7	0.34
18-Jan	0.35	<1	<2	<1	6.8	0.48
19-Jan	0.29	<1	<2	<1	6.8	0.59
25-Jan	0.17	<1	<2	<1	7.5	0.36
01-Feb	0.11	<1	<2	<1	6.4	0.26
02-Feb	0.22	<1	<2	<1	6.3	0.23
08-Feb	0.15	<1	<2	<1	7	0.30
15-Feb	0.22	<1	<2	<1	7.1	0.26
22-Feb	0.21	<1	<2	<1	6.9	0.24
25-Feb	0.42	<1	<2	<1	5.5	0.26
01-Mar	0.27	<1	<2	<1	3.6	0.26
08-Mar	0.20	<1	<2	<1	6.5	0.30
11-Mar	0.32	<1	<2	<1	5.1	0.23
17-Mar	0.25	<1	<2	<1	7.4	0.40
21-Mar	0.18	<1	2	<1	7.5	0.35
24-Mar	0.19	<1	2	<1	7.9	0.31
29-Mar	0.24	<1	<2	<1	8.4	0.30
30-Mar	0.26	<1	4	<1	8.3	0.28
01-Apr	0.16	<1	<2	<1	8.3	0.31
05-Apr	0.21	<1	<2	<1	8.3	0.64
13-Apr	0.18	<1	94	<1	8.6	0.85
20-Apr	0.03	<1	370	<1	8.1	0.99
26-Apr	0.22	<1	<2	<1	9.2	1.10
02-May	0.21	<1	<2	<1	9.7	0.44
13-May	0.07	<1	130	<1	10	1.30
12-May	0.15	<1	<2	<1	11	0.25
20-May	0.18	<1	<2	<1	10	0.50
16-May	0.12	<1	<2	<1	11	0.26
27-May	0.19	<1	2	<1	9	0.27
01-Jun	0.18	<1	<2	<1	9.1	0.28
09-Jun	0.08	<1	<2	<1	13	0.23
13-Jun	0.09	<1	<2	<1	14	0.22
15-Jun	0.12	<1	<2	<1	14	0.31
23-Jun	0.12	<1	230	<1	15	0.30
27-Jun	0.07	<1	330	<1	16	0.32
29-Jun	0.10	<1	4	<1	15	0.27
07-Jul	0.11	<1	36	<1	15	0.31
14-Jul	0.07	<1	14	<1	15	0.22
21-Jul	0.08	<1	40	<1	16	0.20
26-Jul	0.05	<1	6	<1	16	0.29
03-Aug	<0.01	<1	12	<1	17	0.27
10-Aug	0.08	<1	48	<1	16	0.23
18-Aug	0.09	<1	12	<1	16	0.27
24-Aug	0.14	<1	<2	<1	12	0.23
30-Aug	<0.01	<1	68	<1	17	0.23
01-Sep	0.13	<1	54	<1	15	0.17
08-Sep	0.08	<1	48	<1	16	0.27
14-Sep	<0.01	<1	6	<1	17	0.19
19-Sep	0.01	<1	210	<1	17	0.26
26-Sep	0.12	<1	<2	<1	16	0.21
28-Sep	0.05	<1	8	<1	16	0.23
03-Oct	0.07	<1	48	<1	16	0.32
04-Oct	<0.01	<1	74	<1	16	0.26
12-Oct	0.09	<1	32	<1	15	0.32
14-Oct	0.12	<1	8	<1	13	0.26
17-Oct	0.07	<1	70	<1	13	0.30
18-Oct	0.04	<1	32	<1	14	0.29
24-Oct	0.03	<1	100	<1	13	0.24
26-Oct	0.16	<1	<2	<1	13	0.50
01-Nov	0.11	<1	<2	<1	12	0.22
08-Nov	0.08	<1	<2	<1	11	0.22
15-Nov	0.05	<1	12	<1	10	0.24
17-Nov	0.07	<1	34	<1	10	0.67
06-Dec	0.19	<1	4	<1	8.2	0.32
07-Dec	0.09	<1	<2	<1	8.3	0.32
13-Dec	0.20	<1	4	<1	6.9	0.23
15-Dec	0.17	<1	<2	<1	7.5	0.28
20-Dec	0.12	<1	<2	<1	8.2	0.25
29-Dec	0.11	<1	NA	<1	7.8	1.70

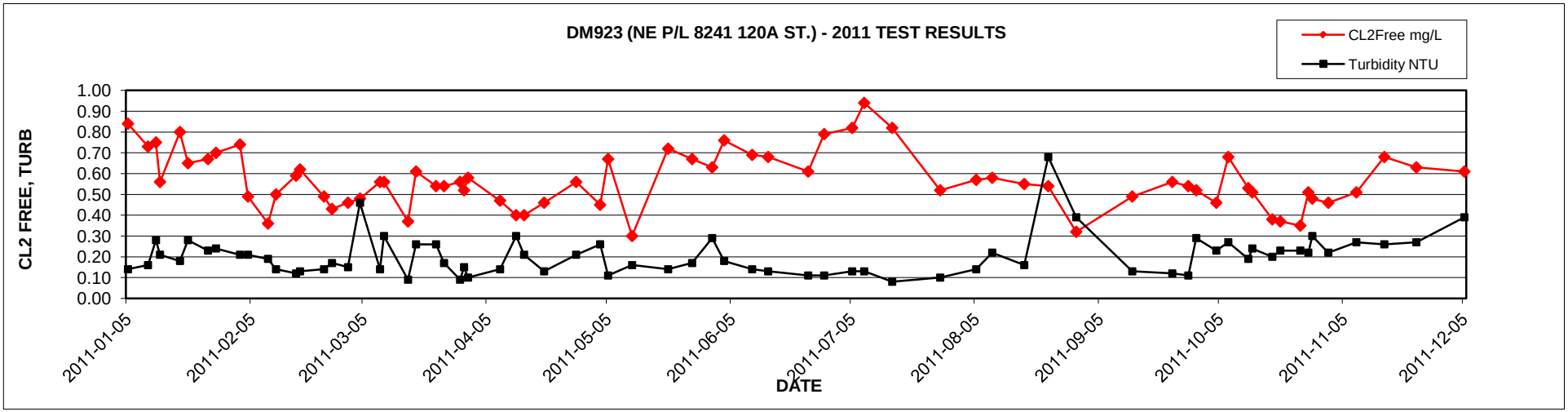

DM922 (7768 155 ST NW P/L) - 2011 TEST RESULTS
HPC CFU/mLs
Temp C
HPC
TEMP
DATE
0
50
100
150
200
250
300
350
400
0
2
4
6
8
10
12
14
16
18
2011-01-04
2011-02-04
2011-03-04
2011-04-04
2011-05-04
2011-06-04
2011-07-04
2011-08-04
2011-09-04
2011-10-04
2011-11-04
2011-12-04


DM922 (7768 155 ST NW P/L) - 2011 TEST RESULTS
CL2Free mg/L
Turbidity NTU
CL2 FREE, TURB
DATE
0.00
0.20
0.40
0.60
0.80
1.00
1.20
1.40
1.60
1.80
2011-01-04
2011-02-04
2011-03-04
2011-04-04
2011-05-04
2011-06-04
2011-07-04
2011-08-04
2011-09-04
2011-10-04
2011-11-04
2011-12-04

2011 GVRD Laboratory Report - DM923 (NE P/L 8241 120A ST.)

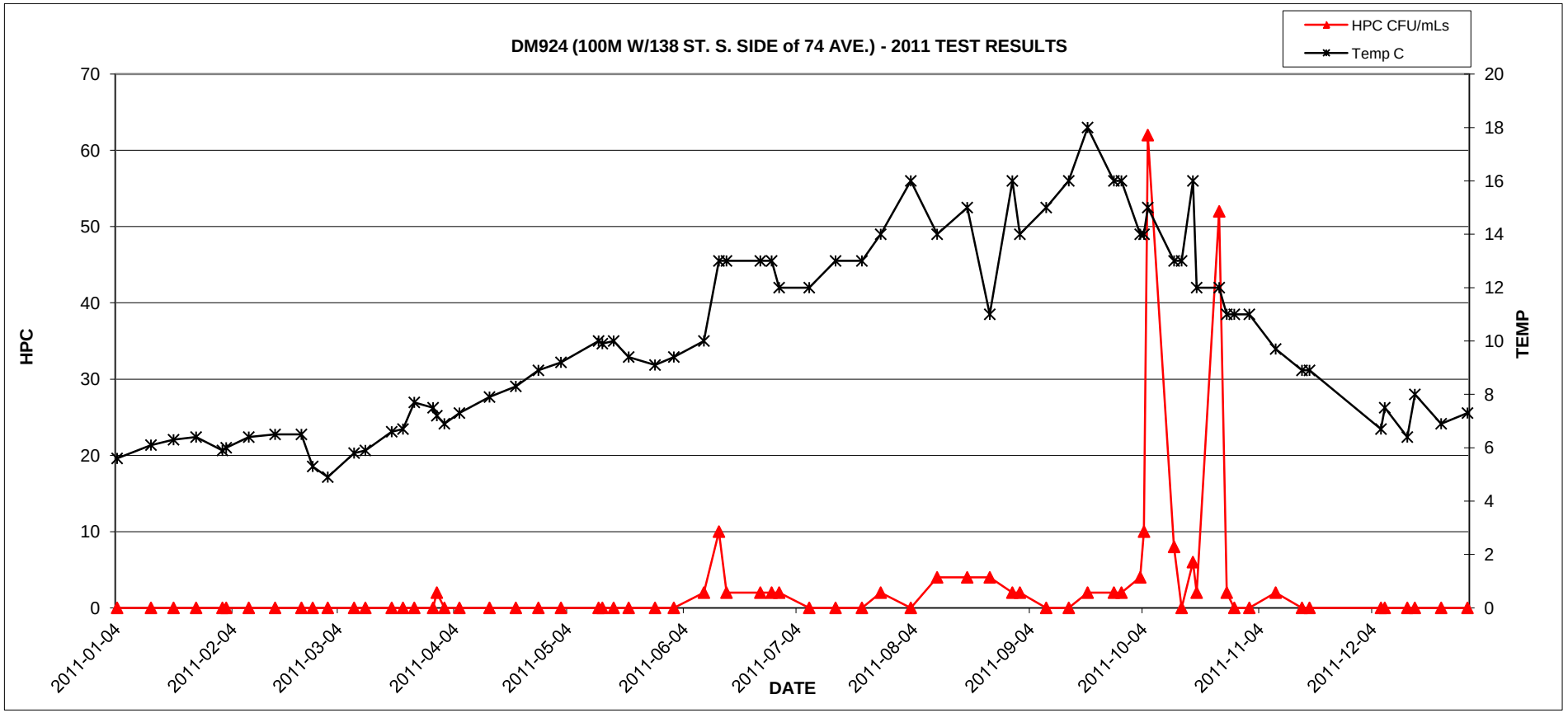
Date Collected	CL2Free mg/L	Ecoli MF/100mLs	HPC CFU/mLs	Tcoli MF/100mLs	Temp C	Turbidity NTU
05-Jan	0.84	<1	<2	<1	4.2	0.14
10-Jan	0.73	<1	<2	<1	5.5	0.16
12-Jan	0.75	<1	<2	<1	4.7	0.28
13-Jan	0.56	<1	<2	<1	5.4	0.21
18-Jan	0.80	<1	2	<1	6.3	0.18
20-Jan	0.65	<1	2	<1	6.4	0.28
25-Jan	0.67	<1	<2	<1	7	0.23
27-Jan	0.70	<1	<2	<1	6.1	0.24
02-Feb	0.74	<1	<2	<1	3.1	0.21
04-Feb	0.49	<1	2	<1	6.5	0.21
09-Feb	0.36	<1	2	<1	6.5	0.19
11-Feb	0.50	<1	<2	<1	5.6	0.14
16-Feb	0.59	<1	<2	<1	6.4	0.12
17-Feb	0.62	<1	<2	<1	6.4	0.13
23-Feb	0.49	<1	<2	<1	5.8	0.14
25-Feb	0.43	<1	<2	<1	3.8	0.17
01-Mar	0.46	<1	<2	<1	5.5	0.15
04-Mar	0.48	<1	<2	<1	4	0.46
09-Mar	0.56	<1	<2	<1	6.3	0.14
16-Mar	0.37	<1	<2	<1	5.7	0.09
10-Mar	0.56	<1	2	<1	6.2	0.30
18-Mar	0.61	<1	2	<1	6.4	0.26
23-Mar	0.54	<1	<2	<1	6	0.26
25-Mar	0.54	<1	<2	<1	6.1	0.17
29-Mar	0.56	<1	<2	<1	7.2	0.09
30-Mar	0.52	<1	<2	<1	6.3	0.15
31-Mar	0.58	<1	<2	<1	6.5	0.10
08-Apr	0.47	<1	<2	<1	7	0.14
12-Apr	0.40	<1	<2	<1	7.3	0.30
14-Apr	0.40	<1	<2	<1	7.8	0.21
19-Apr	0.46	<1	<2	<1	8	0.13
27-Apr	0.56	<1	<2	<1	8.7	0.21
05-May	0.67	<1	2	<1	7.3	0.11
03-May	0.45	<1	<2	<1	9	0.26
11-May	0.30	<1	<2	<1	9.7	0.16
20-May	0.72	<1	<2	<1	11	0.14
26-May	0.67	<1	<2	<1	10	0.17
31-May	0.63	<1	<2	<1	11	0.29
03-Jun	0.76	<1	<2	<1	11	0.18
10-Jun	0.69	<1	<2	<1	12	0.14
14-Jun	0.68	<1	<2	<1	12	0.13
24-Jun	0.61	<1	<2	<1	13	0.11
28-Jun	0.79	<1	<2	<1	12	0.11
05-Jul	0.82	<1	<2	<1	11	0.13
08-Jul	0.94	<1	<2	<!	7.9	0.13
15-Jul	0.82	<1	<2	<1	11	0.08
27-Jul	0.52	<1	2	<1	12	0.10
05-Aug	0.57	<1	<2	<1	14	0.14
09-Aug	0.58	<1	<2	<1	15	0.22
17-Aug	0.55	<1	2	<1	12	0.16
23-Aug	0.54	<1	<2	<1	15	0.68
30-Aug	0.32	<1	2	<1	16	0.39
13-Sep	0.49	<1	2	<1	16	0.13
23-Sep	0.56	<1	<2	<1	17	0.12
27-Sep	0.54	<1	<2	<1	16	0.11
29-Sep	0.52	<1	LA	<1	14	0.29
04-Oct	0.46	<1	<2	<1	14	0.23
07-Oct	0.68	<1	<2	<1	12	0.27
12-Oct	0.53	<1	<2	<1	13	0.19
13-Oct	0.51	<1	<2	<1	12	0.24
18-Oct	0.38	<1	<2	<1	12	0.20
20-Oct	0.37	<1	<2	<1	9.7	0.23
25-Oct	0.35	<1	<2	<1	12	0.23
27-Oct	0.51	<1	<2	<1	12	0.22
28-Oct	0.48	<1	<2	<1	12	0.30
01-Nov	0.46	<1	<2	<1	10	0.22
08-Nov	0.51	<1	<2	<1	10	0.27
15-Nov	0.68	<1	6	<1	8.2	0.26
23-Nov	0.63	<1	<2	<1	9.1	0.27
05-Dec	0.61	<1	<2	<1	6.1	0.39
07-Dec	1.20	<1	<2	<1	8.5	23.00
08-Dec	0.79	<1	<2	<1	8.6	0.34
13-Dec	0.55	<1	<2	<1	6.6	0.37
14-Dec	0.51	<1	<2	<1	6.6	0.26
20-Dec	0.66	<1	<2	<1	6.3	0.27
22-Dec	0.47	<1	<2	<1	7	0.45
30-Dec	0.53	<1	NA	<1	7.5	0.88

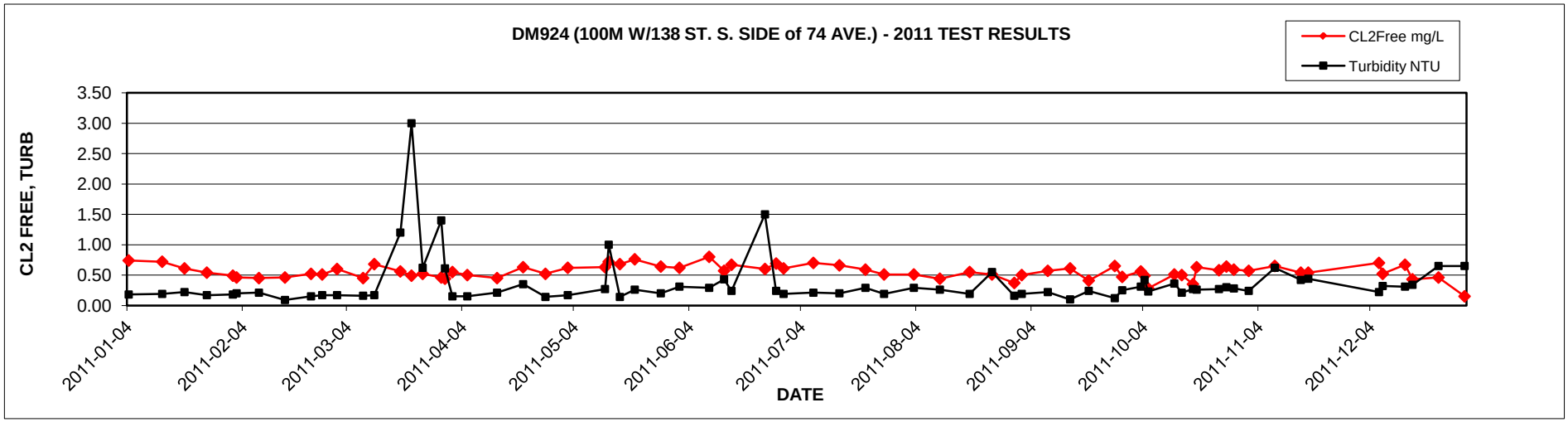

DM923 (NE P/L 8241 120A ST.) - 2011 TEST RESULTS
HPC CFU/mLs
Temp C
HPC
TEMP
DATE
0
1
2
3
4
5
6
7
0
2
4
6
8
10
12
14
16
18
2011-01-05
2011-02-05
2011-03-05
2011-04-05
2011-05-05
2011-06-05
2011-07-05
2011-08-05
2011-09-05
2011-10-05
2011-11-05
2011-12-05


DM923 (NE P/L 8241 120A ST.) - 2011 TEST RESULTS
CL2Free mg/L
Turbidity NTU
CL2 FREE, TURB
DATE
0.00
0.10
0.20
0.30
0.40
0.50
0.60
0.70
0.80
0.90
1.00
2011-01-05
2011-02-05
2011-03-05
2011-04-05
2011-05-05
2011-06-05
2011-07-05
2011-08-05
2011-09-05
2011-10-05
2011-11-05
2011-12-05

2011 GVRD Laboratory Report - DM924 (100M W/138 ST. S. SIDE of 74 AVE.)

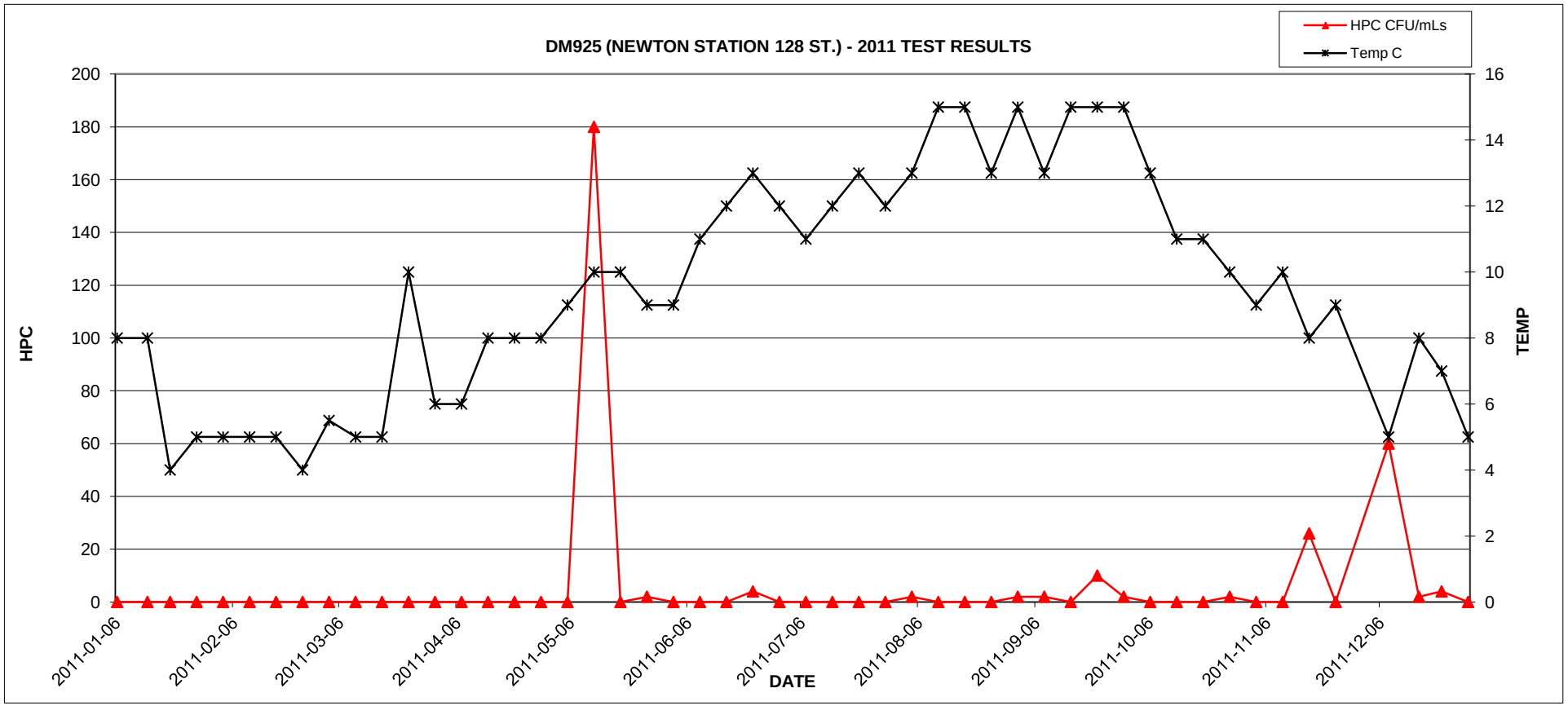
Date Collected	CL2Free mg/L	Ecoli MF/100mLs	HPC CFU/mLs	Tcoli MF/100mLs	Temp C	Turbidity NTU
04-Jan	0.74	<1	<2	<1	5.6	0.18
13-Jan	0.72	<1	<2	<1	6.1	0.19
19-Jan	0.61	<1	<2	<1	6.3	0.22
25-Jan	0.54	<1	<2	<1	6.4	0.17
01-Feb	0.49	<1	<2	<1	5.9	0.18
02-Feb	0.46	<1	<2	<1	6	0.20
08-Feb	0.45	<1	<2	<1	6.4	0.21
15-Feb	0.46	<1	<2	<1	6.5	0.09
22-Feb	0.52	<1	<2	<1	6.5	0.15
25-Feb	0.51	<1	<2	<1	5.3	0.17
01-Mar	0.60	<1	<2	<1	4.9	0.17
08-Mar	0.45	<1	<2	<1	5.8	0.16
11-Mar	0.68	<1	<2	<1	5.9	0.17
18-Mar	0.56	<1	<2	<1	6.6	1.20
21-Mar	0.49	<1	<2	<1	6.7	3.00
24-Mar	0.52	<1	<2	<1	7.7	0.62
29-Mar	0.46	<1	<2	<1	7.5	1.40
30-Mar	0.44	<1	2	<1	7.2	0.61
01-Apr	0.55	<1	<2	<1	6.9	0.15
05-Apr	0.50	<1	<2	<1	7.3	0.15
13-Apr	0.45	<1	<2	<1	7.9	0.21
20-Apr	0.63	<1	<2	<1	8.3	0.35
26-Apr	0.52	<1	<2	<1	8.9	0.14
02-May	0.62	<1	<2	<1	9.2	0.17
13-May	0.72	<1	<2	<1	9.9	1.00
12-May	0.63	<1	<2	<1	10	0.27
20-May	0.76	<1	<2	<1	9.4	0.26
16-May	0.68	<1	<2	<1	10	0.14
27-May	0.64	<1	<2	<1	9.1	0.20
01-Jun	0.62	<1	<2	<1	9.4	0.31
09-Jun	0.80	<1	2	<1	10	0.29
13-Jun	0.57	<1	10	<1	13	0.43
15-Jun	0.67	<1	2	<1	13	0.24
24-Jun	0.60	<1	2	<1	13	1.50
27-Jun	0.69	<1	2	<1	13	0.24
29-Jun	0.61	<1	2	<1	12	0.19
07-Jul	0.70	<1	<2	<1	12	0.21
14-Jul	0.66	<1	<2	<1	13	0.20
21-Jul	0.59	<1	<2	<1	13	0.29
26-Jul	0.51	<1	2	<1	14	0.19
03-Aug	0.51	<1	<2	<1	16	0.29
10-Aug	0.44	<1	4	<1	14	0.26
18-Aug	0.55	<1	4	<1	15	0.19
24-Aug	0.51	<1	4	<1	11	0.55
30-Aug	0.37	<1	2	<1	16	0.16
01-Sep	0.50	<1	2	<1	14	0.19
08-Sep	0.57	<1	<2	<1	15	0.22
14-Sep	0.61	<1	<2	<1	16	0.10
19-Sep	0.41	<1	2	<1	18	0.24
26-Sep	0.65	<1	2	<1	16	0.12
28-Sep	0.47	<1	2	<1	16	0.25
03-Oct	0.56	<1	4	<1	14	0.31
04-Oct	0.49	<1	10	<1	14	0.42
05-Oct	0.28	<1	62	<1	15	0.23
12-Oct	0.51	<1	8	<1	13	0.36
14-Oct	0.50	<1	<2	<1	13	0.21
17-Oct	0.35	<1	6	<1	16	0.27
18-Oct	0.63	<1	2	<1	12	0.26
24-Oct	0.58	<1	52	<1	12	0.27
26-Oct	0.64	<1	2	<1	11	0.30
28-Oct	0.59	<1	<2	<1	11	0.28
01-Nov	0.57	<1	<2	<1	11	0.24
08-Nov	0.65	<1	2	<1	9.7	0.62
15-Nov	0.54	<1	<2	<1	8.9	0.42
17-Nov	0.54	<1	<2	<1	8.9	0.44
06-Dec	0.70	<1	<2	<1	6.7	0.22
07-Dec	0.52	<1	<2	<1	7.5	0.32
13-Dec	0.67	<1	<2	<1	6.4	0.31
15-Dec	0.43	<1	<2	<1	8	0.34
22-Dec	0.46	<1	<2	<1	6.9	0.65
29-Dec	0.15	<1	NA	<1	7.3	0.65

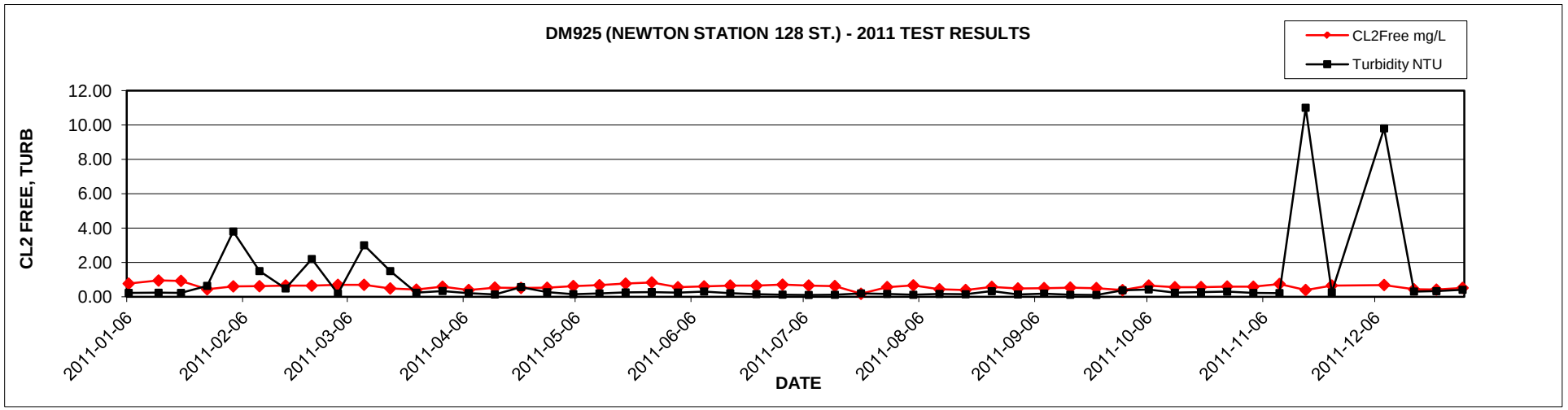

DM924 (100M W/138 ST. S. SIDE of 74 AVE.) - 2011 TEST RESULTS
HPC CFU/mLs
Temp C
HPC
TEMP
DATE
0
10
20
30
40
50
60
70
0
2
4
6
8
10
12
14
16
18
20
2011-01-04
2011-02-04
2011-03-04
2011-04-04
2011-05-04
2011-06-04
2011-07-04
2011-08-04
2011-09-04
2011-10-04
2011-11-04
2011-12-04


DM924 (100M W/138 ST. S. SIDE of 74 AVE.) - 2011 TEST RESULTS
CL2Free mg/L
Turbidity NTU
CL2 FREE, TURB
DATE
0.00
0.50
1.00
1.50
2.00
2.50
3.00
3.50
2011-01-04
2011-02-04
2011-03-04
2011-04-04
2011-05-04
2011-06-04
2011-07-04
2011-08-04
2011-09-04
2011-10-04
2011-11-04
2011-12-04

2011 GVRD Laboratory Report - DM925 (NEWTON STATION 128 ST.)

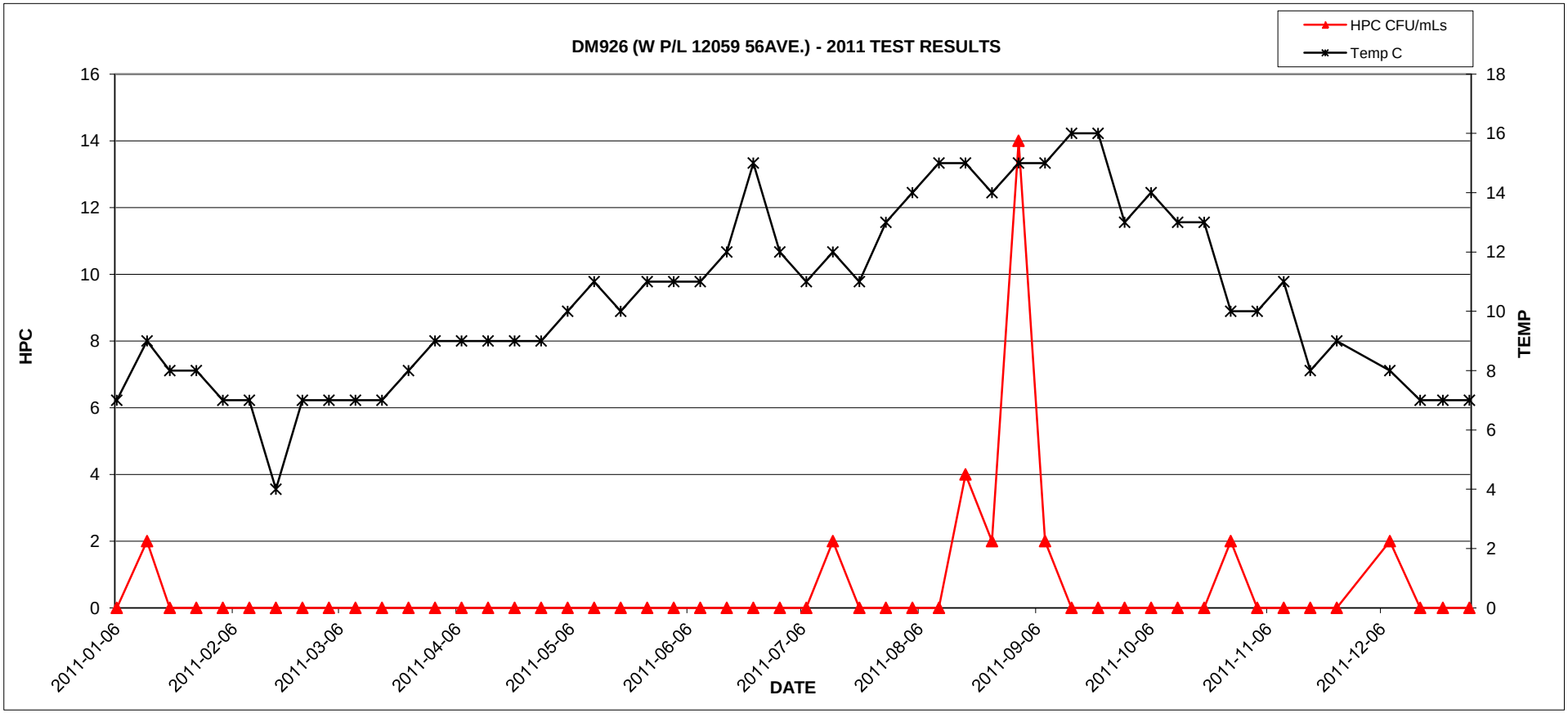
Date Collected	CL2Free mg/L	Ecoli MF/100mLs	HPC CFU/mLs	Tcoli MF/100mLs	Temp C	Turbidity NTU
06-Jan	0.77	<1	<2	<1	8	0.23
14-Jan	0.95	<1	<2	<1	8	0.24
20-Jan	0.93	<1	<2	<1	4	0.23
27-Jan	0.44	<1	<2	<1	5	0.64
03-Feb	0.61	<1	<2	<1	5	3.80
17-Feb	0.66	<1	<2	<1	5	0.49
24-Feb	0.65	<1	<2	<1	4	2.20
03-Mar	0.70	<1	<2	<1	5.5	0.19
10-Mar	0.70	<1	<2	<1	5	3.00
10-Feb	0.62	<1	<2	<1	5	1.50
17-Mar	0.49	<1	<2	<1	5	1.50
24-Mar	0.42	<1	<2	<1	10	0.24
31-Mar	0.59	<1	<2	<1	6	0.34
07-Apr	0.40	<1	<2	<1	6	0.22
14-Apr	0.54	<1	<2	<1	8	0.14
21-Apr	0.52	<1	<2	<1	8	0.57
28-Apr	0.53	<1	<2	<1	8	0.27
05-May	0.63	<1	<2	<1	9	0.16
12-May	0.68	<1	180	<1	10	0.20
19-May	0.77	<1	<2	<1	10	0.26
26-May	0.84	<1	2	<1	9	0.28
02-Jun	0.56	<1	<2	<1	9	0.25
09-Jun	0.61	<1	<2	<1	11	0.31
16-Jun	0.66	<1	<3	<1	12	0.21
23-Jun	0.65	<1	4	<1	13	0.16
30-Jun	0.71	<1	<2	<1	12	0.13
07-Jul	0.66	<1	<2	<1	11	0.11
14-Jul	0.63	<1	<2	<1	12	0.12
21-Jul	0.18	<1	<2	<1	13	0.20
28-Jul	0.57	<1	<2	<1	12	0.17
04-Aug	0.67	<1	2	<1	13	0.12
11-Aug	0.44	<1	<2	<1	15	0.17
18-Aug	0.40	<1	<2	<1	15	0.15
25-Aug	0.58	<1	<2	<1	13	0.33
01-Sep	0.49	<1	2	<1	15	0.14
08-Sep	0.51	<1	2	<1	13	0.19
15-Sep	0.54	<1	<2	<1	15	0.12
22-Sep	0.51	<1	10	<1	15	0.11
29-Sep	0.39	<1	2	<1	15	0.38
06-Oct	0.66	<1	<2	<1	13	0.43
13-Oct	0.56	<1	<2	<1	11	0.24
20-Oct	0.57	<1	<2	<1	11	0.27
27-Oct	0.60	<1	2	<1	10	0.30
03-Nov	0.59	<1	<2	<1	9	0.23
10-Nov	0.75	<1	<2	<1	10	0.22
17-Nov	0.40	<1	26	<1	8	11.00
24-Nov	0.66	<1	<2	<1	9	0.26
08-Dec	0.69	<1	60	<1	5	9.80
16-Dec	0.44	<1	2	<1	8	0.31
22-Dec	0.42	<1	4	<1	7	0.33
29-Dec	0.52	<1	NA	<1	5	0.41

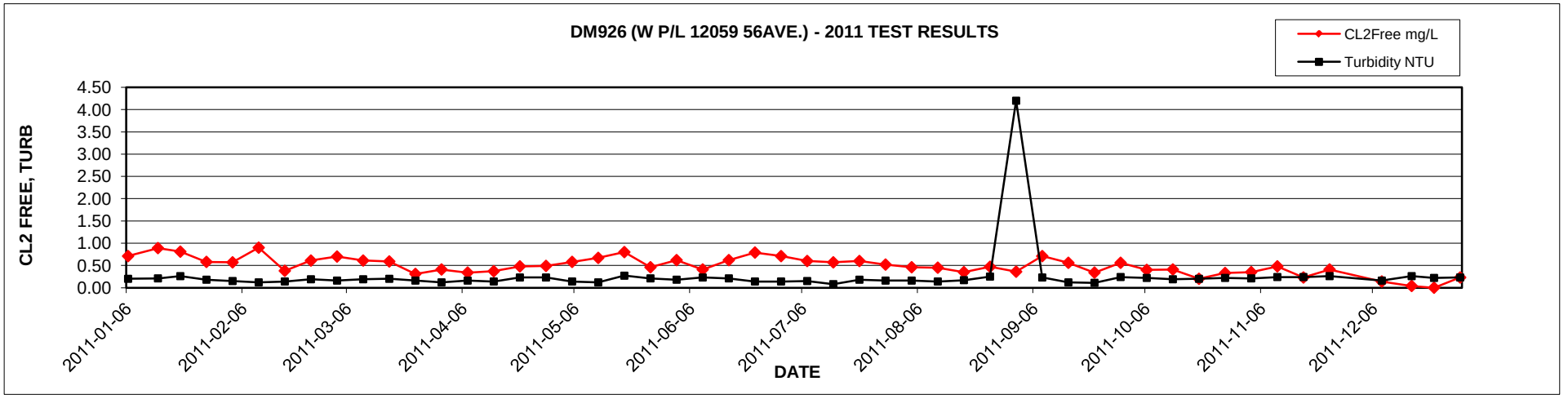

DM925 (NEWTON STATION 128 ST.) - 2011 TEST RESULTS
HPC CFU/mLs
Temp C
HPC
TEMP
DATE
0
20
40
60
80
100
120
140
160
180
200
0
2
4
6
8
10
12
14
16
2011-01-06
2011-02-06
2011-03-06
2011-04-06
2011-05-06
2011-06-06
2011-07-06
2011-08-06
2011-09-06
2011-10-06
2011-11-06
2011-12-06


DM925 (NEWTON STATION 128 ST.) - 2011 TEST RESULTS
CL2Free mg/L
Turbidity NTU
CL2 FREE, TURB
DATE
0.00
2.00
4.00
6.00
8.00
10.00
12.00
2011-01-06
2011-02-06
2011-03-06
2011-04-06
2011-05-06
2011-06-06
2011-07-06
2011-08-06
2011-09-06
2011-10-06
2011-11-06
2011-12-06

2011 GVRD Laboratory Report - DM926 (W P/L 12059 56AVE.)

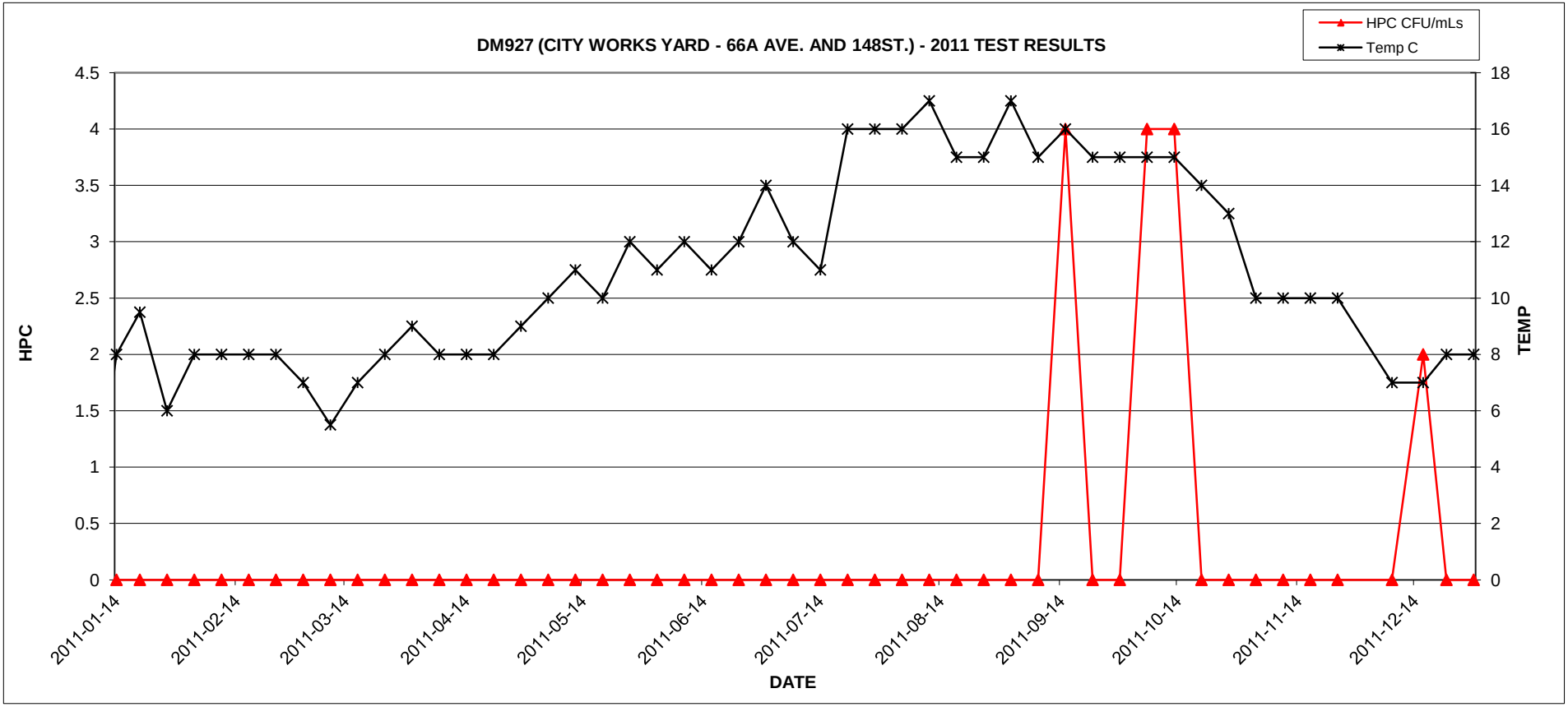
Date Collected	CL2Free mg/L	Ecoli MF/100mLs	HPC CFU/mLs	Tcoli MF/100mLs	Temp C	Turbidity NTU
06-Jan	0.71	<1	<2	<1	7	0.20
14-Jan	0.89	<1	2	<1	9	0.21
20-Jan	0.81	<1	<2	<1	8	0.26
27-Jan	0.58	<1	<2	<1	8	0.18
03-Feb	0.57	<1	<2	<1	7	0.15
17-Feb	0.38	<1	<2	<1	4	0.14
24-Feb	0.61	<1	<2	<1	7	0.19
03-Mar	0.70	<1	<2	<1	7	0.16
10-Mar	0.61	<1	<2	<1	7	0.19
10-Feb	0.90	<1	<2	<1	7	0.12
17-Mar	0.59	<1	<2	<1	7	0.20
24-Mar	0.31	<1	<2	<1	8	0.16
31-Mar	0.41	<1	<2	<1	9	0.12
07-Apr	0.34	<1	<2	<1	9	0.16
14-Apr	0.37	<1	<2	<1	9	0.14
21-Apr	0.48	<1	<2	<1	9	0.23
28-Apr	0.49	<1	<2	<1	9	0.23
05-May	0.58	<1	<2	<1	10	0.14
12-May	0.67	<1	<2	<1	11	0.12
19-May	0.80	<1	<2	<1	10	0.27
26-May	0.46	<1	<2	<1	11	0.21
02-Jun	0.62	<1	<2	<1	11	0.18
09-Jun	0.41	<1	<2	<1	11	0.23
16-Jun	0.62	<1	<2	<1	12	0.21
23-Jun	0.79	<1	<2	<1	15	0.14
30-Jun	0.71	<1	<2	<1	12	0.14
07-Jul	0.60	<1	<2	<1	11	0.15
14-Jul	0.57	<1	2	<1	12	0.08
21-Jul	0.60	<1	<2	<1	11	0.18
28-Jul	0.52	<1	<2	<1	13	0.16
04-Aug	0.46	<1	<2	<1	14	0.16
11-Aug	0.45	<1	<2	<1	15	0.14
18-Aug	0.35	<1	4	<1	15	0.17
25-Aug	0.47	<1	2	<1	14	0.25
01-Sep	0.36	<1	14	<1	15	4.20
08-Sep	0.71	<1	2	<1	15	0.23
15-Sep	0.56	<1	<2	<1	16	0.12
22-Sep	0.34	<1	<2	<1	16	0.11
29-Sep	0.56	<1	<2	<1	13	0.24
06-Oct	0.40	<1	<2	<1	14	0.22
13-Oct	0.41	<1	<2	<1	13	0.19
20-Oct	0.20	<1	<2	<1	13	0.20
27-Oct	0.33	<1	2	<1	10	0.22
03-Nov	0.35	<1	<2	<1	10	0.21
10-Nov	0.48	<1	<2	<1	11	0.24
17-Nov	0.23	<1	<2	<1	8	0.24
24-Nov	0.41	<1	<2	<1	9	0.26
08-Dec	0.14	<1	2	<1	8	0.16
16-Dec	0.04	<1	<2	<1	7	0.26
22-Dec	<0.01	<1	<2	<1	7	0.22
29-Dec	0.23	<1	NA	<1	7	0.23

