

100494  
leachate



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# **ANALYTICAL DATA REPORT AUGUST 2003**

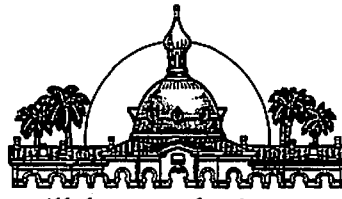
## **SOUTHEAST COUNTY LANDFILL HILLSBOROUGH COUNTY, FLORIDA**

**Hillsborough County  
Solid Waste Management Department  
Management & Environmental Services Section  
P.O. Box 1110  
Tampa, Florida 33601**

**October 27, 2003**

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**AUG 2003  
SAMPLING  
EVENT**



Hillsborough County  
Florida

Office of the County Administrator  
Daniel A. Kleman

BOARD OF COUNTY COMMISSIONERS

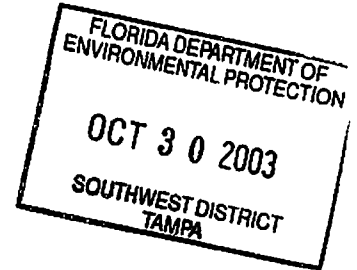
Kathy Castor  
Pat Frank  
Ken Hagan  
Jim Norman  
Jan K. Platt  
Thomas Scott  
Ronda Storms

Deputy County Administrator  
Patricia Bean

Assistant County Administrators  
Bernardo Garcia  
Carl S. Harness

October 27, 2003

Mr. John Morris, P.G.  
Department of Environmental Protection  
Southwest District  
Solid Waste Section  
3804 Coconut Palm Drive  
Tampa, FL 33619-8318



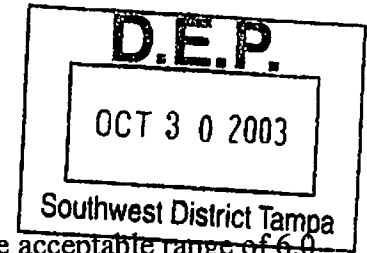
**Re: Southeast County Landfill  
Operations Permit No. 35435-006-SO  
Semi-Annual Analytical Data Report, August 2003**

Dear Mr. Morris:

In accordance with Landfill Operation Permit No. 35435-006-SO, the Hillsborough County Solid Waste Management Department (SWMD) is pleased to provide the August, 2003 analytical data report (ADR) for the semi-annual water quality monitoring at the Southeast County Landfill. Samples were collected by the SWMD from August 11 through August 14, 2003. A problem with the Dissolved Oxygen (DO) meter was encountered during this sampling event, and the problem was not clearly identified until the event was completed. Therefore, no valid DO data was recorded during the collection of the samples, and the water quality data summary tables reflect this as ND for no data collected.

The water quality observed across the Southeast County Landfill (SCLF) remains consistent with the historical data set. The surficial aquifer monitoring wells continue to exhibit pH values below the acceptable range of 6.5 to 8.5 pH units, and iron is observed above the secondary drinking water standard of .300 milligrams per liter (mg/l) in the surficial aquifer background water quality and detection monitoring wells. Iron and pH are consistently observed to exceed the Secondary Drinking Water Standards within the surficial aquifer, and the SWMD maintains the position that the pH and iron can be attributable to the previous use of the property as phosphate mining and processing. All of the other parameters tested were observed to be within standards.

Mr. John Morris, P.G.  
October 27, 2003  
Page 2



Surface water quality at site 3A continues to exhibit a pH value below the acceptable range of 6.0 to 8.5 pH units (Ch 62-302) with a value of 5.94. The turbidity values recorded in the three surface water sites have continued to be within the standard of 29 nephelometric turbidity units (NTU) above the background level. A detailed report of the turbidity readings recorded and an evaluation of the effectiveness of the storm water management system improvements implemented at the SCLF was submitted to Ms. Stephanie Petro on October 1, 2003. All future reporting of turbidity readings recorded at the SCLF shall be submitted within each semi-annual ADR.

The four private wells sampled during this event were observed to exhibit water quality consistent with their historical data set. The Weeks' well had iron at .610 mg/l and radium 226 at 8 picocuries per liter (pCi/l). Both of these constituents are above their respective standards of .3 mg/l and 5 pCi/l. The Holland well exhibited iron at 1.6 mg/l which is also above the .3 mg/l standard.