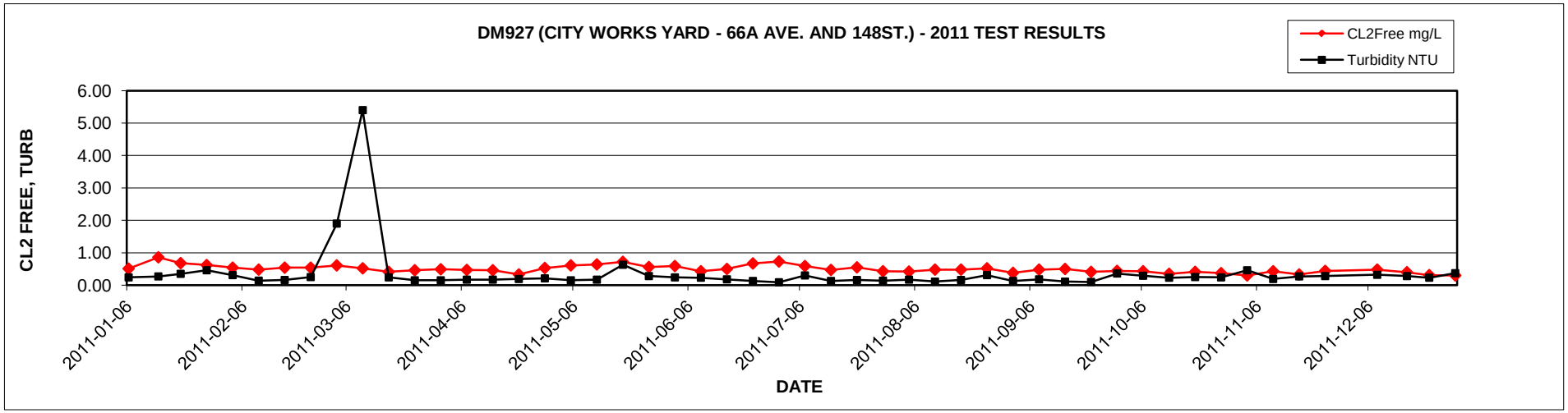

DM926 (W P/L 12059 56AVE.) - 2011 TEST RESULTS
HPC CFU/mLs
Temp C
HPC
TEMP
DATE
0
2
4
6
8
10
12
14
16
18
2011-01-06
2011-02-06
2011-03-06
2011-04-06
2011-05-06
2011-06-06
2011-07-06
2011-08-06
2011-09-06
2011-10-06
2011-11-06
2011-12-06


DM926 (W P/L 12059 56AVE.) - 2011 TEST RESULTS
CL2Free mg/L
Turbidity NTU
CL2 FREE, TURB
DATE
0.00
0.50
1.00
1.50
2.00
2.50
3.00
3.50
4.00
4.50
2011-01-06
2011-02-06
2011-03-06
2011-04-06
2011-05-06
2011-06-06
2011-07-06
2011-08-06
2011-09-06
2011-10-06
2011-11-06
2011-12-06

2011 GVRD Laboratory Report - DM927 (CITY WORKS YARD - 66A AVE. AND 148ST.)

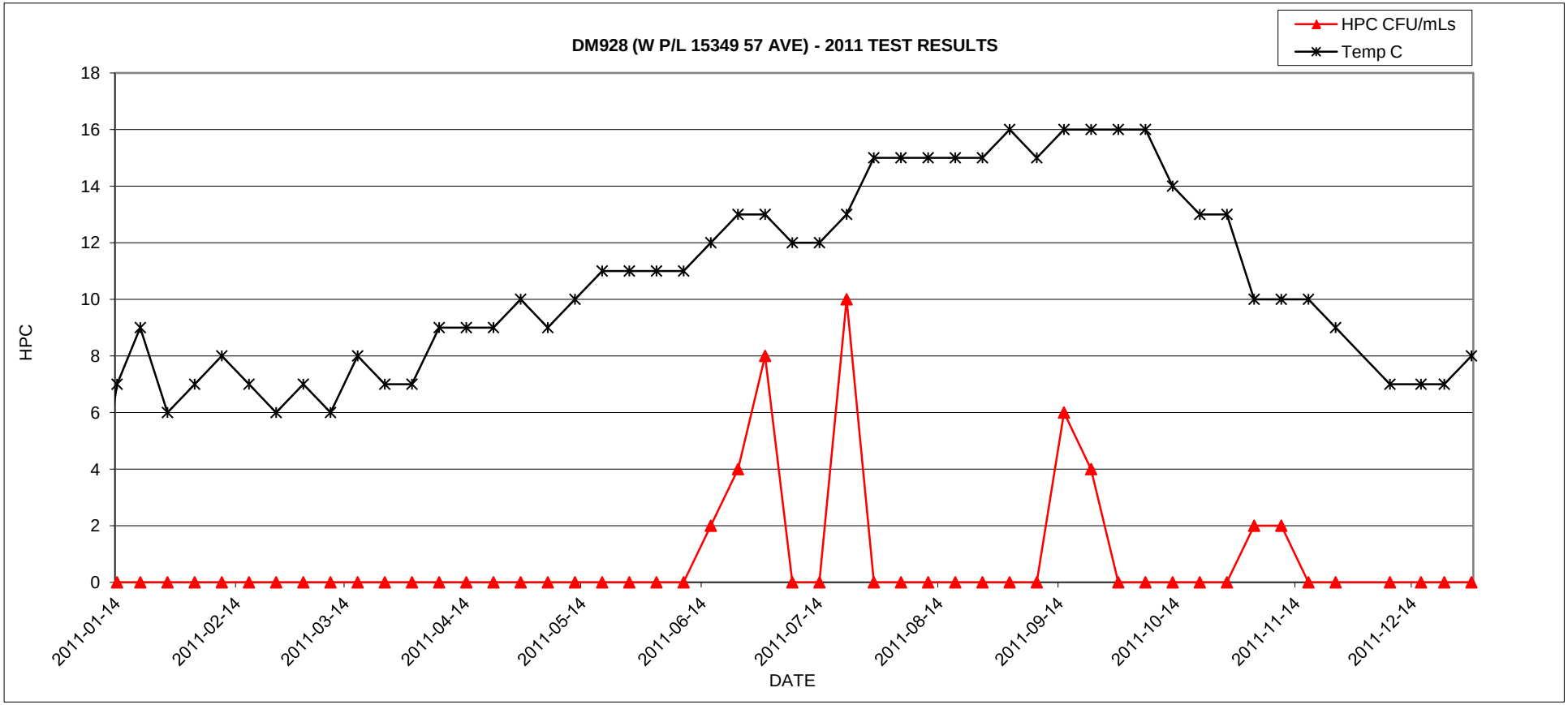
Date Collected	CL2Free mg/L	Ecoli MF/100mLs	HPC CFU/mLs	Tcoli MF/100mLs	Temp C	Turbidity NTU
06-Jan	0.51	<1	<2	<1	8	0.24
14-Jan	0.86	<1	<2	<1	9.5	0.27
20-Jan	0.68	<1	<2	<1	6	0.35
27-Jan	0.62	<1	<2	<1	8	0.46
03-Feb	0.54	<1	<2	<1	8	0.31
17-Feb	0.54	<1	<2	<1	8	0.16
24-Feb	0.54	<1	<2	<1	7	0.25
03-Mar	0.61	<1	<2	<1	5.5	1.90
10-Mar	0.52	<1	<2	<1	8	5.40
10-Feb	0.48	<1	<2	<1	7	0.14
17-Mar	0.41	<1	<2	<1	8	0.24
24-Mar	0.46	<1	<2	<1	9	0.15
31-Mar	0.49	<1	<2	<1	8	0.15
07-Apr	0.47	<1	<2	<1	8	0.17
14-Apr	0.46	<1	<2	<1	8	0.17
21-Apr	0.33	<1	<2	<1	9	0.19
28-Apr	0.53	<1	<2	<1	10	0.21
05-May	0.61	<1	<2	<1	11	0.15
12-May	0.64	<1	<2	<1	10	0.17
19-May	0.72	<1	<2	<1	12	0.63
26-May	0.56	<1	<2	<1	11	0.28
02-Jun	0.59	<1	<2	<1	12	0.24
09-Jun	0.43	<1	<2	<1	11	0.23
16-Jun	0.50	<1	<3	<1	12	0.18
23-Jun	0.67	<1	<2	<1	14	0.13
30-Jun	0.73	<1	<2	<1	12	0.09
07-Jul	0.59	<1	<2	<1	11	0.30
14-Jul	0.47	<1	<2	<1	16	0.13
21-Jul	0.55	<1	<2	<1	16	0.16
28-Jul	0.43	<1	<2	<1	16	0.14
04-Aug	0.42	<1	<2	<1	17	0.17
11-Aug	0.48	<1	<2	<1	15	0.11
18-Aug	0.48	<1	<2	<1	15	0.16
25-Aug	0.52	<1	<2	<1	17	0.31
01-Sep	0.38	<1	<2	<1	15	0.13
08-Sep	0.48	<1	4	<1	16	0.18
15-Sep	0.50	<1	<2	<1	15	0.11
22-Sep	0.41	<1	<2	<1	15	0.10
29-Sep	0.44	<1	4	<1	15	0.36
06-Oct	0.43	<1	4	<1	15	0.29
13-Oct	0.35	<1	<2	<1	14	0.23
20-Oct	0.41	<1	<2	<1	13	0.25
27-Oct	0.37	<1	<2	<1	10	0.24
03-Nov	0.30	<1	<2	<1	10	0.46
10-Nov	0.43	<1	<2	<1	10	0.19
17-Nov	0.33	<1	<2	<1	10	0.27
24-Nov	0.44	<1	<2	<1	7	0.28
08-Dec	0.48	<1	2	<1	7	0.32
16-Dec	0.40	<1	<2	<1	8	0.28
22-Dec	0.31	<1	<2	<1	8	0.23
29-Dec	0.30	<1	NA	<1	8	0.37

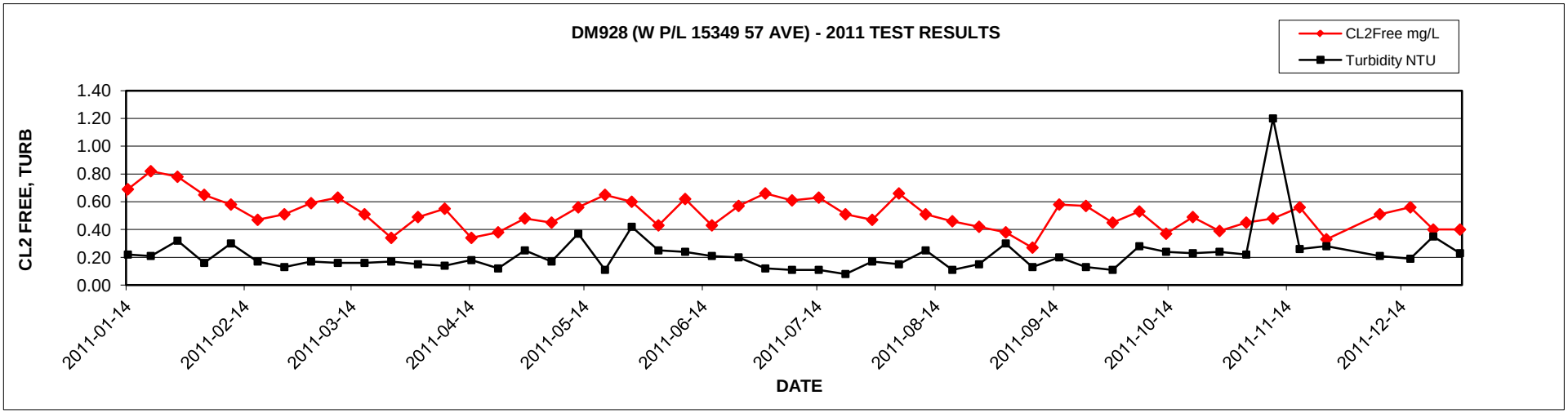

DM927 (CITY WORKS YARD - 66A AVE. AND 148ST.) - 2011 TEST RESULTS
HPC CFU/mLs
Temp C
HPC
TEMP
DATE
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
0
2
4
6
8
10
12
14
16
18
2011-01-14
2011-02-14
2011-03-14
2011-04-14
2011-05-14
2011-06-14
2011-07-14
2011-08-14
2011-09-14
2011-10-14
2011-11-14
2011-12-14


DM927 (CITY WORKS YARD - 66A AVE. AND 148ST.) - 2011 TEST RESULTS
CL2Free mg/L
Turbidity NTU
CL2 FREE, TURB
DATE
0.00
1.00
2.00
3.00
4.00
5.00
6.00
2011-01-06
2011-02-06
2011-03-06
2011-04-06
2011-05-06
2011-06-06
2011-07-06
2011-08-06
2011-09-06
2011-10-06
2011-11-06
2011-12-06

2011 GVRD Laboratory Report - DM928 (W P/L 15349 57 AVE)

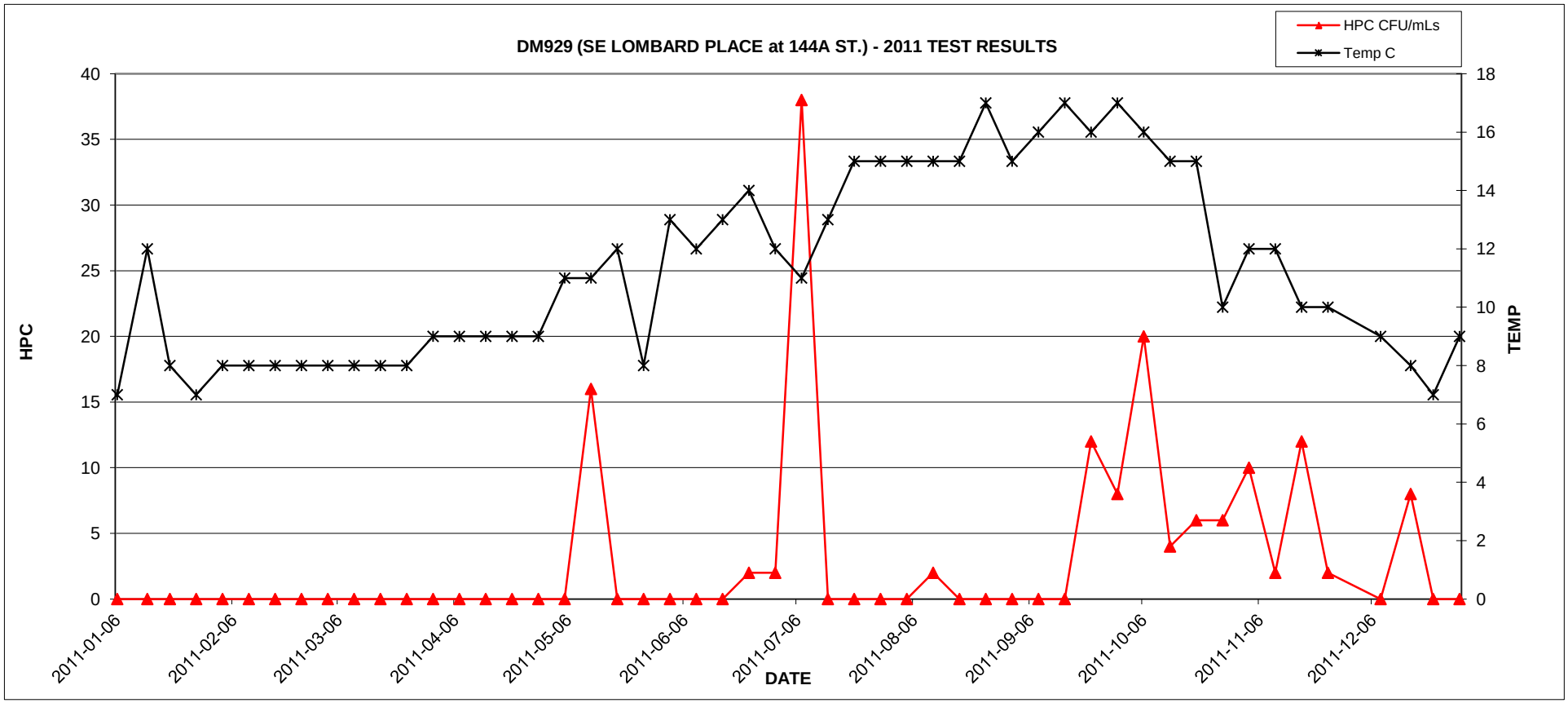
Date Collected	CL2Free mg/L	Ecoli MF/100mLs	HPC CFU/mLs	Tcoli MF/100mLs	Temp C	Turbidity NTU
06-Jan	0.69	<1	<2	<1	7	0.22
14-Jan	0.82	<1	<2	<1	9	0.21
20-Jan	0.78	<1	<2	<1	6	0.32
27-Jan	0.65	<1	<2	<1	7	0.16
03-Feb	0.47	<1	<2	<1	7	0.17
17-Feb	0.51	<1	<2	<1	6	0.13
24-Feb	0.59	<1	<2	<1	7	0.17
03-Mar	0.63	<1	<2	<1	6	0.16
10-Mar	0.58	<1	<2	<1	8	0.30
10-Feb	0.51	<1	<2	<1	8	0.16
17-Mar	0.34	<1	<2	<1	7	0.17
24-Mar	0.49	<1	<2	<1	7	0.15
31-Mar	0.55	<1	<2	<1	9	0.14
07-Apr	0.34	<1	<2	<1	9	0.18
14-Apr	0.38	<1	<2	<1	9	0.12
21-Apr	0.48	<1	<2	<1	10	0.25
28-Apr	0.45	<1	<2	<1	9	0.17
05-May	0.56	<1	<2	<1	10	0.37
12-May	0.65	<1	<2	<1	11	0.11
19-May	0.60	<1	<2	<1	11	0.42
26-May	0.43	<1	<2	<1	11	0.25
02-Jun	0.62	<1	<2	<1	11	0.24
09-Jun	0.43	<1	2	<1	12	0.21
16-Jun	0.57	<1	4	<1	13	0.20
23-Jun	0.66	<1	8	<1	13	0.12
30-Jun	0.61	<1	<2	<1	12	0.11
07-Jul	0.63	<1	<2	<1	12	0.11
14-Jul	0.51	<1	10	<1	13	0.08
21-Jul	0.47	<1	<2	<1	15	0.17
28-Jul	0.66	<1	<2	<1	15	0.15
04-Aug	0.51	<1	<2	<1	15	0.25
11-Aug	0.46	<1	<2	<1	15	0.11
18-Aug	0.42	<1	<2	<1	15	0.15
25-Aug	0.38	<1	<2	<1	16	0.30
01-Sep	0.27	<1	<2	<1	15	0.13
08-Sep	0.58	<1	6	<1	16	0.20
15-Sep	0.57	<1	4	<1	16	0.13
22-Sep	0.45	<1	<2	<1	16	0.11
29-Sep	0.53	<1	<2	<1	16	0.28
06-Oct	0.37	<1	<2	<1	14	0.24
13-Oct	0.49	<1	<2	<1	13	0.23
20-Oct	0.39	<1	<2	<1	13	0.24
27-Oct	0.45	<1	2	<1	10	0.22
03-Nov	0.48	<1	2	<1	10	1.20
10-Nov	0.56	<1	<2	<1	10	0.26
17-Nov	0.33	<1	<2	<1	9	0.28
24-Nov	0.51	<1	<2	<1	7	0.21
08-Dec	0.56	<1	<2	<1	7	0.19
16-Dec	0.40	<1	<2	<1	7	0.35
22-Dec	0.40	<1	<2	<1	8	0.23
29-Dec	0.42	<1	NA	<1	7	0.26

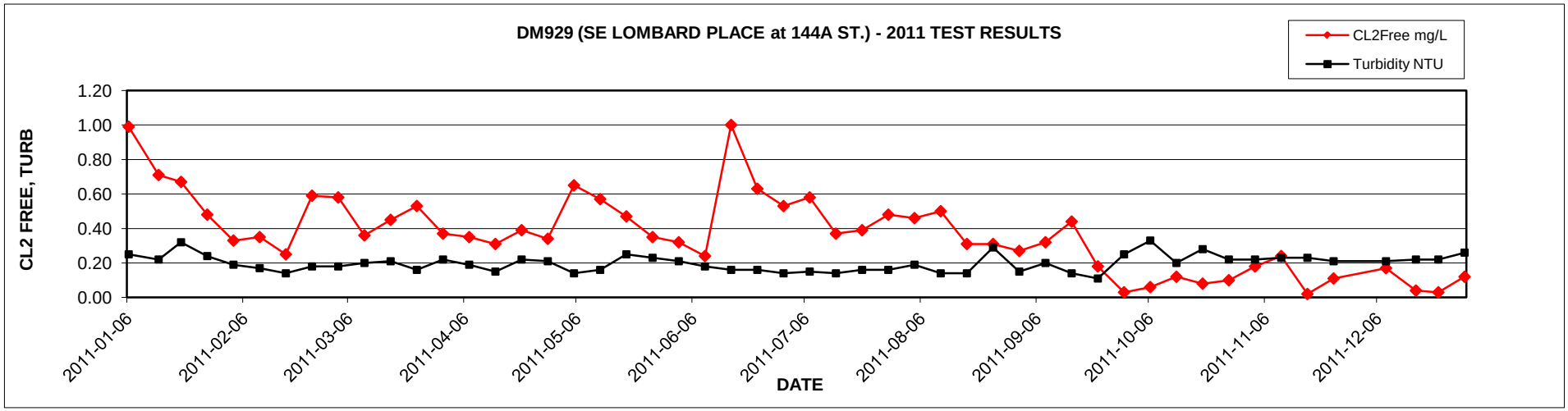

DM928 (W P/L 15349 57 AVE) - 2011 TEST RESULTS
HPC CFU/mLs
Temp C
HPC
18
16
14
12
10
8
6
4
2
0
2011-01-14
2011-02-14
2011-03-14
2011-04-14
2011-05-14
2011-06-14
2011-07-14
2011-08-14
2011-09-14
2011-10-14
2011-11-14
2011-12-14
DATE


DM928 (W P/L 15349 57 AVE) - 2011 TEST RESULTS
CL2Free mg/L
Turbidity NTU
CL2 FREE, TURB
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
2011-01-14
2011-02-14
2011-03-14
2011-04-14
2011-05-14
2011-06-14
2011-07-14
2011-08-14
2011-09-14
2011-10-14
2011-11-14
2011-12-14
DATE

2011 GVRD Laboratory Report - DM929 (SE LOMBARD PLACE at 144A ST.)

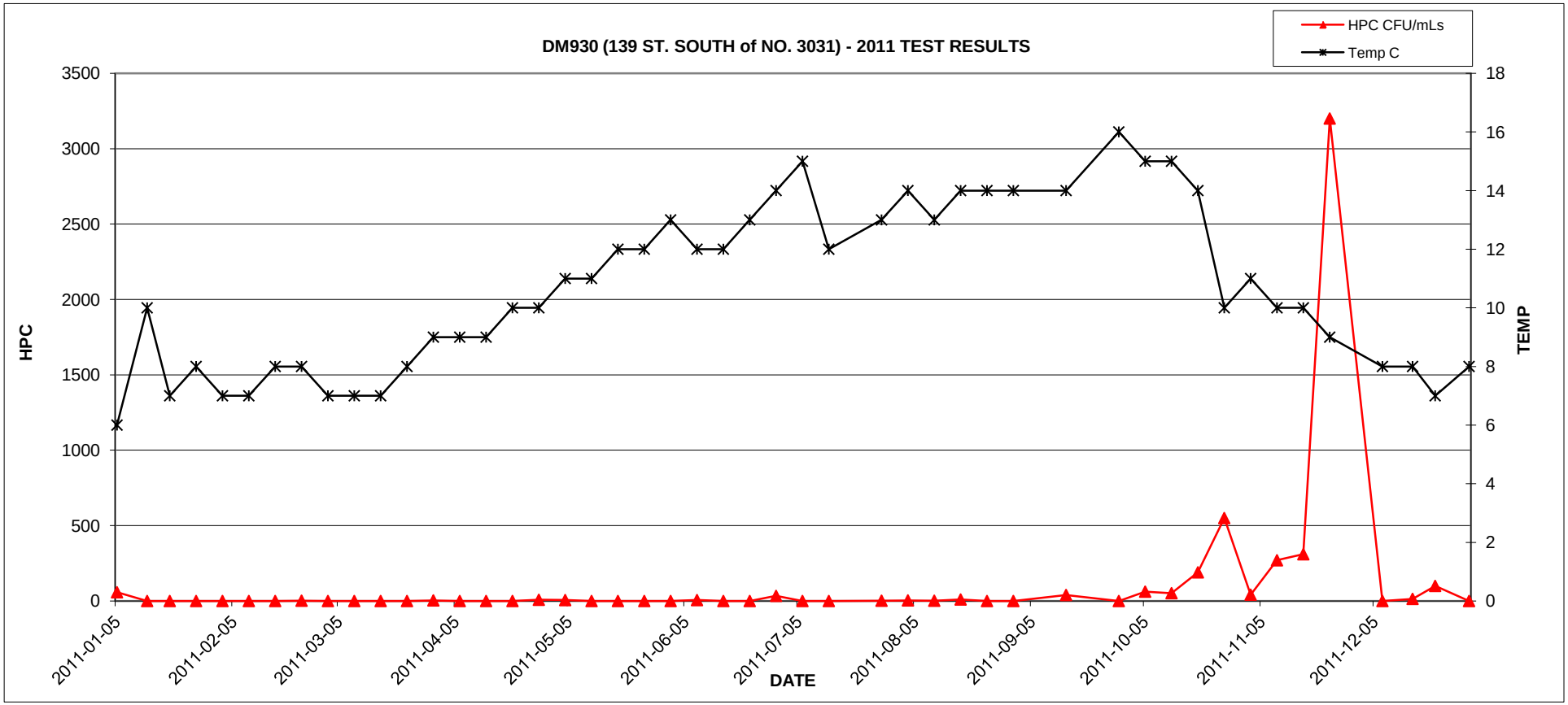
Date Collected	CL2Free mg/L	Ecoli MF/100mLs	HPC CFU/mLs	Tcoli MF/100mLs	Temp C	Turbidity NTU
06-Jan	0.99	<1	<2	<1	7	0.25
14-Jan	0.71	<1	<2	<1	12	0.22
20-Jan	0.67	<1	<2	<1	8	0.32
27-Jan	0.48	<1	<2	<1	7	0.24
03-Feb	0.33	<1	<2	<1	8	0.19
17-Feb	0.25	<1	<2	<1	8	0.14
24-Feb	0.59	<1	<2	<1	8	0.18
03-Mar	0.58	<1	<2	<1	8	0.18
10-Mar	0.36	<1	LA	<1	8	0.20
10-Feb	0.35	<1	<2	<1	8	0.17
17-Mar	0.45	<1	<2	<1	8	0.21
24-Mar	0.53	<1	<2	<1	8	0.16
31-Mar	0.37	<1	<2	<1	9	0.22
07-Apr	0.35	<1	<2	<1	9	0.19
14-Apr	0.31	<1	<2	<1	9	0.15
21-Apr	0.39	<1	<2	<1	9	0.22
28-Apr	0.34	<1	<2	<1	9	0.21
05-May	0.65	<1	<2	<1	11	0.14
12-May	0.57	<1	16	<1	11	0.16
19-May	0.47	<1	<2	<1	12	0.25
26-May	0.35	<1	<2	<1	8	0.23
02-Jun	0.32	<1	<2	<1	13	0.21
09-Jun	0.24	<1	<2	<1	12	0.18
16-Jun	1.00	<1	<2	<1	13	0.16
23-Jun	0.63	<1	2	<1	14	0.16
30-Jun	0.53	<1	2	<1	12	0.14
07-Jul	0.58	<1	38	<1	11	0.15
14-Jul	0.37	<1	<2	<1	13	0.14
21-Jul	0.39	<1	<2	<1	15	0.16
28-Jul	0.48	<1	<2	<1	15	0.16
04-Aug	0.46	<1	<2	<1	15	0.19
11-Aug	0.50	<1	2	<1	15	0.14
18-Aug	0.31	<1	<2	<1	15	0.14
25-Aug	0.31	<1	<2	<1	17	0.29
01-Sep	0.27	<1	<2	<1	15	0.15
08-Sep	0.32	<1	<2	<1	16	0.20
15-Sep	0.44	<1	<2	<1	17	0.14
22-Sep	0.18	<1	12	<1	16	0.11
29-Sep	0.03	<1	8	<1	17	0.25
06-Oct	0.06	<1	20	<1	16	0.33
13-Oct	0.12	<1	4	<1	15	0.20
20-Oct	0.08	<1	6	<1	15	0.28
27-Oct	0.10	<1	6	<1	10	0.22
03-Nov	0.18	<1	10	<1	12	0.22
10-Nov	0.24	<1	2	<1	12	0.23
17-Nov	0.02	<1	12	<1	10	0.23
24-Nov	0.11	<1	2	<1	10	0.21
08-Dec	0.17	<1	<2	<1	9	0.21
16-Dec	0.04	<1	8	<1	8	0.22
22-Dec	0.03	<1	<2	<1	7	0.22
29-Dec	0.12	<1	NA	<1	9	0.26

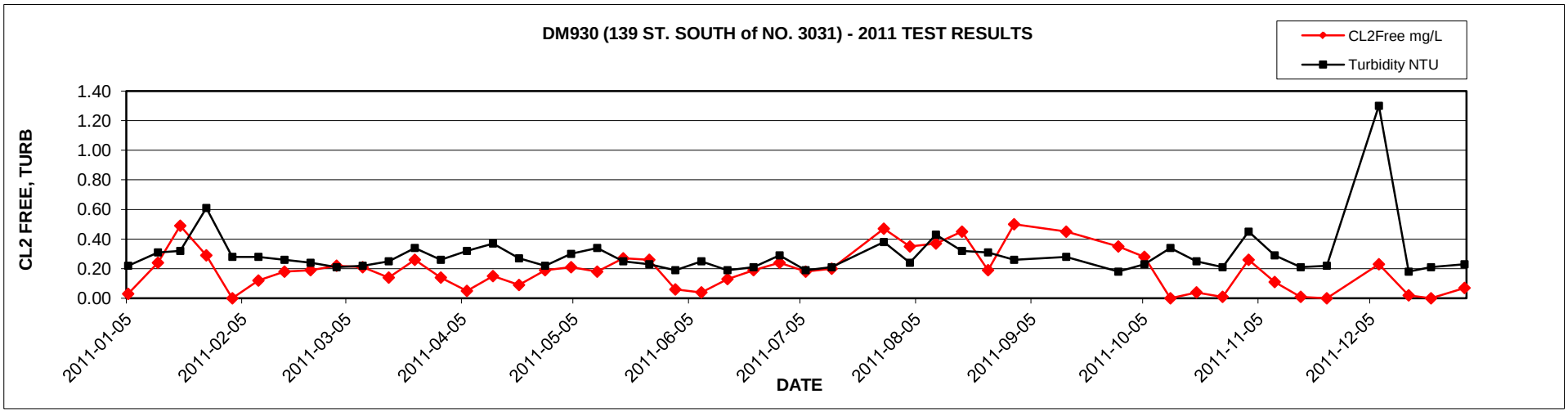

DM929 (SE LOMBARD PLACE at 144A ST.) - 2011 TEST RESULTS
HPC CFU/mLs
Temp C
HPC
TEMP
DATE
0
5
10
15
20
25
30
35
40
0
2
4
6
8
10
12
14
16
18
2011-01-06
2011-02-06
2011-03-06
2011-04-06
2011-05-06
2011-06-06
2011-07-06
2011-08-06
2011-09-06
2011-10-06
2011-11-06
2011-12-06


DM929 (SE LOMBARD PLACE at 144A ST.) - 2011 TEST RESULTS
CL2Free mg/L
Turbidity NTU
CL2 FREE, TURB
DATE
0.00
0.20
0.40
0.60
0.80
1.00
1.20
2011-01-06
2011-02-06
2011-03-06
2011-04-06
2011-05-06
2011-06-06
2011-07-06
2011-08-06
2011-09-06
2011-10-06
2011-11-06
2011-12-06

2011 GVRD Laboratory Report - DM930 (139 ST. SOUTH of NO. 3031)

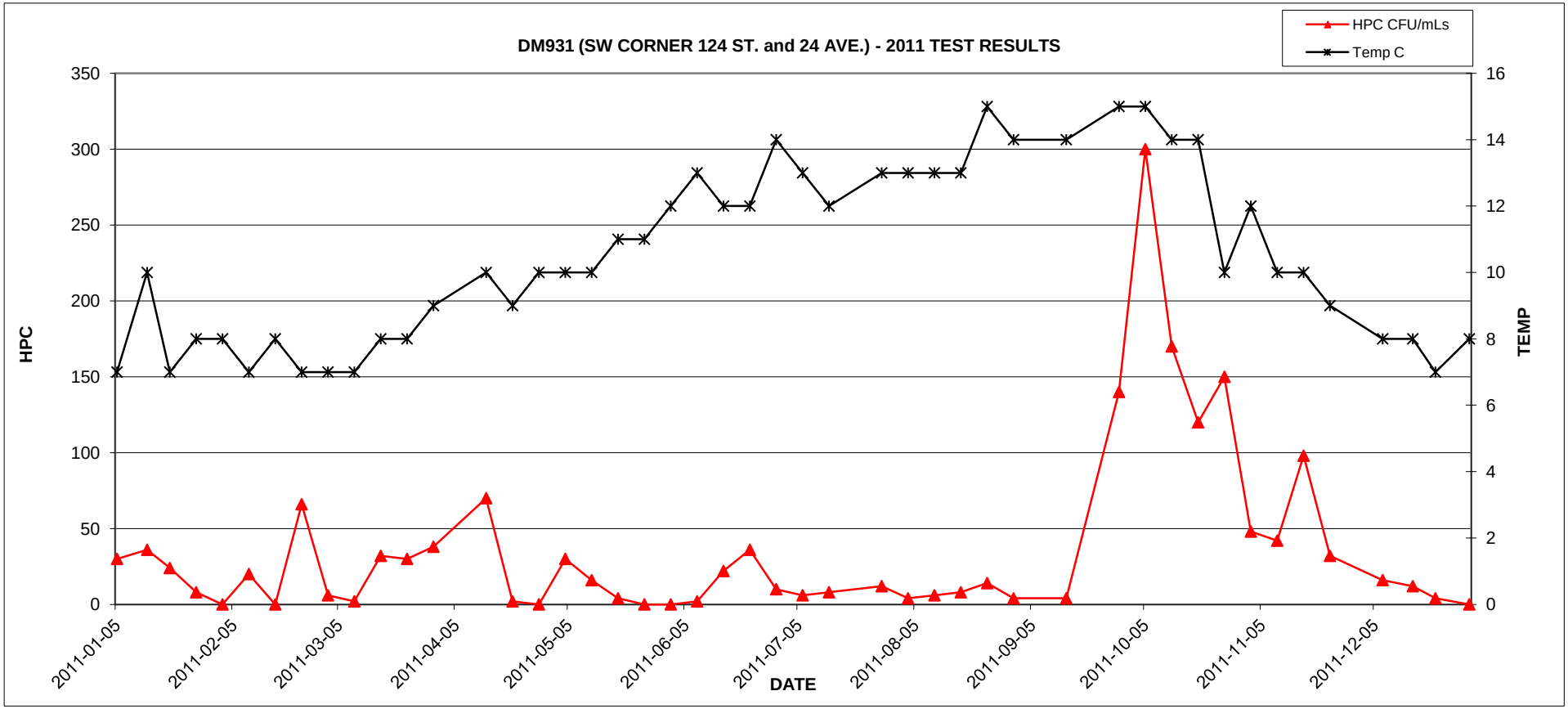
Date Collected	CL2Free mg/L	Ecoli MF/100mLs	HPC CFU/mLs	Tcoli MF/100mLs	Temp C	Turbidity NTU
05-Jan	0.03	<1	58	<1	6	0.22
13-Jan	0.24	<1	<2	<1	10	0.31
19-Jan	0.49	<1	<2	<1	7	0.32
26-Jan	0.29	<1	<2	<1	8	0.61
02-Feb	<0.01	<1	<2	<1	7	0.28
09-Feb	0.12	<1	<2	<1	7	0.28
16-Feb	0.18	<1	<2	<1	8	0.26
23-Feb	0.19	<1	2	<1	8	0.24
02-Mar	0.22	<1	<2	<1	7	0.21
09-Mar	0.21	<1	<2	<1	7	0.22
16-Mar	0.14	<1	<2	<1	7	0.25
23-Mar	0.26	<1	<2	<1	8	0.34
30-Mar	0.14	<1	4	<1	9	0.26
06-Apr	0.05	<1	<2	<1	9	0.32
13-Apr	0.15	<1	<2	<1	9	0.37
20-Apr	0.09	<1	<2	<1	10	0.27
27-Apr	0.19	<1	8	<1	10	0.22
04-May	0.21	<1	6	<1	11	0.30
11-May	0.18	<1	<2	<1	11	0.34
18-May	0.27	<1	<2	<1	12	0.25
25-May	0.26	<1	<2	<1	12	0.23
01-Jun	0.06	<1	<2	<1	13	0.19
08-Jun	0.04	<1	6	<1	12	0.25
15-Jun	0.13	<1	<2	<1	12	0.19
22-Jun	0.19	<1	<2	<1	13	0.21
29-Jun	0.24	<1	34	<1	14	0.29
06-Jul	0.18	<1	<2	<1	15	0.19
13-Jul	0.20	<1	<2	<1	12	0.21
27-Jul	0.47	<1	2	<1	13	0.38
03-Aug	0.35	<1	4	<1	14	0.24
10-Aug	0.37	<1	2	<1	13	0.43
17-Aug	0.45	<1	10	<1	14	0.32
24-Aug	0.19	<1	<2	<1	14	0.31
31-Aug	0.50	<1	<2	<1	14	0.26
14-Sep	0.45	<1	40	<1	14	0.28
28-Sep	0.35	<1	<2	<1	16	0.18
05-Oct	0.28	<1	62	<1	15	0.23
12-Oct	<0.01	<1	52	<1	15	0.34
19-Oct	0.04	<1	190	<1	14	0.25
26-Oct	0.01	<1	550	<1	10	0.21
02-Nov	0.26	<1	42	<1	11	0.45
09-Nov	0.11	<1	270	<1	10	0.29
16-Nov	0.01	<1	310	<1	10	0.21
23-Nov	<0.01	<1	3200	<1	9	0.22
07-Dec	0.23	<1	<2	<1	8	1.30
15-Dec	0.02	<1	14	<1	8	0.18
21-Dec	<0.01	<1	100	<1	7	0.21
30-Dec	0.07	<1	NA	<1	8	0.23

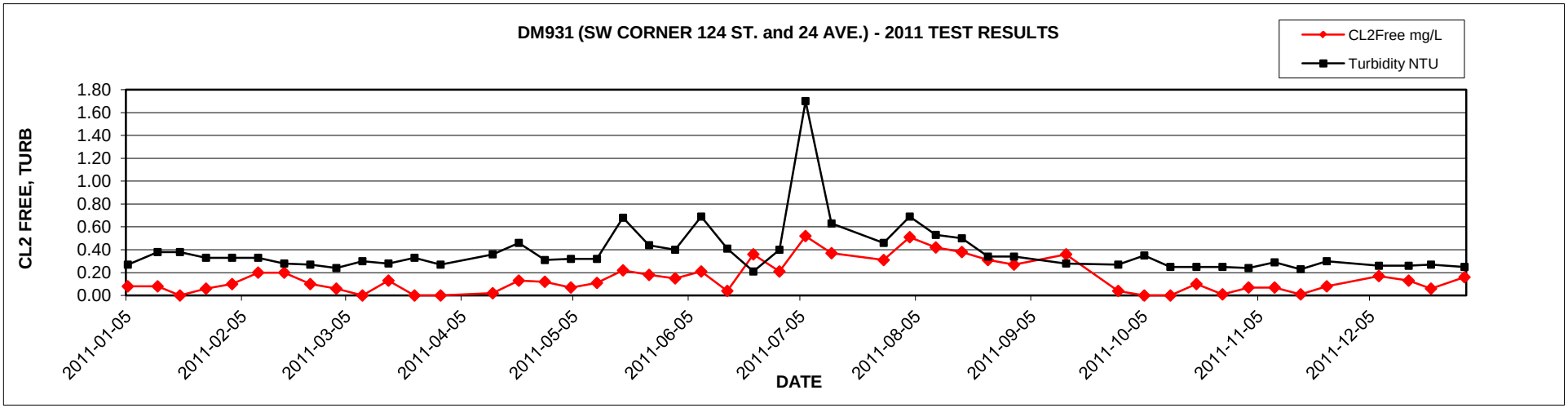

DM930 (139 ST. SOUTH of NO. 3031) - 2011 TEST RESULTS
HPC CFU/mLs
Temp C
HPC
TEMP
DATE
3500
3000
2500
2000
1500
1000
500
0
18
16
14
12
10
8
6
4
2
0
2011-01-05
2011-02-05
2011-03-05
2011-04-05
2011-05-05
2011-06-05
2011-07-05
2011-08-05
2011-09-05
2011-10-05
2011-11-05
2011-12-05


DM930 (139 ST. SOUTH of NO. 3031) - 2011 TEST RESULTS
CL2Free mg/L
Turbidity NTU
CL2 FREE, TURB
DATE
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
2011-01-05
2011-02-05
2011-03-05
2011-04-05
2011-05-05
2011-06-05
2011-07-05
2011-08-05
2011-09-05
2011-10-05
2011-11-05
2011-12-05

2011 GVRD Laboratory Report - DM931 (SW CORNER 124 ST. and 24 AVE.)

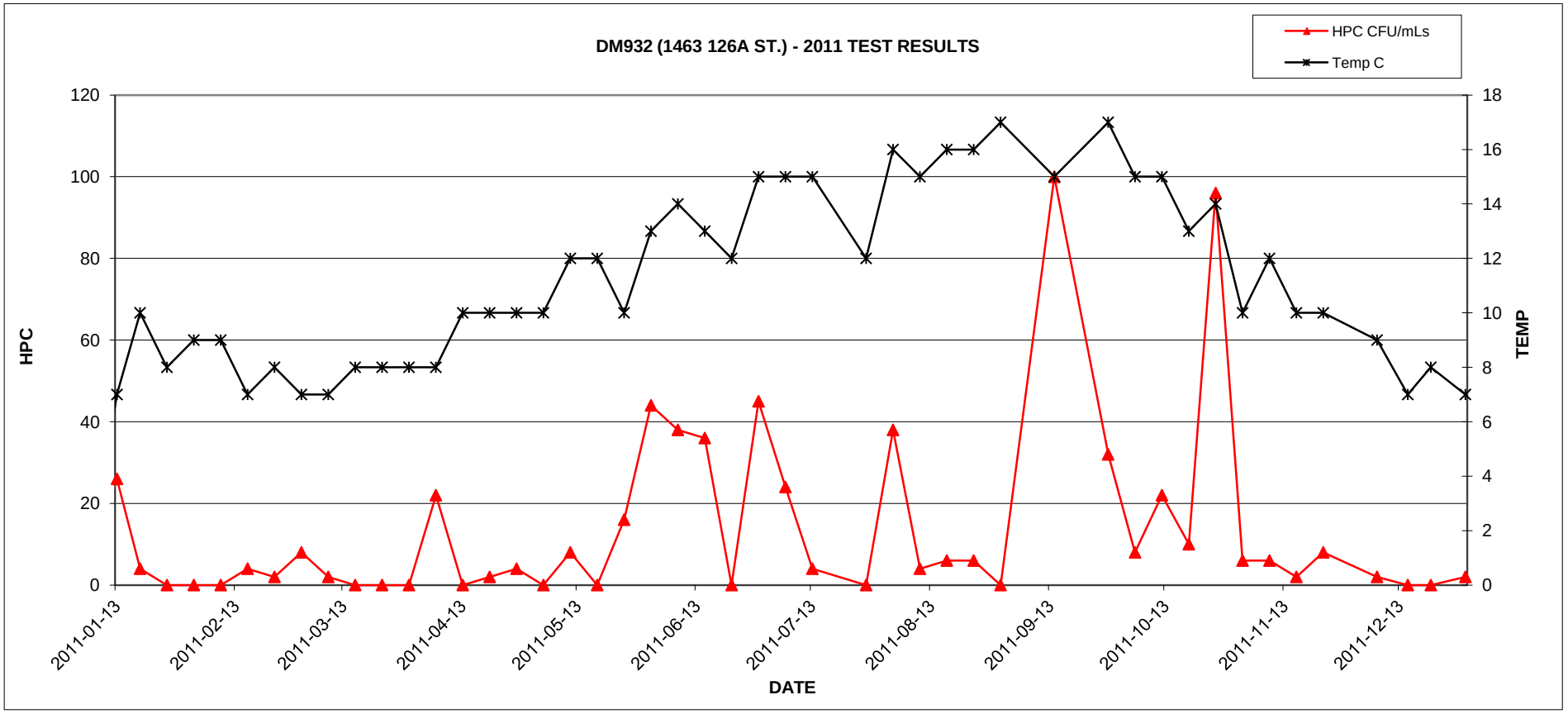
Date Collected	CL2Free mg/L	Ecoli MF/100mLs	HPC CFU/mLs	Tcoli MF/100mLs	Temp C	Turbidity NTU
05-Jan	0.08	<1	30	<1	7	0.27
13-Jan	0.08	<1	36	<1	10	0.38
19-Jan	<0.01	<1	24	<1	7	0.38
26-Jan	0.06	<1	8	<1	8	0.33
02-Feb	0.10	<1	<2	<1	8	0.33
09-Feb	0.20	<1	20	<1	7	0.33
16-Feb	0.20	<1	<2	<1	8	0.28
23-Feb	0.10	<1	66	<1	7	0.27
02-Mar	0.06	<1	6	<1	7	0.24
09-Mar	<0.01	<1	2	<1	7	0.30
16-Mar	0.13	<1	32	<1	8	0.28
23-Mar	<0.01	<1	30	<1	8	0.33
30-Mar	<0.01	<1	38	<1	9	0.27
13-Apr	0.02	<1	70	<1	10	0.36
20-Apr	0.13	<1	2	<1	9	0.46
27-Apr	0.12	<1	<2	<1	10	0.31
04-May	0.07	<1	30	<1	10	0.32
11-May	0.11	<1	16	<1	10	0.32
18-May	0.22	<1	4	<1	11	0.68
25-May	0.18	<1	<2	<1	11	0.44
01-Jun	0.15	<1	<2	<1	12	0.40
08-Jun	0.21	<1	2	<1	13	0.69
15-Jun	0.04	<1	22	<1	12	0.41
22-Jun	0.36	<1	36	<1	12	0.21
29-Jun	0.21	<1	10	<1	14	0.40
06-Jul	0.52	<1	6	<1	13	1.70
13-Jul	0.37	<1	8	<1	12	0.63
27-Jul	0.31	<1	12	<1	13	0.46
03-Aug	0.51	<1	4	<1	13	0.69
10-Aug	0.42	<1	6	<1	13	0.53
17-Aug	0.38	<1	8	<1	13	0.50
24-Aug	0.31	<1	14	<1	15	0.34
31-Aug	0.27	<1	4	<1	14	0.34
14-Sep	0.36	<1	4	<1	14	0.28
28-Sep	0.04	<1	140	<1	15	0.27
05-Oct	<0.01	<1	300	<1	15	0.35
12-Oct	<0.01	<1	170	<1	14	0.25
19-Oct	0.10	<1	120	<1	14	0.25
26-Oct	0.01	<1	150	<1	10	0.25
02-Nov	0.07	<1	48	<1	12	0.24
09-Nov	0.07	<1	42	<1	10	0.29
16-Nov	0.01	<1	98	<1	10	0.23
23-Nov	0.08	<1	32	<1	9	0.30
07-Dec	0.17	<1	16	<1	8	0.26
15-Dec	0.13	<1	12	<1	8	0.26
21-Dec	0.06	<1	4	<1	7	0.27
30-Dec	0.16	<1	NA	<1	8	0.25

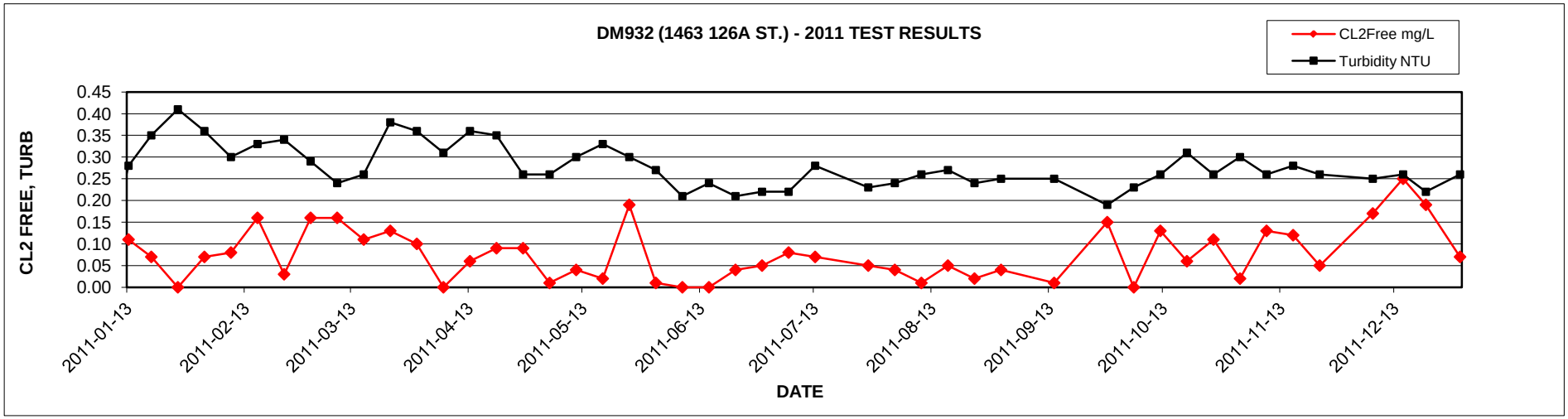

DM931 (SW CORNER 124 ST. and 24 AVE.) - 2011 TEST RESULTS
HPC CFU/mLs
Temp C
HPC
TEMP
DATE
350
300
250
200
150
100
50
0
16
14
12
10
8
6
4
2
0
2011-01-05
2011-02-05
2011-03-05
2011-04-05
2011-05-05
2011-06-05
2011-07-05
2011-08-05
2011-09-05
2011-10-05
2011-11-05
2011-12-05


DM931 (SW CORNER 124 ST. and 24 AVE.) - 2011 TEST RESULTS
CL2Free mg/L
Turbidity NTU
CL2 FREE, TURB
DATE
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
2011-01-05
2011-02-05
2011-03-05
2011-04-05
2011-05-05
2011-06-05
2011-07-05
2011-08-05
2011-09-05
2011-10-05
2011-11-05
2011-12-05

2011 GVRD Laboratory Report - DM932 (1463 126A ST.)

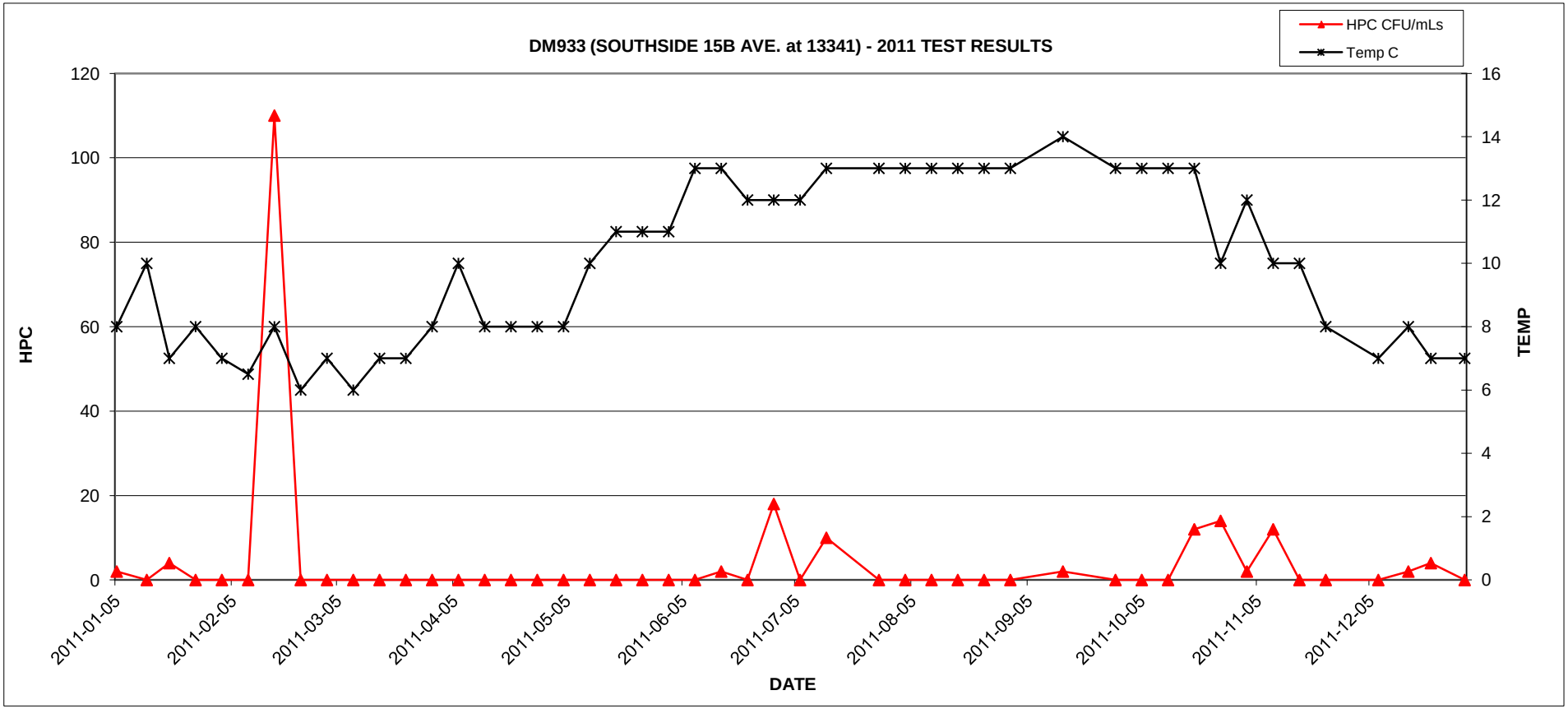
Date Collected	CL2Free mg/L	Ecoli MF/100mLs	HPC CFU/mLs	Tcoli MF/100mLs	Temp C	Turbidity NTU
05-Jan	0.11	<1	26	<1	7	0.28
13-Jan	0.07	<1	4	<1	10	0.35
19-Jan	<0.01	<1	<2	<1	8	0.41
26-Jan	0.07	<1	<2	<1	9	0.36
02-Feb	0.08	<1	<2	<1	9	0.30
09-Feb	0.16	<1	4	<1	7	0.33
16-Feb	0.03	<1	2	<1	8	0.34
23-Feb	0.16	<1	8	<1	7	0.29
02-Mar	0.16	<1	2	<1	7	0.24
09-Mar	0.11	<1	<2	<1	8	0.26
16-Mar	0.13	<1	<2	<1	8	0.38
23-Mar	0.10	<1	NA	<1	8	0.36
30-Mar	<0.01	<1	22	<1	8	0.31
06-Apr	0.06	<1	<2	<1	10	0.36
13-Apr	0.09	<1	2	<1	10	0.35
20-Apr	0.09	<1	4	<1	10	0.26
27-Apr	0.01	<1	<2	<1	10	0.26
04-May	0.04	<1	8	<1	12	0.30
11-May	0.02	<1	<2	<1	12	0.33
18-May	0.19	<1	16	<1	10	0.30
25-May	0.01	<1	44	<1	13	0.27
01-Jun	<0.01	<1	38	<1	14	0.21
08-Jun	<0.01	<1	36	<1	13	0.24
15-Jun	0.04	<1	<2	<1	12	0.21
22-Jun	0.05	<1	45	<1	15	0.22
29-Jun	0.08	<1	24	<1	15	0.22
06-Jul	0.07	<1	4	<1	15	0.28
13-Jul	0.05	<1	<2	<1	12	0.23
27-Jul	0.04	<1	38	<1	16	0.24
03-Aug	0.01	<1	4	<1	15	0.26
10-Aug	0.05	<1	6	<1	16	0.27
17-Aug	0.02	<1	6	<1	16	0.24
24-Aug	0.04	<1	<2	<1	17	0.25
31-Aug	0.01	<1	100	<1	15	0.25
14-Sep	0.15	<1	32	<1	17	0.19
28-Sep	<0.01	<1	8	<1	15	0.23
05-Oct	0.13	<1	22	<1	15	0.26
12-Oct	0.06	<1	10	<1	13	0.31
19-Oct	0.11	<1	96	<1	14	0.26
26-Oct	0.02	<1	6	<1	10	0.30
02-Nov	0.13	<1	6	<1	12	0.26
09-Nov	0.12	<1	2	<1	10	0.28
16-Nov	0.05	<1	8	<1	10	0.26
23-Nov	0.17	<1	2	<1	9	0.25
07-Dec	0.25	<1	<2	<1	7	0.26
15-Dec	0.19	<1	<2	<1	8	0.22
21-Dec	0.07	<1	2	<1	7	0.26
30-Dec	0.16	<1	NA	<1	7	0.34

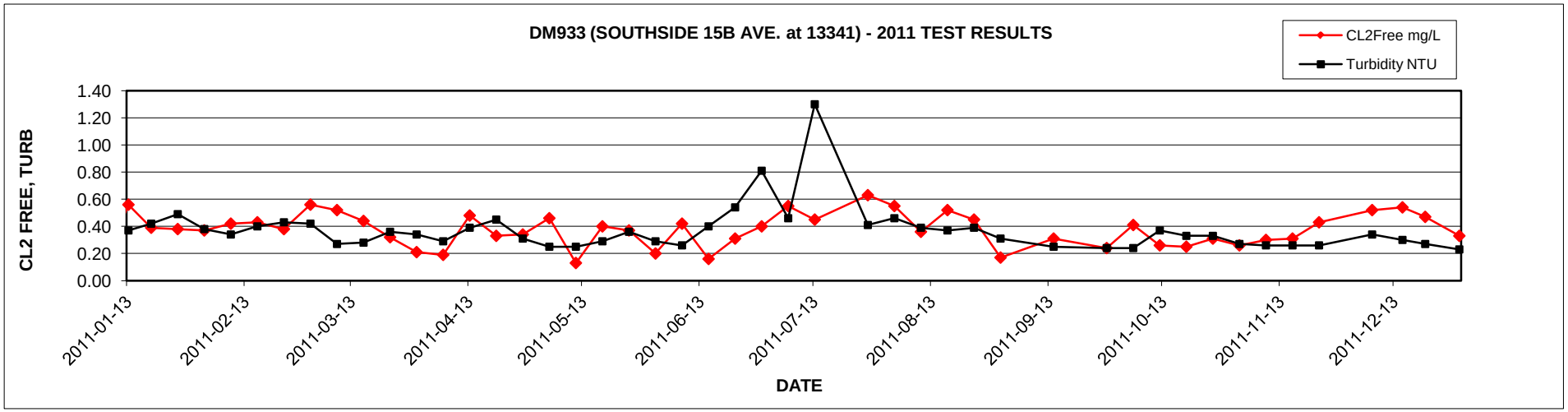

DM932 (1463 126A ST.) - 2011 TEST RESULTS
HPC CFU/mLs
Temp C
HPC
TEMP
DATE
0
20
40
60
80
100
120
0
2
4
6
8
10
12
14
16
18
2011-01-13
2011-02-13
2011-03-13
2011-04-13
2011-05-13
2011-06-13
2011-07-13
2011-08-13
2011-09-13
2011-10-13
2011-11-13
2011-12-13


DM932 (1463 126A ST.) - 2011 TEST RESULTS
CL2Free mg/L
Turbidity NTU
CL2 FREE, TURB
DATE
0.00
0.05
0.10
0.15
0.20
0.25
0.30
0.35
0.40
0.45
2011-01-13
2011-02-13
2011-03-13
2011-04-13
2011-05-13
2011-06-13
2011-07-13
2011-08-13
2011-09-13
2011-10-13
2011-11-13
2011-12-13

2011 GVRD Laboratory Report - DM933 (SOUTHSIDE 15B AVE. at 13341)

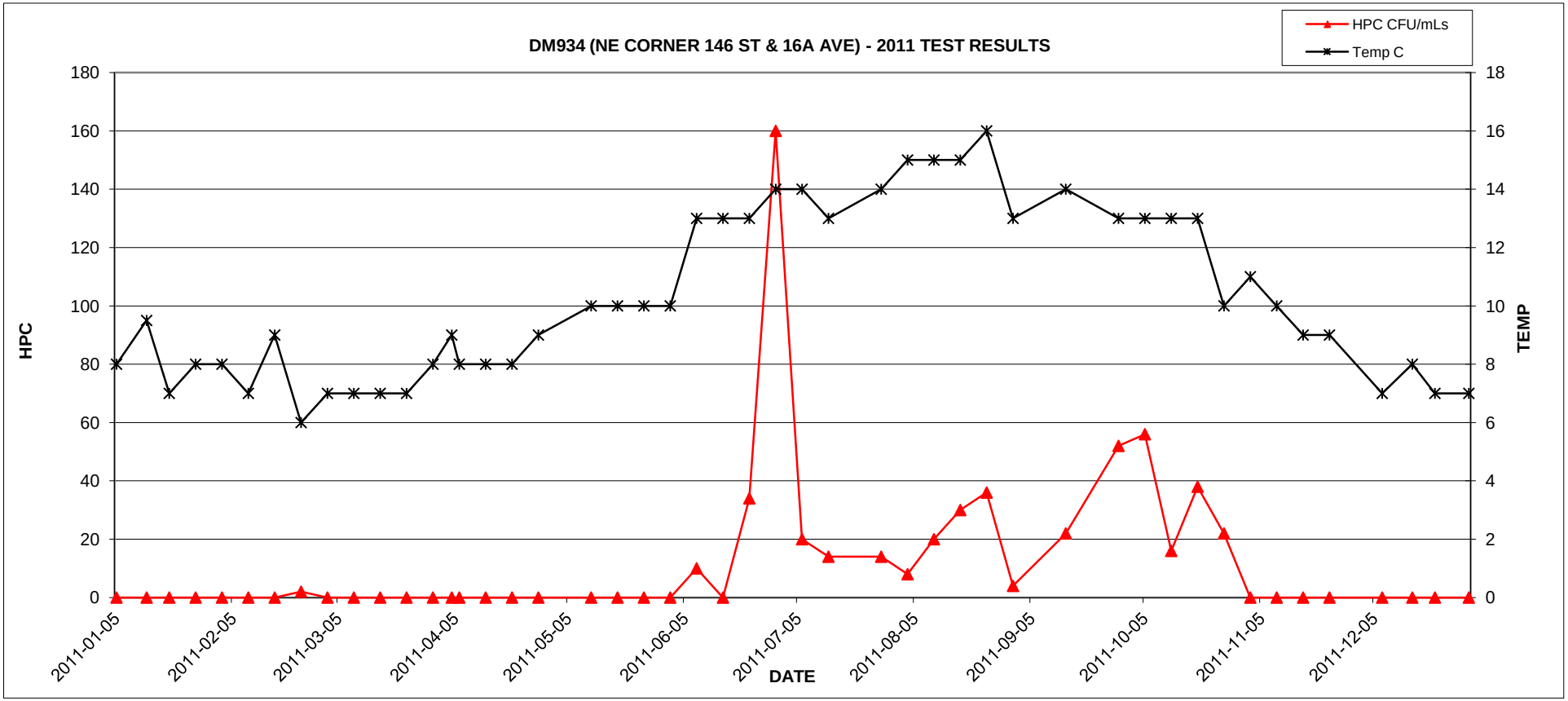
Date Collected	CL2Free mg/L	Ecoli MF/100mLs	HPC CFU/mLs	Tcoli MF/100mLs	Temp C	Turbidity NTU
05-Jan	0.56	<1	2	<1	8	0.37
13-Jan	0.39	<1	<2	<1	10	0.42
19-Jan	0.38	<1	4	<1	7	0.49
26-Jan	0.37	<1	<2	<1	8	0.38
02-Feb	0.42	<1	<2	<1	7	0.34
09-Feb	0.43	<1	<2	<1	6.5	0.40
16-Feb	0.38	<1	110	<1	8	0.43
23-Feb	0.56	<1	<2	<1	6	0.42
02-Mar	0.52	<1	<2	<1	7	0.27
09-Mar	0.44	<1	<2	<1	6	0.28
16-Mar	0.32	<1	<2	<1	7	0.36
23-Mar	0.21	<1	<2	<1	7	0.34
30-Mar	0.19	<1	<2	<1	8	0.29
06-Apr	0.48	<1	<2	<1	10	0.39
13-Apr	0.33	<1	<2	<1	8	0.45
20-Apr	0.34	<1	<2	<1	8	0.31
27-Apr	0.46	<1	<2	<1	8	0.25
04-May	0.13	<1	<2	<1	8	0.25
11-May	0.40	<1	<2	<1	10	0.29
18-May	0.37	<1	<2	<1	11	0.36
25-May	0.20	<1	<2	<1	11	0.29
01-Jun	0.42	<1	<2	<1	11	0.26
08-Jun	0.16	<1	<2	<1	13	0.40
15-Jun	0.31	<1	2	<1	13	0.54
22-Jun	0.40	<1	<2	<1	12	0.81
29-Jun	0.55	<1	18	<1	12	0.46
06-Jul	0.45	<1	<2	<1	12	1.30
13-Jul	0.63	<1	10	<1	13	0.41
27-Jul	0.55	<1	<2	<1	13	0.46
03-Aug	0.36	<1	<2	<1	13	0.39
10-Aug	0.52	<1	<2	<1	13	0.37
17-Aug	0.45	<1	<2	<1	13	0.39
24-Aug	0.17	<1	<2	<1	13	0.31
31-Aug	0.31	<1	<2	<1	13	0.25
14-Sep	0.24	<1	2	<1	14	0.24
28-Sep	0.41	<1	<2	<1	13	0.24
05-Oct	0.26	<1	<2	<1	13	0.37
12-Oct	0.25	<1	<2	<1	13	0.33
19-Oct	0.31	<1	12	<1	13	0.33
26-Oct	0.26	<1	14	<1	10	0.27
02-Nov	0.30	<1	2	<1	12	0.26
09-Nov	0.31	<1	12	<1	10	0.26
16-Nov	0.43	<1	<2	<1	10	0.26
23-Nov	0.52	<1	<2	<1	8	0.34
07-Dec	0.54	<1	<2	<1	7	0.30
15-Dec	0.47	<1	2	<1	8	0.27
21-Dec	0.33	<1	4	<1	7	0.23
30-Dec	0.43	<1	NA	<1	7	0.38

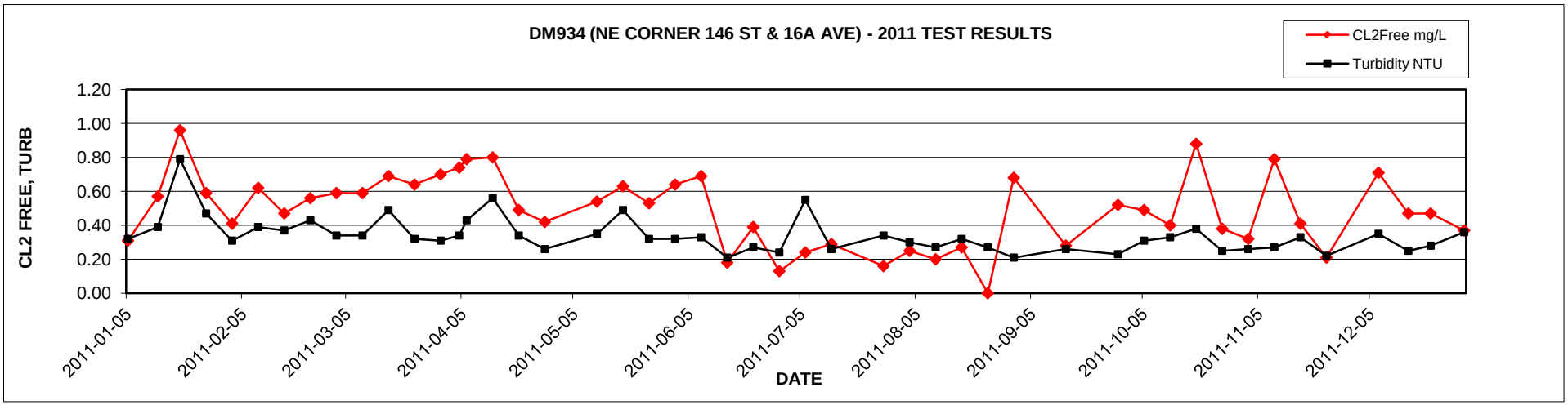

DM933 (SOUTHSIDE 15B AVE. at 13341) - 2011 TEST RESULTS
HPC CFU/mLs
Temp C
HPC
TEMP
DATE
120
100
80
60
40
20
0
16
14
12
10
8
6
4
2
0
2011-01-05
2011-02-05
2011-03-05
2011-04-05
2011-05-05
2011-06-05
2011-07-05
2011-08-05
2011-09-05
2011-10-05
2011-11-05
2011-12-05


DM933 (SOUTHSIDE 15B AVE. at 13341) - 2011 TEST RESULTS
CL2Free mg/L
Turbidity NTU
CL2 FREE, TURB
DATE
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
2011-01-13
2011-02-13
2011-03-13
2011-04-13
2011-05-13
2011-06-13
2011-07-13
2011-08-13
2011-09-13
2011-10-13
2011-11-13
2011-12-13

2011 GVRD Laboratory Report - DM934 (NE CORNER 146 ST & 16A AVE)

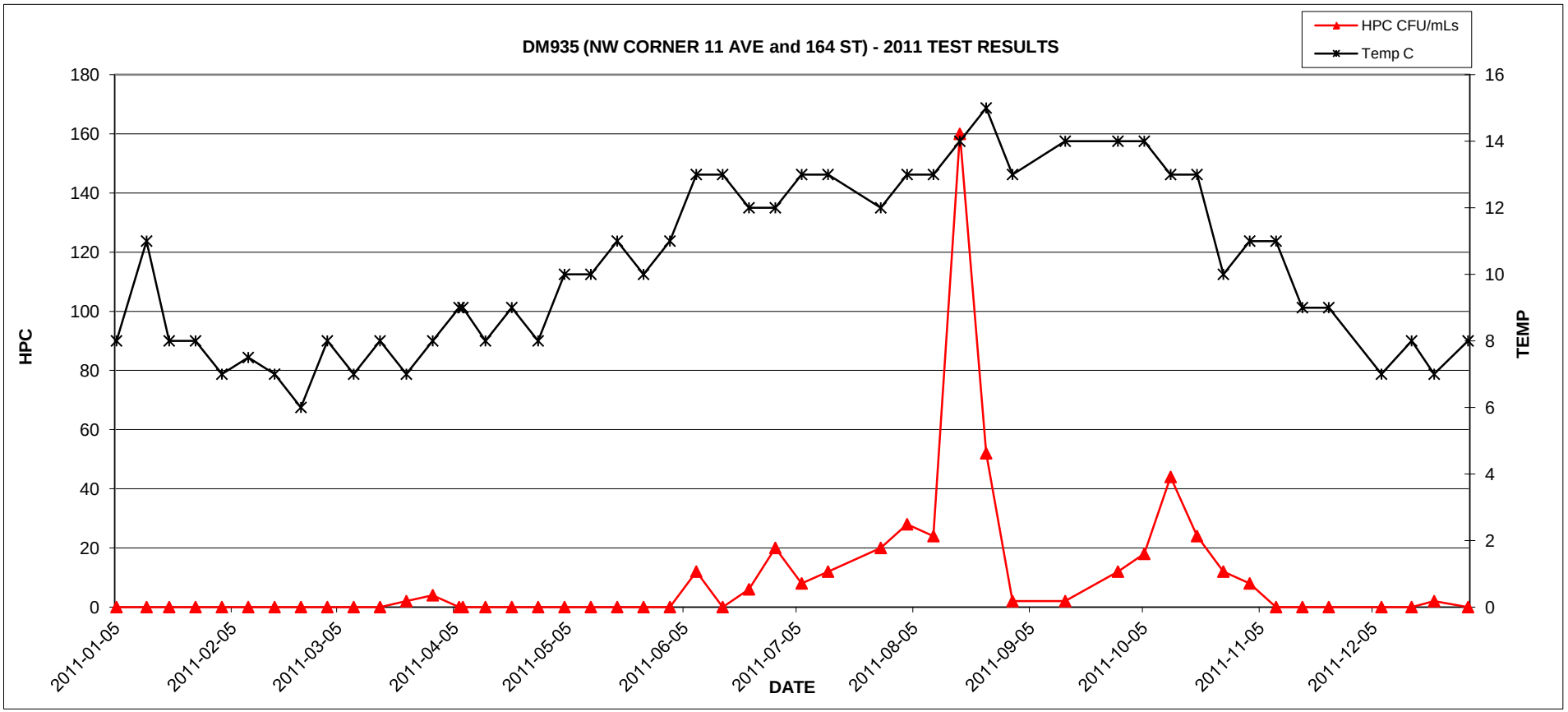
Date Collected	CL2Free mg/L	Ecoli MF/100mLs	HPC CFU/mLs	Tcoli MF/100mLs	Temp C	Turbidity NTU
05-Jan	0.31	<1	<2	<1	8	0.32
13-Jan	0.57	<1	<2	<1	9.5	0.39
19-Jan	0.96	<1	<2	<1	7	0.79
26-Jan	0.59	<1	<2	<1	8	0.47
02-Feb	0.41	<1	<2	<1	8	0.31
09-Feb	0.62	<1	<2	<1	7	0.39
16-Feb	0.47	<1	<2	<1	9	0.37
23-Feb	0.56	<1	2	<1	6	0.43
02-Mar	0.59	<1	<2	<1	7	0.34
09-Mar	0.59	<1	<2	<1	7	0.34
16-Mar	0.69	<1	<2	<1	7	0.49
23-Mar	0.64	<1	<2	<1	7	0.32
30-Mar	0.70	<1	<2	<1	8	0.31
06-Apr	0.79	<1	<2	<1	8	0.43
13-Apr	0.80	<1	<2	<1	8	0.56
20-Apr	0.49	<1	<2	<1	8	0.34
27-Apr	0.42	<1	<2	<1	9	0.26
04-Apr	0.74	<1	<2	<1	9	0.34
11-May	0.54	<1	<2	<1	10	0.35
18-May	0.63	<1	<2	<1	10	0.49
25-May	0.53	<1	<2	<1	10	0.32
01-Jun	0.64	<1	<2	<1	10	0.32
08-Jun	0.69	<1	10	<1	13	0.33
15-Jun	0.18	<1	<2	<1	13	0.21
22-Jun	0.39	<1	34	<1	13	0.27
29-Jun	0.13	<1	160	<1	14	0.24
06-Jul	0.24	<1	20	<1	14	0.55
13-Jul	0.29	<1	14	<1	13	0.26
27-Jul	0.16	<1	14	<1	14	0.34
03-Aug	0.25	<1	8	<1	15	0.30
10-Aug	0.20	<1	20	<1	15	0.27
17-Aug	0.27	<1	30	<1	15	0.32
24-Aug	<0.01	<1	36	<1	16	0.27
31-Aug	0.68	<1	4	<1	13	0.21
14-Sep	0.28	<1	22	<1	14	0.26
28-Sep	0.52	<1	52	<1	13	0.23
05-Oct	0.49	<1	56	<1	13	0.31
12-Oct	0.40	<1	16	<1	13	0.33
19-Oct	0.88	<1	38	<1	13	0.38
26-Oct	0.38	<1	22	<1	10	0.25
02-Nov	0.32	<1	<2	<1	11	0.26
09-Nov	0.79	<1	<2	<1	10	0.27
16-Nov	0.41	<1	<2	<1	9	0.33
23-Nov	0.21	<1	<2	<1	9	0.22
07-Dec	0.71	<1	<2	<1	7	0.35
15-Dec	0.47	<1	<2	<1	8	0.25
21-Dec	0.47	<1	<2	<1	7	0.28
30-Dec	0.37	<1	NA	<1	7	0.36

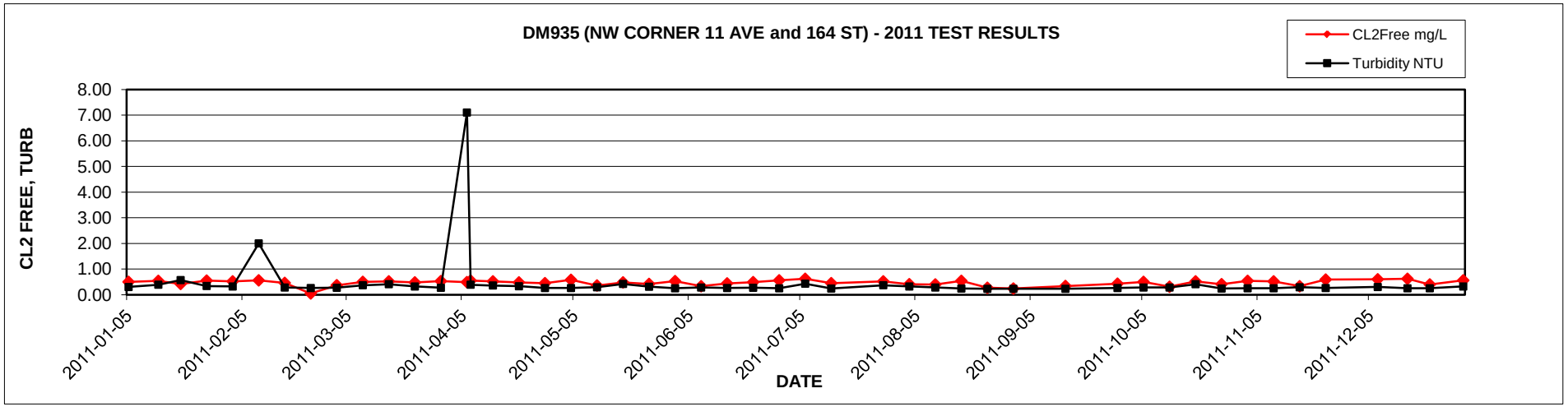

DM934 (NE CORNER 146 ST & 16A AVE) - 2011 TEST RESULTS
HPC CFU/mLs
Temp C
HPC
TEMP
DATE
0
20
40
60
80
100
120
140
160
180
0
2
4
6
8
10
12
14
16
18
2011-01-05
2011-02-05
2011-03-05
2011-04-05
2011-05-05
2011-06-05
2011-07-05
2011-08-05
2011-09-05
2011-10-05
2011-11-05
2011-12-05


DM934 (NE CORNER 146 ST & 16A AVE) - 2011 TEST RESULTS
CL2Free mg/L
Turbidity NTU
CL2 FREE, TURB
DATE
0.00
0.20
0.40
0.60
0.80
1.00
1.20
2011-01-05
2011-02-05
2011-03-05
2011-04-05
2011-05-05
2011-06-05
2011-07-05
2011-08-05
2011-09-05
2011-10-05
2011-11-05
2011-12-05

2011 GVRD Laboratory Report - DM935 (NW CORNER 11 AVE and 164 ST)

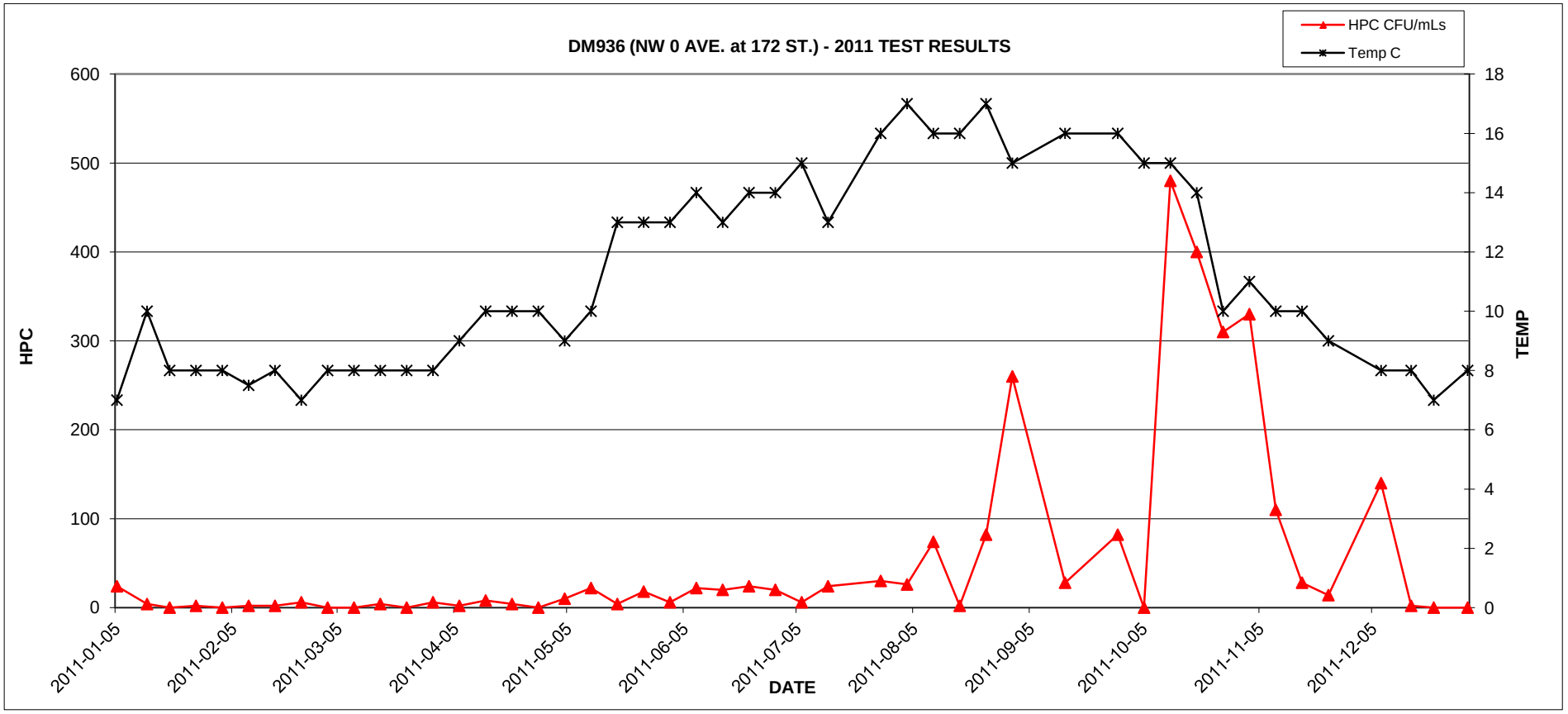
Date Collected	CL2Free mg/L	Ecoli MF/100mLs	HPC CFU/mLs	Tcoli MF/100mLs	Temp C	Turbidity NTU
05-Jan	0.50	<1	<2	<1	8	0.30
13-Jan	0.54	<1	<2	<1	11	0.39
19-Jan	0.42	<1	<2	<1	8	0.57
26-Jan	0.55	<1	<2	<1	8	0.34
02-Feb	0.52	<1	<2	<1	7	0.32
09-Feb	0.56	<1	<2	<1	7.5	2.00
16-Feb	0.46	<1	<2	<1	7	0.28
23-Feb	0.05	<1	<2	<1	6	0.26
02-Mar	0.37	<1	<2	<1	8	0.27
09-Mar	0.50	<1	<2	<1	7	0.37
16-Mar	0.52	<1	<2	<1	8	0.41
23-Mar	0.48	<1	2	<1	7	0.32
30-Mar	0.53	<1	4	<1	8	0.27
07-Apr	0.55	<1	<2	1	9	0.39
06-Apr	0.49	<1	<2	<1	9	7.10
13-Apr	0.52	<1	<2	<1	8	0.36
20-Apr	0.48	<1	<2	<1	9	0.33
27-Apr	0.45	<1	<2	<1	8	0.26
04-May	0.58	<1	<2	<1	10	0.26
11-May	0.36	<1	<2	<1	10	0.29
18-May	0.48	<1	<2	<1	11	0.42
25-May	0.42	<1	<2	<1	10	0.31
01-Jun	0.53	<1	<2	<1	11	0.25
08-Jun	0.33	<1	12	<1	13	0.28
15-Jun	0.44	<1	<2	<1	13	0.26
22-Jun	0.49	<1	6	<1	12	0.27
29-Jun	0.56	<1	20	<1	12	0.25
06-Jul	0.62	<1	8	<1	13	0.43
13-Jul	0.45	<1	12	<1	13	0.24
27-Jul	0.52	<1	20	<1	12	0.37
03-Aug	0.41	<1	28	<1	13	0.32
10-Aug	0.40	<1	24	<1	13	0.28
17-Aug	0.54	<1	160	<1	14	0.24
24-Aug	0.27	<1	52	<1	15	0.23
31-Aug	0.24	<1	2	<1	13	0.23
14-Sep	0.34	<1	2	<1	14	0.23
28-Sep	0.43	<1	12	<1	14	0.26
05-Oct	0.50	<1	18	<1	14	0.28
12-Oct	0.31	<1	44	<1	13	0.28
19-Oct	0.52	<1	24	<1	13	0.41
26-Oct	0.41	<1	12	<1	10	0.24
02-Nov	0.54	<1	8	<1	11	0.25
09-Nov	0.52	<1	<2	<1	11	0.25
16-Nov	0.33	<1	<2	<1	9	0.29
23-Nov	0.59	<1	<2	<1	9	0.26
07-Dec	0.60	<1	<2	<1	7	0.30
15-Dec	0.62	<1	<2	<1	8	0.25
21-Dec	0.40	<1	2	<1	7	0.25
30-Dec	0.56	<1	NA	<1	8	0.32