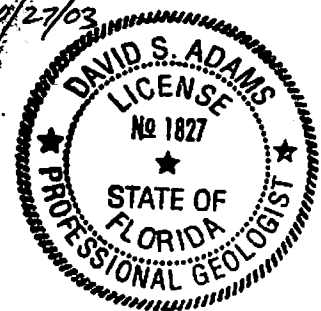
Enclosed for your review are a detailed site location map, the analytical data summary tables, a groundwater elevation data summary table, a surficial aquifer groundwater elevation contour diagram, copies of the letters sent to the owners of the private wells, a data summary table for the private wells, and the complete laboratory analytical data report sheets.

Should you have any questions or require any additional information, please feel free to contact me directly at (813) 276-2944.

Sincerely,

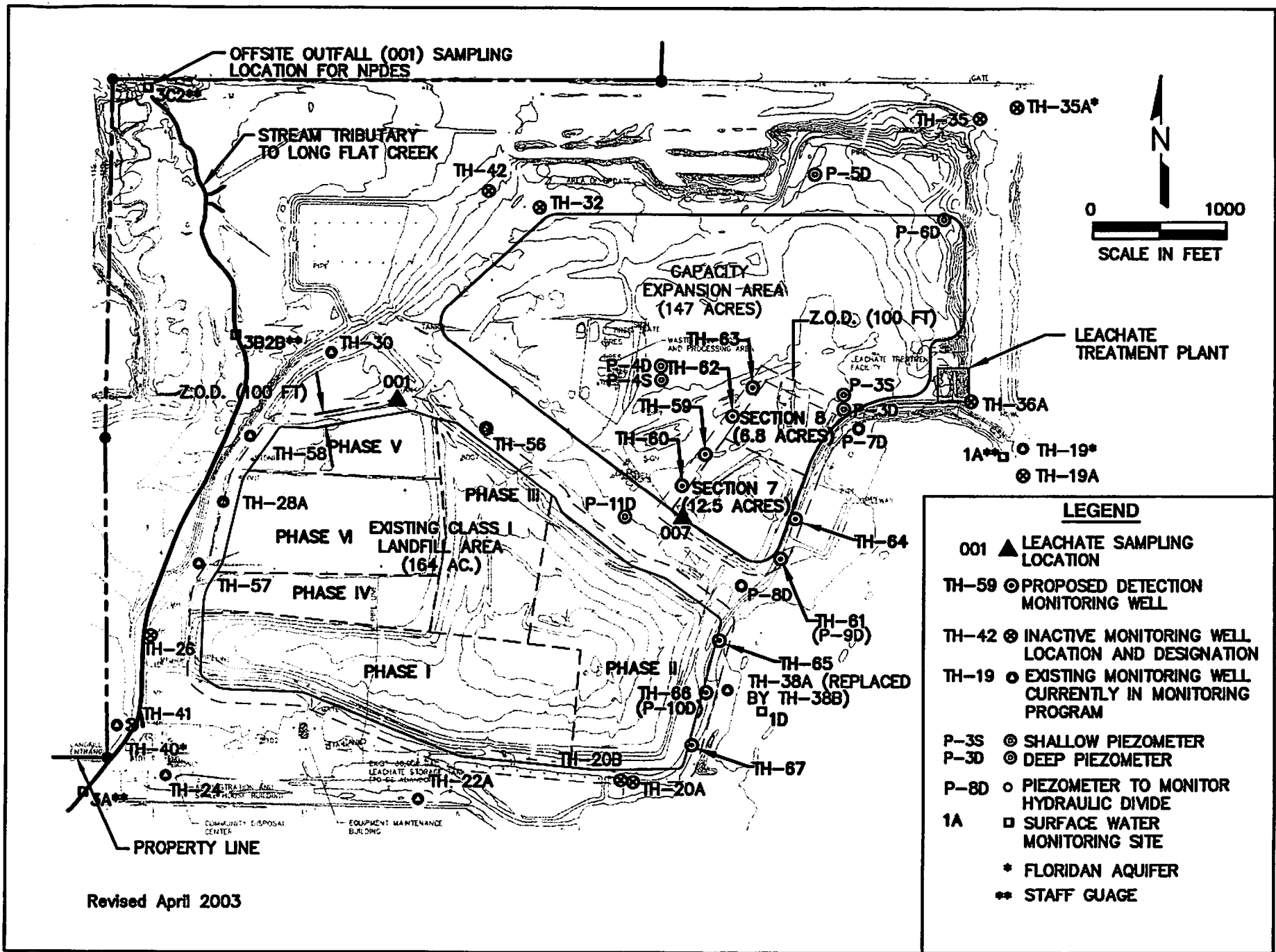
A handwritten signature in black ink, appearing to read "David S. Adams". To the right of the signature, the date "10/27/03" is handwritten.