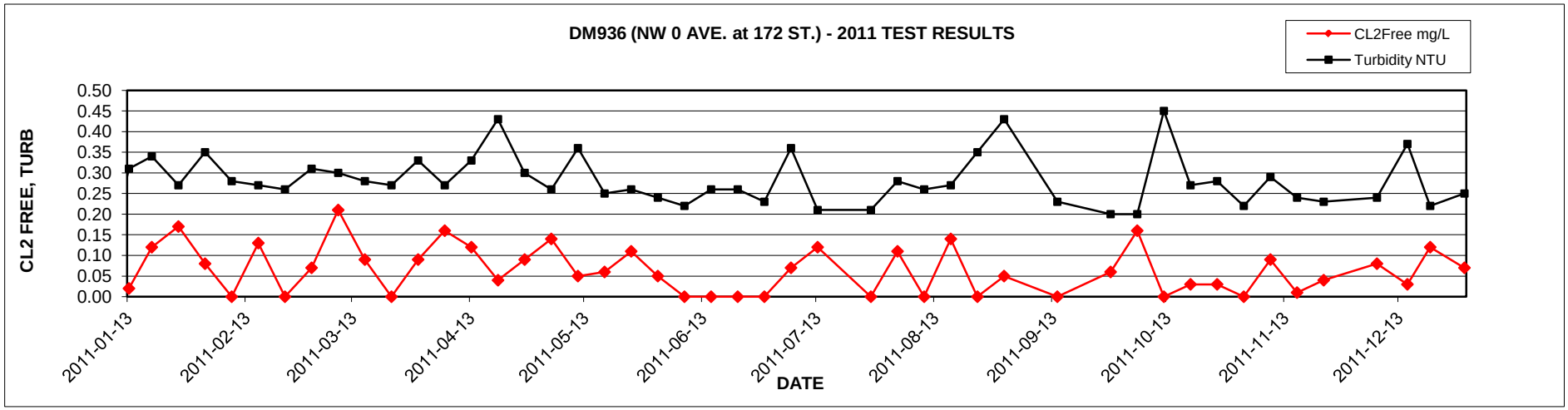

DM935 (NW CORNER 11 AVE and 164 ST) - 2011 TEST RESULTS
HPC CFU/mLs
Temp C
HPC
TEMP
DATE
180
160
140
120
100
80
60
40
20
0
16
14
12
10
8
6
4
2
0
2011-01-05
2011-02-05
2011-03-05
2011-04-05
2011-05-05
2011-06-05
2011-07-05
2011-08-05
2011-09-05
2011-10-05
2011-11-05
2011-12-05


DM935 (NW CORNER 11 AVE and 164 ST) - 2011 TEST RESULTS
CL2Free mg/L
Turbidity NTU
CL2 FREE, TURB
DATE
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
2011-01-05
2011-02-05
2011-03-05
2011-04-05
2011-05-05
2011-06-05
2011-07-05
2011-08-05
2011-09-05
2011-10-05
2011-11-05
2011-12-05

2011 GVRD Laboratory Report - DM936 (NW 0 AVE. at 172 ST.)

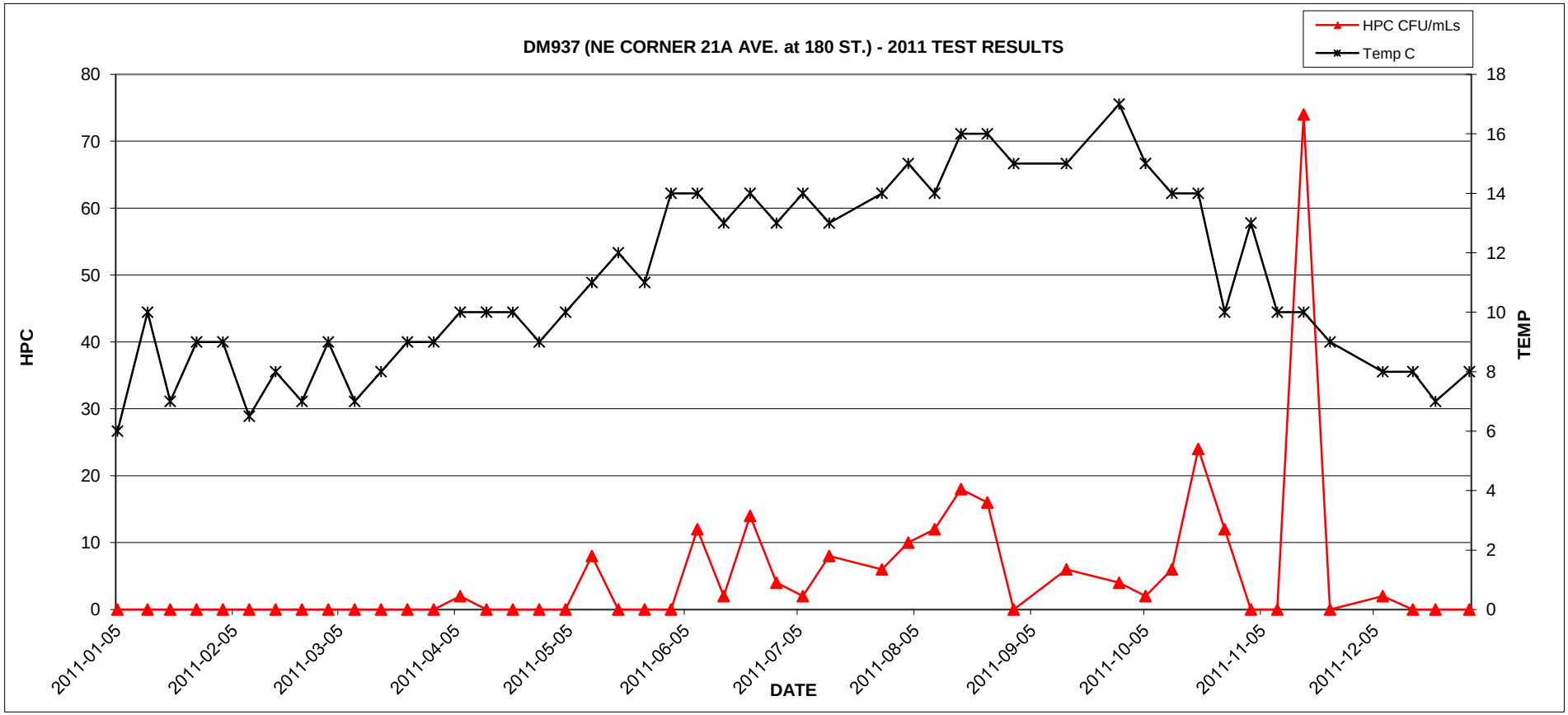
Date Collected	CL2Free mg/L	Ecoli MF/100mLs	HPC CFU/mLs	Tcoli MF/100mLs	Temp C	Turbidity NTU
05-Jan	0.02	<1	24	<1	7	0.31
13-Jan	0.12	<1	4	<1	10	0.34
19-Jan	0.17	<1	<2	<1	8	0.27
26-Jan	0.08	<1	2	<1	8	0.35
02-Feb	<0.01	<1	<2	<1	8	0.28
09-Feb	0.13	<1	2	<1	7.5	0.27
16-Feb	<0.01	<1	2	<1	8	0.26
23-Feb	0.07	<1	6	<1	7	0.31
02-Mar	0.21	<1	<2	<1	8	0.30
09-Mar	0.09	<1	<2	<1	8	0.28
16-Mar	<.01	<1	4	<1	8	0.27
23-Mar	0.09	<1	<2	<1	8	0.33
30-Mar	0.16	<1	6	<1	8	0.27
06-Apr	0.12	<1	2	<1	9	0.33
13-Apr	0.04	<1	8	<1	10	0.43
20-Apr	0.09	<1	4	<1	10	0.30
27-Apr	0.14	<1	<2	<1	10	0.26
04-May	0.05	<1	10	<1	9	0.36
11-May	0.06	<1	22	<1	10	0.25
18-May	0.11	<1	4	<1	13	0.26
25-May	0.05	<1	18	<1	13	0.24
01-Jun	<0.01	<1	6	<1	13	0.22
08-Jun	<0.01	<1	22	<1	14	0.26
15-Jun	<0.01	<1	20	<1	13	0.26
22-Jun	<0.01	<1	24	<1	14	0.23
29-Jun	0.07	<1	20	<1	14	0.36
06-Jul	0.12	<1	6	<1	15	0.21
13-Jul	<0.01	<1	24	<1	13	0.21
27-Jul	0.11	<1	30	<1	16	0.28
03-Aug	<0.01	<1	26	<1	17	0.26
10-Aug	0.14	<1	74	<1	16	0.27
17-Aug	<0.01	<1	2	<1	16	0.35
24-Aug	0.05	<1	82	<1	17	0.43
31-Aug	<0.01	<1	260	<1	15	0.23
14-Sep	0.06	<1	28	<1	16	0.20
28-Sep	0.16	<1	82	<1	16	0.20
05-Oct	<0.01	CG	NA	CG	15	0.45
12-Oct	0.03	<1	480	<1	15	0.27
19-Oct	0.03	<1	400	<1	14	0.28
26-Oct	<0.01	<1	310	<1	10	0.22
02-Nov	0.09	<1	330	<1	11	0.29
09-Nov	0.01	<1	110	<1	10	0.24
16-Nov	0.04	<1	28	<1	10	0.23
23-Nov	0.08	<1	14	<1	9	0.24
07-Dec	0.03	<1	140	<1	8	0.37
15-Dec	0.12	<1	2	<1	8	0.22
21-Dec	0.07	<1	<2	<1	7	0.25
30-Dec	0.10	<1	NA	<1	8	0.27

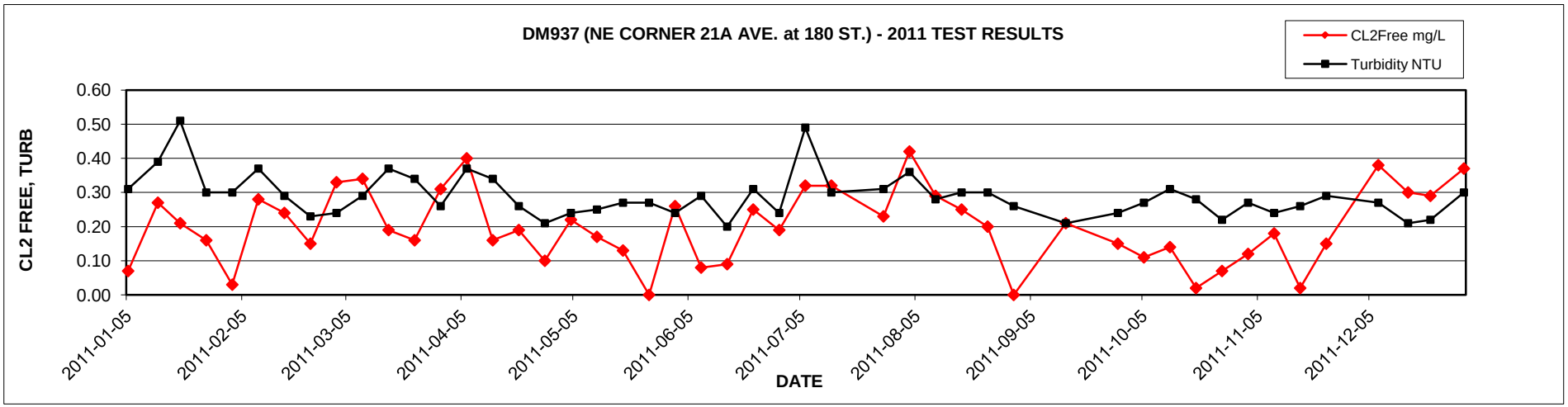

DM936 (NW 0 AVE. at 172 ST.) - 2011 TEST RESULTS
HPC CFU/mLs
Temp C
HPC
TEMP
DATE
600
500
400
300
200
100
0
18
16
14
12
10
8
6
4
2
0
2011-01-05
2011-02-05
2011-03-05
2011-04-05
2011-05-05
2011-06-05
2011-07-05
2011-08-05
2011-09-05
2011-10-05
2011-11-05
2011-12-05


DM936 (NW 0 AVE. at 172 ST.) - 2011 TEST RESULTS
CL2Free mg/L
Turbidity NTU
CL2 FREE, TURB
DATE
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
2011-01-13
2011-02-13
2011-03-13
2011-04-13
2011-05-13
2011-06-13
2011-07-13
2011-08-13
2011-09-13
2011-10-13
2011-11-13
2011-12-13

2011 GVRD Laboratory Report - DM937 (NE CORNER 21A AVE. at 180 ST.)

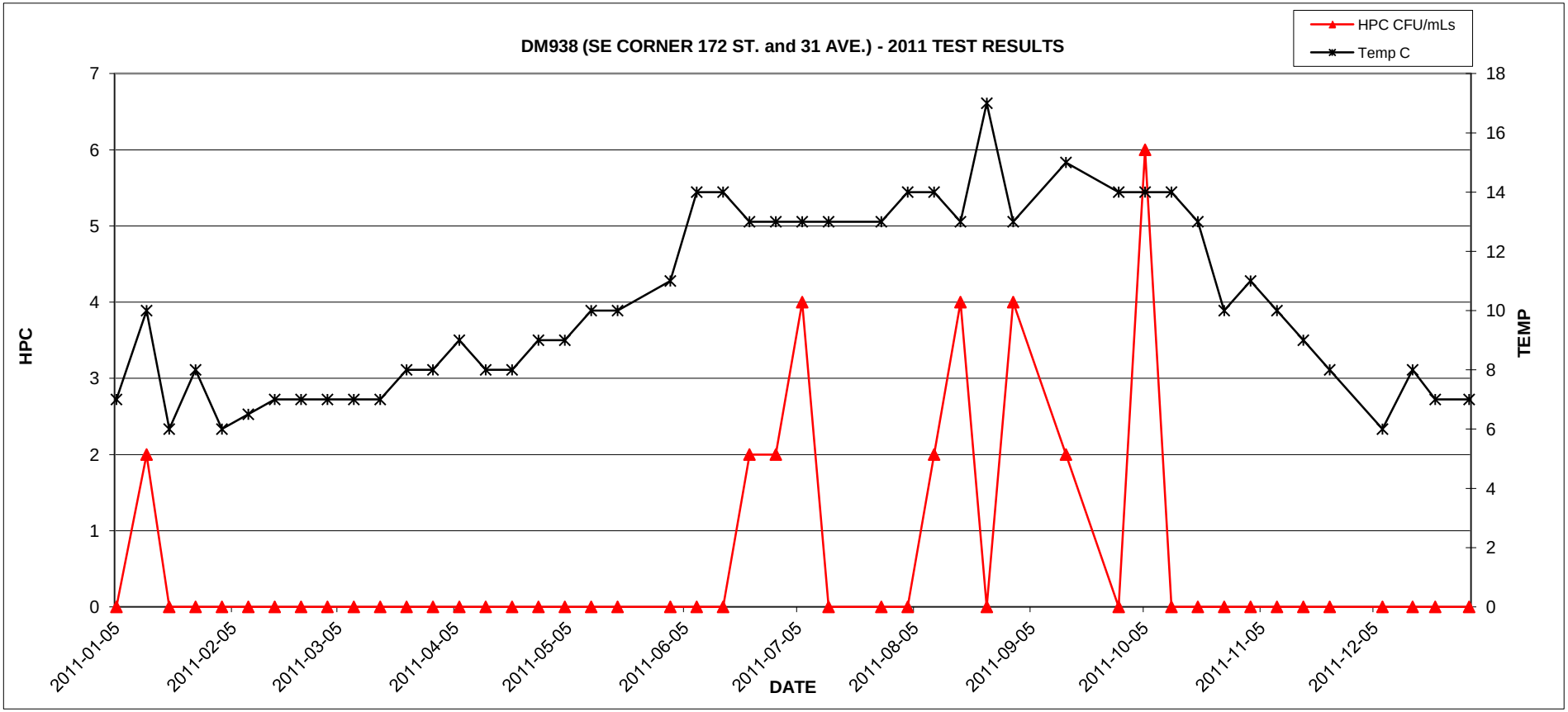
Date Collected	CL2Free mg/L	Ecoli MF/100mLs	HPC CFU/mLs	Tcoli MF/100mLs	Temp C	Turbidity NTU
05-Jan	0.07	<1	<2	<1	6	0.31
13-Jan	0.27	<1	<2	<1	10	0.39
19-Jan	0.21	<1	<2	<1	7	0.51
26-Jan	0.16	<1	<2	<1	9	0.30
02-Feb	0.03	<1	<2	<1	9	0.30
09-Feb	0.28	<1	<2	<1	6.5	0.37
16-Feb	0.24	<1	<2	<1	8	0.29
23-Feb	0.15	<1	<2	<1	7	0.23
02-Mar	0.33	<1	<2	<1	9	0.24
09-Mar	0.34	<1	<2	<1	7	0.29
16-Mar	0.19	<1	<2	<1	8	0.37
23-Mar	0.16	<1	<2	<1	9	0.34
30-Mar	0.31	<1	<2	<1	9	0.26
06-Apr	0.40	<1	2	<1	10	0.37
13-Apr	0.16	<1	<2	<1	10	0.34
20-Apr	0.19	<1	<2	<1	10	0.26
27-Apr	0.10	<1	<2	<1	9	0.21
04-May	0.22	<1	<2	<1	10	0.24
11-May	0.17	<1	8	<1	11	0.25
18-May	0.13	<1	<2	<1	12	0.27
25-May	<.01	<1	<2	<1	11	0.27
01-Jun	0.26	<1	<2	<1	14	0.24
08-Jun	0.08	<1	12	<1	14	0.29
15-Jun	0.09	<1	2	<1	13	0.20
22-Jun	0.25	<1	14	<1	14	0.31
29-Jun	0.19	<1	4	<1	13	0.24
06-Jul	0.32	<1	2	<1	14	0.49
13-Jul	0.32	<1	8	<1	13	0.30
27-Jul	0.23	<1	6	<1	14	0.31
03-Aug	0.42	<1	10	<1	15	0.36
10-Aug	0.29	<1	12	<1	14	0.28
17-Aug	0.25	<1	18	<1	16	0.30
24-Aug	0.20	<1	16	<1	16	0.30
31-Aug	<0.01	<1	<2	<1	15	0.26
14-Sep	0.21	<1	6	<1	15	0.21
28-Sep	0.15	<1	4	<1	17	0.24
05-Oct	0.11	<1	2	<1	15	0.27
12-Oct	0.14	<1	6	<1	14	0.31
19-Oct	0.02	<1	24	<1	14	0.28
26-Oct	0.07	<1	12	<1	10	0.22
02-Nov	0.12	<1	<2	<1	13	0.27
09-Nov	0.18	<1	<2	<1	10	0.24
16-Nov	0.02	<1	74	<1	10	0.26
23-Nov	0.15	<1	<2	<1	9	0.29
07-Dec	0.38	<1	2	<1	8	0.27
15-Dec	0.30	<1	<2	<1	8	0.21
21-Dec	0.29	<1	<2	<1	7	0.22
30-Dec	0.37	<1	NA	<1	8	0.30

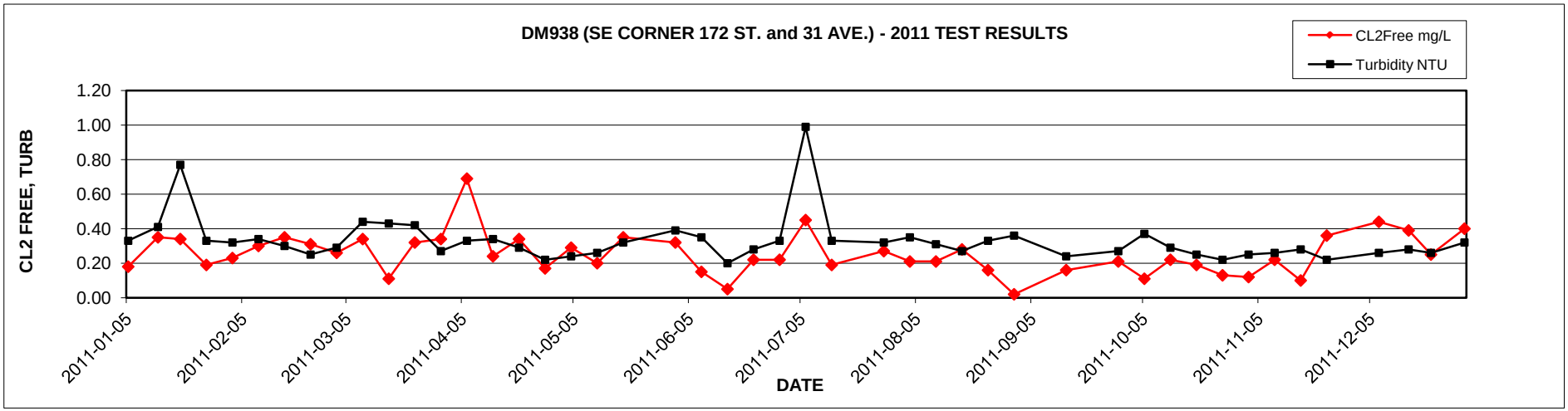

DM937 (NE CORNER 21A AVE. at 180 ST.) - 2011 TEST RESULTS
HPC CFU/mLs
Temp C
HPC
TEMP
DATE
0
10
20
30
40
50
60
70
80
0
2
4
6
8
10
12
14
16
18
2011-01-05
2011-02-05
2011-03-05
2011-04-05
2011-05-05
2011-06-05
2011-07-05
2011-08-05
2011-09-05
2011-10-05
2011-11-05
2011-12-05


DM937 (NE CORNER 21A AVE. at 180 ST.) - 2011 TEST RESULTS
CL2Free mg/L
Turbidity NTU
CL2 FREE, TURB
DATE
0.00
0.10
0.20
0.30
0.40
0.50
0.60
2011-01-05
2011-02-05
2011-03-05
2011-04-05
2011-05-05
2011-06-05
2011-07-05
2011-08-05
2011-09-05
2011-10-05
2011-11-05
2011-12-05

2011 GVRD Laboratory Report - DM938 (SE CORNER 172 ST. and 31 AVE.)

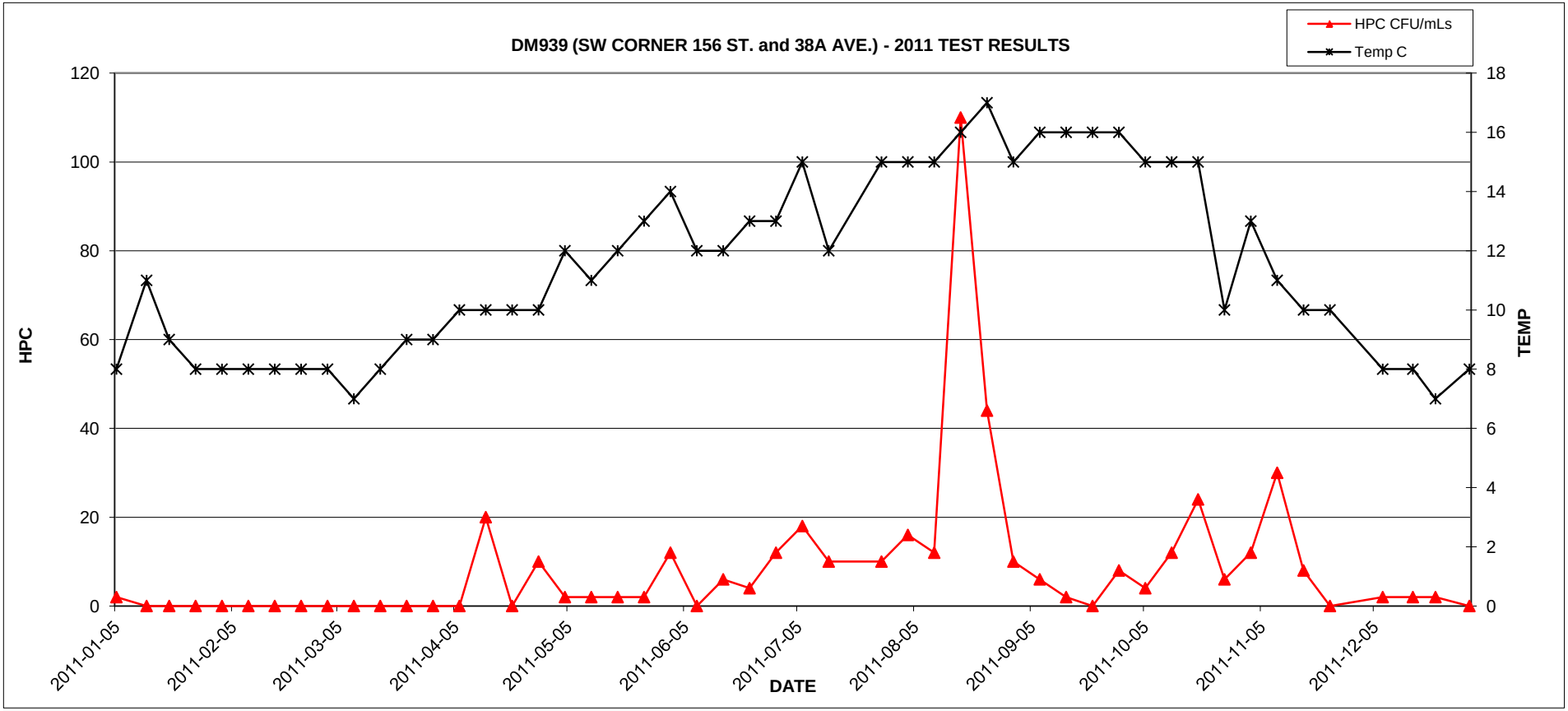
Date Collected	CL2Free mg/L	Ecoli MF/100mLs	HPC CFU/mLs	Tcoli MF/100mLs	Temp C	Turbidity NTU
05-Jan	0.18	<1	<2	<1	7	0.33
13-Jan	0.35	<1	2	<1	10	0.41
19-Jan	0.34	<1	<2	<1	6	0.77
26-Jan	0.19	<1	<2	<1	8	0.33
02-Feb	0.23	<1	<2	<1	6	0.32
09-Feb	0.30	<1	<2	<1	6.5	0.34
16-Feb	0.35	<1	<2	<1	7	0.30
23-Feb	0.31	<1	<2	<1	7	0.25
02-Mar	0.26	<1	<2	<1	7	0.29
09-Mar	0.34	<1	<2	<1	7	0.44
16-Mar	0.11	<1	<2	<1	7	0.43
23-Mar	0.32	<1	<2	<1	8	0.42
30-Mar	0.34	<1	<2	<1	8	0.27
06-Apr	0.69	<1	<2	<1	9	0.33
13-Apr	0.24	<1	<2	<1	8	0.34
20-Apr	0.34	<1	<2	<1	8	0.29
27-Apr	0.17	<1	<2	<1	9	0.22
04-May	0.29	<1	<2	<1	9	0.24
11-May	0.20	<1	<2	<1	10	0.26
18-May	0.35	<1	<2	<1	10	0.32
01-Jun	0.32	<1	<2	<1	11	0.39
08-Jun	0.15	<1	<2	<1	14	0.35
15-Jun	0.05	<1	<2	<1	14	0.20
22-Jun	0.22	<1	2	<1	13	0.28
29-Jun	0.22	<1	2	<1	13	0.33
06-Jul	0.45	<1	4	<1	13	0.99
13-Jul	0.19	<1	<2	<1	13	0.33
27-Jul	0.27	<1	<2	<1	13	0.32
03-Aug	0.21	<1	<2	<1	14	0.35
10-Aug	0.21	<1	2	<1	14	0.31
17-Aug	0.28	<1	4	<1	13	0.27
24-Aug	0.16	<1	<2	<1	17	0.33
31-Aug	0.02	<1	4	<1	13	0.36
14-Sep	0.16	<1	2	<1	15	0.24
28-Sep	0.21	<1	<2	<1	14	0.27
05-Oct	0.11	<1	6	<1	14	0.37
12-Oct	0.22	<1	<2	<1	14	0.29
19-Oct	0.19	<1	<2	<1	13	0.25
26-Oct	0.13	<1	<2	<1	10	0.22
02-Nov	0.12	<1	<2	<1	11	0.25
09-Nov	0.22	<1	<2	<1	10	0.26
16-Nov	0.10	<1	<2	<1	9	0.28
23-Nov	0.36	<1	<2	<1	8	0.22
07-Dec	0.44	<1	<2	<1	6	0.26
15-Dec	0.39	<1	<2	<1	8	0.28
21-Dec	0.25	<1	<2	<1	7	0.26
30-Dec	0.40	<1	NA	<1	7	0.32

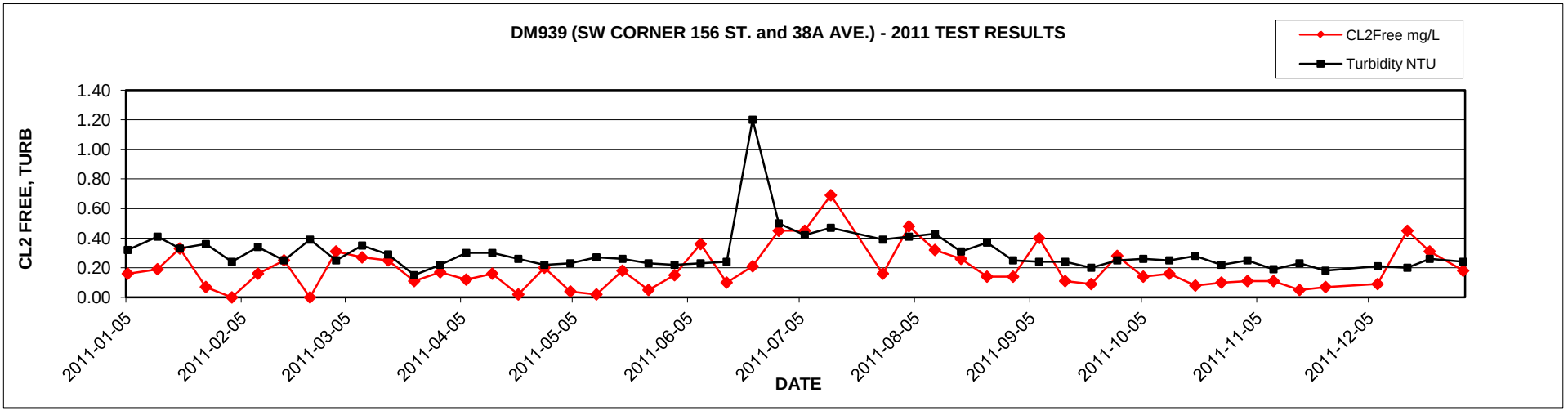

DM938 (SE CORNER 172 ST. and 31 AVE.) - 2011 TEST RESULTS
HPC CFU/mLs
Temp C
HPC
TEMP
DATE
0
1
2
3
4
5
6
7
0
2
4
6
8
10
12
14
16
18
2011-01-05
2011-02-05
2011-03-05
2011-04-05
2011-05-05
2011-06-05
2011-07-05
2011-08-05
2011-09-05
2011-10-05
2011-11-05
2011-12-05


DM938 (SE CORNER 172 ST. and 31 AVE.) - 2011 TEST RESULTS
CL2Free mg/L
Turbidity NTU
CL2 FREE, TURB
DATE
0.00
0.20
0.40
0.60
0.80
1.00
1.20
2011-01-05
2011-02-05
2011-03-05
2011-04-05
2011-05-05
2011-06-05
2011-07-05
2011-08-05
2011-09-05
2011-10-05
2011-11-05
2011-12-05

2011 GVRD Laboratory Report - DM939 (SW CORNER 156 ST. and 38A AVE.)

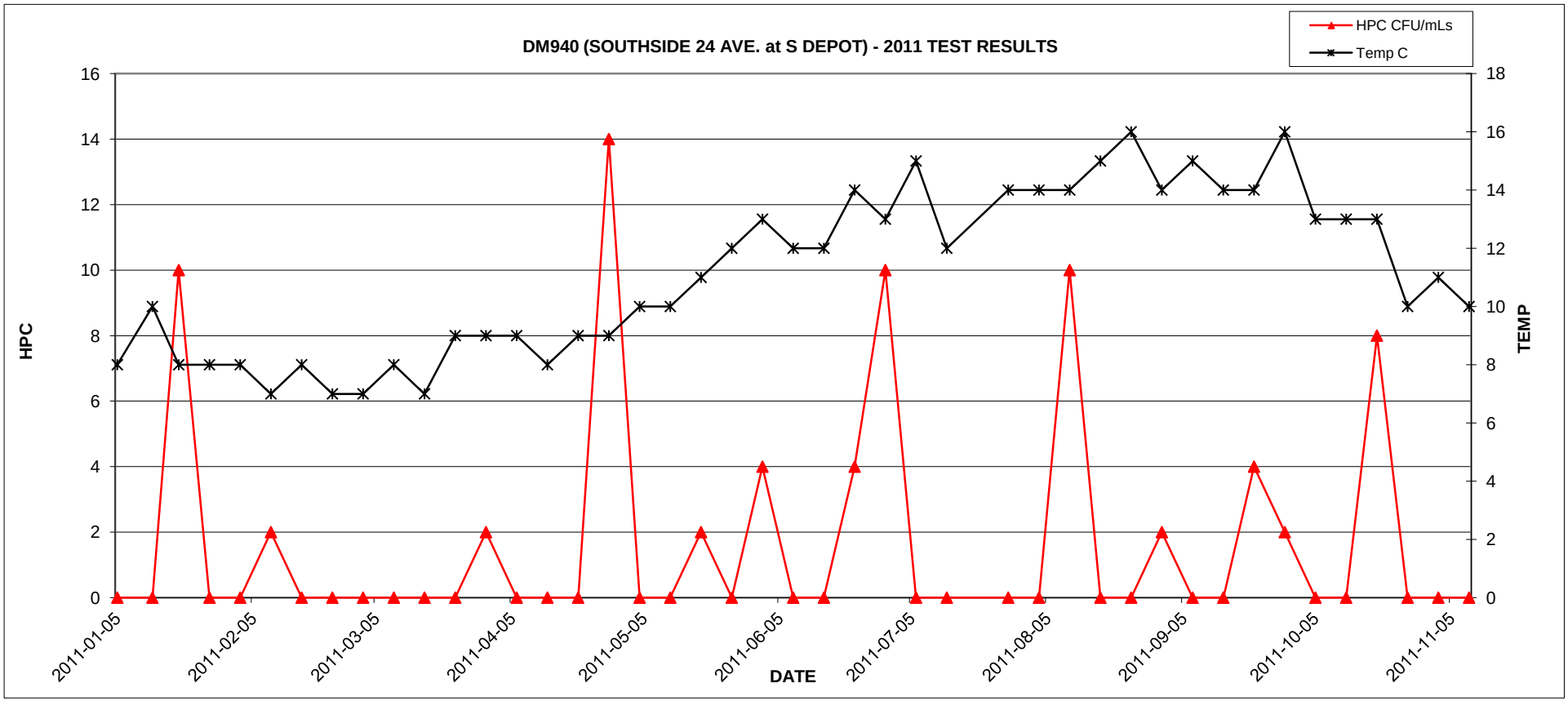
Date Collected	CL2Free mg/L	Ecoli MF/100mLs	HPC CFU/mLs	Tcoli MF/100mLs	Temp C	Turbidity NTU
05-Jan	0.16	<1	2	<1	8	0.32
13-Jan	0.19	<1	<2	<1	11	0.41
19-Jan	0.33	<1	<2	<1	9	0.33
26-Jan	0.07	<1	<2	<1	8	0.36
02-Feb	<0.01	<1	<2	<1	8	0.24
09-Feb	0.16	<1	<2	<1	8	0.34
16-Feb	0.25	<1	<2	<1	8	0.25
23-Feb	<0.01	<1	<2	<1	8	0.39
02-Mar	0.31	<1	<2	<1	8	0.25
09-Mar	0.27	<1	<2	<1	7	0.35
16-Mar	0.25	<1	<2	<1	8	0.29
23-Mar	0.11	<1	<2	<1	9	0.15
30-Mar	0.17	<1	<2	<1	9	0.22
06-Apr	0.12	<1	<2	<1	10	0.30
13-Apr	0.16	<1	20	<1	10	0.30
20-Apr	0.02	<1	<2	<1	10	0.26
27-Apr	0.20	<1	10	<1	10	0.22
04-May	0.04	<1	2	<1	12	0.23
11-May	0.02	<1	2	<1	11	0.27
18-May	0.18	<1	2	<1	12	0.26
25-May	0.05	<1	2	<1	13	0.23
01-Jun	0.15	<1	12	<1	14	0.22
08-Jun	0.36	<1	<2	<1	12	0.23
15-Jun	0.10	<1	6	<1	12	0.24
22-Jun	0.21	<1	4	<1	13	1.20
29-Jun	0.45	<1	12	<1	13	0.50
06-Jul	0.45	<1	18	<1	15	0.42
13-Jul	0.69	<1	10	<1	12	0.47
27-Jul	0.16	<1	10	<1	15	0.39
03-Aug	0.48	<1	16	<1	15	0.41
10-Aug	0.32	<1	12	<1	15	0.43
17-Aug	0.26	<1	110	<1	16	0.31
24-Aug	0.14	<1	44	<1	17	0.37
31-Aug	0.14	<1	10	<1	15	0.25
07-Sep	0.40	<1	6	<1	16	0.24
14-Sep	0.11	<1	2	<1	16	0.24
21-Sep	0.09	<1	<2	<1	16	0.20
28-Sep	0.28	<1	8	<1	16	0.25
05-Oct	0.14	<1	4	<1	15	0.26
12-Oct	0.16	<1	12	<1	15	0.25
19-Oct	0.08	<1	24	<1	15	0.28
26-Oct	0.10	<1	6	<1	10	0.22
02-Nov	0.11	<1	12	<1	13	0.25
09-Nov	0.11	<1	30	<1	11	0.19
16-Nov	0.05	<1	8	<1	10	0.23
23-Nov	0.07	<1	<2	<1	10	0.18
07-Dec	0.09	<1	2	<1	8	0.21
15-Dec	0.45	<1	2	<1	8	0.20
21-Dec	0.31	<1	2	<1	7	0.26
30-Dec	0.18	<1	NA	<1	8	0.24

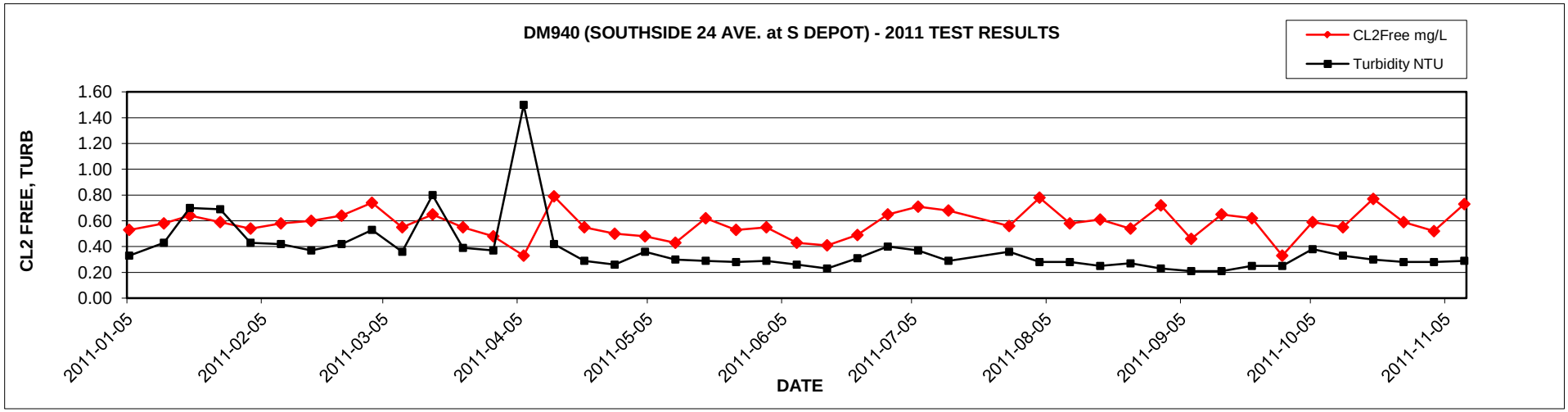

DM939 (SW CORNER 156 ST. and 38A AVE.) - 2011 TEST RESULTS
HPC CFU/mLs
Temp C
HPC
TEMP
DATE
0
20
40
60
80
100
120
0
2
4
6
8
10
12
14
16
18
2011-01-05
2011-02-05
2011-03-05
2011-04-05
2011-05-05
2011-06-05
2011-07-05
2011-08-05
2011-09-05
2011-10-05
2011-11-05
2011-12-05


DM939 (SW CORNER 156 ST. and 38A AVE.) - 2011 TEST RESULTS
CL2Free mg/L
Turbidity NTU
CL2 FREE, TURB
DATE
0.00
0.20
0.40
0.60
0.80
1.00
1.20
1.40
2011-01-05
2011-02-05
2011-03-05
2011-04-05
2011-05-05
2011-06-05
2011-07-05
2011-08-05
2011-09-05
2011-10-05
2011-11-05
2011-12-05

2011 GVRD Laboratory Report - DM940 (SOUTHSIDE 24 AVE. at S DEPOT)

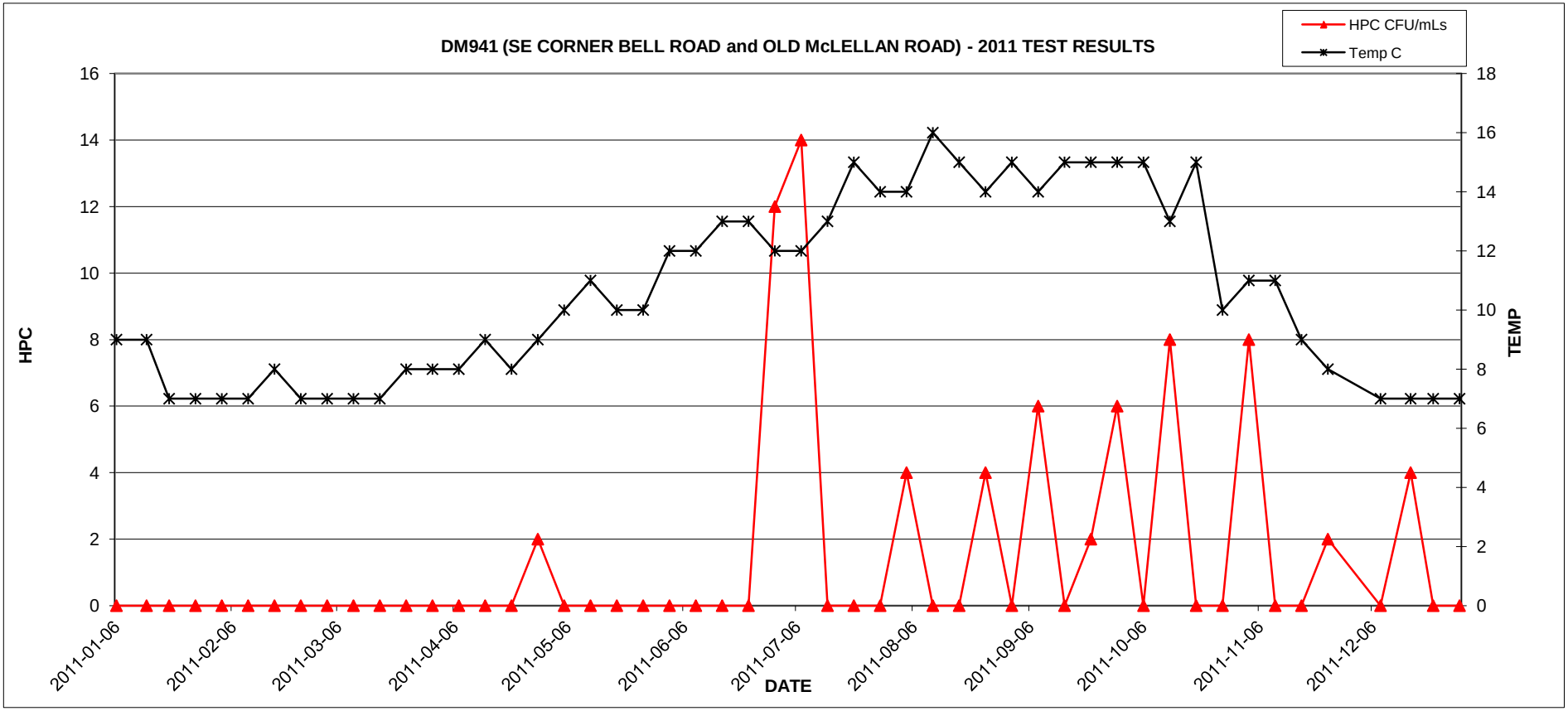
Date Collected	CL2Free mg/L	Ecoli MF/100mLs	HPC CFU/mLs	Tcoli MF/100mLs	Temp C	Turbidity NTU
05-Jan	0.53	<1	<2	<1	8	0.33
13-Jan	0.58	<1	<2	<1	10	0.43
19-Jan	0.64	<1	10	<1	8	0.70
26-Jan	0.59	<1	<2	<1	8	0.69
02-Feb	0.54	<1	<2	<1	8	0.43
09-Feb	0.58	<1	2	<1	7	0.42
16-Feb	0.60	<1	<2	<1	8	0.37
23-Feb	0.64	<1	<2	<1	7	0.42
02-Mar	0.74	<1	<2	<1	7	0.53
09-Mar	0.55	<1	<2	<1	8	0.36
16-Mar	0.65	<1	<2	<1	7	0.80
23-Mar	0.55	<1	<2	<1	9	0.39
30-Mar	0.48	<1	2	<1	9	0.37
06-Apr	0.33	<1	<2	<1	9	1.50
13-Apr	0.79	<1	<2	<1	8	0.42
20-Apr	0.55	<1	<2	<1	9	0.29
27-Apr	0.50	<1	14	<1	9	0.26
04-May	0.48	<1	<2	<1	10	0.36
11-May	0.43	<1	<2	<1	10	0.30
18-May	0.62	<1	2	<1	11	0.29
25-May	0.53	<1	<2	<1	12	0.28
01-Jun	0.55	<1	4	<1	13	0.29
08-Jun	0.43	<1	<2	<1	12	0.26
15-Jun	0.41	<1	<2	<1	12	0.23
22-Jun	0.49	<1	4	<1	14	0.31
29-Jun	0.65	<1	10	<1	13	0.40
06-Jul	0.71	<1	<2	<1	15	0.37
13-Jul	0.68	<1	<2	<1	12	0.29
27-Jul	0.56	<1	<2	<1	14	0.36
03-Aug	0.78	<1	<2	<1	14	0.28
10-Aug	0.58	<1	10	<1	14	0.28
17-Aug	0.61	<1	<2	<1	15	0.25
24-Aug	0.54	<1	<2	<1	16	0.27
31-Aug	0.72	<1	2	<1	14	0.23
07-Sep	0.46	<1	<2	<1	15	0.21
14-Sep	0.65	<1	<2	<1	14	0.21
21-Sep	0.62	<1	4	<1	14	0.25
28-Sep	0.33	<1	2	<1	16	0.25
05-Oct	0.59	<1	<2	<1	13	0.38
12-Oct	0.55	<1	<2	<1	13	0.33
19-Oct	0.77	<1	8	<1	13	0.30
26-Oct	0.59	<1	<2	<1	10	0.28
02-Nov	0.52	<1	<2	<1	11	0.28
09-Nov	0.73	<1	<2	<1	10	0.29
16-Nov	0.59	<1	2	<1	8	0.29
23-Nov	0.60	<1	<2	<1	8	0.26
07-Dec	0.95	<1	<2	<1	6	0.38
15-Dec	0.72	<1	<2	<1	8	0.30
21-Dec	0.65	<1	<2	<1	7	0.30
30-Dec	0.69	<1	NA	<1	6	0.40

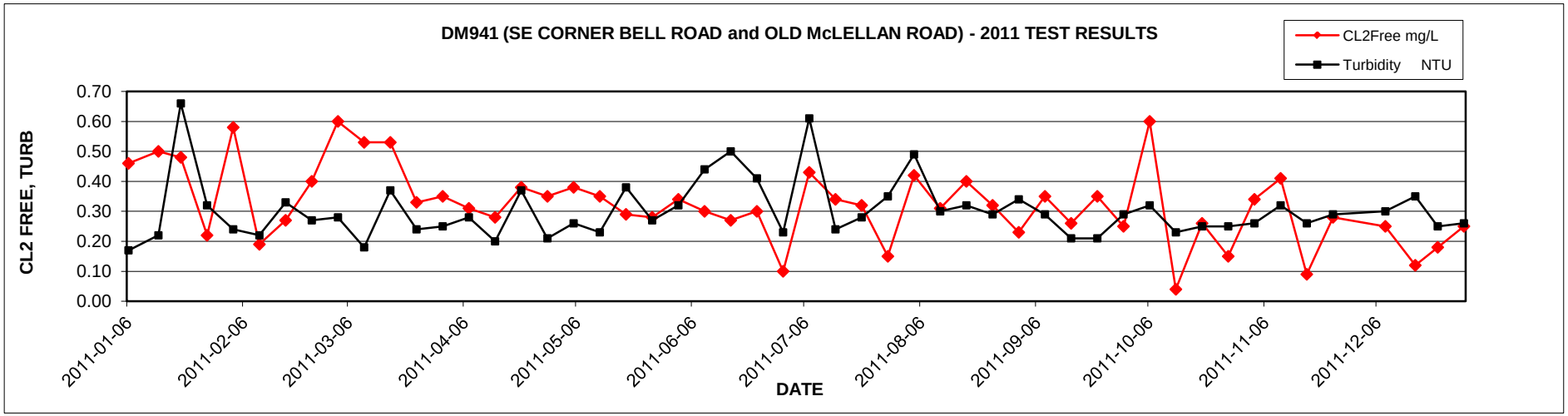

DM940 (SOUTHSIDE 24 AVE. at S DEPOT) - 2011 TEST RESULTS
HPC CFU/mLs
Temp C
HPC
TEMP
DATE
0
2
4
6
8
10
12
14
16
18
2011-01-05
2011-02-05
2011-03-05
2011-04-05
2011-05-05
2011-06-05
2011-07-05
2011-08-05
2011-09-05
2011-10-05
2011-11-05


DM940 (SOUTHSIDE 24 AVE. at S DEPOT) - 2011 TEST RESULTS
CL2Free mg/L
Turbidity NTU
CL2 FREE, TURB
DATE
0.00
0.20
0.40
0.60
0.80
1.00
1.20
1.40
1.60
2011-01-05
2011-02-05
2011-03-05
2011-04-05
2011-05-05
2011-06-05
2011-07-05
2011-08-05
2011-09-05
2011-10-05
2011-11-05

2011 GVRD Laboratory Report - DM941 (SE CORNER BELL ROAD and OLD McLELLAN ROAD)

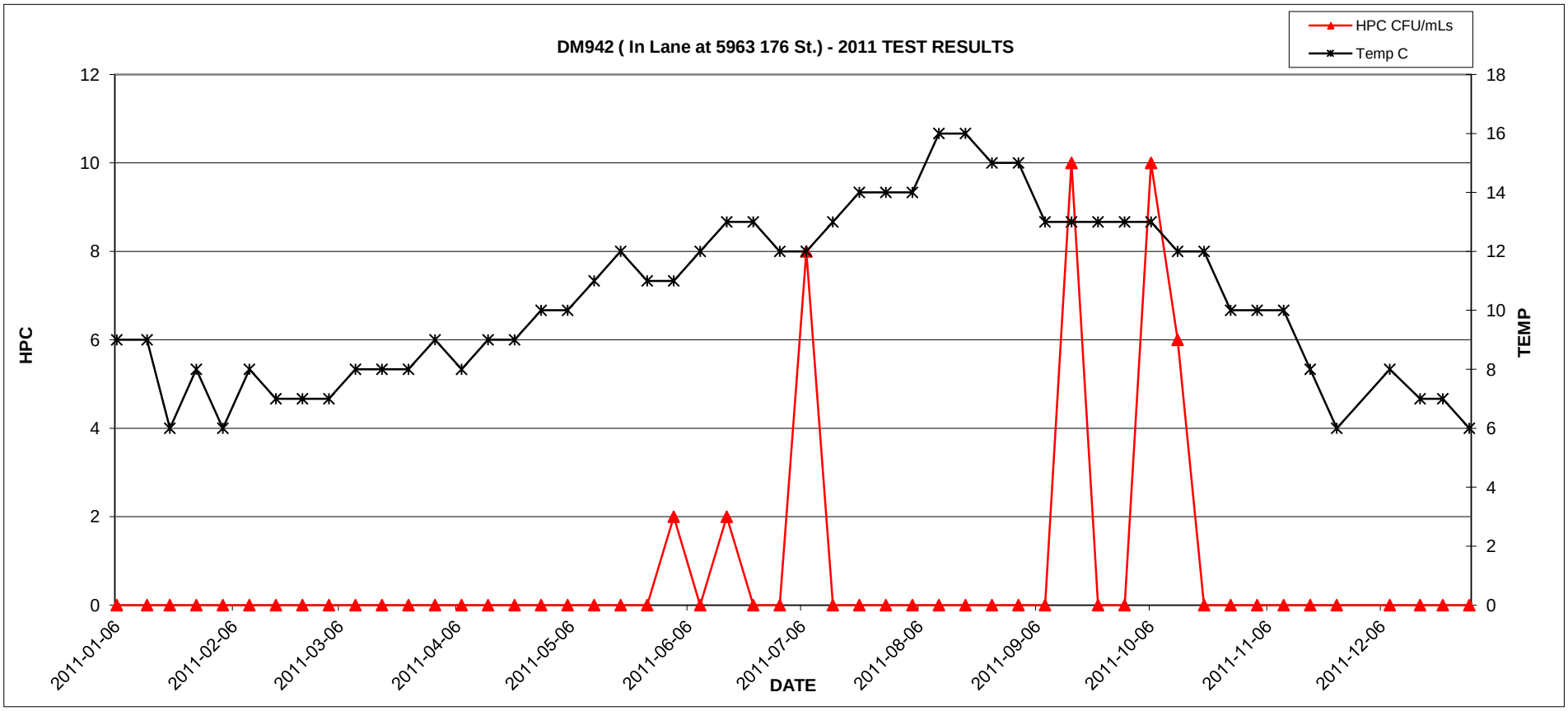
Date Collected	CL2Free mg/L	Ecoli MF/100mLs	HPC CFU/mLs	Tcoli MF/100mLs	Temp C	Turbidity NTU
06-Jan	0.46	<1	<2	<1	9	0.17
14-Jan	0.50	<1	<2	<1	9	0.22
20-Jan	0.48	<1	<2	<1	7	0.66
27-Jan	0.22	<1	<2	<1	7	0.32
03-Feb	0.58	<1	<2	<1	7	0.24
17-Feb	0.27	<1	<2	<1	8	0.33
24-Feb	0.40	<1	<2	<1	7	0.27
03-Mar	0.60	<1	<2	<1	7	0.28
10-Mar	0.53	<1	<2	<1	7	0.18
10-Feb	0.19	<1	<2	<1	7	0.22
17-Mar	0.53	<1	<2	<1	7	0.37
24-Mar	0.33	<1	<2	<1	8	0.24
31-Mar	0.35	<1	<2	<1	8	0.25
07-Apr	0.31	<1	<2	<1	8	0.28
14-Apr	0.28	<1	<2	<1	9	0.20
21-Apr	0.38	<1	<2	<1	8	0.37
28-Apr	0.35	<1	2	<1	9	0.21
05-May	0.38	<1	<2	<1	10	0.26
12-May	0.35	<1	<2	<1	11	0.23
19-May	0.29	<1	<2	<1	10	0.38
26-May	0.28	<1	<2	<1	10	0.27
02-Jun	0.34	<1	<2	<1	12	0.32
09-Jun	0.30	<1	<2	<1	12	0.44
16-Jun	0.27	<1	<2	<1	13	0.50
23-Jun	0.30	<1	<2	<1	13	0.41
30-Jun	0.10	<1	12	<1	12	0.23
07-Jul	0.43	<1	14	<1	12	0.61
14-Jul	0.34	<1	<2	<1	13	0.24
21-Jul	0.32	<1	<2	<1	15	0.28
28-Jul	0.15	<1	<2	<1	14	0.35
04-Aug	0.42	<1	4	<1	14	0.49
11-Aug	0.31	<1	<2	<1	16	0.30
18-Aug	0.40	<1	<2	<1	15	0.32
25-Aug	0.32	<1	4	<1	14	0.29
01-Sep	0.23	<1	<2	<1	15	0.34
08-Sep	0.35	<1	6	<1	14	0.29
15-Sep	0.26	<1	<2	<1	15	0.21
22-Sep	0.35	<1	2	<1	15	0.21
29-Sep	0.25	<1	6	<1	15	0.29
06-Oct	0.60	<1	<2	<1	15	0.32
13-Oct	0.04	<1	8	<1	13	0.23
20-Oct	0.26	<1	<2	<1	15	0.25
27-Oct	0.15	<1	<2	<1	10	0.25
03-Nov	0.34	<1	8	<1	11	0.26
10-Nov	0.41	<1	<2	<1	11	0.32
17-Nov	0.09	<1	<2	<1	9	0.26
24-Nov	0.28	<1	2	<1	8	0.29
08-Dec	0.25	<1	<2	<1	7	0.30
16-Dec	0.12	<1	4	<1	7	0.35
22-Dec	0.18	<1	<2	<1	7	0.25
29-Dec	0.25	<1	NA	<1	7	0.26

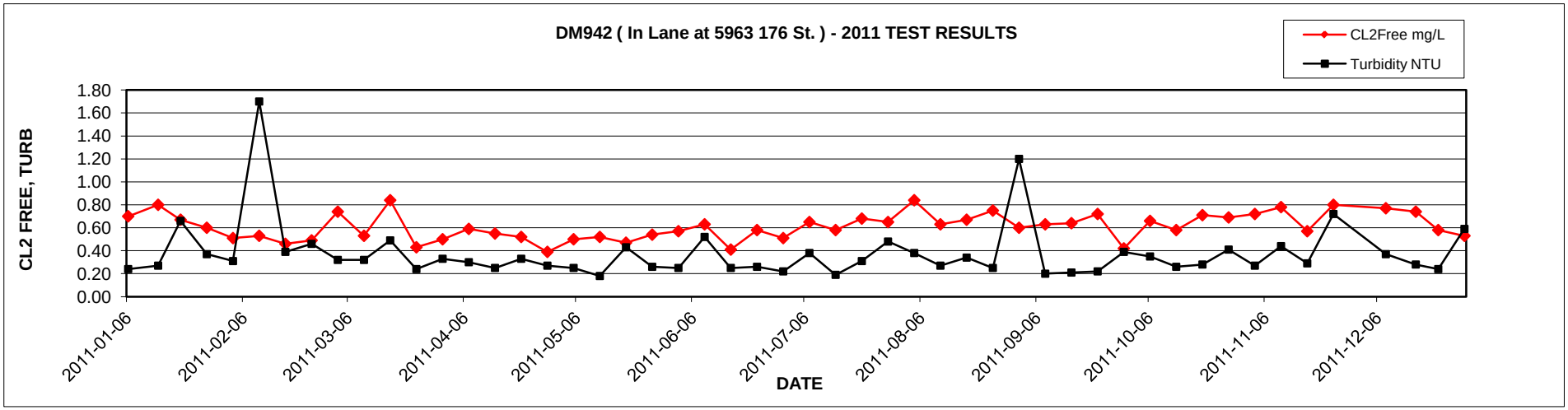

DM941 (SE CORNER BELL ROAD and OLD McLELLAN ROAD) - 2011 TEST RESULTS
HPC CFU/mLs
Temp C
HPC
TEMP
DATE
0
2
4
6
8
10
12
14
16
18
2011-01-06
2011-02-06
2011-03-06
2011-04-06
2011-05-06
2011-06-06
2011-07-06
2011-08-06
2011-09-06
2011-10-06
2011-11-06
2011-12-06


DM941 (SE CORNER BELL ROAD and OLD McLELLAN ROAD) - 2011 TEST RESULTS
CL2Free mg/L
Turbidity NTU
CL2 FREE, TURB
DATE
0.00
0.10
0.20
0.30
0.40
0.50
0.60
0.70
2011-01-06
2011-02-06
2011-03-06
2011-04-06
2011-05-06
2011-06-06
2011-07-06
2011-08-06
2011-09-06
2011-10-06
2011-11-06
2011-12-06

2011 GVRD Laboratory Report - DM942 (In Lane at 5963 176 St.)

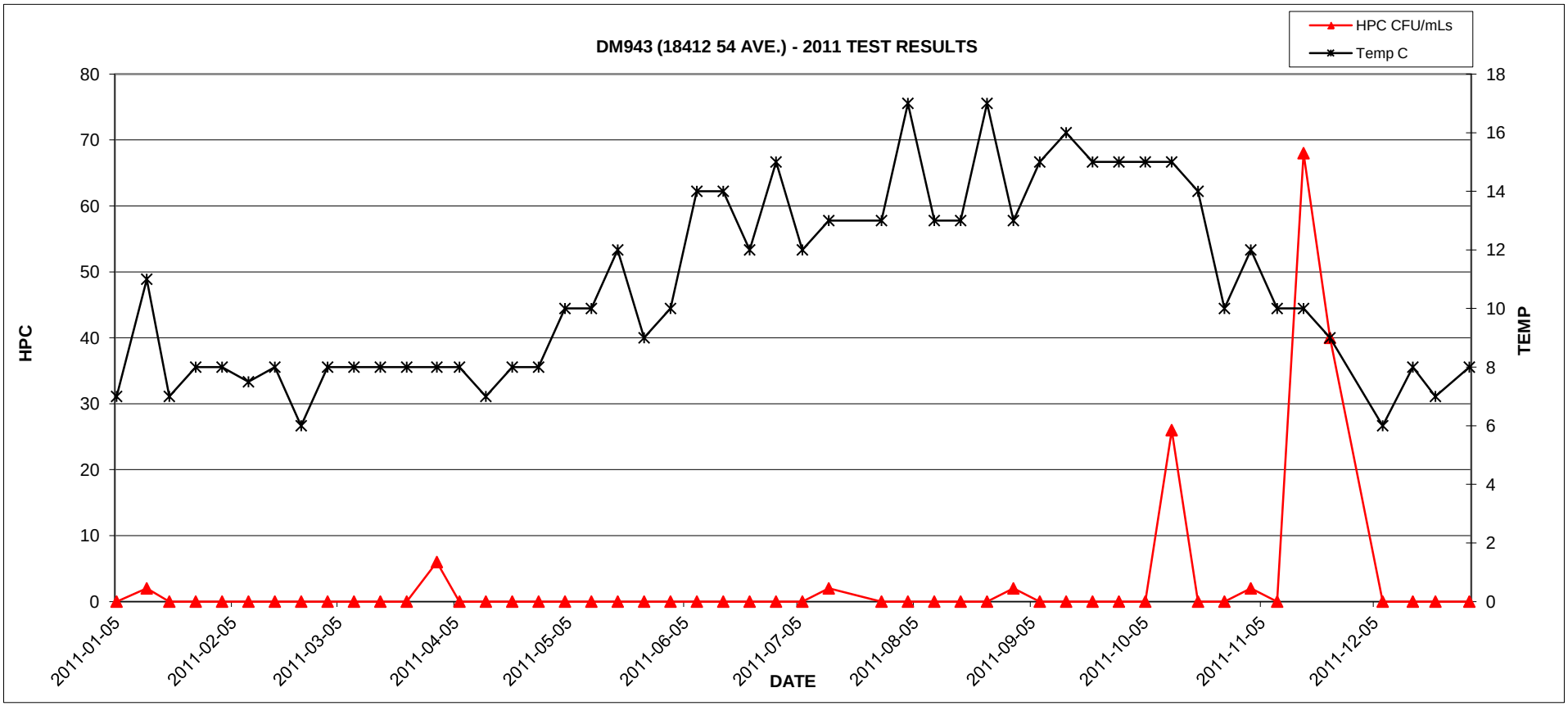
Date Collected	CL2Free mg/L	Ecoli MF/100mLs	HPC CFU/mLs	Tcoli MF/100mLs	Temp C	Turbidity NTU
06-Jan	0.70	<1	<2	<1	9	0.24
14-Jan	0.80	<1	<2	<1	9	0.27
20-Jan	0.67	<1	<2	<1	6	0.66
27-Jan	0.60	<1	<2	<1	8	0.37
03-Feb	0.51	<1	<2	<1	6	0.31
17-Feb	0.46	<1	<2	<1	7	0.39
24-Feb	0.49	<1	<2	<1	7	0.46
03-Mar	0.74	<1	<2	<1	7	0.32
10-Mar	0.53	<1	<2	<1	8	0.32
10-Feb	0.53	<1	<2	<1	8	1.70
17-Mar	0.84	<1	<2	<1	8	0.49
24-Mar	0.43	<1	<2	<1	8	0.24
31-Mar	0.50	<1	<2	<1	9	0.33
07-Apr	0.59	<1	<2	<1	8	0.30
14-Apr	0.55	<1	<2	<1	9	0.25
21-Apr	0.52	<1	<2	<1	9	0.33
28-Apr	0.39	<1	<2	<1	10	0.27
05-May	0.50	<1	<2	<1	10	0.25
12-May	0.52	<1	<2	<1	11	0.18
19-May	0.47	<1	<2	<1	12	0.43
26-May	0.54	<1	<2	<1	11	0.26
02-Jun	0.57	<1	2	<1	11	0.25
09-Jun	0.63	<1	<2	<1	12	0.52
16-Jun	0.41	<1	2	<1	13	0.25
23-Jun	0.58	<1	<2	<1	13	0.26
30-Jun	0.51	<1	<2	<1	12	0.22
07-Jul	0.65	<1	8	<1	12	0.38
14-Jul	0.58	<1	<2	<1	13	0.19
21-Jul	0.68	<1	<2	<1	14	0.31
28-Jul	0.65	<1	<2	<1	14	0.48
04-Aug	0.84	<1	<2	<1	14	0.38
11-Aug	0.63	<1	<2	<1	16	0.27
18-Aug	0.67	<1	<2	<1	16	0.34
25-Aug	0.75	<1	<2	<1	15	0.25
01-Sep	0.60	<1	<2	<1	15	1.20
08-Sep	0.63	<1	<2	<1	13	0.20
15-Sep	0.64	<1	10	<1	13	0.21
22-Sep	0.72	<1	<2	<1	13	0.22
29-Sep	0.42	<1	<2	<1	13	0.39
06-Oct	0.66	<1	10	<1	13	0.35
13-Oct	0.58	<1	6	<1	12	0.26
20-Oct	0.71	<1	<2	<1	12	0.28
27-Oct	0.69	<1	<2	<1	10	0.41
03-Nov	0.72	<1	<2	<1	10	0.27
10-Nov	0.78	<1	<2	<1	10	0.44
17-Nov	0.57	<1	<2	<1	8	0.29
24-Nov	0.80	<1	<2	<1	6	0.72
08-Dec	0.77	<1	<2	<1	8	0.37
16-Dec	0.74	<1	<2	<1	7	0.28
22-Dec	0.58	<1	<2	<1	7	0.24
29-Dec	0.53	<1	NA	<1	6	0.59

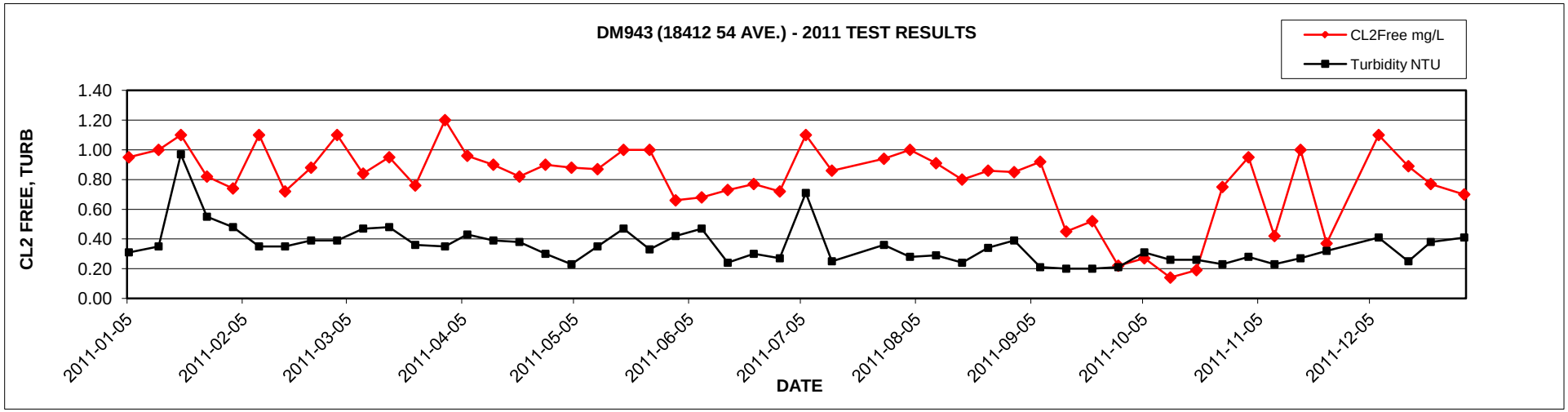

DM942 (In Lane at 5963 176 St.) - 2011 TEST RESULTS
HPC CFU/mLs
Temp C
HPC
TEMP
DATE
0
2
4
6
8
10
12
0
2
4
6
8
10
12
14
16
18
2011-01-06
2011-02-06
2011-03-06
2011-04-06
2011-05-06
2011-06-06
2011-07-06
2011-08-06
2011-09-06
2011-10-06
2011-11-06
2011-12-06


DM942 (In Lane at 5963 176 St.) - 2011 TEST RESULTS
CL2Free mg/L
Turbidity NTU
CL2 FREE, TURB
DATE
0.00
0.20
0.40
0.60
0.80
1.00
1.20
1.40
1.60
1.80
2011-01-06
2011-02-06
2011-03-06
2011-04-06
2011-05-06
2011-06-06
2011-07-06
2011-08-06
2011-09-06
2011-10-06
2011-11-06
2011-12-06

2011 GVRD Laboratory Report - DM943 (18412 54 AVE.)

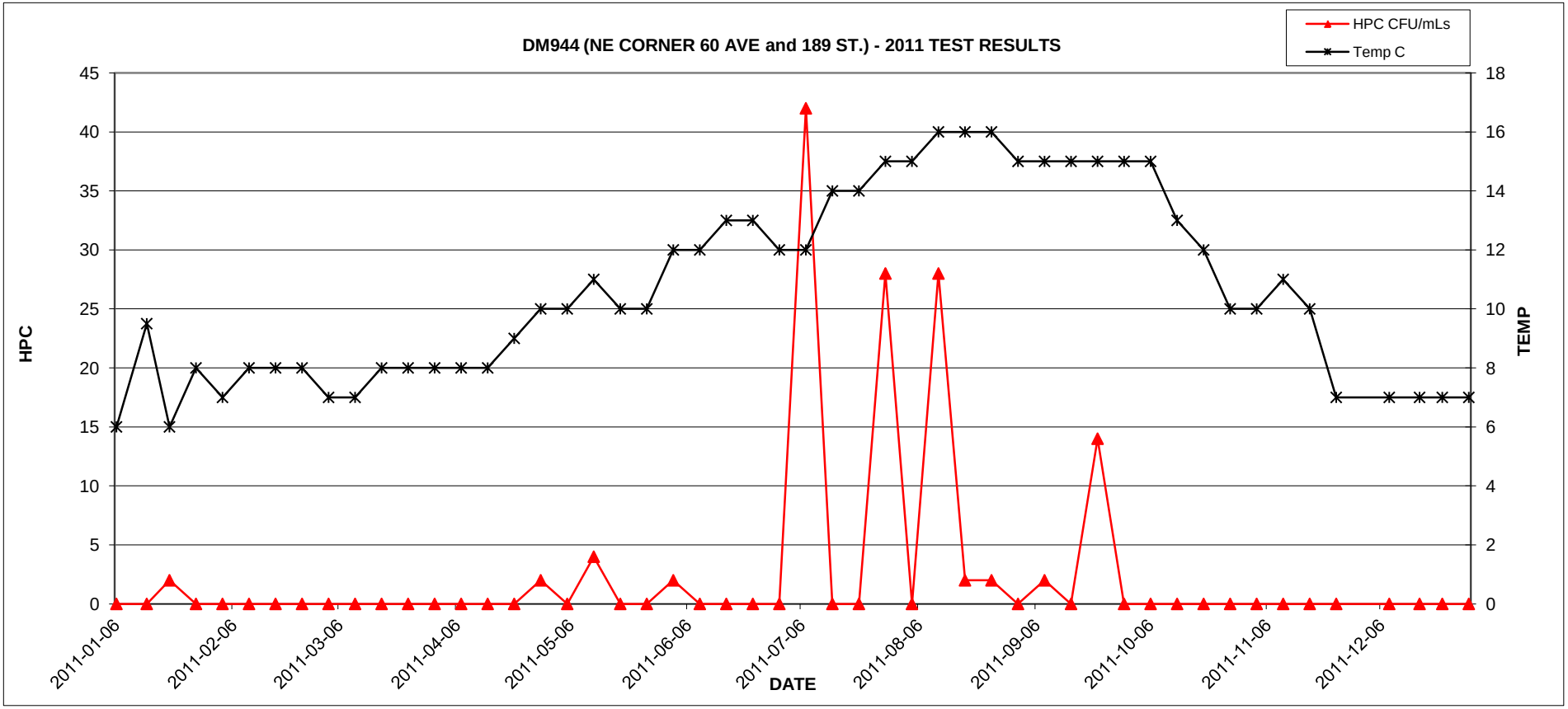
Date Collected	CL2Free mg/L	Ecoli MF/100mLs	HPC CFU/mLs	Tcoli MF/100mLs	Temp C	Turbidity NTU
05-Jan	0.95	<1	<2	<1	7	0.31
13-Jan	1.00	<1	2	<1	11	0.35
19-Jan	1.10	<1	<2	<1	7	0.97
26-Jan	0.82	<1	<2	<1	8	0.55
02-Feb	0.74	<1	<2	<1	8	0.48
09-Feb	1.10	<1	<2	<1	7.5	0.35
16-Feb	0.72	<1	<2	<1	8	0.35
23-Feb	0.88	<1	<2	<1	6	0.39
02-Mar	1.10	<1	<2	<1	8	0.39
09-Mar	0.84	<1	<2	<1	8	0.47
16-Mar	0.95	<1	<2	<1	8	0.48
23-Mar	0.76	<1	<2	<1	8	0.36
31-Mar	1.20	<1	6	<1	8	0.35
06-Apr	0.96	<1	<2	<1	8	0.43
13-Apr	0.90	<1	<2	<1	7	0.39
20-Apr	0.82	<1	<2	<1	8	0.38
27-Apr	0.90	<1	<2	<1	8	0.30
04-May	0.88	<1	<2	<1	10	0.23
11-May	0.87	<1	<2	<1	10	0.35
18-May	1.00	<1	<2	<1	12	0.47
25-May	1.00	<1	<2	<1	9	0.33
01-Jun	0.66	<1	<2	<1	10	0.42
08-Jun	0.68	<1	<2	<1	14	0.47
15-Jun	0.73	<1	<2	<1	14	0.24
22-Jun	0.77	<1	<2	<1	12	0.30
29-Jun	0.72	<1	<2	<1	15	0.27
06-Jul	1.10	<1	<2	<1	12	0.71
13-Jul	0.86	<1	2	<1	13	0.25
27-Jul	0.94	<1	<2	<1	13	0.36
03-Aug	1.00	<1	<2	<1	17	0.28
10-Aug	0.91	<1	<2	<1	13	0.29
17-Aug	0.80	<1	<2	<1	13	0.24
24-Aug	0.86	<1	<2	<1	17	0.34
31-Aug	0.85	<1	2	<1	13	0.39
07-Sep	0.92	<1	<2	<1	15	0.21
14-Sep	0.45	<1	<2	<1	16	0.20
21-Sep	0.52	<1	<2	<1	15	0.20
28-Sep	0.22	<1	<2	<1	15	0.21
05-Oct	0.27	<1	<2	<1	15	0.31
12-Oct	0.14	<1	26	<1	15	0.26
19-Oct	0.19	<1	<2	<1	14	0.26
26-Oct	0.75	<1	<2	<1	10	0.23
02-Nov	0.95	<1	2	<1	12	0.28
09-Nov	0.42	<1	<2	<1	10	0.23
16-Nov	1.00	<1	68	<1	10	0.27
23-Nov	0.37	<1	40	<1	9	0.32
07-Dec	1.10	<1	<2	<1	6	0.41
15-Dec	0.89	<1	<2	<1	8	0.25
21-Dec	0.77	<1	<2	<1	7	0.38
30-Dec	0.70	<1	NA	<1	8	0.41

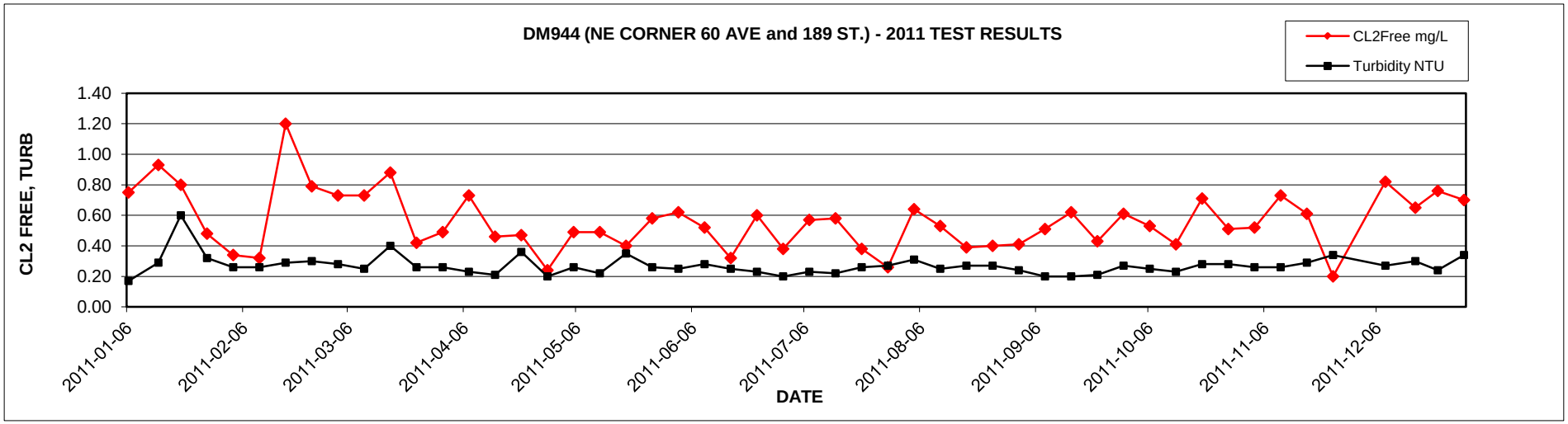

DM943 (18412 54 AVE.) - 2011 TEST RESULTS
HPC CFU/mLs
Temp C
HPC
TEMP
DATE
0
10
20
30
40
50
60
70
80
0
2
4
6
8
10
12
14
16
18
2011-01-05
2011-02-05
2011-03-05
2011-04-05
2011-05-05
2011-06-05
2011-07-05
2011-08-05
2011-09-05
2011-10-05
2011-11-05
2011-12-05


DM943 (18412 54 AVE.) - 2011 TEST RESULTS
CL2Free mg/L
Turbidity NTU
CL2 FREE, TURB
DATE
0.00
0.20
0.40
0.60
0.80
1.00
1.20
1.40
2011-01-05
2011-02-05
2011-03-05
2011-04-05
2011-05-05
2011-06-05
2011-07-05
2011-08-05
2011-09-05
2011-10-05
2011-11-05
2011-12-05

2011 GVRD Laboratory Report - DM944 (NE CORNER 60 AVE and 189 ST.)

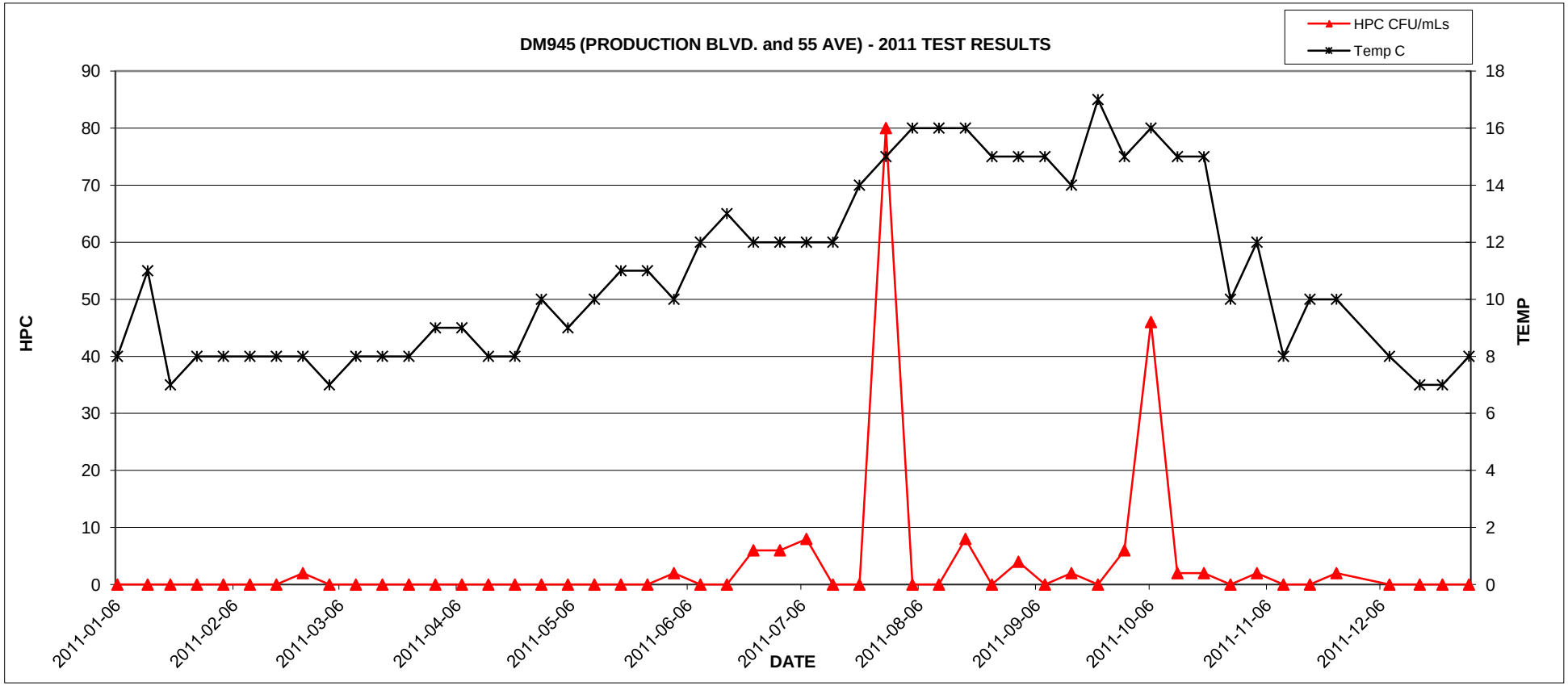
Date Collected	CL2Free mg/L	Ecoli MF/100mLs	HPC CFU/mLs	Tcoli MF/100mLs	Temp C	Turbidity NTU
06-Jan	0.75	<1	<2	<1	6	0.17
14-Jan	0.93	<1	<2	<1	9.5	0.29
20-Jan	0.80	<1	2	<1	6	0.60
27-Jan	0.48	<1	<2	<1	8	0.32
03-Feb	0.34	<1	<2	<1	7	0.26
17-Feb	1.20	<1	<2	<1	8	0.29
24-Feb	0.79	<1	<2	<1	8	0.30
03-Mar	0.73	<1	<2	<1	7	0.28
10-Mar	0.73	<1	<2	<1	7	0.25
10-Feb	0.32	<1	<2	<1	8	0.26
17-Mar	0.88	<1	<2	<1	8	0.40
24-Mar	0.42	<1	<2	<1	8	0.26
31-Mar	0.49	<1	<2	<1	8	0.26
07-Apr	0.73	<1	<2	<1	8	0.23
14-Apr	0.46	<1	<2	<1	8	0.21
21-Apr	0.47	<1	<2	<1	9	0.36
28-Apr	0.24	<1	2	<1	10	0.20
05-May	0.49	<1	<2	<1	10	0.26
12-May	0.49	<1	4	<1	11	0.22
19-May	0.40	<1	<2	<1	10	0.35
26-May	0.58	<1	<2	<1	10	0.26
02-Jun	0.62	<1	2	<1	12	0.25
09-Jun	0.52	<1	<2	<1	12	0.28
16-Jun	0.32	<1	<2	<1	13	0.25
23-Jun	0.60	<1	<2	<1	13	0.23
30-Jun	0.38	<1	<2	<1	12	0.20
07-Jul	0.57	<1	42	<1	12	0.23
14-Jul	0.58	<1	<2	<1	14	0.22
21-Jul	0.38	<1	<2	<1	14	0.26
28-Jul	0.26	<1	28	<1	15	0.27
04-Aug	0.64	<1	<2	<1	15	0.31
11-Aug	0.53	<1	28	<1	16	0.25
18-Aug	0.39	<1	2	<1	16	0.27
25-Aug	0.40	<1	2	<1	16	0.27
01-Sep	0.41	<1	<2	<1	15	0.24
08-Sep	0.51	<1	2	<1	15	0.20
15-Sep	0.62	<1	<2	<1	15	0.20
22-Sep	0.43	<1	14	<1	15	0.21
29-Sep	0.61	<1	<2	<1	15	0.27
06-Oct	0.53	<1	<2	<1	15	0.25
13-Oct	0.41	<1	<2	<1	13	0.23
20-Oct	0.71	<1	<2	<1	12	0.28
27-Oct	0.51	<1	<2	<1	10	0.28
03-Nov	0.52	<1	<2	<1	10	0.26
10-Nov	0.73	<1	<2	<1	11	0.26
17-Nov	0.61	<1	<2	<1	10	0.29
24-Nov	0.20	<1	<2	<1	7	0.34
08-Dec	0.82	<1	<2	<1	7	0.27
16-Dec	0.65	<1	<2	<1	7	0.30
22-Dec	0.76	<1	<2	<1	7	0.24
29-Dec	0.70	<1	NA	<1	7	0.34