David S. Adams, P.G.  
Environmental Manager  
Solid Waste Management



DSA/mdt  
Enclosures

xc: Daryl Smith, Director, SWMD, w/o enclosures  
Patricia Berry, Section Manager, SWMD, w/o enclosures  
Matt Matthews, Landfill Manager, SWMD  
Ernest Ely, Landfill Manager, WM, Southeast Landfill  
Carolyn McCreedy, Engineer, WM, Southeast Landfill  
Larry Ruiz, Project Manager, SCS Engineers  
Chongman Lee, Department of Environmental Protection  
Paul Schipfer, Environmental Protection Commission  
Irene Barnes, Southeast Hillsborough Civic Association



Southeast County Landfill  
Site Location Map

# Summary Analytical Constituents Detected in Leachate Sump A

August 12, 2003

GENERAL (mg/l)	
PARAMETERS	LEACHATE SUMP A
conductivity (umhos/cm) (field)	12537
pH (field)	7.14
total dissolved solids (mg/l)	5600
temperature (°C) (field)	32.94
chloride (mg/l)	2300
ammonia nitrogen (mg/l as N)	230
nitrate (mg/l as N)	0.2
dissolved oxygen (mg/l) (field)	34.4
Metals: (mg/l)	
	LEACHATE SUMP A
iron	7.6
chromium	0.0075
copper	0.023
barium	0.029
arsenic	0.009
lead	0.003
mercury	BDL
vanadium	0.015
nickel	0.047
sodium	160
zinc	0.026
Organics: (µg/l)	
E.P.A. Methods 8260	
Organic Parameters Detected	LEACHATE SUMP A
chloroform	2
chlorobenzene	3
ethylbenzene	9.8
methylene chloride	3
xylenes	18
toluene	4.1
BDL=BELOW DETECTION LIMIT	
NTU=NEPHELOMETRIC TURBIDITY UNITS	
µg/l=MICROGRAMS PER LITER	
mg/l=MILLIGRAMS PER LITER	



**Southeast LF Well Monitoring**

**PARAMETER MONITORING REPORT**

Ground Water (Rule 62-520.400, .420, .460)

Surface Water (Rule 62-302.500, .510, .503)

Leachate (Rule 62-701.510)

LAB Submission Number: F03080335

Sample Number: F03080335-006

Facility WACS:	35435-006-SO	Sample Date/Time:	8/12/03 12:00:00 PM
Well/Sampling Point WACS:	Leachate Sump-A	Report Period:	August 2003
Well/Sampling Point Name:	Leachate Sump-A	Well Purged:	YES
Classification of Groundwater:	0	Well Type:	Private
Ground Water Elevation: (NGVD):			