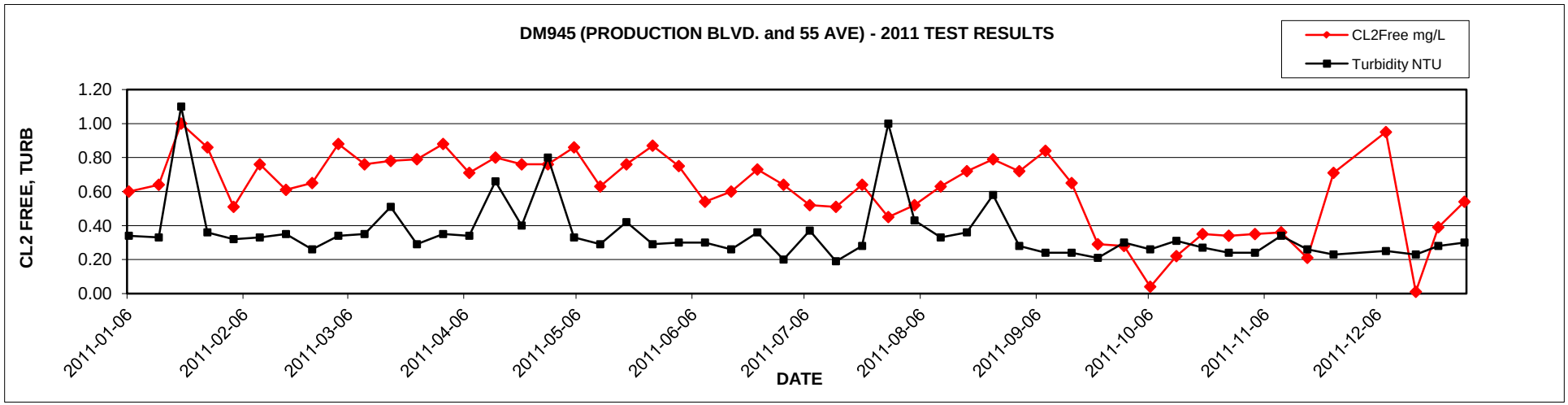

DM944 (NE CORNER 60 AVE and 189 ST.) - 2011 TEST RESULTS
HPC CFU/mLs
Temp C
HPC
TEMP
DATE
0
5
10
15
20
25
30
35
40
45
0
2
4
6
8
10
12
14
16
18
2011-01-06
2011-02-06
2011-03-06
2011-04-06
2011-05-06
2011-06-06
2011-07-06
2011-08-06
2011-09-06
2011-10-06
2011-11-06
2011-12-06


DM944 (NE CORNER 60 AVE and 189 ST.) - 2011 TEST RESULTS
CL2Free mg/L
Turbidity NTU
CL2 FREE, TURB
DATE
0.00
0.20
0.40
0.60
0.80
1.00
1.20
1.40
2011-01-06
2011-02-06
2011-03-06
2011-04-06
2011-05-06
2011-06-06
2011-07-06
2011-08-06
2011-09-06
2011-10-06
2011-11-06
2011-12-06

2011 GVRD Laboratory Report - DM945 (PRODUCTION BLVD. and 55 AVE)

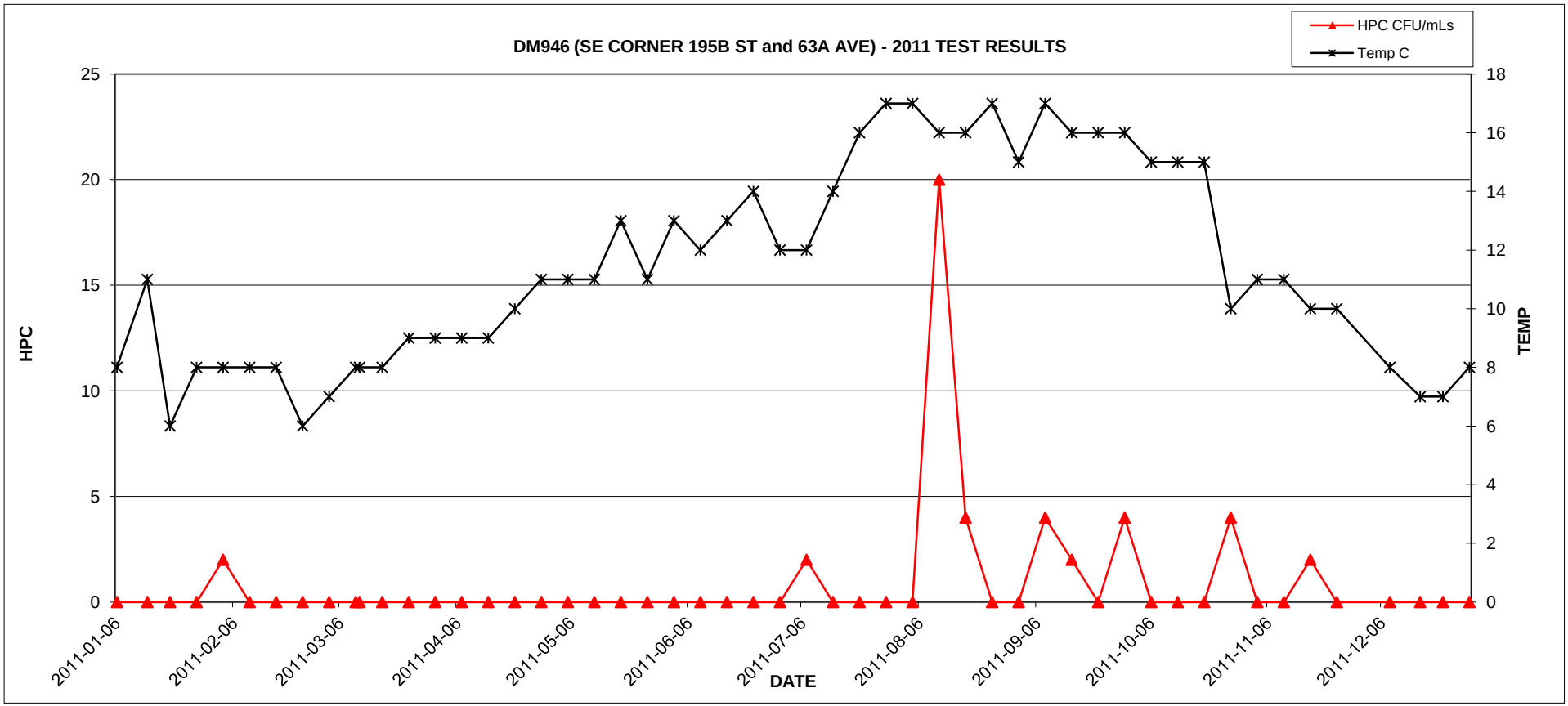
Date Collected	CL2Free mg/L	Ecoli MF/100mLs	HPC CFU/mLs	Tcoli MF/100mLs	Temp C	Turbidity NTU
06-Jan	0.60	<1	<2	<1	8	0.34
14-Jan	0.64	<1	<2	1	11	0.33
20-Jan	1.00	<1	<2	<1	7	1.10
27-Jan	0.86	<1	<2	<1	8	0.36
03-Feb	0.51	<1	<2	<1	8	0.32
17-Feb	0.61	<1	<2	<1	8	0.35
24-Feb	0.65	<1	2	<1	8	0.26
03-Mar	0.88	<1	<2	<1	7	0.34
10-Mar	0.76	<1	<2	<1	8	0.35
10-Feb	0.76	<1	<2	<1	8	0.33
17-Mar	0.78	<1	<2	<1	8	0.51
24-Mar	0.79	<1	<2	<1	8	0.29
31-Mar	0.88	<1	<2	<1	9	0.35
07-Apr	0.71	<1	<2	<1	9	0.34
14-Apr	0.80	<1	<2	<1	8	0.66
21-Apr	0.76	<1	<2	<1	8	0.40
28-Apr	0.76	<1	<2	<1	10	0.80
05-May	0.86	<1	<2	<1	9	0.33
12-May	0.63	<1	<2	<1	10	0.29
19-May	0.76	<1	<2	<1	11	0.42
26-May	0.87	<1	<2	<1	11	0.29
02-Jun	0.75	<1	2	<1	10	0.30
09-Jun	0.54	<1	<2	<1	12	0.30
16-Jun	0.60	<1	<2	<1	13	0.26
23-Jun	0.73	<1	6	<1	12	0.36
30-Jun	0.64	<1	6	<1	12	0.20
07-Jul	0.52	<1	8	<1	12	0.37
14-Jul	0.51	<1	<2	<1	12	0.19
21-Jul	0.64	<1	<2	<1	14	0.28
28-Jul	0.45	<1	80	<1	15	1.00
04-Aug	0.52	<1	<2	<1	16	0.43
11-Aug	0.63	<1	<2	<1	16	0.33
18-Aug	0.72	<1	8	<1	16	0.36
25-Aug	0.79	<1	<2	<1	15	0.58
01-Sep	0.72	<1	4	<1	15	0.28
08-Sep	0.84	<1	<2	<1	15	0.24
15-Sep	0.65	<1	2	<1	14	0.24
22-Sep	0.29	<1	<2	<1	17	0.21
29-Sep	0.28	<1	6	<1	15	0.30
06-Oct	0.04	<1	46	<1	16	0.26
13-Oct	0.22	<1	2	<1	15	0.31
20-Oct	0.35	<1	2	<1	15	0.27
27-Oct	0.34	<1	<2	<1	10	0.24
03-Nov	0.35	<1	2	<1	12	0.24
10-Nov	0.36	<1	<2	<1	8	0.34
17-Nov	0.21	<1	<2	<1	10	0.26
24-Nov	0.71	<1	2	<1	10	0.23
08-Dec	0.95	<1	<2	<1	8	0.25
16-Dec	0.01	<1	<2	<1	7	0.23
22-Dec	0.39	<1	<2	<1	7	0.28
29-Dec	0.54	<1	NA	<1	8	0.30

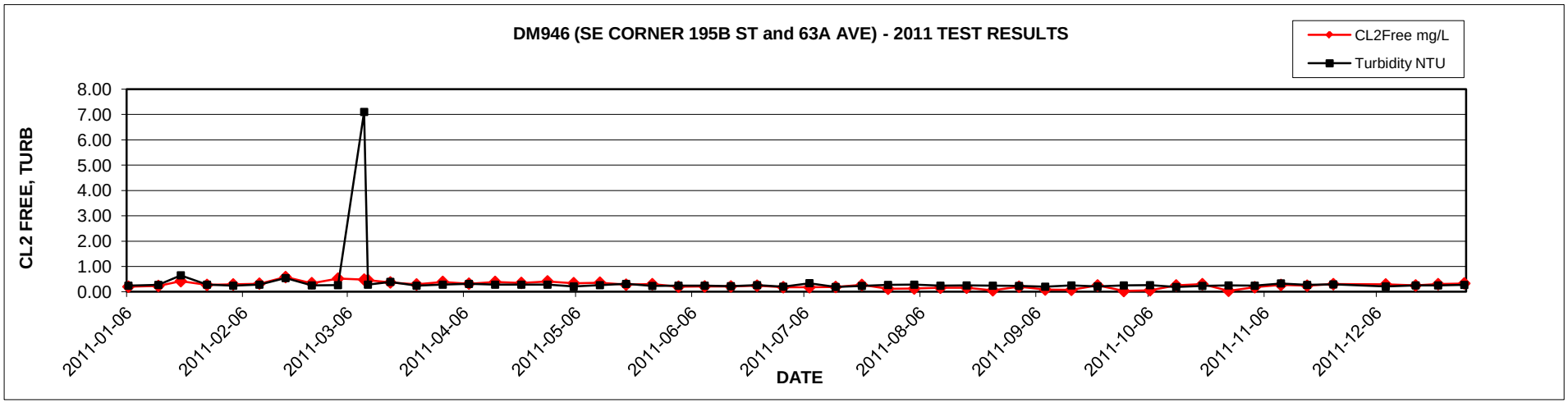

DM945 (PRODUCTION BLVD. and 55 AVE) - 2011 TEST RESULTS
HPC CFU/mLs
Temp C
HPC
TEMP
DATE
0
10
20
30
40
50
60
70
80
90
0
2
4
6
8
10
12
14
16
18
2011-01-06
2011-02-06
2011-03-06
2011-04-06
2011-05-06
2011-06-06
2011-07-06
2011-08-06
2011-09-06
2011-10-06
2011-11-06
2011-12-06


DM945 (PRODUCTION BLVD. and 55 AVE) - 2011 TEST RESULTS
CL2Free mg/L
Turbidity NTU
CL2 FREE, TURB
DATE
0.00
0.20
0.40
0.60
0.80
1.00
1.20
2011-01-06
2011-02-06
2011-03-06
2011-04-06
2011-05-06
2011-06-06
2011-07-06
2011-08-06
2011-09-06
2011-10-06
2011-11-06
2011-12-06

2011 GVRD Laboratory Report - DM946 (SE CORNER 195B ST and 63A AVE)

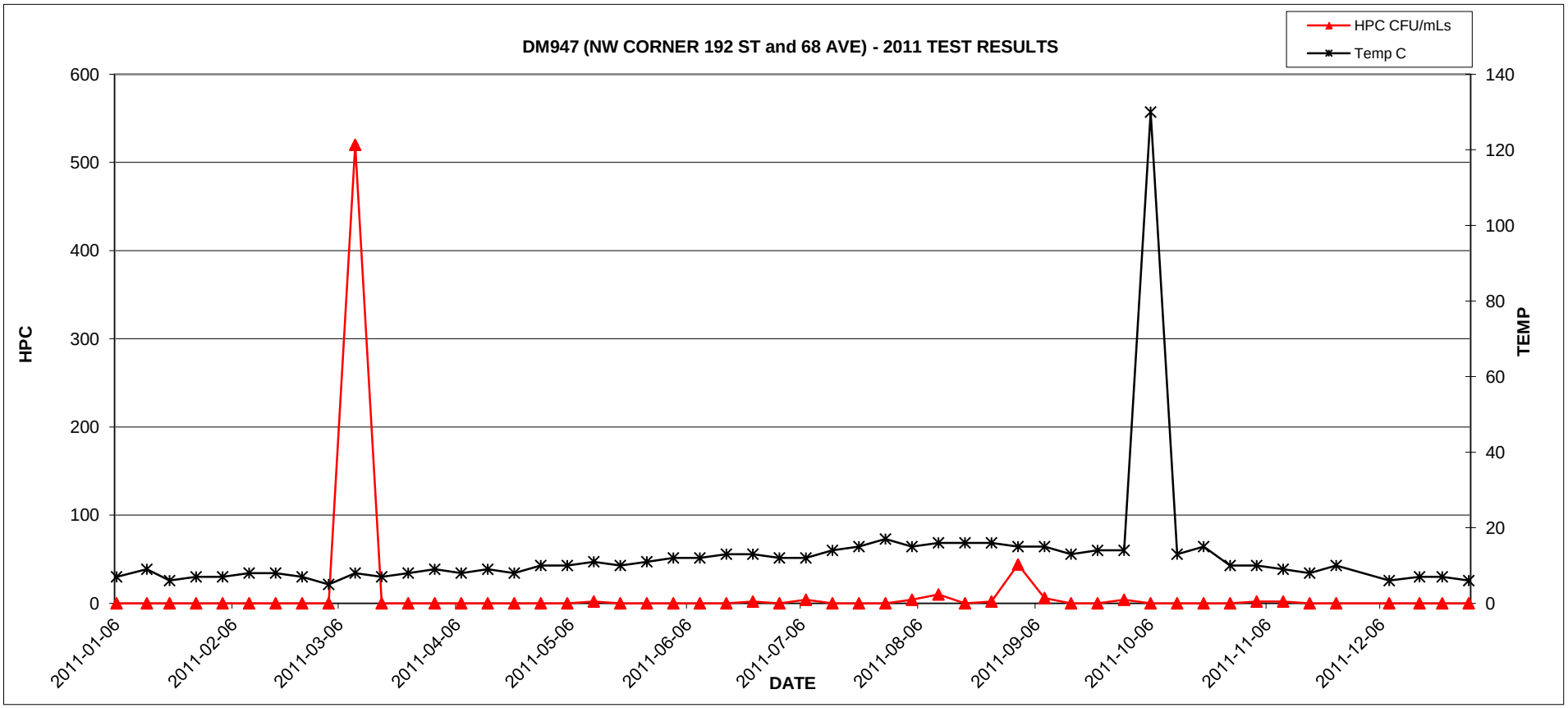
Date Collected	CL2Free mg/L	Ecoli MF/100mLs	HPC CFU/mLs	Tcoli MF/100mLs	Temp C	Turbidity NTU
06-Jan	0.20	<1	<2	<1	8	0.24
14-Jan	0.23	<1	<2	<1	11	0.27
20-Jan	0.42	<1	<2	<1	6	0.65
27-Jan	0.27	<1	<2	<1	8	0.28
03-Feb	0.29	<1	2	<1	8	0.24
17-Feb	0.58	<1	<2	<1	8	0.54
24-Feb	0.34	<1	<2	<1	6	0.25
03-Mar	0.52	<1	<2	<1	7	0.26
11-Mar	0.46	<1	<2	<1	8	0.28
10-Mar	0.48	<1	<2	<1	8	7.10
10-Feb	0.32	<1	<2	<1	8	0.28
17-Mar	0.37	<1	<2	<1	8	0.39
24-Mar	0.29	<1	<2	<1	9	0.24
31-Mar	0.39	<1	<2	<1	9	0.28
07-Apr	0.32	<1	<2	<1	9	0.31
14-Apr	0.39	<1	<2	<1	9	0.28
21-Apr	0.35	<1	<2	<1	10	0.28
28-Apr	0.41	<1	<2	<1	11	0.28
05-May	0.34	<1	<2	<1	11	0.21
12-May	0.36	<1	<2	<1	11	0.26
19-May	0.28	<1	<2	<1	13	0.31
26-May	0.30	<1	<2	<1	11	0.23
02-Jun	0.20	<1	<2	<1	13	0.24
09-Jun	0.21	<1	<2	<1	12	0.24
16-Jun	0.21	<1	<2	<1	13	0.22
23-Jun	0.24	<1	<2	<1	14	0.26
30-Jun	0.18	<1	<2	<1	12	0.20
07-Jul	0.18	<1	2	<1	12	0.34
14-Jul	0.19	<1	<2	<1	14	0.19
21-Jul	0.27	<1	<2	<1	16	0.23
28-Jul	0.12	<1	<2	<1	17	0.27
04-Aug	0.13	<1	<2	<1	17	0.28
11-Aug	0.16	<1	20	<1	16	0.24
18-Aug	0.16	<1	4	<1	16	0.25
25-Aug	0.06	<1	<2	<1	17	0.24
01-Sep	0.20	<1	<2	<1	15	0.23
08-Sep	0.09	<1	4	<1	17	0.20
15-Sep	0.08	<1	2	<1	16	0.25
22-Sep	0.25	<1	<2	<1	16	0.21
29-Sep	0.03	<1	4	<1	16	0.25
06-Oct	0.06	<1	<2	<1	15	0.26
13-Oct	0.25	<1	<2	<1	15	0.19
20-Oct	0.30	<1	<2	<1	15	0.23
27-Oct	0.04	<1	4	<1	10	0.25
03-Nov	0.18	<1	<2	<1	11	0.24
10-Nov	0.27	<1	<2	<1	11	0.33
17-Nov	0.24	<1	2	<1	10	0.27
24-Nov	0.30	<1	<2	<1	10	0.29
08-Dec	0.29	<1	<2	<1	8	0.21
16-Dec	0.25	<1	<2	<1	7	0.25
22-Dec	0.30	<1	<2	<1	7	0.25
29-Dec	0.33	<1	NA	<1	8	0.27

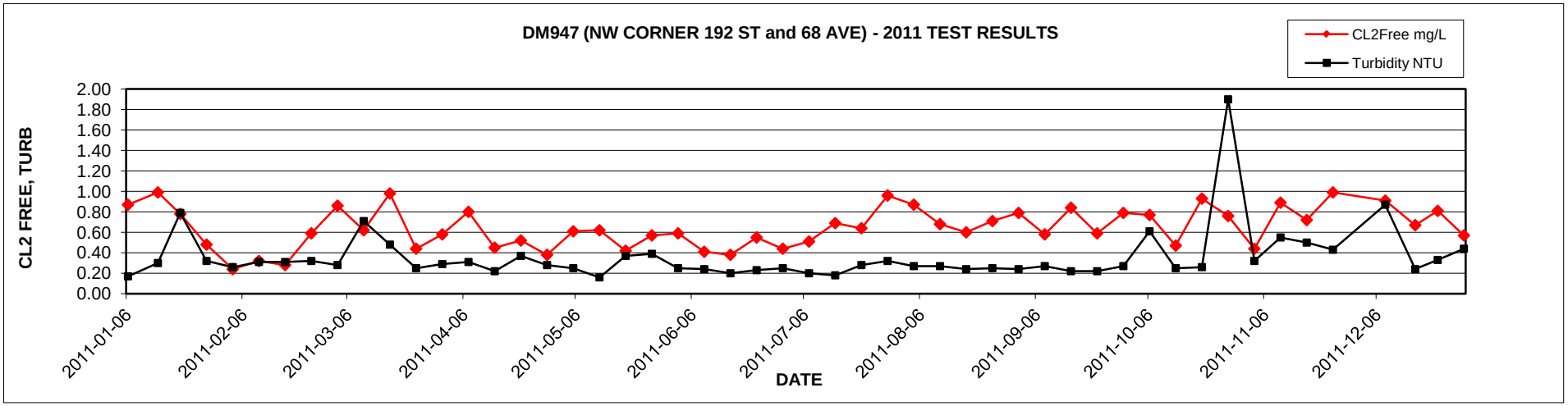

DM946 (SE CORNER 195B ST and 63A AVE) - 2011 TEST RESULTS
HPC CFU/mLs
Temp C
HPC
TEMP
DATE
0
5
10
15
20
25
0
2
4
6
8
10
12
14
16
18
2011-01-06
2011-02-06
2011-03-06
2011-04-06
2011-05-06
2011-06-06
2011-07-06
2011-08-06
2011-09-06
2011-10-06
2011-11-06
2011-12-06


DM946 (SE CORNER 195B ST and 63A AVE) - 2011 TEST RESULTS
CL2Free mg/L
Turbidity NTU
CL2 FREE, TURB
DATE
0.00
1.00
2.00
3.00
4.00
5.00
6.00
7.00
8.00
2011-01-06
2011-02-06
2011-03-06
2011-04-06
2011-05-06
2011-06-06
2011-07-06
2011-08-06
2011-09-06
2011-10-06
2011-11-06
2011-12-06

2011 GVRD Laboratory Report - DM947 (NW CORNER 192 ST and 68 AVE)

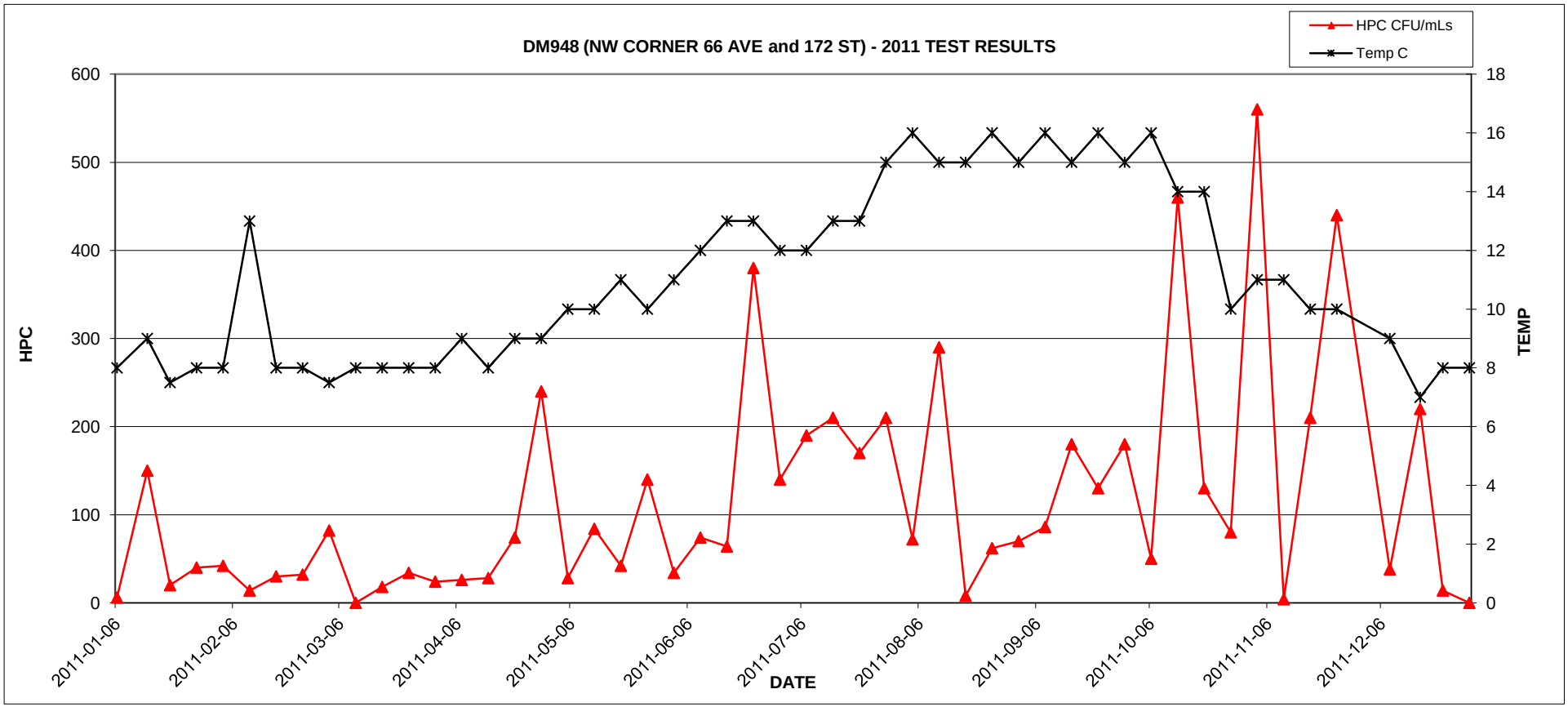
Date Collected	CL2Free mg/L	Ecoli MF/100mLs	HPC CFU/mLs	Tcoli MF/100mLs	Temp C	Turbidity NTU
06-Jan	0.87	<1	<2	<1	7	0.17
14-Jan	0.99	<1	<2	<1	9	0.30
20-Jan	0.78	<1	<2	<1	6	0.79
27-Jan	0.48	<1	<2	<1	7	0.32
03-Feb	0.24	<1	<2	<1	7	0.26
17-Feb	0.28	<1	<2	<1	8	0.31
24-Feb	0.59	<1	<2	<1	7	0.32
03-Mar	0.86	<1	<2	<1	5	0.28
10-Mar	0.62	<1	520	<1	8	0.71
10-Feb	0.32	<1	<2	<1	8	0.31
17-Mar	0.98	<1	<2	<1	7	0.48
24-Mar	0.44	<1	<2	<1	8	0.25
31-Mar	0.58	<1	<2	<1	9	0.29
07-Apr	0.80	<1	<2	<1	8	0.31
14-Apr	0.45	<1	<2	<1	9	0.22
21-Apr	0.52	<1	<2	<1	8	0.37
28-Apr	0.38	<1	<2	<1	10	0.28
05-May	0.61	<1	<2	<1	10	0.25
12-May	0.62	<1	2	<1	11	0.16
19-May	0.42	<1	<2	<1	10	0.37
26-May	0.57	<1	<2	<1	11	0.39
02-Jun	0.59	<1	<2	<1	12	0.25
09-Jun	0.41	<1	<2	<1	12	0.24
16-Jun	0.38	<1	<2	<1	13	0.20
23-Jun	0.55	<1	2	<1	13	0.23
30-Jun	0.44	<1	<2	<1	12	0.25
07-Jul	0.51	<1	4	<1	12	0.20
14-Jul	0.69	<1	<2	<1	14	0.18
21-Jul	0.64	<1	<2	<1	15	0.28
28-Jul	0.96	<1	<2	<1	17	0.32
04-Aug	0.87	<1	4	<1	15	0.27
11-Aug	0.68	<1	10	<1	16	0.27
18-Aug	0.60	<1	<2	<1	16	0.24
25-Aug	0.71	<1	2	<1	16	0.25
01-Sep	0.79	<1	44	<1	15	0.24
08-Sep	0.58	<1	6	<1	15	0.27
15-Sep	0.84	<1	<2	<1	13	0.22
22-Sep	0.59	<1	<2	<1	14	0.22
29-Sep	0.79	<1	4	<1	14	0.27
06-Oct	0.77	<1	<2	<1	130	0.61
13-Oct	0.47	<1	<2	<1	13	0.25
20-Oct	0.93	<1	<2	<1	15	0.26
27-Oct	0.76	<1	<2	<1	10	1.90
03-Nov	0.44	<1	2	<1	10	0.32
10-Nov	0.89	<1	2	<1	9	0.55
17-Nov	0.72	<1	<2	<1	8	0.50
24-Nov	0.99	<1	<2	<1	10	0.43
08-Dec	0.91	<1	<2	<1	6	0.87
16-Dec	0.67	<1	<2	<1	7	0.24
22-Dec	0.81	<1	<2	<1	7	0.33
29-Dec	0.57	<1	NA	<1	6	0.44

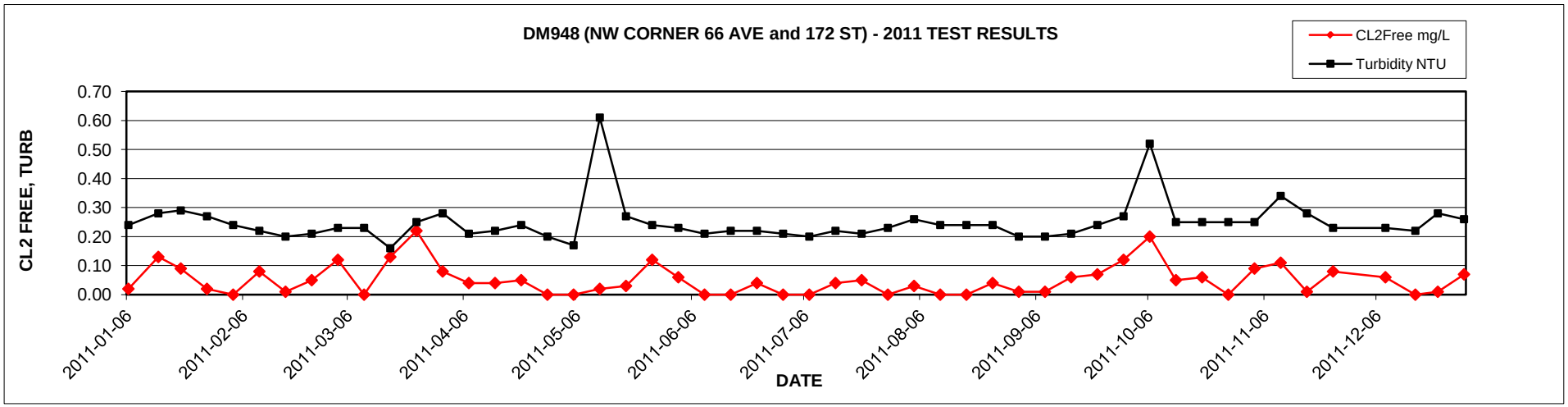

DM947 (NW CORNER 192 ST and 68 AVE) - 2011 TEST RESULTS
HPC CFU/mLs
Temp C
HPC
TEMP
DATE
600
500
400
300
200
100
0
140
120
100
80
60
40
20
0
2011-01-06
2011-02-06
2011-03-06
2011-04-06
2011-05-06
2011-06-06
2011-07-06
2011-08-06
2011-09-06
2011-10-06
2011-11-06
2011-12-06


DM947 (NW CORNER 192 ST and 68 AVE) - 2011 TEST RESULTS
CL2Free mg/L
Turbidity NTU
CL2 FREE, TURB
DATE
2.00
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
2011-01-06
2011-02-06
2011-03-06
2011-04-06
2011-05-06
2011-06-06
2011-07-06
2011-08-06
2011-09-06
2011-10-06
2011-11-06
2011-12-06

2011 GVRD Laboratory Report - DM948 (NW CORNER 66 AVE and 172 ST)

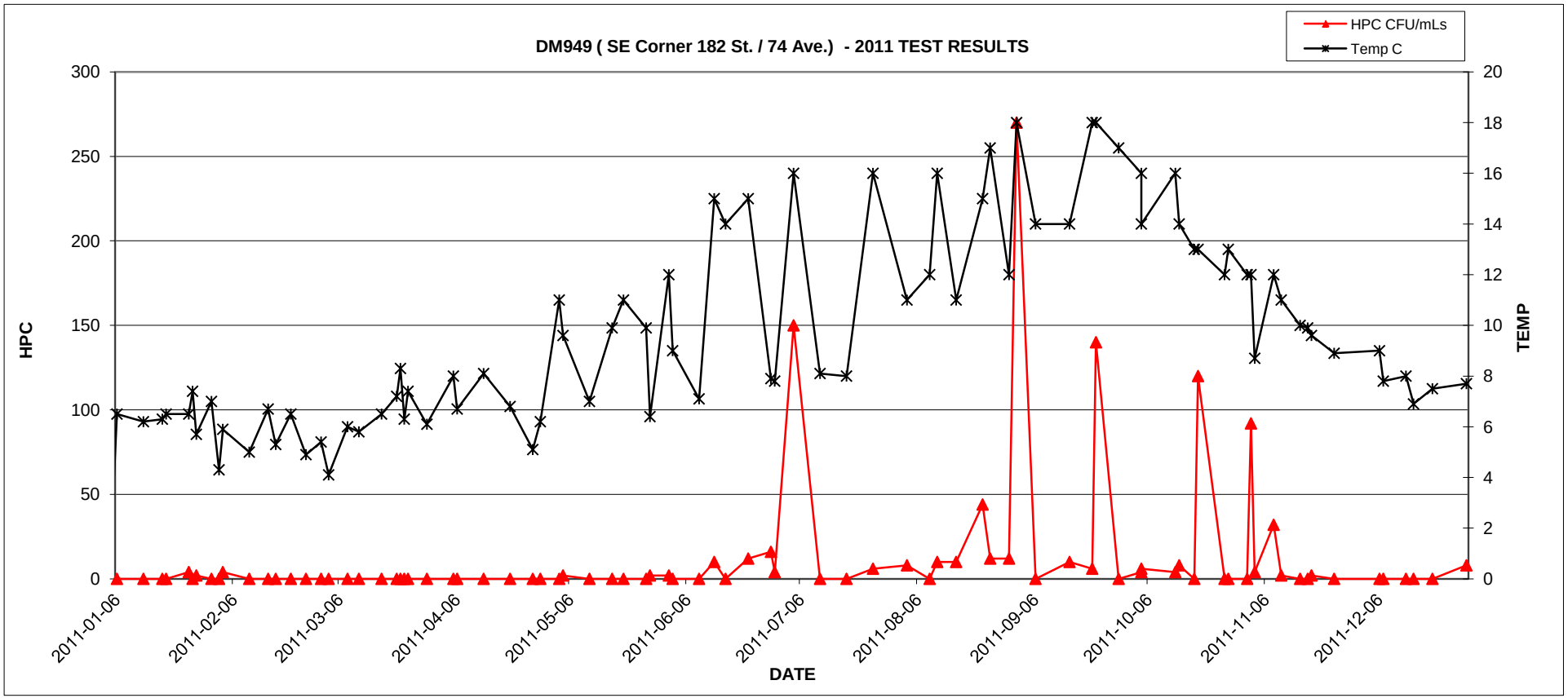
Date Collected	CL2Free mg/L	Ecoli MF/100mLs	HPC CFU/mLs	Tcoli MF/100mLs	Temp C	Turbidity NTU
06-Jan	0.02	<1	6	<1	8	0.24
14-Jan	0.13	<1	150	<1	9	0.28
20-Jan	0.09	<1	20	<1	7.5	0.29
27-Jan	0.02	<1	40	<1	8	0.27
03-Feb	<0.01	<1	42	<1	8	0.24
17-Feb	0.01	<1	30	<1	8	0.20
24-Feb	0.05	<1	32	<1	8	0.21
03-Mar	0.12	<1	82	<1	7.5	0.23
10-Mar	<.01	<1	<2	<1	8	0.23
10-Feb	0.08	<1	14	<1	13	0.22
17-Mar	0.13	<1	18	<1	8	0.16
24-Mar	0.22	<1	34	<1	8	0.25
31-Mar	0.08	<1	24	<1	8	0.28
07-Apr	0.04	<1	26	<1	9	0.21
14-Apr	0.04	<1	28	<1	8	0.22
21-Apr	0.05	<1	74	<1	9	0.24
28-Apr	<0.01	<1	240	<1	9	0.20
05-May	<0.01	<1	28	<1	10	0.17
12-May	0.02	<1	84	<1	10	0.61
19-May	0.03	<1	42	<1	11	0.27
26-May	0.12	<1	140	<1	10	0.24
02-Jun	0.06	<1	34	<1	11	0.23
09-Jun	<0.01	<1	74	<1	12	0.21
16-Jun	<0.01	<1	64	<1	13	0.22
23-Jun	0.04	<1	380	<1	13	0.22
30-Jun	<0.01	<1	140	<1	12	0.21
07-Jul	<0.01	<1	190	<1	12	0.20
14-Jul	0.04	<1	210	<1	13	0.22
21-Jul	0.05	<1	170	<1	13	0.21
28-Jul	<0.01	<1	210	<1	15	0.23
04-Aug	0.03	<1	72	<1	16	0.26
11-Aug	<0.01	<1	290	<1	15	0.24
18-Aug	<0.01	<1	8	<1	15	0.24
25-Aug	0.04	<1	62	<1	16	0.24
01-Sep	0.01	<1	70	<1	15	0.20
08-Sep	0.01	<1	86	<1	16	0.20
15-Sep	0.06	<1	180	<1	15	0.21
22-Sep	0.07	<1	130	<1	16	0.24
29-Sep	0.12	<1	180	<1	15	0.27
06-Oct	0.20	<1	50	<1	16	0.52
13-Oct	0.05	<1	460	<1	14	0.25
20-Oct	0.06	<1	130	<1	14	0.25
27-Oct	<0.01	<1	80	<1	10	0.25
03-Nov	0.09	<1	560	<1	11	0.25
10-Nov	0.11	<1	4	<1	11	0.34
17-Nov	0.01	<1	210	<1	10	0.28
24-Nov	0.08	<1	440	<1	10	0.23
08-Dec	0.06	<1	38	<1	9	0.23
16-Dec	<0.01	<1	220	<1	7	0.22
22-Dec	0.01	<1	14	<1	8	0.28
29-Dec	0.07	<1	NA	<1	8	0.26

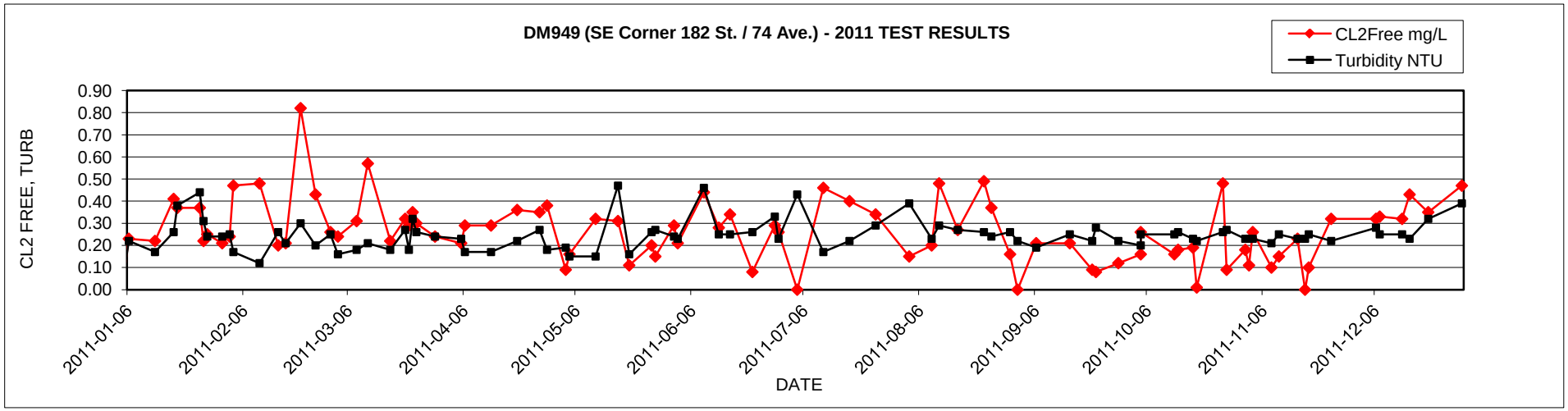

DM948 (NW CORNER 66 AVE and 172 ST) - 2011 TEST RESULTS
HPC CFU/mLs
Temp C
HPC
TEMP
DATE
600
500
400
300
200
100
0
18
16
14
12
10
8
6
4
2
0
2011-01-06
2011-02-06
2011-03-06
2011-04-06
2011-05-06
2011-06-06
2011-07-06
2011-08-06
2011-09-06
2011-10-06
2011-11-06
2011-12-06


DM948 (NW CORNER 66 AVE and 172 ST) - 2011 TEST RESULTS
CL2Free mg/L
Turbidity NTU
CL2 FREE, TURB
DATE
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
2011-01-06
2011-02-06
2011-03-06
2011-04-06
2011-05-06
2011-06-06
2011-07-06
2011-08-06
2011-09-06
2011-10-06
2011-11-06
2011-12-06