Storet Code	Parameter Monitored	Sampling Method	Filtered Y/N	Analysis Method	Analysis Date	Analysis Result	Q	Units	Detection Limits
<b>FIELD</b>									
	Conductivity	Grab	N	FLD	8/12/03	12537		umhos/c	
	Dissolved Oxygen	Grab	N	FLD	8/12/03	34.4		mg/L	
	pH	Grab	N	FLD	8/12/03	7.14		S.U.	
	Temperature	Grab	N	FLD	8/12/03	32.94		deg C	
<b>INORGANICS</b>									
00095	Conductance, Specific	Grab	N	E120.1	8/14/03	10100		µmhos/c	1.00
00403	pH	Grab	N	E150.1	8/13/03	7.10		pH units	
70300	Solids, Total Dissolved	Grab	N	E160.1	8/14/03	5600		mg/L	1.2
00940	Chloride	Grab	N	E300.0	8/14/03	2300		mg/L	8.0
00620	Nitrogen, Nitrate	Grab	N	E300.0	8/13/03	0.2	I	mg/L	0.16
00610	Nitrogen, Ammonia (As N)	Grab	N	E350.1	8/21/03	230		mg/L	0.080
00440	Alkalinity, Bicarbonate (As CaCO3)	Grab	N	SM2320	8/20/03	2100		mg/L	1.5
<b>METALS</b>									
01002	Arsenic	Grab	N	SW6010	8/15/03	9	I	µg/L	2.0
01007	Barium	Grab	N	SW6010	8/15/03	29		µg/L	0.074
01012	Beryllium	Grab	N	SW6010	8/15/03	0.12	U	µg/L	0.12
01027	Cadmium	Grab	N	SW6010	8/15/03	0.24	U	µg/L	0.24
01034	Chromium	Grab	N	SW6010	8/15/03	7.5		µg/L	0.60
01037	Cobalt	Grab	N	SW6010	8/15/03	46		µg/L	1.5
01042	Copper	Grab	N	SW6010	8/15/03	23		µg/L	0.58
01045	Iron	Grab	N	SW6010	8/15/03	7600		µg/L	13
01051	Lead	Grab	N	SW6010	8/15/03	3	I	µg/L	1.8
01067	Nickel	Grab	N	SW6010	8/15/03	47		µg/L	2.0
01147	Selenium	Grab	N	SW6010	8/15/03	4	I	µg/L	4.0
01077	Silver	Grab	N	SW6010	8/15/03	4	I	µg/L	1.4
00929	Sodium	Grab	N	SW6010	8/18/03	160000		µg/L	230
01087	Vanadium	Grab	N	SW6010	8/15/03	15		µg/L	0.40
01092	Zinc	Grab	N	SW6010	8/15/03	26		µg/L	2.3
01097	Antimony	Grab	N	SW7041	8/25/03	1	I	µg/L	0.35
71900	Mercury	Grab	N	SW7470	8/19/03	0.036	U	µg/L	0.036

Data Qualifier Code Key: I Analyte detected below quantitation limits

U Not Detected at the Reporting Limit

Data Qualifier Code Key:



**Southeast LF Well Monitoring**

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Well/Sampling Point Name:	Leachate Sump-A	Well Purged:	YES
Classification of Groundwater:	0	Well Type:	Private
Ground Water Elevation: (NGVD):			

Storet Code	Parameter Monitored	Sampling Method	Filtered Y/N	Analysis Method	Analysis Date	Analysis Result	Q	Units	Detection Limits
01059	Thallium	Grab	N	SW7841	8/25/03	0.25	U	µg/L	0.25
<b>ORGANICS</b>									
49146	1,2-Dibromo-3-chloropropane	Grab	N	SW8011	8/19/03	0.0041	U	µg/L	0.0041
77651	Ethylene Dibromide	Grab	N	SW8011	8/19/03	0.0038	U	µg/L	0.0038
81552	Acetone	Grab	N	SW8260	8/22/03	3.6	U	µg/L	3.6
34215	Acrylonitrile	Grab	N	SW8260	8/22/03	3.7	U	µg/L	3.7
34030	Benzene	Grab	N	SW8260	8/22/03	1.2	U	µg/L	1.2
73085	Bromochloromethane	Grab	N	SW8260	8/22/03	0.88	U	µg/L	0.88
32101	Bromodichloromethane	Grab	N	SW8260	8/22/03	0.40	U	µg/L	0.40
32104	Bromoform	Grab	N	SW8260	8/22/03	0.44	U	µg/L	0.44
34413	Bromomethane	Grab	N	SW8260	8/22/03	0.48	U	µg/L	0.48
81595	2-Butanone	Grab	N	SW8260	8/22/03	1.2	U	µg/L	1.2
77041	Carbon disulfide	Grab	N	SW8260	8/22/03	1.0	U	µg/L	1.0
32102	Carbon tetrachloride	Grab	N	SW8260	8/22/03	1.0	U	µg/L	1.0
34301	Chlorobenzene	Grab	N	SW8260	8/22/03	3	I	µg/L	0.40
34311	Chloroethane	Grab	N	SW8260	8/22/03	0.64	U	µg/L	0.64
32106	Chloroform	Grab	N	SW8260	8/22/03	2	I	µg/L	1.1
34418	Chloromethane	Grab	N	SW8260	8/22/03	1.2	U	µg/L	1.2
32105	Dibromochloromethane	Grab	N	SW8260	8/22/03	0.64	U	µg/L	0.64
77596	Dibromomethane	Grab	N	SW8260	8/22/03	0.52	U	µg/L	0.52
77268	trans-1,4-Dichloro-2-butene	Grab	N	SW8260	8/22/03	0.56	U	µg/L	0.56
34536	1,2-Dichlorobenzene	Grab	N	SW8260	8/22/03	0.72	U	µg/L	0.72
34571	1,4-Dichlorobenzene	Grab	N	SW8260	8/22/03	0.40	U	µg/L	0.40
34496	1,1-Dichloroethane	Grab	N	SW8260	8/22/03	1.2	U	µg/L	1.2
34531	1,2-Dichloroethane	Grab	N	SW8260	8/22/03	0.40	U	µg/L	0.40
34501	1,1-Dichloroethene	Grab	N	SW8260	8/22/03	0.40	U	µg/L	0.40
77093	cis-1,2-Dichloroethene	Grab	N	SW8260	8/22/03	0.60	U	µg/L	0.60
34546	trans-1,2-Dichloroethene	Grab	N	SW8260	8/22/03	0.68	U	µg/L	0.68
34541	1,2-Dichloropropane	Grab	N	SW8260	8/22/03	0.48	U	µg/L	0.48
34704	cis-1,3-Dichloropropene	Grab	N	SW8260	8/22/03	0.28	U	µg/L	0.28
34699	trans-1,3-Dichloropropene	Grab	N	SW8260	8/22/03	0.44	U	µg/L	0.44
34371	Ethylbenzene	Grab	N	SW8260	8/22/03	9.8		µg/L	0.48

Data Qualifier I Analyte detected below quantitation limits

U Not Detected at the Reporting Limit

Code Key:



**Southeast LF Well Monitoring**

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Ground Water Elevation: (NGVD):			

Storet Code	Parameter Monitored	Sampling Method	Filtered Y/N	Analysis Method	Analysis Date	Analysis			Detection Limits
						Result	Q	Units	
77103	2-Hexanone	Grab	N	SW8260	8/22/03	1.0	U	µg/L	1.0
77424	Iodomethane	Grab	N	SW8260	8/22/03	1.5	U	µg/L	1.5
81596	4-Methyl-2-pentanone	Grab	N	SW8260	8/22/03	0.84	U	µg/L	0.84
34423	Methylene chloride	Grab	N	SW8260	8/22/03	3	I	µg/L	1.0
77128	Styrene	Grab	N	SW8260	8/22/03	0.68	U	µg/L	0.68
77562	1,1,1,2-Tetrachloroethane	Grab	N	SW8260	8/22/03	0.60	U	µg/L	0.60
34516	1,1,2,2-Tetrachloroethane	Grab	N	SW8260	8/22/03	0.44	U	µg/L	0.44
34475	Tetrachloroethene	Grab	N	SW8260	8/22/03	0.44	U	µg/L	0.44
34010	Toluene	Grab	N	SW8260	8/22/03	4.1		µg/L	0.40
34506	1,1,1-Trichloroethane	Grab	N	SW8260	8/22/03	0.96	U	µg/L	0.96
34511	1,1,2-Trichloroethane	Grab	N	SW8260	8/22/03	0.52	U	µg/L	0.52
39180	Trichloroethene	Grab	N	SW8260	8/22/03	0.60	U	µg/L	0.60
34488	Trichlorofluoromethane	Grab	N	SW8260	8/22/03	1.3	U	µg/L	1.3
77443	1,2,3-Trichloropropane	Grab	N	SW8260	8/22/03	1.2	U	µg/L	1.2
77057	Vinyl acetate	Grab	N	SW8260	8/22/03	0.60	U	µg/L	0.60
39175	Vinyl chloride	Grab	N	SW8260	8/22/03	0.56	U	µg/L	0.56
34020	Xylenes, Total	Grab	N	SW8260	8/22/03	18		µg/L	1.2

Data Qualifier Code Key:

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U Not Detected at the Reporting Limit