2011 GVRD Laboratory Report - DM949 (SE Corner 182 St. / 74 Ave.)

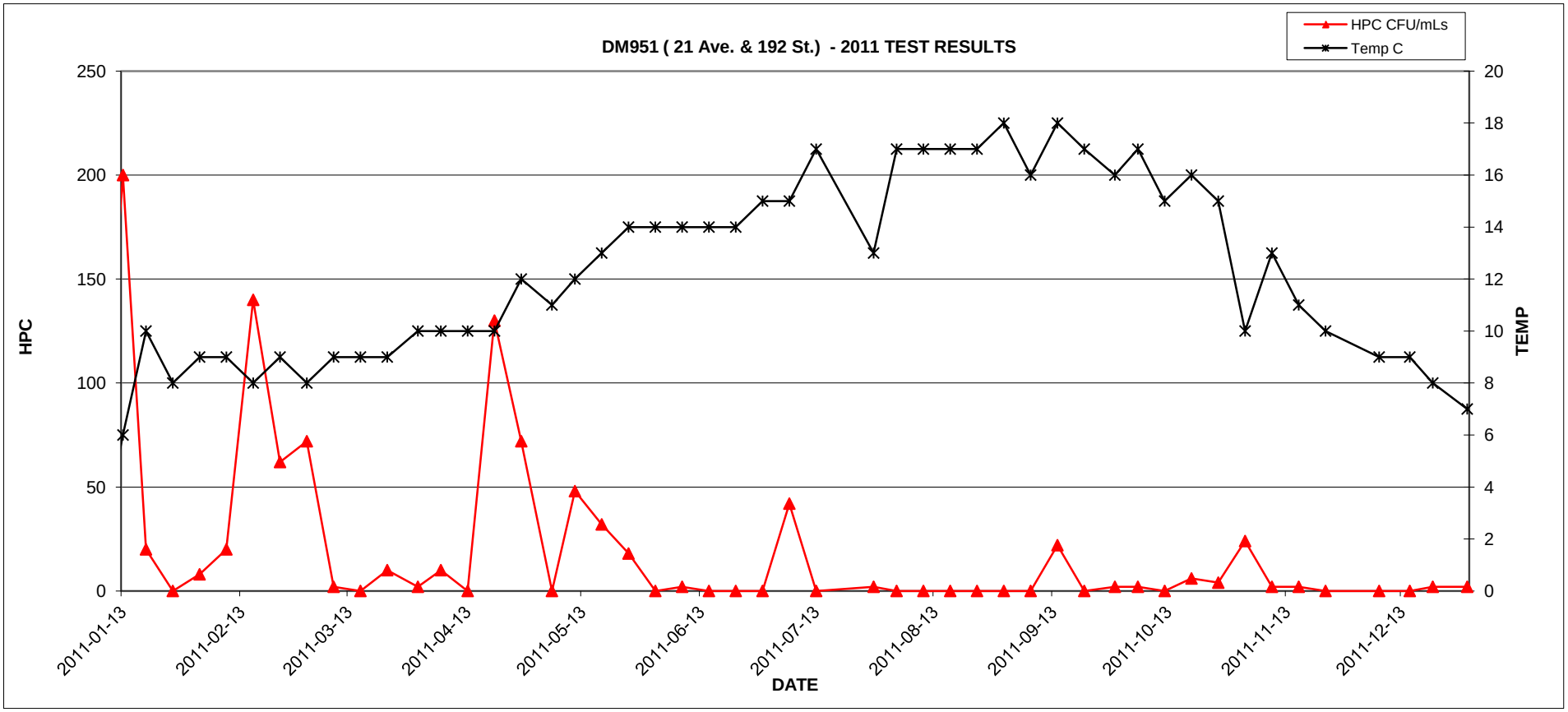
Date Collected	CL2Free mg/L	Ecoli MF/100mLs	HPC CFU/mLs	Tcoli MF/100mLs	Temp C	Turbidity NTU
04-Jan	0.23	<1	<2	<1	6.5	0.22
06-Jan	0.22	<1	<2	<1	6.2	0.17
13-Jan	0.41	<1	<2	<1	6.3	0.26
18-Jan	0.37	<1	<2	<1	6.5	0.38
19-Jan	0.37	<1	4	<1	6.5	0.44
25-Jan	0.22	<1	<2	<1	7.4	0.31
26-Jan	0.25	<1	2	<1	5.7	0.24
27-Jan	0.21	<1	<2	<1	7	0.24
31-Jan	0.24	<1	<2	<1	4.3	0.25
02-Feb	0.47	<1	4	<1	5.9	0.17
03-Feb	0.20	<1	<2	<1	6.7	0.26
15-Feb	0.21	<1	<2	<1	5.3	0.21
17-Feb	0.82	<1	<2	<1	6.5	0.30
21-Feb	0.43	<1	<2	<1	4.9	0.20
25-Feb	0.26	<1	<2	<1	5.4	0.25
01-Mar	0.24	<1	<2	<1	4.1	0.16
03-Mar	0.31	<1	<2	<1	6	0.18
08-Mar	0.57	<1	<2	<1	5.8	0.21
11-Mar	0.48	<1	<2	<1	5	0.12
10-Feb	0.22	<1	<2	<1	6.5	0.18
17-Mar	0.32	<1	<2	<1	7.2	0.27
21-Mar	0.30	<1	<2	<1	7.4	0.26
24-Mar	0.29	<1	<2	<1	8.3	0.18
22-Mar	0.35	<1	<2	<1	6.3	0.32
23-Mar	0.24	<1	<2	<1	6.1	0.24
29-Mar	0.21	<1	<2	<1	8	0.23
05-Apr	0.29	<1	<2	<1	6.7	0.17
06-Apr	0.29	<1	<2	<1	8.1	0.17
13-Apr	0.36	<1	<2	<1	6.8	0.22
20-Apr	0.35	<1	<2	<1	5.1	0.27
26-Apr	0.38	<1	<2	<1	6.2	0.18
28-Apr	0.16	<1	2	<1	9.6	0.15
04-May	0.09	<1	<2	<1	11	0.19
03-May	0.32	<1	<2	<1	7	0.15
11-May	0.11	<1	<2	<1	11	0.16
20-May	0.31	<1	<2	<1	9.9	0.47
17-May	0.15	<1	2	<1	6.4	0.27
27-May	0.20	<1	<2	<1	9.9	0.26
26-May	0.29	<1	2	<1	12	0.24
01-Jun	0.21	<1	<2	<1	9	0.23
02-Jun	0.44	<1	<2	<1	7.1	0.46
09-Jun	0.34	<1	<2	<1	14	0.25
16-Jun	0.28	<1	10	<1	15	0.25
13-Jun	0.08	<1	12	<1	15	0.26
22-Jun	0.29	<1	16	<1	7.9	0.33
28-Jun	0.26	<1	4	<1	7.8	0.23
29-Jun	<0.01	<1	150	<1	16	0.43
04-Jul	0.46	<1	<2	<1	8.1	0.17
11-Jul	0.40	<1	<2	<1	8	0.22
18-Jul	0.34	<1	6	<1	16	0.29
25-Jul	0.15	<1	8	<1	11	0.39
03-Aug	0.20	<1	<2	<1	12	0.23
09-Aug	0.48	<1	10	<1	16	0.29
11-Aug	0.27	<1	10	<1	11	0.27
16-Aug	0.49	<1	44	<1	15	0.26
23-Aug	0.37	<1	12	<1	17	0.24
25-Aug	0.16	<1	12	<1	12	0.26
30-Aug	<0.01	<1	270	<1	18	0.22
01-Sep	0.21	<1	<2	<1	14	0.19
06-Sep	0.21	<1	10	<1	14	0.25
15-Sep	0.09	<1	6	<1	18	0.22
21-Sep	0.08	<1	140	<1	18	0.28
22-Sep	0.12	<1	<2	<1	17	0.22
28-Sep	0.16	<1	4	<1	16	0.20
04-Oct	0.26	<1	6	<1	14	0.25
04-Oct	0.16	<1	4	<1	16	0.25
13-Oct	0.18	<1	8	<1	14	0.26
14-Oct	0.19	<1	<2	<1	13	0.23
18-Oct	0.01	<1	120	<1	13	0.22
19-Oct	0.48	<1	<2	<1	12	0.26
26-Oct	0.09	<1	<2	<1	13	0.27
27-Oct	0.18	<1	<2	<1	12	0.23
01-Nov	0.11	<1	92	<1	12	0.23
02-Nov	0.26	<1	4	<1	8.7	0.23
03-Nov	0.10	<1	32	<1	12	0.21
08-Nov	0.15	<1	2	<1	11	0.25
10-Nov	0.23	<1	<2	<1	10	0.23
15-Nov	<0.01	<1	<2	<1	9.9	0.23
17-Nov	0.10	<1	2	<1	9.6	0.25
18-Nov	0.32	<1	<2	<1	8.9	0.22
24-Nov	0.32	<1	<2	<1	9	0.28
06-Dec	0.33	<1	<2	<1	7.8	0.25
07-Dec	0.32	<1	<2	<1	8	0.25
13-Dec	0.43	<1	<2	<1	6.9	0.23
15-Dec	0.35	<1	<2	<1	7.5	0.32
20-Dec	0.47	<1	8	<1	7.7	0.39
29-Dec	0.29	<1	NA	<1	7.1	0.31

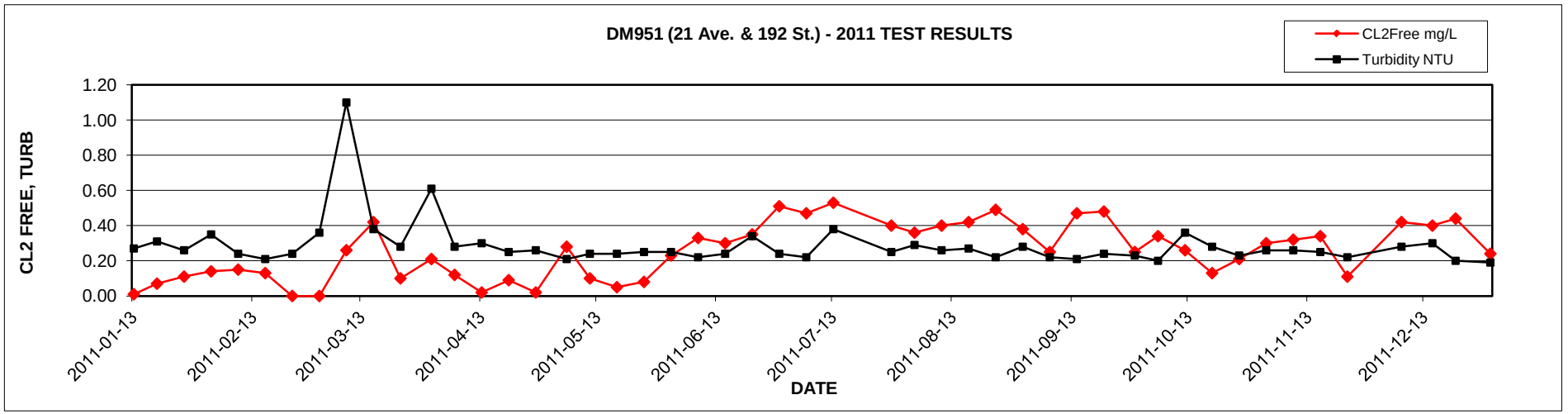

DM949 (SE Corner 182 St. / 74 Ave.) - 2011 TEST RESULTS
HPC CFU/mLs
Temp C
HPC
TEMP
DATE
300
250
200
150
100
50
0
20
18
16
14
12
10
8
6
4
2
0
2011-01-06
2011-02-06
2011-03-06
2011-04-06
2011-05-06
2011-06-06
2011-07-06
2011-08-06
2011-09-06
2011-10-06
2011-11-06
2011-12-06


DM949 (SE Corner 182 St. / 74 Ave.) - 2011 TEST RESULTS
CL2Free mg/L
Turbidity NTU
CL2 FREE, TURB
DATE
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
2011-01-06
2011-02-06
2011-03-06
2011-04-06
2011-05-06
2011-06-06
2011-07-06
2011-08-06
2011-09-06
2011-10-06
2011-11-06
2011-12-06

2011 GVRD Laboratory Report - DM951 (21 Ave. & 192 St.)

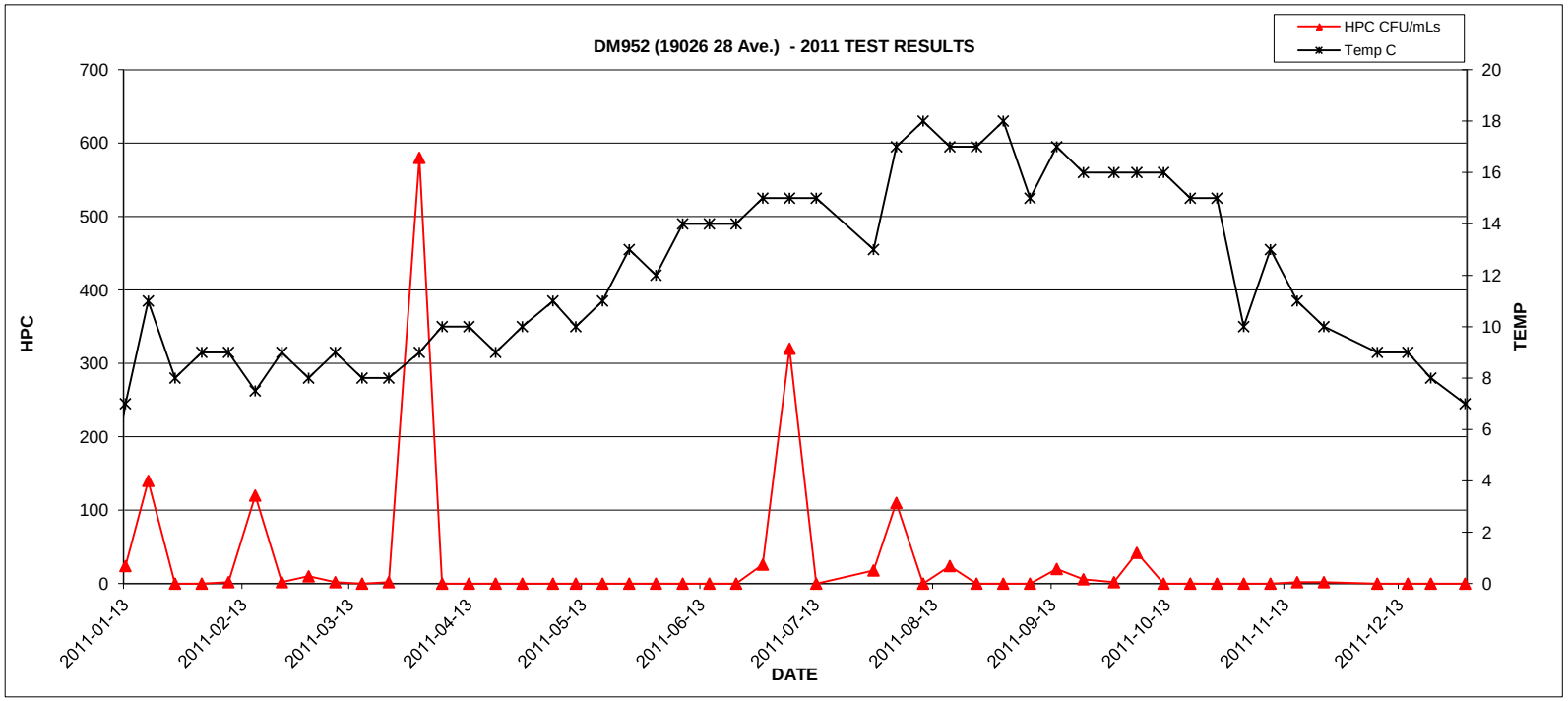
Date Collected	CL2Free mg/L	Ecoli MF/100mLs	HPC CFU/mLs	Tcoli MF/100mLs	Temp C	Turbidity NTU
05-Jan	0.01	<1	200	<1	6	0.27
13-Jan	0.07	<1	20	<1	10	0.31
19-Jan	0.11	<1	<2	<1	8	0.26
26-Jan	0.14	<1	8	<1	9	0.35
02-Feb	0.15	<1	20	<1	9	0.24
09-Feb	0.13	<1	140	<1	8	0.21
16-Feb	<0.01	<1	62	<1	9	0.24
23-Feb	<0.01	<1	72	<1	8	0.36
02-Mar	0.26	<1	2	<1	9	1.10
09-Mar	0.42	<1	<2	<1	9	0.38
16-Mar	0.10	<1	10	<1	9	0.28
23-Mar	0.21	<1	2	<1	10	0.61
31-Mar	0.12	<1	10	<1	10	0.28
06-Apr	0.02	<1	<2	<1	10	0.30
13-Apr	0.09	<1	130	<1	10	0.25
20-Apr	0.02	<1	72	<1	12	0.26
27-Apr	0.28	<1	<2	<1	11	0.21
05-May	0.10	<1	48	<1	12	0.24
11-May	0.05	<1	32	<1	13	0.24
18-May	0.08	<1	18	<1	14	0.25
25-May	0.23	<1	<2	<1	14	0.25
01-Jun	0.33	<1	2	<1	14	0.22
08-Jun	0.30	<1	<2	<1	14	0.24
15-Jun	0.35	<1	<2	<1	14	0.34
22-Jun	0.51	<1	<2	<1	15	0.24
29-Jun	0.47	<1	42	<1	15	0.22
06-Jul	0.53	<1	<2	<1	17	0.38
13-Jul	0.40	<1	2	<1	13	0.25
28-Jul	0.36	<1	<2	<1	17	0.29
03-Aug	0.40	<1	<2	<1	17	0.26
10-Aug	0.42	<1	<2	<1	17	0.27
17-Aug	0.49	<1	<2	<1	17	0.22
24-Aug	0.38	<1	<2	<1	18	0.28
31-Aug	0.25	<1	<2	<1	16	0.22
07-Sep	0.47	<1	22	<1	18	0.21
14-Sep	0.48	<1	<2	<1	17	0.24
21-Sep	0.25	<1	2	<1	16	0.23
29-Sep	0.34	<1	2	<1	17	0.20
05-Oct	0.26	<1	<2	<1	15	0.36
12-Oct	0.13	<1	6	<1	16	0.28
19-Oct	0.21	<1	4	<1	15	0.23
26-Oct	0.30	<1	24	<1	10	0.26
02-Nov	0.32	<1	2	<1	13	0.26
09-Nov	0.34	<1	2	<1	11	0.25
16-Nov	0.11	<1	<2	<1	10	0.22
23-Nov	0.42	<1	<2	<1	9	0.28
07-Dec	0.40	<1	<2	<1	9	0.30
15-Dec	0.44	<1	2	<1	8	0.20
21-Dec	0.24	<1	2	<1	7	0.19
30-Dec	0.38	<1	NA	<1	7	0.29

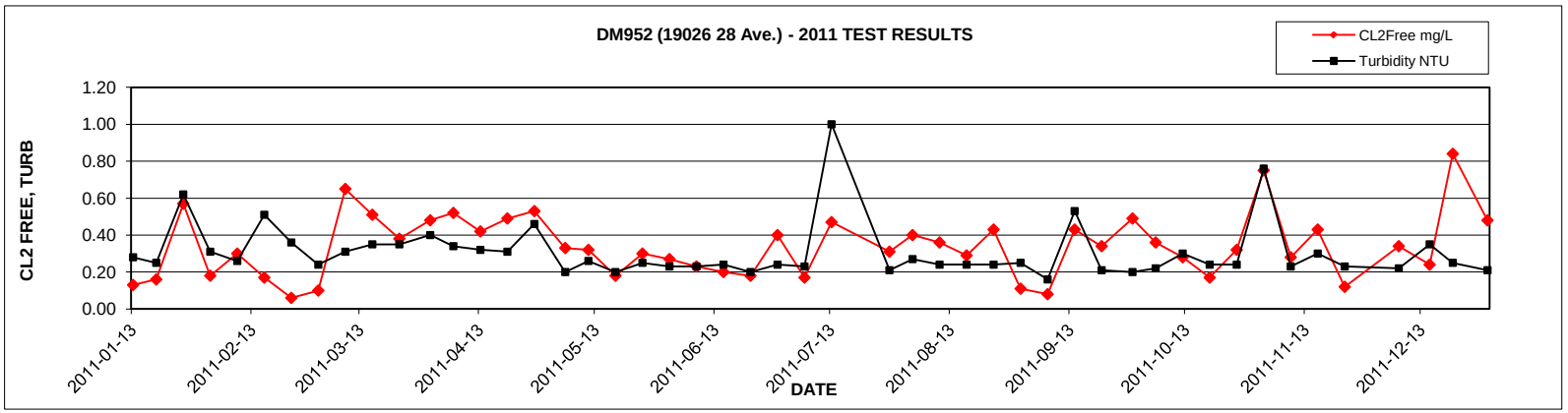

DM951 (21 Ave. & 192 St.) - 2011 TEST RESULTS
HPC CFU/mLs
Temp C
HPC
TEMP
DATE
250
200
150
100
50
0
20
18
16
14
12
10
8
6
4
2
0
2011-01-13
2011-02-13
2011-03-13
2011-04-13
2011-05-13
2011-06-13
2011-07-13
2011-08-13
2011-09-13
2011-10-13
2011-11-13
2011-12-13


DM951 (21 Ave. & 192 St.) - 2011 TEST RESULTS
CL2Free mg/L
Turbidity NTU
CL2 FREE, TURB
DATE
1.20
1.00
0.80
0.60
0.40
0.20
0.00
2011-01-13
2011-02-13
2011-03-13
2011-04-13
2011-05-13
2011-06-13
2011-07-13
2011-08-13
2011-09-13
2011-10-13
2011-11-13
2011-12-13

2011 GVRD Laboratory Report - DM952 (19026 28 Ave.)

Date Collected	CL2Free mg/L	Ecoli MF/100mLs	HPC CFU/mLs	Tcoli MF/100mLs	Temp C	Turbidity NTU
05-Jan	0.13	<1	24	<1	7	0.28
13-Jan	0.16	<1	140	<1	11	0.25
19-Jan	0.57	<1	<2	<1	8	0.62
26-Jan	0.18	<1	<2	<1	9	0.31
02-Feb	0.30	<1	2	<1	9	0.26
09-Feb	0.17	<1	120	<1	7.5	0.51
16-Feb	0.06	<1	2	<1	9	0.36
23-Feb	0.10	<1	10	<1	8	0.24
02-Mar	0.65	<1	2	<1	9	0.31
09-Mar	0.51	<1	<2	<1	8	0.35
16-Mar	0.38	<1	2	<1	8	0.35
23-Mar	0.48	<1	580	<1	9	0.40
31-Mar	0.52	<1	<2	<1	10	0.34
06-Apr	0.42	<1	<2	<1	10	0.32
13-Apr	0.49	<1	<2	<1	9	0.31
20-Apr	0.53	<1	<2	<1	10	0.46
27-Apr	0.33	<1	<2	<1	11	0.20
05-May	0.32	<1	<2	<1	10	0.26
11-May	0.18	<1	<2	<1	11	0.20
18-May	0.30	<1	<2	<1	13	0.25
25-May	0.27	<1	<2	<1	12	0.23
01-Jun	0.23	<1	<2	<1	14	0.23
08-Jun	0.20	<1	<2	<1	14	0.24
15-Jun	0.18	<1	<2	<1	14	0.20
22-Jun	0.40	<1	26	<1	15	0.24
29-Jun	0.17	<1	320	<1	15	0.23
06-Jul	0.47	<1	<2	<1	15	1.00
13-Jul	0.31	<1	18	<1	13	0.21
28-Jul	0.40	<1	110	<1	17	0.27
03-Aug	0.36	<1	<2	<1	18	0.24
10-Aug	0.29	<1	24	<1	17	0.24
17-Aug	0.43	<1	<2	<1	17	0.24
24-Aug	0.11	<1	<2	<1	18	0.25
31-Aug	0.08	<1	<2	<1	15	0.16
07-Sep	0.43	<1	20	<1	17	0.53
14-Sep	0.34	<1	6	<1	16	0.21
21-Sep	0.49	<1	2	<1	16	0.20
29-Sep	0.36	<1	42	<1	16	0.22
05-Oct	0.28	<1	<2	<1	16	0.30
12-Oct	0.17	<1	<2	<1	15	0.24
19-Oct	0.32	<1	<2	<1	15	0.24
26-Oct	0.75	<1	<2	<1	10	0.76
02-Nov	0.28	<1	<2	<1	13	0.23
09-Nov	0.43	<1	2	<1	11	0.30
16-Nov	0.12	<1	2	<1	10	0.23
23-Nov	0.34	<1	<2	<1	9	0.22
07-Dec	0.24	<1	<2	<1	9	0.35
15-Dec	0.84	<1	<2	<1	8	0.25
21-Dec	0.48	<1	<2	<1	7	0.21
30-Dec	0.35	<1	NA	<1	8	0.25


DM952 (19026 28 Ave.) - 2011 TEST RESULTS
HPC CFU/mLs
Temp C
HPC
TEMP
DATE
0
100
200
300
400
500
600
700
0
2
4
6
8
10
12
14
16
18
20
2011-01-13
2011-02-13
2011-03-13
2011-04-13
2011-05-13
2011-06-13
2011-07-13
2011-08-13
2011-09-13
2011-10-13
2011-11-13
2011-12-13


DM952 (19026 28 Ave.) - 2011 TEST RESULTS
CL2Free mg/L
Turbidity NTU
CL2 FREE, TURB
DATE
0.00
0.20
0.40
0.60
0.80
1.00
1.20
2011-01-13
2011-02-13
2011-03-13
2011-04-13
2011-05-13
2011-06-13
2011-07-13
2011-08-13
2011-09-13
2011-10-13
2011-11-13
2011-12-13

APPENDIX 'B'

Water Quality Monitoring and Reporting Plan for Metro Vancouver and Member Municipalities

Water Quality Monitoring and Reporting Plan For The GVRD and Member Municipalities

Greater
Vancouver
Regional
District

January 2006

Table of Contents

Appendices

1. Introduction

1.1 Background

The Water Quality Monitoring and Reporting Plan (WQMRP) was originally developed under the BC Safe Drinking Water Regulation (BCSDWR) which was promulgated under the Health Act in 1992. In short, the BCSDWR required suppliers of drinking water (purveyors) in BC to hold an Operating Permit which, in effect, confirmed that the Medical Health Officer for the area in question had approved of the public water supply and the purveyor's plans for assuring potability, monitoring, reporting and notification in the case of emergency or other unusual circumstances. The BCSDWR was replaced in 2003 with the BC Drinking Water Protection Regulation (BCDWPR) under the Drinking Water Protection Act (DWPA) which was promulgated in 2001. This update builds on the original WQMRP which was published in May of 2000 as a result of joint efforts between the GVRD, GVRD Municipalities, and the Region's Medical Health Officers. All parties mentioned above have been involved in the update of the plan.

The Drinking Water Protection Act places a number of responsibilities on water suppliers. Sections relevant to this plan are shown in the table below:

Table 1. Water Supplier Responsibilities Under the Drinking Water Protection Act

Section of Act	Requirement	Relevance
8	Operating Permits and Requirements For Water Systems	Places monitoring and reporting responsibilities on water suppliers.
10	Emergency Response and Contingency Plans	Places requirement for emergency response and contingency plans on water suppliers.
11	Water Monitoring Requirements	Outlines water monitoring and associated responsibilities for water suppliers.
12	Notice if Immediate Reporting Standard Not Met	Outlines immediate reporting responsibilities for laboratories and water suppliers.
13	Water Supplier Must Report Threats to Drinking Water	Places notification responsibilities on water suppliers for situations where the water might not be potable.
15	Publication of Other Information	Places reporting responsibilities on water suppliers.

Even though this document describes a monitoring and reporting plan for the GVRD and its member municipalities using GVRD water sources, it can also be used as a template for monitoring and reporting on separate water supplies that exist within some municipalities. Many of the monitoring initiatives described in this plan are already in place. Hence, it is written for the most part in the present tense.

1.2 Quality Control

All analyses should be conducted by a laboratory that is approved by the Provincial Health Officer for bacteriological analyses and is certified by the Canadian Association for Environmental Analytical Laboratories (CAEAL) or an equivalent certification program for the other tests performed. It is recognized that certification may not be available for all parameters.

With the exception of *Giardia* and *Cryptosporidium*, all of the microbiological analyses discussed in this report are performed at the GVRD laboratory except for those for the City of Vancouver which are performed at the Provincial Health laboratory (BCCDC laboratory). The Provincial Health Officer has approved both laboratories for the analysis of drinking water samples.

For water from GVRD sources (Capilano, Seymour, Coquitlam) many of the chemical and physical analyses are performed by the GVRD laboratory. The GVRD laboratory is a member and is accredited by CAEAL. The GVRD laboratory is accredited (or certified) for many of the available parameters offered by CAEAL including general parameters, metals, trihalomethanes (THMs) and total coliforms. The GVRD laboratory also performs analyses for haloacetic acids (HAAs). CAEAL does not offer certification for HAAs or for radioisotopes.

Analyses for organic chemical contaminants (herbicides, pesticides, etc.) and uranium and radioactivity as shown in the Guidelines For Canadian Drinking Water Quality are performed by contract laboratories. The contract laboratories are accredited and the scope of accreditation includes the following parameters: BTEX, PAHs, THMs and specific pesticides. The GVRD uses the Wisconsin State Laboratory of Hygiene, at the University of Wisconsin Center for Health Sciences, for radioactivity analyses. The US Environmental Protection Agency has certified this laboratory for radioactivity related analyses.

CAEAL certification and accreditation are valuable but they are no substitute for critical review of laboratory results (including review of Quality Control/Quality Assurance procedures and results) by the agency responsible for reporting the results. The GVRD reviews all laboratory results (including results from the GVRD laboratory and contract laboratories) for QA/QC and municipalities should do the same for results not reviewed for QA/QC by the GVRD.

Samples should be collected and shipped in accordance with the most recent edition (21st edition now available) of Standard Methods For The Examination of Water and Wastewater (APHA, AWWA,WEF).

2. Definitions

BCDWPR	British Columbia Drinking Water Protection Regulation
BCSDWR	British Columbia Safe Drinking Water Regulation
CAEAL	Canadian Association for Environmental Analytical Laboratories
Distribution System (D)	Municipally owned and operated water mains and reservoirs
DWO	Drinking Water Officer
DWPA	Drinking Water Protection Act
DWPR	Drinking Water Protection Regulation
E. coli	*Escherichia coli* is a member of the coliform group, part of the family Enterobacteriaceae, and is described as a facultative anaerobic, Gram-negative, non-spore forming, rod-shaped bacterium that possesses the enzyme β-glucuronidase.
GCDWQ	Guidelines For Canadian Drinking Water Quality
HPC	Heterotrophic Plate Count
LCOC	Lake City Operations Centre (GVRD)
Primary Disinfection	Initial disinfection of the water as it enters the water transmission system
SCADA	Supervisory Control and Data Acquisition (system)
Source Water (S)	Untreated water as it enters the GVRD water supply intakes.
Total Coliform	Gram-negative, non-spore forming, rod-shaped bacterium that develops a red colony with a metallic (golden) sheen within 24 hours at 35 °C on an endo-type medium containing lactose.
Transmission System (T)	Large diameter water mains and water reservoirs operated by the GVRD.
WQMRP	Water Quality Monitoring and Reporting Plan

3. Source (Untreated) Water Quality Monitoring

The GVRD monitors both the microbiological and chemical characteristics of the three major water sources, Capilano, Seymour and Coquitlam. Where a municipality uses a water source other than that from the GVRD (i.e. from Capilano, Seymour or Coquitlam), it is the responsibility of the municipality to monitor the source water. Every effort is made to carry out the various monitoring programs according to the frequencies discussed below, however, it should be recognized that occasionally a scheduled sample may be missed due to equipment failure or inclement weather conditions.

3.1 Microbiological Monitoring

3.1.1 Bacteria

An important consideration in the type and degree of treatment required for a water supply is the bacteriological quality of the source water. In order to assist this assessment process in the GVRD, and to maintain an ongoing record of source water quality, samples of untreated water are collected at the water supply intakes daily and analyzed for *E. coli.*

3.1.2 *Giardia* and *Cryptosporidium*

The GVRD routinely monitors the source waters at the water supply intakes for *Giardia* and *Cryptosporidium*. One sample is taken at each intake every week. Analysis is carried out at the Enhanced Water Testing Laboratory, University of British Columbia.

3.2 Chemical and Physical Monitoring

3.2.1 Turbidity

Since elevated turbidity levels in water may interfere with disinfection, it is important that a water utility monitors the turbidity of the source water on a regular basis. Samples are collected daily from all three sources and analyzed for turbidity in the laboratory. These readings constitute the GVRD's official turbidity readings, which are made available to the public daily. In addition, the GVRD has in-line turbidity monitors at all water supply intakes. Results from these monitors are transmitted via SCADA to LCOC where appropriate action (changes in the operation of the water system) can be taken should a turbidity problem develop.

3.2.2 General Chemical and Physical Quality

The chemical and physical characteristics of each water supply (before treatment) are tested on a routine basis according to the frequencies shown in Table 2. Monitoring is used to demonstrate compliance with the GCDWQ, provide up-to-date background information on water quality and to assess long term changes. Some water quality characteristics, such as iron, ammonia and organic carbon, are monitored more frequently by the GVRD depending on operational requirements and other needs. Samples for source water analysis are collected just up-stream of chlorination in the chlorination plants.

Table 2. Physical and Chemical Testing of GVRD Source Waters (S)

Parameter	Frequency
Aldicarb	Annually
Aldrin + Dieldrin	Annually
Antimony	Semi-annually
Aluminum (Tot. & Diss.)	Semi-annually
Arsenic	Semi-annually
Atrazine + Metabolites	Annually
Azinphos-Methyl	Annually
Barium	Semi-annually
Bendiocarb	Annually
Benzene	Annually
Benzo(α)pyrene	Semi-annually
Boron	Semi-annually
Bromide	Quarterly
Bromoxynil	Annually
Cadmium	Semi-annually
Carbaryl	Annually
Carbofuran	Annually
Carbon Tetrachloride	Annually
Chloride	Annually
Chlorpyrifos	Annually
Chromium	Semi-annually
Colour	Weekly
Copper	Semi-annually
Cyanazine	Annually
Cyanide	Annually
Diazinon	Annually
Dicamba	Annually
Dichlorobenzene, 1,2-	Annually
Dichlorobenzene, 1,4-	Annually
Dichloroethane, 1,2-	Annually
Dichloroethylene, 1,1-	Annually
Dichloromethane	Annually
Dichlorophenol, 2,4-	Annually
Dichlorophenoxyacetic Acid 2,4 (2,4-D)	Annually
Diclofop-Methyl	Annually
Dimethoate	Annually
Dinoseb	Annually
Diquat	Annually
Diuron	Annually
Ethylbenzene	Annually
Fluoride	Annually

Parameter	Frequency
Glyphosate	Annually
Iron	Semi-annually
Lead	Semi-annually
Malathion	Annually
Manganese	Semi-annually
Mercury	Semi-annually
Methoxychlor	Annually
Metolachlor	Annually
Metribuzin	Annually
Monochlorobenzene	Annually
Nitrate	Semi-annually
Nitrilotriacetic Acid (NTA)	Annually
Odour	Complaint Basis
Paraquat (As Dichloride)	Annually
Parathion	Annually
Pentachlorophenol	Annually
pH	Weekly
Phorate	Annually
Picloram	Annually
Radionuclides (Gross Alpha And Beta)	Annually
Selenium	Annually
Simazine	Annually
Sodium	Semi-annually
Sulphate	Semi-annually
Sulphide (as H_2S)	N/A *
Taste	Complaint Basis
Temperature	Quarterly
Terbufos	Annually
Tetrachloroethylene	Annually
Tetrachlorophenol, 2,3,4,6-	Annually
Toluene	Annually
Total Diss. Solids (TDS)	Semi-annually
Trichloroethylene	Annually
Trichlorophenol, 2,4,6-	Annually
Trifluralin	Annually
Turbidity	Daily
Uranium	Annually
Vinyl Chloride	Annually
Xylenes (Total)	Annually
Zinc	Semi-annually

* Sulphide (as H_2S) not monitored on surface water supplies; should be monitored on well water.

4. Transmission/Distribution System Monitoring – Treated Water

4.1 Bacteriology Sampling Stations – Type, Location and Number

Dedicated sampling stations connected directly to the water main are preferred (over convenience stations in public buildings) for a number of reasons including consistency of results and accessibility. If the sample is not constantly running the sample line should be of suitable size to allow water from the main to reach the sample tap after a brief period of flushing.

4.1.1 GVRD Transmission Mains and Reservoirs

Each day, the GVRD collects a sample from each water supply at a location downstream of disinfection and upstream of the first customer. The GVRD also collects samples weekly from sites at or just before the last connection on all supply mains as well as at other sites of interest including sites just after river crossings. Samples are also collected weekly from all GVRD treated water reservoirs.

4.1.2 Municipal Distribution Mains

Municipal sampling locations for monitoring the bacteriological quality of the delivered water are distributed as follows:

- 10% source water - ***this refers to water entering the municipal distribution grid from the GVRD transmission mains.*** Samples taken from GVRD transmission mains in the area can be used to meet this requirement as well as samples from the municipal distribution system just downstream of the connection to the GVRD transmission main.
- 40% medium flow.
- 40% low flow.
- 10% dead ends, unlooped lines, stagnant areas.

The number of samples per municipality, as recommended by the Guidelines For Canadian Drinking Water Quality, is based on population (Table 3). Samples collected from all sites in the GVRD transmission system and reservoirs are analyzed for total coliform bacteria. Samples from municipal distribution systems are analyzed for total coliform and *E. coli* bacteria. All samples analyzed in the GVRD laboratory are also tested for the presence of Heterotrophic Plate Count bacteria on R2A media, with a 5 day incubation at 28 °C. This test is used to monitor the system for the early warning signs of regrowth.

GVRD sampling locations are shown in Appendix 1. Sampling locations in the municipal distribution systems are shown in Appendix 2.

Table 3. Bacteriology Monitoring – Municipal Samples

City	Population (2004)	Number of Sample Sites	Minimum Number of Samples per Month as Required by Schedule B of the DWPR
Burnaby	209,328	57	111
Coquitlam	126,434	28	103
Delta	101,125	26	100
Langley City	24,980	13	25
Langley Township	93,650	22	99
Maple Ridge	72,937	12	73
New Westminster	60,123	10	60
North Vancouver City	48,619	15	49
North Vancouver District	86,359	34	86
Pitt Meadows	16,267	7	16
Port Coquitlam	58,070	10	58
Port Moody	27,466	6	27
Richmond	176,438	25	108
Surrey	401,839	49	130
Vancouver	578,112	48	148
West Vancouver	44,545	17	45
Total	**2,126,292**	**379**	**1238**

This monitoring program provides a representative picture of drinking water quality in the GVRD water system and within municipal mains. It does not provide a definite picture of drinking water quality within buildings, where water quality can change significantly due to pipe materials, standing times, temperature, and other factors. It can be assumed that samples taken within buildings will be of different quality than those taken from sites on municipal mains.

4.2 Chemical and Physical Parameters

4.2.1 GVRD Transmission Mains

Table 4 lists the chemical and physical testing program proposed for GVRD transmission mains. Sampling for the effects of water main lining associated problems will require expanding the sampling for the associated parameters (eg. BTEX) into affected municipal distribution systems as is described in the table.

Table 4. Chemical/Physical Monitoring in GVRD Transmission System

Parameter	Location	Frequency
Benzo(α)pyrene	GVRD mains with history of coal tar related problems and a representative number of affected municipal distribution mains.	Semi-annually
Bromate	GVRD mains downstream of ozonation.	Quarterly
Chloride	GVRD System. Primary chlorination evaluation stations and downstream of the secondary disinfection stations.	Semi-annually
Ethylbenzene	GVRD mains with history of epoxy lining related problems and a representative number of affected municipal distribution mains.	As required
Haloacetic acids	GVRD Sites – end of transmission system.	Quarterly
Odour	Any or all sites.	Complaint Basis
pH	GVRD Sites – before and after corrosion control.	Semi-annually
Sodium	GVRD Sites – after corrosion control and secondary disinfection.	Semi-annually
Taste	Any or all sites.	Complaint Basis
Temperature	GVRD Sites – primary disinfection evaluation stations.	Quarterly
Toluene	GVRD mains with history of epoxy lining related problems and a representative number of affected municipal distribution mains.	As required
Total Dissolved Solids	GVRD Sites – pre and post corrosion control.	Semi-annually
Trihalomethanes	GVRD Sites – end of transmission system.	Quarterly
Turbidity	GVRD Sites – after treatment.	Collected with bacteriological samples
Xylenes	GVRD mains with history of epoxy lining related problems and a representative number of affected municipal distribution mains.	As required

4.2.2 Municipal Distribution Mains

The proposed monitoring program for chemical and physical characteristics of the water in municipal distribution mains is shown in Table 5. Except where otherwise noted, approximately 10% of the sample sites in each municipal system will be sampled for the following parameters at the frequency shown. The sample sites for this testing will be selected with regard to local conditions including factors such as water source, pipe materials, location of water treatment facilities, etc.

Table 5. Chemical/Physical Monitoring in Municipal Distribution Systems

Parameter	Location	Frequency
Free Chlorine Residual	All	Tests run when bacteriological samples are taken
Copper	Municipal Distribution System **	Semi-annually
Haloacetic acids	Municipal Sites – cross section, representative of all three sources. Minimum of one per municipality.	Quarterly
Iron	Representative municipal sites – unlined iron and steel mains.	Semi-annually
Lead	Municipal Distribution System **	Semi-annually
Odour	Any or all sites.	Complaint Basis *
pH	Municipal Sites – cross section, representative of all three sources. Minimum of one per municipality.	Semi-annually
Taste	Any or all sites.	Complaint Basis *
Temperature	Representative municipal sites.	Quarterly
Trihalomethanes	Municipal Sites – cross section, representative of all sources, minimum of three per municipality.	Quarterly
Turbidity	Municipal Sites – all.	Collected with bacteriological samples
Vinyl Chloride	Municipal sites where PVC pipe is used in the distribution system – minimum of one per potentially affected system.	Semi-annually
Zinc	Municipal Distribution System **	Semi-annually

* If a complaint comes to the GVRD, the GVRD will bring it to the attention of the relevant municipality.

** The GCDWQ stipulate that samples for metals analysis should be from a flushed location. This provides rationale to sample for metals in the distribution system as opposed to locations in buildings.

5. Reporting

Section 15 (b) of the DWPA requires a water supplier to report on monitoring results. As well, in accordance with Sec. 11 of the DWPR, each purveyor, municipal and the GVRD, must make an annual written report to the consumers and to its Medical Health Officer by the end of June. The annual report will include the quality of the water with respect to all microbiological and chemical standards. This report must also include the purveyor's plan (including time lines) for addressing any standards that are not met. Reporting is summarized in Table 6.

Table 6. Reports

Title	Report Content	Target Audience	Frequency
GVRD Routine Municipal Reports	Municipal distribution system microbiological analyses and related parameters (chlorine, turbidity, temperature, HPC).*	Municipalities** Health Regions	Batch basis. In general once per week.
GVRD Monthly Reports	GVRD transmission mains microbiological analyses and related parameters (chlorine, turbidity, temperature, HPC). Information is used to supplement municipal monitoring data.	Health Regions	Monthly
GVRD (GVWD) Annual Water Quality Report	GVRD source water microbiological, chemical and physical quality, GVRD treated water quality, municipal water quality. Summary presentation of all monitoring information.	Health Regions GVRD Board Municipal Councils General Public	Annually (Public Report by the end of June)
Municipal Annual Water Quality Reports	Municipal distribution system water quality, microbiological and related parameters (see Table 5). Summary presentation of all source water chemistry and distribution system water monitoring information.	Health Regions Municipal Councils General Public	Annually (Public Report by the end of June)

* Reports from GVRD lab for samples from municipalities using GVRD lab.

** Preliminary reports are provided verbally or by electronic mail immediately if the GVRD laboratory suspects a problem at a particular sample site. Written reports are sent out by the GVRD lab only after data have been certified. Results not meeting standards will be highlighted in written reports where possible.

The WQMRP has been accepted by both Vancouver Coastal Health and the Fraser Health Authority. The WQMRP is intended to fully meet the requirements of the DWPA and the DWPR however it is acknowledged that there may be circumstances that the water supplier's MHO, DWO (or DWO delegate) may place additional requirements in accordance with the provisions of the DWPA.

6. Emergency Response

6.1 Notification Requirements

Public health should be notified in the situations shown in Table 7.

Table 7. Notification for Unusual Situations Affecting Water Potability

Situation	Notifying Agency	Agency Notified	Time Frame For Notification
GVRD *E. Coli* Positive Sample	GVRD	GVRD MHO Municipality(ies) [1]	Immediate
Municipal *E. Coli* Positive Sample	Laboratory [2] Municipality [3]	MHO (or delegate)	Immediate
Chemical Contamination - GVRD	GVRD	GVRD MHO Municipality(ies) [1]	Immediate
Chemical Contamination - Municipality	Municipality	MHO (or delegate)	Immediate
Turbidity > 5 NTU	GVRD	GVRD MHO Municipality(ies) [1]	Immediate
Disinfection Failure – Source Water (Primary Disinfection)	GVRD	GVRD MHO Municipality(ies) [1]	Immediate (As per DWPA)
Disinfection Failure – Rechlorination (Secondary Disinfection)	GVRD	GVRD MHO Municipality(ies) [1]	Immediate, in any situation in which the BCDWPR or the GCDWQ may not be met.
Loss of Pressure Due to High Demand	Municipality	MHO (or delegate) GVRD	Immediate
Line Break [4] – Municipality	Municipality	MHO (or delegate)	As required by Health Regions
Line Break [4] – GVRD	GVRD	Municipality(ies)	As required by Municipalities
Line Break [5] – Municipality	Municipality	MHO (or delegate)	Immediate
Line Break [5] – GVRD	GVRD	GVRD MHO Municipality(ies) [1]	Immediate

1. Affected municipality(ies) to notify local public health contact.
2. Laboratory to immediately notify the MHO, DWO (or delegates) and the water supplier as per section 12 (1) of the DWPA.
3. Municipality to immediately notify the MHO, DWO (or delegates) as per section 12 (2) of the DWPA.
4. With no suspected contamination.
5. With suspected contamination.

6.2 Response Plans

Emergency situations with the GVRD and municipal water supplies have been divided into four main areas of response as follows:

- An *E. coli* positive sample (in either the GVRD water system or in a municipal water system).
- Loss of disinfection.
- A turbidity event.
- Loss of GVRD and municipal water system integrity (potential contamination).

A response protocol for each situation is provided in Appendix 3.

In addition, under Sec. 10 of the DWPA, each municipality is required to have its own emergency response plan to cover specific emergencies.

A Contingency Plan for Water Quality is provided in Appendix 4 for those situations where a boil water advisory may be required.

6.3 Major Emergency Situations

Major natural disasters such as earthquakes would require the implementation of the emergency response plans that have been or are being developed by the GVRD and each of the member municipalities. Documentation of these plans is beyond the scope of this document.

APPENDIX 'C'

B.C. Drinking Water Protection Regulation

Guidelines for Canadian Drinking Water Quality – Summary Table

B.C Drinking Water Protection Regulation

B.C. Reg. 200/2003

Deposited May 16, 2003

O.C. 508/2003

Drinking Water Protection Act

DRINKING WATER PROTECTION REGULATION

[includes amendments up to B.C. Reg. 87/2011, May 19, 2011]

Contents

Definitions

1 In this regulation:

"Act" means the *Drinking Water Protection Act*;

"building system" means a system, within a building, to which the British Columbia Plumbing Code applies, that receives water from a water supply system operating under a valid operating permit under the Act;

"connection" means the line from the water main to a dwelling, campsite or premises;

"decal" means an adhesive label that is issued and affixed to an operating permit at the time fees under this regulation are paid or remitted;

"fiscal year" means the period from April 1 in one year to March 31 in the next year;

"small system" means a water supply system that serves up to 500 individuals during any 24 hour period.

"system within a system" means a water supply system that, in the opinion of a drinking water officer or issuing official,

(a) redistributes water from a water supply system operating under a valid operating permit under the Act, and

(b) does not require further treatment processes, additional infrastructure or ongoing maintenance to prevent a drinking water health hazard.

[en. B.C. Reg. 352/2005, s. 1; am. B.C. Regs. 5/2007, App. 1, s. 1; 363/2008, s. 1; 87/2011, s. 1.]

Standards for potable water

2 The prescribed water quality standards for potable water are set out in Schedule A.

Domestic water system

3 The following are excluded from the definition of "domestic water system" in the Act:

(a) equipment, works and facilities constructed, operated or maintained

(i) under a licence, as defined in the *Water Act*, for conservation, power or storage purposes,

(ii) under a permit issued under the *Water Act*,

(iii) for bottled water production or distribution, or

(iv) for drinking water dispensing machines;

(b) a reservoir relating to a licence or permit referred to in paragraph (a);

(c) a building system;

(d) a system within a system.

[en. B.C. Reg. 352/2005, s. 2; am. B.C. Regs. 363/2008, s. 2; 87/2011, s. 2.]

Exemptions

3.1 A small system is exempt from section 6 of the Act if

(a) the system does not provide water for human consumption or food preparation purposes, and is not connected to a water supply system that provides water for human consumption and food preparation purposes, or

(b) each recipient of the water from the system has a point of entry or point of use treatment system that makes the water potable.

[en. B.C. Reg. 352/2005, s. 3.]

Prescribed water supply systems

4 (1) All water supply systems are prescribed for the purposes of sections 8, 10, 11 and 22 (1) (b) of the Act.

(2) All water supply systems, except small systems, are prescribed for the purposes of section 9 of the Act.

[en. B.C. Reg. 352/2005, s. 4.]

Treatment

5 (1) In this section:

"ground water" means ground water as defined in section 1 of the *Water Act*;

"surface water" means water from a source which is open to the atmosphere and includes streams, lakes, rivers, creeks and springs.

(2) For the purposes of section 6 (b) of the Act, drinking water from a water supply system must be disinfected by a water supplier if the water originates from

(a) surface water, or

(b) ground water that, in the opinion of a drinking water officer, is at risk of containing pathogens.

[am. B.C. Reg. 352/2005, s. 5.]

Construction permits

6 (1) The following individuals are authorized to issue construction permits:

(a) a drinking water officer who is a professional engineer, or who is working under the direction of a professional engineer;

(b) a professional engineer who has been approved by a drinking water officer.

(2) An issuing official under subsection (1) may issue a construction permit to a person after receiving an application in a form satisfactory to the issuing official.

(3) A person does not require a construction permit

(a) if the person is undertaking emergency repairs to a water supply system,

(b) for a water supply system that is a tank truck or a vehicle water tank, or

(c) for a small system, provided that an issuing official waives the requirement for a construction permit.

(4) A valid and subsisting construction permit that was issued under section 2 of the Safe Drinking Water Regulation, B.C. Reg. 230/92, before the repeal of that regulation is deemed to be a construction permit issued under this regulation and remains valid until its expiration date unless earlier surrendered, suspended or cancelled.

[am. B.C. Reg. 352/2005, s. 6.]

Operating permits and fees

7 (1) A drinking water officer may issue an operating permit to a water supplier after receiving

(a) an application for an operating permit in a form satisfactory to the drinking water officer, and

(b) the fee set out in Schedule C.

(2) An operating permit in force on March 31 of a year expires on March 31 of that year.

(3) Despite subsection (2), an operating permit issued for a period of less than 12 months expires on the date specified on the approved application.

(4) A drinking water officer may renew an operating permit if

(a) the operating permit was in force anytime during the 12 months prior to the renewal in respect of the same water supply system, and

(b) the fee set out in Schedule C is paid before the effective date of the renewal.

(5) Approval is given for the remission of a fee paid under this section if

(a) the water supplier applies for the remission, and

(b) the fee is for a month of the fiscal year for which the water supplier was not required to have the operating permit to which the fee applies.

(6) A valid and subsisting operating permit that was issued under section 4 of the Safe Drinking Water Regulation, B.C. Reg. 230/92, before the repeal of that regulation is deemed to be an operating permit issued under this regulation and remains valid until its expiration date unless earlier surrendered, suspended or cancelled.

[en. B.C. Reg. 5/2007, App. 1, s. 2.]

Decals

7.1 (1) If, in accordance with section 7, an operating permit is issued or renewed, a drinking water officer must issue a decal to the water supplier to cover the period for which the fee is paid.

(2) If an operating permit does not bear a decal or if that decal does not cover the current date, then the operating permit is not valid.

[en. B.C. Reg. 5/2007, App. 1, s. 2.]

Permits and decals not transferable

7.2 An operating permit or a decal is not transferable.

[en. B.C. Reg. 5/2007, App. 1, s. 2.]

Temporary facilities

7.3 Despite sections 7 and 7.1, if an operating permit is issued for no more than 14 days during a fiscal year, then

(a) approval is given for a reduction in the applicable fee so that the water

supplier is not required to pay the fee set out in the Schedule, and

(b) the operating permit is not required to bear a decal to be valid.

[en. B.C. Reg. 5/2007, App. 1, s. 2.]

Water monitoring analysis

8 (1) A water supplier must transport water samples to a laboratory in accordance with the procedures established by a drinking water officer.

(2) For the purpose of section 11 (1) of the Act, a water supplier must monitor for total coliform bacteria and, effective April 1, 2006, *Escherichia coli*, at the frequencies set out in Schedule B of this regulation.

(3) Despite subsection (2), a drinking water officer may establish different sampling frequencies for a water supplier.

(4) A laboratory carrying out monitoring analyses for the parameters referred to in subsection (2) must be approved in writing by the Provincial health officer.

(5) If requested to do so by a drinking water officer, a laboratory must provide to the drinking water officer, the water supplier, or both, a report

(a) listing all water samples sent by the water supplier to the laboratory, and

(b) describing, for all samples analyzed, the results of any monitoring analyses for total coliform bacteria and *Escherichia coli*.

[am. B.C. Reg. 352/2005, s. 7.]

Immediate reporting standard

9 (1) Subject to subsection (2), immediate reporting is required under section 12 of the Act if the water quality standards in Schedule A are not met for the fecal coliform bacteria or *Escherichia coli* parameters.

(2) Immediate reporting is not required if a water sample that failed to meet the immediate reporting standard

(a) was collected from a location in the water supply system before the water is treated for the removal or inactivation of pathogens,

(b) is not used for domestic purposes, or

(c) is water for which a public advisory to boil for drinking water has been issued.

Public notification

10 If water provided by a domestic water system is not or may not be potable water, the owner of a public premises that is served by the domestic water system must do both of the following:

(a) notify the public that the water is not potable water by posting a sign at every sink or drinking water fountain accessible to the public;

(b) if normal business practices provide an opportunity, verbally advise any

person who may use the domestic water system for a domestic purpose that the water is not potable water.

Time limits for publication

11 For the purposes of section 15 (b) of the Act, a water supplier must prepare and make public, within 6 months of the end of the calendar year, an annual report of the results of the monitoring required by this regulation, its operating permit or the drinking water officer.

Qualification standards for persons operating water supply systems

12 (1) In this section, **"Environmental Operators Certification Program"** means the program of classification and certification for water supply system operators established in British Columbia by the Environmental Operators Certification Program Society.

(2) Subject to subsections (3) and (6), a person is qualified to operate, maintain or repair a water supply system if the person is certified by the Environmental Operators Certification Program for that class of system as classified under the Environmental Operators Certification Program.

(3) Subsection (2) applies to water supply systems classified as level 1 or level 2, and effective January 1, 2006, water supply systems classified as level 3.

(4) Despite section 4 (2) of this regulation, an operating permit may require a person to be certified to operate, maintain or repair a small system.

(5) Despite subsection (3), an operating permit may establish a later date on which subsection (2) applies to a water supply system.

(6) Subsection (2) does not apply to a person with specialist knowledge immediately relevant to maintenance or repair of a water supply system provided the maintenance or repair is conducted following procedures approved by a person certified by the Environmental Operators Certification Program.

[en. B.C. Reg. 352/2005, s. 8.]

Emergency response and contingency plan

13 (1) In this section, **"public health inspector"** means a public health inspector as defined in the *Health Act*.

(2) A water supplier must include the following in an emergency response and contingency plan:

(a) the names and telephone numbers of

(i) the management personnel for the water supply system,

(ii) the drinking water officer, medical health officer and public health inspector, and

(iii) other agencies and officials specified by the drinking water officer;

(b) the persons referred to in paragraph (a) to be contacted in each type of emergency or abnormal operational circumstance;

(c) the steps to follow in the event of an emergency or abnormal operational

circumstance;

(d) protocols to follow respecting public notice if an immediate reporting standard is not met.

(3) A water supplier must

(a) make the emergency response and contingency plan accessible to the staff of the water supplier, and

(b) provide a copy of the emergency response and contingency plan to the drinking water officer.

(4) A water supplier must make a summary of the emergency response and contingency plan accessible to the users served by its water supply system.

(5) A water supplier must not include in the summary referred to in subsection (4) any information that may reasonably pose a risk to the water supply system.

Well floodproofing

14 For the purpose of section 16 of the Act, the following persons must floodproof their wells in the manner described in section 11 (2) (a) and (b) of the Ground Water Protection Regulation:

(a) the owner or operator of a well that provides or may provide drinking water and that is identified in an assessment as being at risk of flooding;

(b) the owner of a well completed after October 31, 2005 that is for the purpose of supplying a water supply system.

[en. B.C. Reg. 300/2004.]

Assessment response plan

15 For the purposes of section 22 (3) of the Act, an assessment response plan must include provisions to identify, eliminate and prevent cross connections with non-potable water sources.

Schedule A

Water Quality Standards for Potable Water

(sections 2 and 9)

Parameter:	Standard:
Fecal coliform bacteria	No detectable fecal coliform bacteria per 100 ml
Escherichia coli	No detectable *Escherichia coli* per 100 ml
Total coliform bacteria	
(a) 1 sample in a 30 day period	No detectable total coliform bacteria per 100 ml
(b) more than 1 sample in a 30 day period	At least 90% of samples have no detectable total coliform bacteria per 100 ml and no sample has more than 10 total

coliform bacteria per 100 ml

Schedule B

Frequency of Monitoring Samples for

Prescribed Water Supply Systems

(section 8)

Population Served by the Prescribed Water Supply System:	Number of Samples Per Month:
less than 5 000	4
5 000 to 90 000	1 per 1 000 of population
more than 90 000	90 plus 1 per 10 000 of population in excess of 90 000

Schedule C

Operating Permit Fees

[en. B.C. Reg. 5/2007, App. 1, s. 3.]

(section 7)

1 The operating permit fee for a fiscal year is:

(a) for 1 - 14 connections	no charge
(b) for 15 - 300 connections	$150
(c) for 301 - 10 000 connections	$250
(d) for 10 001 - 20 000 connections	$500
(e) for more than 20 000 connections	$1 000

2 If an operating permit is issued for a period of less than 12 months, the fee is calculated using the following formula:

$$fee = \frac{n \times z}{12}$$

where

n is the number of calendar months of the fiscal year in which the permit will apply, and

z is the applicable fee under section 1.

Note: *this regulation repeals B.C. Reg. 230/92.*

[Provisions of the *Drinking Water Protection Act*, S.B.C. 2001, c. 9, relevant to the enactment of this regulation: sections 48 and 49]

Guidelines
For Canadian Drinking Water Quality

Summary Table

Health Canada Santé Canada

Your health and safety… our priority. *Votre santé et votre sécurité… notre priorité.*

Guidelines for Canadian Drinking Water Quality

Summary Table

Prepared by the

Federal-Provincial-Territorial Committee on
Drinking Water
of the
Federal-Provincial-Territorial Committee on
Health and the Environment

December 2010

Canada

Table of Contents

Introduction

The *Guidelines for Canadian Drinking Water Quality* are published by Health Canada on behalf of the Federal-Provincial-Territorial Committee on Drinking Water (CDW). This summary table is updated regularly and published on Health Canada's website (www.healthcanada.gc.ca/waterquality). It supersedes all previous versions, as well as the published booklet of the *Sixth Edition of the Guidelines for Canadian Drinking Water Quality*.

These guidelines are based on current, published scientific research related to health effects, aesthetic effects, and operational considerations. Health-based guidelines are established on the basis of comprehensive review of the known health effects associated with each contaminant, on exposure levels and on the availability of treatment and analytical technologies. Aesthetic effects (e.g., taste, odour) are taken into account when these play a role in determining whether consumers will consider the water drinkable. Operational considerations are factored in when the presence of a substance may interfere with or impair a treatment process or technology (e.g., turbidity interfering with chlorination or UV disinfection) or adversely affect drinking water infrastructure (e.g., corrosion of pipes).

The Federal-Provincial-Territorial Committee on Drinking Water establishes the Guidelines for Canadian Drinking Water Quality specifically for contaminants that meet all of the following criteria:

1. exposure to the contaminant could lead to adverse health effects;
2. the contaminant is frequently detected or could be expected to be found in a large number of drinking water supplies throughout Canada; and
3. the contaminant is detected, or could be expected to be detected, at a level that is of possible health significance.

If a contaminant of interest does not meet all these criteria, the Federal-Provincial-Territorial Committee on Drinking Water may choose not to establish a numerical guideline or develop a Guideline Technical Document. In that case, a Guidance Document may be developed.

Guidance Documents undergo a process similar to Guideline Technical Documents, including public consultations through the Health Canada website. They are offered as information for drinking water authorities, and help provide guidance relating to contaminants, drinking water management issues or emergency situations. Consultation documents, Guideline Technical Documents and Guidance documents are available from the Health Canada website (www.healthcanada.gc.ca/waterquality).

In general, the highest priority guidelines are those dealing with microbiological contaminants, such as bacteria, protozoa and viruses. Any measure taken to reduce concentrations of chemical contaminants should not compromise the effectiveness of disinfection.

Inquiries can be directed to: water_eau@hc-sc.gc.ca

Membership of the Federal-Provincial-Territorial Committee on Drinking Water

Jurisdictional representatives

Alberta	Department of Environment	Dr. Donald Reid
British Columbia	Ministry of Health Services	Mr. Barry Boettger
Manitoba	Department of Water Conservation	Ms. Kim Philip
New Brunswick	Department of Health and Wellness	Ms. Karen White
Newfoundland and Labrador	Department of Environment and Conservation	Mr. Haseen Khan
Northwest Territories	Stanton Territorial Health Authority	Mr. Duane Fleming
Nova Scotia	Department of Environment and Labour	Ms. Judy MacDonald
Nunavut Territory	Department of Health and Social Services	Mr. Peter Workman
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New, revised, reaffirmed and upcoming guidelines

Guidelines for several chemical, physical and microbiological parameters are new or have been revised since the publication of the *Sixth Edition of the Guidelines for Canadian Drinking Water Quality* in 1996. These new and revised guidelines are presented in Table 1.

Table 1. New and revised guidelines

Parameter	Guideline (mg/L)	Previous guideline (mg/L)	CHE approval
Microbiological parameters[a]			
Bacteriological		0 coliforms/100 mL	
E.coli	0 per 100 mL		2006
Total coliforms	0 per 100 mL		2006
Heterotrophic plate count	No numerical guideline required		2006
Emerging pathogens	No numerical guideline required		2006
Protozoa	No numerical guideline required	None	2004
Enteric viruses	No numerical guideline required	None	2004
Turbidity	0.3/1.0/0.1 NTU[b]	1.0 NTU	2004
Chemical and physical parameters			
Aluminum	0.1/0.2[c]	None	1999
Antimony	0.006	None	1997
Arsenic	0.01	0.025	2006
Benzene	0.005	0.005	2009
Bromate	0.01	None	1999
Chlorate	1	None	2008
Chlorine	No numerical guideline required	None	2009
Chlorite	1	None	2008
Cyanobacterial toxins—microcystin-LR	0.0015	None	2002
Fluoride	1.5	1.5	1996
Formaldehyde	No numerical guideline required	None	1998
Haloacetic Acids—Total (HAAs)	0.08	None	2008
2-Methyl-4-chlorophenoxyacetic acid (MCPA)	0.1	None	2010
Methyl *tertiary*-butyl ether (MTBE)	0.015	None	2006
Trichloroethylene (TCE)	0.005	0.05	2005
Trihalomethanes—Total (THMs)[d]	0.1	0.1	2006

Parameter	Guideline (mg/L)	Previous guideline (mg/L)	CHE approval
Uranium	0.02	0.1	2000
Radiological parameters			
Cesium-137 (^{137}Cs)	10 Bq/L	10 Bq/L	2009
Iodine-131 (^{131}I)	6 Bq/L	6 Bq/L	2009
Lead-210 (^{210}Pb)	0.2 Bq/L	0.1 Bq/L	2009
Radium-226 (^{226}Ra)	0.5 Bq/L	0.6 Bq/L	2009
Strontium-90 (^{90}Sr)	5 Bq/L	5 Bq/L	2009
Tritium (^{3}H)	7000 Bq/L	7000 Bq/L	2009

[a]Refer to section on Guidelines for microbiological parameters.
[b]Based on conventional treatment/slow sand or diatomaceous earth filtration/membrane filtration.
[c]This is an operational guidance value, designed to apply only to drinking water treatment plants using aluminum-based coagulants. The operational guidance values of 0.1 mg/L applies to conventional treatment plants, and 0.2 mg/L applies to other types of treatment systems.
[d]The separate guideline for BDCM was rescinded based on new science. See addendum to the THM document.

In certain situations, the Federal-Provincial-Territorial Committee on Drinking Water may choose to develop guidance documents: for contaminants that do not meet the criteria for guideline development, and for specific issues for which operational or management guidance is warranted.

Table 2. Guidance documents

Parameter or issue	CHE approval
Boil water advisories	2009
Chloral hydrate	2008
Corrosion Control	2009
Drinking water avoidance advisories	2009
Potassium from water softeners	2008

The Federal-Provincial-Territorial Committee on Drinking Water has established a science-based process to systematically review older guidelines to assess the need to update them. Table 3 provides the list of parameters whose guidelines remain appropriate and have been reaffirmed as a result of this review. Health Canada and the FPT Committee on Drinking Water will continue to monitor research on these parameters and recommend any revision(s) to the guidelines that is deemed necessary.

Table 3. Reaffirmed guidelines (2005)

Asbestos	Chloride	Diuron	Odour	2,3,4,6-Tetrachlorophenol
Azinphos-methyl	Colour	Ethylbenzene	Paraquat	Toluene
Bendiocarb	Cyanazine	Gasoline	Pentachlorophenol	2,4,6-Trichlorophenol
Benzo(a)pyrene	Diazinon	Glyphosate	Phorate	Trifluralin
Bromoxynil	Dicamba	Iron	Picloram	Xylenes
Cadmium	2,4-Dichlorophenol	Magnesium	Silver	Zinc
Calcium	Diclofop-methyl	Malathion	Taste	
Carbaryl	Dimethoate	Methoxychlor	Temperature	
Carbofuran	Diquat	Metribuzin	Terbufos	

Table 4 outlines documents which are being or have been developed and are awaiting approval through the Federal-Provincial-Territorial process.

Table 4. Upcoming documents (not yet finalized/approved)

Parameter or subject	Document type (GTD or guidance)	Current status
Ammonia	GTD	In preparation[b]
Carbon tetrachloride	GTD	In preparation[a]
Chromium	GTD	In preparation[b]
Dichloroethane, 1,2-	GTD	In preparation[b]
Dichloromethane	GTD	In preparation[a]
E.coli	GTD	In preparation[b]
Enteric viruses	GTD	In preparation[a]
Fluoride	GTD	In preparation[a]
Heterotrophic plate count	guidance	In preparation[b]
Nitrate/Nitrite	GTD	In preparation[b]
N-Nitrosodimethylamine (NDMA)	GTD	In preparation[a]
Protozoa	GTD	In preparation[b]
Selenium	GTD	In preparation[b]
Tetrachloroethylene	GTD	In preparation[b]
Total coliforms	GTD	In preparation[b]
Turbidity	GTD	In preparation[b]
Vinyl chloride	GTD	In preparation[b]

[a]Final guideline technical document or guidance document in preparation for final approval/posting.
[b]Guideline technical document or guidance document being prepared for public consultation.

Guidelines for microbiological parameters

Currently available detection methods do not allow for the routine analysis of all microorganisms that could be present in inadequately treated drinking water. Instead, microbiological quality is determined by testing drinking water for *Escherichia coli*, a bacterium that is always present in the intestines of humans and other animals and whose presence in drinking water would indicate faecal contamination of the water.

Bacteriological guidelines

Escherichia coli

The maximum acceptable concentration (MAC) of *Escherichia coli* in public, semi-public, and private drinking water systems is none detectable per 100 mL.

Testing for *E. coli* should be carried out in all drinking water systems. The number, frequency, and location of samples for *E. coli* testing will vary according to the type and size of the system and jurisdictional requirements.

Total coliforms

The MAC of total coliforms in water leaving a treatment plant in a public system and throughout semi-public and private supply systems is none detectable per 100 mL.

For distribution systems in public supplies where fewer than 10 samples are collected in a given sampling period, no sample should contain total coliform bacteria. In distribution systems where greater than 10 samples are collected in a given sampling period, no consecutive samples from the same site or not more than 10% of samples should show the presence of total coliform bacteria.

Testing for total coliforms should be carried out in all drinking water systems. The number, frequency, and location of samples for total coliform testing will vary according to the type and size of the system and jurisdictional requirements.

Heterotrophic plate count

No MAC is specified for heterotrophic plate count (HPC) bacteria in water supplied by public, semi-public, or private drinking water systems. Instead, increases in HPC concentrations above baseline levels are considered undesirable.

Emerging pathogens

No MAC for current or emerging bacterial waterborne pathogens has been established. Current bacterial waterborne pathogens include those that have been previously linked to gastrointestinal illness in human populations. Emerging bacterial waterborne pathogens include, but are not limited to, *Legionella*, *Mycobacterium avium* complex, *Aeromonas hydrophila*, and *Helicobacter pylori*.

Protozoa

Although *Giardia* and *Cryptosporidium* can be responsible for severe and, in some cases, fatal gastrointestinal illness, it is not possible to establish MACs for these protozoa in drinking water at this time. Routine methods available for the detection of cysts and oocysts suffer from low recovery rates and do not provide any information on their viability or human infectivity. Nevertheless, until better monitoring data and information on the viability and infectivity of cysts and oocysts present in drinking water are available, measures should be implemented to reduce the risk of illness as much as possible. If the presence of viable, human-infectious cysts or oocysts is known or suspected in source waters, or if

Giardia or *Cryptosporidium* has been responsible for past waterborne outbreaks in a community, a treatment and distribution regime and a watershed or wellhead protection plan (where feasible) or other measures known to reduce the risk of illness should be implemented. Treatment technologies in place should achieve at least a 3-log reduction in and/or inactivation of cysts and oocysts, unless source water quality requires a greater log reduction and/or inactivation.

Viruses

Although enteric viruses can be responsible for severe and, in some cases, fatal illnesses, it is not possible to establish MACs for enteric viruses in drinking water at this time. Treatment technologies and watershed or wellhead protection measures known to reduce the risk of waterborne outbreaks should be implemented and maintained if source water is subject to faecal contamination or if enteric viruses have been responsible for past waterborne outbreaks. Where treatment is required, treatment technologies should achieve at least a 4-log reduction and/or inactivation of viruses.

Turbidity

Waterworks systems that use a surface water source or a groundwater source under the direct influence of surface water should filter the source water to meet the following health-based turbidity limits, as defined for specific treatment technologies. Where possible, filtration systems should be designed and operated to reduce turbidity levels as low as possible, with a treated water turbidity target of less than 0.1 NTU at all times. Where this is not achievable, the treated water turbidity levels from individual filters:

1. For **chemically assisted filtration**, shall be less than or equal to **0.3 NTU** in at least 95% of the measurements made, or at least 95% of the time each calendar month, and shall not exceed 1.0 NTU at any time.
2. For **slow sand or diatomaceous earth filtration**, shall be less than or equal to **1.0 NTU** in at least 95% of the measurements made, or at least 95% of the time each calendar month, and shall not exceed 3.0 NTU at any time.
3. For **membrane filtration**, shall be less than or equal to **0.1 NTU** in at least 99% of the measurements made, or at least 99% of the time each calendar month, and shall not exceed 0.3 NTU at any time. If membrane filtration is the sole treatment technology employed, some form of virus inactivation[*] should follow the filtration process.

Guidelines for chemical and physical parameters

Table 5 provides the complete list of all current numerical Guidelines for chemical and physical parameters. Guidelines are either health-based and listed as Maximum Acceptable Concentrations (MAC), based on aesthetic considerations and listed as aesthetic objectives (AO) or established based on operational considerations and listed as Operational Guidance Values (OG). Parameters for which the health-based guideline was developed as an interim maximum acceptable concentration (IMAC) are identified with an asterisk (*) in the table below. The use of these 'interim' MACs was discontinued by the Federal-Provincial-Territorial Committee on Drinking Water in 2003. For more information on specific guidelines, please refer to the guideline technical document for the parameter of concern.

[*]Some form of virus inactivation is required for all technologies. The difference is that chemically assisted, slow sand and diatomaceous earth filters are credited with log virus reductions and membrane filters receive no credit.

Table 5. Health-based and aesthetic guidelines for chemical/physical parameters

Parameter	MAC (mg/L)	AO [or OG] (mg/L)	Year of approval (or reaffirmation)
Aldicarb	0.009		1994
Aldrin + dieldrin	0.0007		1994
Aluminum[a]		[0.1/0.2]	1998
*Antimony[b]	0.006		1997
Arsenic	0.01		2006
*Atrazine + metabolites	0.005		1993
Azinphos-methyl	0.02		1989 (2005)
Barium	1		1990
Bendiocarb	0.04		1990 (2005)
Benzene	0.005		2009
Benzo[a]pyrene	0.00001		1988 (2005)
*Boron	5		1990
*Bromate	0.01		1998
*Bromoxynil	0.005		1989 (2005)
Cadmium	0.005		1986 (2005)
Carbaryl	0.09		1991 (2005)
Carbofuran	0.09		1991 (2005)
Carbon tetrachloride	0.005		1986
Chloramines—total	3		1995
Chlorate	1		2008
Chloride		≤250	1979 (2005)
Chlorite	1		2008
Chlorpyrifos	0.09		1986
Chromium	0.05		1986
Colour[d]		≤15 TCU	1979 (2005)
Copper[b]		≤1.0	1992
*Cyanazine	0.01		1986 (2005)
Cyanide	0.2		1991
Cyanobacterial toxins–Microcystin-LR[c]	0.0015		2002
Diazinon	0.02		1986 (2005)
Dicamba	0.12		1987 (2005)
1,2-Dichlorobenzene[e]	0.2	≤0.003	1987
1,4-Dichlorobenzene[e]	0.005	≤0.001	1987
*1,2-Dichloroethane	0.005		1987

Parameter	MAC (mg/L)	AO [or OG] (mg/L)	Year of approval (or reaffirmation)
1,1-Dichloroethylene	0.014		1994
Dichloromethane	0.05		1987
2,4-Dichlorophenol,	0.9	≤0.0003	1987 (2005)
*2,4-Dichlorophenoxyacetic acid (2,4 -D)	0.1		1991
Diclofop-methyl	0.009		1987 (2005)
*Dimethoate	0.02		1986 (2005)
Dinoseb	0.01		1991
Diquat	0.07		1986 (2005)
Diuron	0.15		1987 (2005)
Ethylbenzene		≤0.0024	1986 (2005)
Fluoride	1.5		1996
*Glyphosate	0.28		1987 (2005)
Haloacetic Acids–Total (HAAs)	0.08		2008
Iron		≤0.3	1978 (2005)
Lead[b]	0.01		1992
Malathion	0.19		1986 (2005)
Manganese		≤0.05	1987
Mercury	0.001		1986
Methoxychlor	0.9		1986 (2005)
2-Methyl-4-chlorophenoxyacetic acid (MCPA)	0.1		2010
Methyl tertiary-butyl ether (MTBE)		0.015	2006
*Metolachlor	0.05		1986
Metribuzin	0.08		1986 (2005)
Monochlorobenzene	0.08	≤0.03	1987
Nitrate[f]	45		1987
Nitrilotriacetic acid (NTA)	0.4		1990
Odour		Inoffensive	1979 (2005)
*Paraquat (as dichloride)[g]	0.01		1986 (2005)
Parathion	0.05		1986
Pentachlorophenol	0.06	≤0.030	1987 (2005)
pH[h]		6.5–8.5	1995
Phorate	0.002		1986 (2005)
*Picloram	0.19		1988 (2005)
Selenium	0.01		1992
*Simazine	0.01		1986

Parameter	MAC (mg/L)	AO [or OG] (mg/L)	Year of approval (or reaffirmation)
Sodium[i]		≤200	1992
Sulphate[j]		≤500	1994
Sulphide (as H_2S)		≤0.05	1992
Taste		Inoffensive	1979 (2005)
Temperature		≤15°C	1979 (2005)
*Terbufos	0.001		1987 (2005)
Tetrachloroethylene	0.03		1995
2,3,4,6-Tetrachlorophenol	0.1	≤0.001	1987 (2005)
Toluene		≤0.024	1986 (2005)
Total dissolved solids (TDS)		≤500	1991
Trichloroethylene	0.005		2005
2,4,6-Trichlorophenol	0.005	≤0.002	1987 (2005)
*Trifluralin	0.045		1989 (2005)
Trihalomethanes-total (THMs)[k]	0.1		2006
Turbidity[l]			2004
*Uranium	0.02		1999
Vinyl chloride	0.002		1992
Xylenes—total		≤0.3	1986 (2005)
Zinc[b]		≤5.0	1979 (2005)

[a]This is an operational guidance value, designed to apply only to drinking water treatment plants using aluminum-based coagulants. The operational guidance values of 0.1 mg/L applies to conventional treatment plants, and 0.2 mg/L applies to other types of treatment systems.
[b]Faucets should be thoroughly flushed before water is taken for consumption or analysis.
[c]The guideline is considered protective of human health against exposure to all microcystins that may be present.
[d]TCU = true colour unit.
[e]In cases where total dichlorobenzenes are measured and concentrations exceed the most stringent value (0.005 mg/L), the concentrations of the individual isomers should be established.
[f]Equivalent to 10 mg/L as nitrate–nitrogen. Where nitrate and nitrite are determined separately, levels of nitrite should not exceed 3.2 mg/L.
[g]Equivalent to 0.007 mg/L for paraquat ion.
[h]No units.
[i]It is recommended that sodium be included in routine monitoring programmes, as levels may be of interest to authorities who wish to prescribe sodium-restricted diets for their patients.
[j]There may be a laxative effect in some individuals when sulphate levels exceed 500 mg/L.
[k]Expressed as a running annual average. The guideline is based on the risk associated with chloroform, the trihalomethane most often present and in greatest concentration in drinking water.
[l]Refer to section on Guidelines for microbiological parameters for information related to various treatment processes.

Parameters without guidelines

Some chemical and physical parameters for which a Guideline Technical Document is available have been identified as not requiring a numerical guideline, because currently available data indicate that it poses no health risk or aesthetic problem at the levels generally found in drinking water in Canada.

Table 6. Parameters without numerical guidelines

Ammonia	Asbestos
Calcium	Chlorine
Formaldehyde	Gasoline
Hardness[a]	Magnesium
Radon	Silver

[a]Public acceptance of hardness varies considerably. Generally, hardness levels between 80 and 100 mg/L (as $CaCO_3$) are considered acceptable; levels greater than 200 mg/L are considered poor but can be tolerated; those in excess of 500 mg/L are normally considered unacceptable. Where water is softened by sodium ion exchange, it is recommended that a separate, unsoftened supply be retained for culinary and drinking purposes.

Archived parameters

The Federal-Provincial-Territorial Committee on Drinking Water has established a science-based process to systematically review older guidelines and archive older guidelines which are no longer required. Guidelines are archived for parameters which are no longer found in Canadian drinking water supplies at levels that could pose a risk to human health, including pesticides which are no longer registered for use in Canada, and for mixtures of contaminants that are addressed individually. Table 7 provides the list of parameters whose guidelines have been archived as a result of this review.

Table 7. Parameters that have been archived[a]

Chlordane (total isomers)[b]	Polychlorinated biphenyls (PCBs)
Dichlorodiphenyltrichloroethane (DDT) + metabolites[b]	Polycyclic aromatic hydrocarbons (PAH)[c]
Endrin[b]	Resin acids
Heptachlor + heptachlor epoxide[b]	Tannin
Lignin[b]	Temephos[d]
Lindane[b]	Total organic carbon (TOC)
Methyl-parathion[b]	Toxaphene[b]
Mirex	Triallate[d]
Pesticides (total)	2,4,5-Trichlorophenoxyacetic acid (2,4,5-T)[d]
Phenols (total)	2,4,5-Trichlorophenoxypropionic acid (2,4,5-TP)[b]
Phthalic acid esters (PAE)	

[a]Published in the 1978 version of the *Supporting Documentation* for these parameters (available upon request).
[b]In 1978 'Pesticides' Supporting Documentation.
[c]Other than benzo[a]pyrene.
[d]No documentation available.

Guidelines for radiological parameters

Natural sources of radiation are responsible for the large majority of radiation exposure (>98%), excluding medical exposure. Guidelines for radiological parameters focus on routine operational conditions of existing and new water supplies and does not apply in the event of contamination during an emergency involving a large release of radionuclides into the environment.They have been developed taking into account new studies and approaches, including dosimetric information released by the International Commission on Radiological Protection (ICRP) in 1996 (ICRP, 1996). Maximum acceptable concentrations (MACs) in drinking water have been established for the natural and artificial radionuclides that are most commonly detected in Canadian water supplies, using internationally accepted equations and principles and based solely on health considerations. They are calculated using a reference dose level of 0.1 mSv for 1 year's consumption of drinking water, assuming a consumption of 2 L/day at the MAC.

To facilitate the monitoring of radionuclides in drinking water, the reference level of dose is expressed as an activity concentration, which can be derived for each radionuclide from published radiological data. The National Radiological Protection Board has calculated dose conversion factors (DCFs) for radionuclides based on metabolic and dosimetric models for adults and children. Each DCF provides an estimate of the 50-year committed effective dose resulting from a single intake of 1 Bq[†] of a given radionuclide.

The MACs of radionuclides in public water supplies are derived from adult DCFs, assuming a daily water intake of 2 L, or 730 L/year, and a maximum committed effective dose of 0.1 mSv, or 10% of the International Commission on Radiological Protection limit on public exposure:

$$\text{MAC (Bq/L)} = \frac{1 \times 10^{-4}\ \text{(Sv/year)}}{730\ \text{(L/year)} \times \text{DCF (Sv/Bq)}}$$

The radiological effects of two or more radionuclides in the same drinking water source are assumed to be additive. Thus, the following summation formula should be satisfied in order to demonstrate compliance with the guidelines:

$$\sum_i \frac{C_i}{MAC_i} \leq 1$$

where C_i and MAC_i are the observed and maximum acceptable concentrations, respectively, for each contributing radionuclide. Only those radionuclides that are detected with at least 95% confidence should be included in the summation. Detection limits of undetected radionuclides should not be substituted for the concentrations C_i. Otherwise, a situation could arise where a sample fails the summation criterion even though no radionuclides are present.

Water samples may be initially analysed for the presence of radioactivity using techniques for gross alpha and gross beta determinations rather than measurements of individual radionuclides. Compliance with the guidelines may be inferred if the measurements are less than 0.5 Bq/L for gross alpha

[†]Becquerel (Bq) is the unit of activity of a radioactive substance, or the rate at which transformations occur in the substance. One becquerel is equal to one transformation per second and approximately equal to 27 picocuries (pCi).

activity and less than 1 Bq/L for gross beta activity. Alpha emissions are generally associated with naturally occurring radionuclides, whereas beta emissions are generally associated with artificial radionuclides. Although facilitating routine examination of large numbers of samples, these procedures do not allow for confirmation of the identities of the contributing radionuclides. These measurements are generally suitable either as a preliminary screening procedure to determine if further radioisotope-specific analysis is necessary or, if radionuclide analyses have been carried out previously, for detecting changes in the radiological characteristics of the drinking water source. The sampling and analyses for individual radionuclides should be carried out often enough to accurately characterize the annual exposure. If the source of the radioactivity is known or expected to be changing rapidly with time, then the sampling frequency should reflect this factor. If there is no reason to expect concentrations to vary with time, then sampling may be carried out seasonally, semi-annually or annually. If measured concentrations are consistent and well below the MACs, this would be an argument for reducing the sampling frequency. In contrast, the sampling frequency should be maintained, or even increased, if concentrations are approaching individual MACs or if the sum of ratios of the observed concentration to the MAC for each contributing radionuclide approaches 1.

Table 8. Health based guidelines for radiological parameters

Radiological parameters	
Cesium-137 (^{137}Cs)	10 Bq/L
Iodine-131 (^{131}I)	6 Bq/L
Lead-210 (^{210}Pb)	0.2 Bq/L
Radium-226 (^{226}Ra)	0.5 Bq/L
Strontium-90 (^{90}Sr)	5 Bq/L
Tritium (^{3}H)	7000 Bq/L

APPENDIX 'D'

B.C. Centre for Disease Control

Drinking Water and Those with Weakened Immune Systems

BRITISH COLUMBIA
The Best Place on Earth
HealthLinkBC

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Drinking Water and Those with Weakened Immune Systems

Some people with very weak immune systems may be at higher risk of water-borne infections. This file provides information about how to help prevent water-borne infections.

People who have significantly weakened immune systems and who are at higher risk of certain water-borne diseases include:

- People with HIV infection who have a CD4+ count of < 100 cells/mm^3.
- People with hematological malignancies (lymphoma or leukemia) who are being actively treated or have been in remission and off treatment for less than 1 year.
- Hematopoietic stem cell transplant recipients.
- People born with diseases that severely affect their immune systems.

Some people with weakened immune systems, such as those with certain types of cancers or taking certain medications, may not be at higher risk of severe water-borne diseases. These people do not need to take extra precautions with their drinking water.

Ask your doctor or specialist how weak your immune system is, and whether you need to take extra precautions.

Diseases from drinking water

Drinking water can contain different organisms, including bacteria, viruses and parasites, which can cause disease. These organisms can exist in the source water such as lake water and survive through treatment, or they can enter the water supply in the distribution system. Well water can be contaminated if the well is not built properly or if it draws on water from the surface of the ground, such as shallow wells or wells drilled in fractured rock. Surface water, such as rivers, lakes and streams, can also contain disease-causing organisms from animal feces.

If you have a weak immune system, you should not drink water from surface sources or wells potentially contaminated by surface water (for example, dug wells), unless the water has been treated to remove or inactivate at least 99.9% of parasites (protozoa), 99.99% of viruses and 100% of harmful bacteria.

Most community water systems in B.C. have effective treatment, such as disinfection or chlorination, against bacteria and viruses. However, in many cases, treatment may not provide a 99.9% reduction in infectious parasites. Furthermore, some water systems and many private supplies have no treatment at all. If the water you drink has not been disinfected, please refer to HealthLink BC File #49b How to Disinfect Drinking Water.

To further treat drinking water that has been disinfected, consider the methods listed below.

Options for water treatment

Boiling: If your water supply is disinfected you need only bring the water to a full boil to inactivate any *Cryptosporidium* parasites - a major concern for immunocompromised people, as there is no medical treatment for this parasite.

If the water is not yet disinfected, it's recommended you bring water to a full boil for at least one minute as the best way to kill or inactivate bacteria, viruses and parasites.

At elevations over 2,000 meters [6,500 feet], you should boil water for at least two minutes to disinfect it. In this situation, you should not drink or use tap water to brush your teeth, rinse your mouth, mix drinks or make ice cubes without boiling it first.

If you are preparing infant formula, please see HealthLink BC File #69b Formula Feeding Your Baby: Safely Preparing and Storing Formula. Please note that boiling water will get rid of viruses, bacteria and parasites but not chemicals which may be found in the water. For more information, please contact the environmental health officer or drinking water officer at your nearest public health unit.

Filters: If you plan to install a drinking water filter in your home, you will need a system labeled as "Absolute" 1 micron or smaller, and labeled as meeting ANSI/NSF International Standard #53 for removal of parasites. These are *not* suitable for removing bacteria and viruses and should *not* be used *unless* the water supply is at least disinfected first.

Jug-type filters, which sit in a jug and allow water to trickle through, and some tap-mounted and built-in devices are not an appropriate solution. The jug filter models are *not* effective in removing many disease-causing organisms.

Reverse Osmosis (RO): RO is effective against all disease-causing organisms and many chemical contaminants. Unless it has a high capacity, it will only produce small amounts of water and waste a large volume. Speak to a water treatment specialist to see if this is the best option for you.

Ultraviolet (UV) Treatment: UV light will kill many disease-causing organisms, and it is effective against almost all parasites. UV will not kill some bacterial spores and some viruses, so it should *not* be used *unless* the water supply is at least disinfected. UV treatment units should meet NSF Standard #55A.

Bottled water

If you do not want to drink water from the tap, you may also choose to buy bottled water that has been treated adequately. Most bottled water in B.C. has had RO treatment, but not all has been treated. You should check with the water bottler to find out what treatment it has had. You can still use tap water for cooking as long as you boil it. You can use bottled water treated by reverse osmosis for drinking, brushing teeth, making ice cubes and for recipes where water is used but not boiled such as cold soups or salad dressings.

For more information, including the level of treatment in your local water system, please contact your drinking water purveyor or supplier or the local environmental health officer or drinking water officer. Please also see the following HealthLink BC Files.

#49a Water-borne Diseases in BC

#49b How to Disinfect Drinking Water

For more HealthLink BC File topics, visit www.HealthLinkBC.ca/healthfiles/index.stm or your local public health unit.

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